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Political Tensions and Corporate Cross-border Financing: Evidence from the China-U.S. Trade War

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Abstract

A growing body of literature has explored the effects of political tensions on international trade and consumers' behavior. Still, little is known whether or to what extent it matters to corporations' cross-border financing activities. This study fills such gap in the literature by investigating the impacts of the recent China-U.S. trade war on Chinese firms' international syndicated loans. This quasi-nature experiment facilitates the difference-in-differences (DD) identification strategy and we use Chinese corporations seeking international borrowing as the treatment group and non-Chinese counterparties as the control group. Our analysis is taken at both the aggregate level and the deal level. Preliminary results suggest significant negative aggregate consequences, including the number of loan initiations as well as their amount. Deal level estimations exhibit the similar pattern: loan spreads and maturities were adversely affected; and sizes of syndicates became bigger and the probability of secured loan occurrence was higher for Chinese corporations. To substantiate the argument that the observed gloom was *caused* by the trade war, we adopt the triple difference-in-differences (DDD) estimation method by exploiting U.S. borrowers as an additional level of variation.

Keywords: Global Syndicated Loans; Political Tension; China-U.S. Trade War

JEL Classification Codes: F34, G15, R28.

I Introduction

Several decades' economic and financial globalization have proven to promote economic growth (Dreher, 2006; Schularick and Steger, 2010). Firms' markups were found to be reduced and productivities could be enhanced after trade liberalizations (Brandt et al., 2017; Baccini et al., 2019). Globalization might also bring some additional costs to the business world, as firms often confront political tensions to an extraordinary extent. Thus, it becomes pivotal to assess whether political conflicts between two nations have meaningful economic ramifications.

Yet, the answer is still debatable among economists. On one hand, sunk costs provide disincentives for firms from changing their behaviors and there are empirical evidences to support the "business as usual" theory (Davis & Meunier, 2011). On the other hand, Heilmann (2016) finds a non-negligible effect on bilateral trade for some major political conflicts, especially for the Sino-Japanese event in 2012 and the Muhammad Comic Crisis in 2005. Still, very few research is beyond the international trade context.

In this paper, we reinvestigate the aforementioned research question by quantifying the impact on firms' international borrowing under the backdrop of the recent China-U.S. political tension since it becomes increasingly important for corporations to have international capital access in the form of cross-border syndicated loans in recent years (Gao & Jang, 2019). We treat the initiation of the 301-investigation as the beginning of the China-U.S. trade war and quantify the impact on firms' cross-border borrowing by the difference-in-differences (DD) estimations.

It is found that both the total loan amount and the number of loan initiations made by Chinese firms declined following the shock. The loans of the Chinese borrowers-U.S. lenders were particularly affected relatively to other borrowers-lenders country pairs, as suggested by our difference-in-difference-in-differences (DDD) estimations. The reduction of the magnitude was similar to other economic and non-economic crises such as the 2008 global financial crisis and the Brexit vote in 2016 (Caporale et al., 2018; Tobias et al., 2019).

We also analyze the impact at the facility level, since the drop observed by the aggregate amount could be purely due to the number of loan initiations. It is intriguing to see whether there were change for some important facility-level variables such as the maturity and the interest spread after the shock. It is observed that the loan amount at the facility increases, confirming the facts that the aggregate level results are driven by the number of loan insurances. Loan terms such as maturity and the spread experienced a significant upsurge when firms facing political conflicts. From lenders' perspective, the risk-sharing behaviors by banks and other financial institutions have been altered. Specifically, the number of lenders in loan syndications with Chinese borrowers expanded; share of lead banks rose and banks were more likely to ask for collaterals (secured loan) for Chinese borrowers. Interestingly, loan

maturities and lead bank allocations of the Chinese borrowers-U.S. lenders pairs were weakened, implying a major retreat of the U.S. lenders when evaluating the loans from Chinese firms.

This research contributes to the existing literature in several folds. Firstly, our work relates to a growing literature concerning the impact of political tensions on cross-border economic exchanges. Existing research mainly focus on international trade relationships using aggregate level data (see Blomberg and Hess, 2006; Che et al., 2008; Du et al., 2008; Martin et al., 2008; Glick and Taylor, 2010; Heilmann, 2016; Lin et al., 2019; Barwick et al., 2019) and we shed new light on firms' financing behavior by looking at their international borrowing utilizing the facility level data.

Secondly, this research concerns an emerging strand of China-U.S. trade literature. Amiti et al. (2019) measures the prices and welfare effects on the U.S. consumers and Fajgelbaum et al. (2019) concludes that labors from tradeable-sector in Republican dominated counties suffered most during the trade war. Efforts have also been made to understand product-level trade in various markets (Flaaen et al. 2019; Hiller and Savage, 2019; Chu and Chu, 2019). We, in contrast, look into a non-trade effect through the lens of international borrowing.

Our study is also in line with a recent literature regarding to the effects of policy uncertainty on real economic activities, since our major event is rooted due to the U.S. foreign trade policy (Baker et al., 2016; Gulen and Ion 2015; Julio and Yook 2016; Bonaime et al., 2018). Baker et al., (2016)'s seminal work shows that firms' investment would decline during the periods with high policy uncertainty at both the micro and macro level. Gulen and Ion (2015) also confirms the negative relationship and further accesses the heterogeneous impacts among firms. While most of the existing works use the panel data setting and proxy the policy uncertainty by using the average index constructed by Baker et al., (2016), we adopt an event-study approach and explicitly study a shock relating to trade policy. Our study nourishes the understanding on firms' borrowing behavior where very few existing policy uncertainty literature centers.

Finally, this paper contributes to the literatures in cross-border syndicated loan (Beyhaghi et al., 2019; Giannetti & Yafeh, 2012; Haselmann & Wachtel, 2011; Carey & Nini, 2007; Houston et al., 2017). Our study mostly relates to the research signifying the shock transmission process. While existing works concentrate on financial crisis in 2008 (Giannetti & Laeven, 2012; De Haas & Van Horen 2012; Popov & Udell, 2012; Cerutti et al., 2015), we pay close attention on the escalating tension between China and the U.S.

The remainder of this paper is organized as follows: Section II discusses the institutional background of the U.S. 301-investigations. Section III presents our data and the empirical frameworks. Section IV reports the estimation results and their implications. Section V concludes the paper.

II Institutional background

The fog of China-U.S. trade war emerged in late 2017. The United States Trade Representative (USTR) initiated an investigation under Section 301 of the Trade Act of 1974 on August 14, 2017, claiming that China's acts, policies, and practices related to technology transfer, intellectual property and innovation harmed U.S. commerce (USTR, 2018). A public hearing was held in October by USTR to collect written submissions of public comments and advices. On March 23, 2018, USTR declared to impose 25% tariffs on \$3 billions of Chinese goods based on the 301-investigation results, involving high-tech industries such as aerospace, IT and automobile. In response, China imposed the equivalent tariffs on the same day. The trade war persisted and escalated until early 2019.¹

Economic indicators experienced a sharp slowdown in the global economy afterwards. In late July 2019, The World Economic Outlook (WEO) Update (IMF, 2019) lowered the predictions for global economic growth by 0.1% from the April WEO predictions owing to the weaker-than-expected global economic activity.² One of the important economic downside risks is the trade and technology tensions from U.S. tariff actions which diminish market sentiment and create headwinds for investment activities. Started from early 2018, subdued global manufacturing activity suggested weakened business and consumer spending amid the profound political tension. The slowdown is particularly significant in emerging and developing Asia.

The stock market indices suffered after the unanticipated 301-investigation. The Shanghai and Shenzhen stock indices fell 24.6% and 33.2% respectively in 2018. During the same period, the S&P 500 index has lost 300 points (11% loss of market value) due to the trade tensions. Moreover, the Dow Jones Industrial Average Index declined by 0.56% compared with the number in 2017. The sharp drops in key indices reflected investors' rising concerns for additional tariffs and the impact on corporate earnings.

Bank loan industry also bears pressures from the intensifying trade disputes and economic downturn. Under the context of debt-reduction campaign, China's Small and Medium Enterprises (SMEs) had systematic difficulties in acquiring bank credits, as banks are curtailed by capital constrains in risky lending. The political tension between China and U.S. could potentially add another layer of risk margin, which further restrict SMEs' access to international financial resources. In 2018, the people's Bank of China lowered the reserve requirement ratio four times in order to meet the capital need from small businesses, amid

¹ However, on May 9, 2019, USTR raised tariffs from 10% to 25% on \$2000 billions of Chinese goods. China responded by making the same move. In July 2019, China and U.S. initiated another round of negotiation regarding economic and trade frictions. Note that our sample is only available until the end of April 2019.

² In the updated version of WEO, global economic growth is forecast at 3.2% for 2019 and 3.5% for 2020.

concerns over the trade tension. However, China's loan data in early 2019 shows that banks are still reluctant to provide long-term project financing. The access to bank credit remains twisty.

III Data and Methodology

Our loan data is obtained from the Thomson-Reuters' LPC Dealscan database, which includes detailed records of global loan tranches. Dealscan contains reliable information of the global commercial loan market and is also a standard database adopted by the syndicated loan literature (Chava & Roberts, 2008; Santos, 2011; Haselmann & Wachtel, 2011; Francis et al., 2014; Chan et al., 2015; Houston et al., 2017; Caporale et al., 2018; Chu et al., 2019; Tobias et al., 2019).

We include loans to firms from Mainland China made by foreign lenders from January 2010 till April 2019 in order to minimize the potential problems caused by 2008 financial crisis.³ Our initial sample is at the facility level and there could be multiple facilities in a loan deal (package). Basic information includes the borrower and lender names, their countries as well as the industries. Details relating loan characteristics and terms such as amount, pricing, maturity, types are also reported by Dealscan.⁴ Table 1 provides the definitions and sources of variables used.

In addition, we drop all loans that are made domestically (i.e., lenders and borrowers from the same country) in order to obtain the cross-border loans.⁵ Since Dealscan categorizes borrower country according to firm's physical location, we manually drop borrowers located in Mainland China that are the subsidiaries of foreign firms. In addition, we exclude countries that are regarded as tax havens⁶ (Tax jurisdictions that are in the EU Hurricane and Non-cooperative list) from our sample.

³ We intentionally leave the before period relative long for the sake of the robustness of the estimation strategies.

⁴ All loans are dollar-denominated and the information are recorded at their date of origination. As most of our sample borrowers are private firms, we have very limited access to their financials information.

⁵ Deals involving Hong Kong, Macau and Taiwan as lender or borrower countries are also excluded from the sample because of their unique political and culture proximity.

⁶ The tax haven countries in the two lists include American Samoa, Anguilla, Antigua and Barbuda, Bahamas, Bahrain, Barbados, British Virgin Islands, Dominica, Grenada, Guam, Korea (Republic of), Macao SAR, Marshall Islands, Mongolia, Namibia, Palau, Panama, Saint Lucia, Samoa, Trinidad and Tobago, Tunisia, Turks and Caicos Islands, United Arab Emirates and US Virgin Islands.

Effects of Political Tension on Borrowing

Effects on aggregate-level loan amount and issuance

To examine the effects caused by the China-U.S. trade war, we use the difference-in-differences (DD) estimation, which is adopted by some bank loans literature (Caporale et al.,2018; Chu et al.,2019; Tobias et al.,2019). We treat the incidence of the 301-investigation initiated by the U.S. president Trump on August 14, 2017 as the beginning of our shock period.

We first examine the impact on aggregate level from the perspective of the borrowers by summing up the facility-level data up to their country level. The corresponding DD model is:

$$\begin{aligned} \ln (AggerateDep)_{it} &= \beta_1 Post_t + \beta_2 ChinaB_i + \beta_3 Post_t * ChinaB_i + \beta_4 TPU_t \\ &+ \beta_5 GDPgrowth_{it} + \beta_5 GNIGrowth_{it} + \beta_6 ExRatechange_{it} \\ &+ \beta_7 Tradechange_{it} + \beta_8 Creditchange_{it} + \theta_i + \epsilon_{it} \end{aligned} \quad (1)$$

where i, t are the borrower country and year respectively. $\ln (AggerateDep)_{it}$ represents \ln (yearly aggregated loan amount + 1) and \ln (yearly aggregated number of loan issuances). $Post_t$ is a dummy variable equal to one for the post period and zero otherwise. $ChinaBorrower_i$ is a dummy variable equal to one for the Chinese firms and zero otherwise. TPU_t represents the yearly average of China's trade policy uncertainty index from Davis et al. (2019). This allows us to explicitly control for the potential trade policy uncertainty faced by all countries. θ_i is borrower country fixed effect, and ϵ_{it} is the error term. We also control for borrower countries' yearly-varying macroeconomic factors such as GDP growth rate, GNI growth rate, annual change of the nominal exchange rate, change of export and import amount (measured as a share of GDP) , change of domestic credit supply (measured as a share of GDP). The coefficient of interest is β_3 . The standard error is clustered at borrowers' country level.

To substantiate our argument that the lending was affected by the China-U.S. tension, we further use the following difference-in-difference-in-differences (DDD) that enable us to concentrate on lender-borrower pairs, i.e. (Chinese firms-U.S. lenders):

$$\begin{aligned} \ln (AggerateDep)_{ijt} &= \beta_1 Post_t + \beta_2 ChinaB_i + \beta_3 USL_j + \beta_3 Post_t * ChinaB_i + \beta_4 Post_t * USL_j \\ &+ \beta_5 ChinaB_i * USL_j + \beta_6 Post_t * ChinaB_i * USL_j + \beta_7 TPU_t \\ &+ \beta_8 GDPgrowth_{it} + \beta_9 GNIGrowth_{it} + \beta_{10} ExRatechange_{it} \\ &+ \beta_{11} Tradechange_{it} + \beta_{12} Creditchange_{it} + \theta_i + \alpha_j + \epsilon_{it} \end{aligned} \quad (2)$$

where USL_j is a dummy variable equal to one for U.S. lenders and zero otherwise; θ_i and α_j are the borrower and lender countries' fixed effects respectively. Other variables are the same as model (1). The coefficient of the DDD estimator is β_6 . The standard error is clustered at the borrower country level. We present two versions of the results, one explicitly uses the trade policy uncertainty index (TPU) and the other uses the year fixed effects.⁷

Effects on facility-level loan characteristics

To capture the effects of political tension on loan-specific characteristics, we conduct DD and DDD analysis on multiple loan variables at the facility level. According to Melnik & Plaut (1986), loan contracts include both price and non-price terms. There are also correlations among those terms and Strahan (1999) noted that firms pay higher spreads with stricter non-price terms. Therefore, we investigate both price and non-price terms, namely the loan amount, spread (which is defined as the loan pricing over the base rate), maturity, secured loan, number of lenders and the lender allocation. We restrict the analysis by syndicated loans only as it accounts for 99.42% of the sample observations.⁸ As syndicated loans have lender allocation information, we also investigate how lead banks change their allocations in loan facilities. We follow Ivashina (2009) and Chu et al. (2019) to identify the whether a lender serves as role of the lead bank(s).⁹ Our loan level DD model is thus specified as:

$$\begin{aligned} \ln(\text{FacilityDep})_{ijkt} &= \beta_1 \text{Post}_t + \beta_2 \text{ChinaB}_i + \beta_3 \text{Post}_i * \text{ChinaB}_i + \beta_4 \text{TPUchange}_t \\ &+ \beta_5 \ln(\text{Amount} + 1)_{it} + \beta_5 \ln(\text{Maturity})_{it} + \beta_6 \ln(\text{Spread})_{it} \\ &+ \beta_7 (\text{No. of Lenders})_{it} + \theta_i + \alpha_j + \epsilon_{ijkt} \end{aligned} \quad (3)$$

where i, j, k and t index the borrowing firm, lender, loan facility, and contracting time. $\ln(\text{FacilityDep})_{it}$ represents the $\ln(\text{loan amount} + 1)$, $\ln(\text{loan spread})$, $\ln(\text{loan maturity})$, a dummy variable equals to one for secured loan and zero otherwise, the number of lenders in each loan, or lender allocation for the loan amount. Details for selecting the information on lender allocation will be discussed in the result section. Following Francis et al. (2014), we

⁷ Note that it is not possible to simultaneously include the TPU and year FE and the latter would absorb the former index.

⁸ According to the definition by Taylor & Sansone (2006) and Champagne & Kryzanowski (2007), a club deal is a type of syndicated loans with smaller amount and specifically requested lender participants. We therefore define syndicated loans in our sample whose are distributed through syndication and club deal.

⁹ Based on the lender bank's role definitions by Taylor & Sansone (2006), we alter the identification by excluding the "Lead Manager" and "Manager" roles since the titles are mainly for lenders with large commitment amount. In our final sample, we define lenders that act as "Administrative Agent", "Lead Arranger", "Mandated Lead Arranger", "Book Runner" and "Agent" as lead banks.

define $TPUchange_t$ as monthly change of China trade policy uncertainty index. α_i denotes the deal, industry, country, year and month fixed effects. Following the existing literature (Carey & Nini, 2007; Haselmann & Wachtel, 2011), we also control for amount, spread, maturity and number of lenders in the estimations where they are not dependent variables. We next use the DDD design to assess the China-U.S. pair effect at the deal level.

$$\begin{aligned}
\ln(FacilityDep)_{ijkt} &= \beta_1 Post_t + \beta_2 ChinaB_i + \beta_3 USL_j + \beta_3 Post_t * ChinaB_i + \beta_4 Post_t \\
&* USL_j + \beta_5 ChinaB_i * USL_j + \beta_6 Post_t * ChinaB_i * USL_j \\
&+ \beta_7 TPUchange_t + \beta_8 \ln(Amount + 1)_k + \beta_9 \ln(Maturity)_k \\
&+ \beta_{10} \ln(Spread)_k + \beta_{11} (No. of Lenders)_k + \beta_{12} GDPgrowth_{it} \\
&+ \beta_{13} GNIgrowth_{it} + \beta_{14} ExRatechange_{it} + \beta_{15} Tradechange_{it} \\
&+ \beta_{16} Creditchange_{it} + \theta_i + \alpha_j + \epsilon_{ijkt}
\end{aligned} \tag{4}$$

where all variable definitions are the same with previous models. Loan level controls are also added. The coefficient of interest is β_6 , which captures the average effect of political tension on the facilities involving an U.S. lender and a China borrower pair.

IV Primary Results

Evolution of syndicated loan amount and issuances

To understand how the political shock affects syndicated loan, we plot the development of both the loan amount and the number of loan issuances for the treatment (China borrower) and control (non-China borrower) group, as shown in Figure 1 and 2. Noted that the sharp decline in 2019 is due to our sample construction¹⁰.

In Figure 1, aggregate loan amount in treatment group is lower than the control group. The two groups also experience different borrowing patterns across the ample period. Comparing to non-Chinese firms, loan amount acquired by Chinese firms exhibit volatile movements. After 2017, the two groups observe a small divergence. In Figure 2, number of loan issuances present similar pattern between Chinese firms and non-Chinese firms. After 2017, number of loans obtained by Chinese firms observe a slight increase while non-Chinese firms mostly remain unchanged.

¹⁰ At the time of data collection, Dealscan covers all deals until the end of April. Our final sample contains deals until 5th, April 2019.

In both figures, Chinese firms experience a steeper drop in both the amount and the number of loan issuances obtained, indicates the potential role played by the political shock.

Results from the aggregate level analysis

Table 2 provides the aggregate-level results of model (1) and (2) without the inclusion of the TPU. Columns 1 in Panel A and Panel B show a negative and significant effect of political tension on aggregate loan amount and loan issuances. The results are consistent with the findings in the previous literature that aggregate loan drops after the shocks such as the global financial crisis and the Brexit vote (Caporale et al., 2018; Tobias et al., 2019). The results from the DDD estimations in column 3 of Table 2 also exhibit significant negative patterns for both the facility initiations and amount. It indicates a salient Chinese firms-U.S. lenders' loan drop relative to other country pairs. As other borrower countries could also be affected by the Chinese trade policy uncertainty per se, we control for China's TPU index in our frameworks to account for this spill-over effect. The DD and DDD estimates are quite similar after incorporating the TPU, which are presented in Table 3. It highlights that our results are not purely driven by the uncertainty generated by the trade policy.

The aggregate level results show that political conflicts may restrain Chinese firms' cross-border capital access. Note the observed equilibrium decline might come from the supply rather than the demand side. As argued by Haselmann & Wachtel (2011), syndicated loan in large markets are riskier. Consequently, foreign banks are unwilling to take the risks in large markets due to the concern to borrowers' country risk. On the other hand, the drop in aggregate loan amount and issuances may also come from the demand side. Chinese firms facing large foreign political uncertainties may reduce their cross-border business, resulting in a reduced demand for project financing. Beckmann & Stix (2014) find that depreciation expectations for exchange rate reduce agents' demand for foreign currency loans. This may serve as explanations for the demand-side analysis since exchange rate is negatively affected by political risk (Suleman, 2015).¹¹

Results from the facility level analysis

¹¹ It is worth noticing that in the DDD estimations, the changes of borrower country's domestic credit supply is negatively and significantly correlated with our dependent variables. This indicates that fluctuations, or uncertainties in domestic credit supply contribute to the reduction. This confirms the previous findings that firms with access to public credit markets are susceptible to exogenous fluctuations in the supply of capital (Lemmon & Roberts, 2010).

Next we turn our attentions to the facility level loan outcomes. Table 4 and 5 report the facility-level DD estimation results for model (3). Column 6 in Table 4 takes care of loan shares and Table 5 re-calculated the weighted loan amount, which is the product of the share and the total loan in a syndication. Columns 1, 2 and 3 in Table 4 and 5 presents the estimation results for the loan amount, maturity and spread. Interestingly, the facility amount, maturity and spread increased simultaneously after the shock. Combining the result with the drop of the aggregate amount, a plausible explanation is that the firms' willingness of borrowing decreased owing to the diplomatic uncertainty and firms with inelastic cross-border financing demand will borrow more to prepare for future needs, which is consistent with the arguments in Alexandre et al. (2014). The increase in spread might be due to the reason that banks exploited this opportunity and requested additional spread for the loan owing to the additional risks (Haselmann & Wachtel, 2011; Francis et al., 2014; Santos, 2011). The spread decreases as loan amount getting larger, as showed by column 3 of Table 4 and 5, which is consistent with the prior findings that larger loans carry lower spreads for the reason of greater borrower transparency and accessibility to capital market (Carey & Nini, 2007).

The number of lenders significantly increased following the political tension, as reported in column 4 of Table 4, indicating that lenders chose to share the risk by introducing more participants. On average, a loan after the political shock has 3.37 more lenders¹² than before, which is in line with Caporale et al. (2018). Column 5 of Table 4 shows that the probability of secured loan raised after the political shock, which also implies that lenders' escalating concern to borrowers' default risk and demand more collaterals. Loan spread is found to be higher for secured loans, which is in align with Strahan (1999) that firms pay higher spreads with stricter non-price terms. Those results indicate that Chinese borrowers' risk arising from political uncertainty is consistent among the price and the non-price terms.

Column 6 of Table 4 limits our analysis to lead bank lenders only.¹³ It shows that the lead lender's allocation significantly increased after the initiation of the trade war. Lead banks in

¹² Noted that in our sample, the base number of lenders is 1. Theoretically, syndicated loans have at least two financial institutions who serve as lenders. In our sample, 8.2% of syndicated loans are recorded as having single lender. According to He (2009), in syndicated loans that include indirect participation, the lead bank will transfer the committed loans to participated banks. Therefore, the contractual relationship is only made between the borrower and the lead bank, resulting in only one lender being recorded in the loan documentation.

¹³ In column 6 of Table 4, the sharp decline of observation is reasonable since 72% of facilities in Dealscan lacks information on lender allocation (Chu et.al., 2019). There is little systematic differences between facilities

syndicated loans bear fiduciary duty to other participants to monitor the borrower and update borrower information. Under the circumstances, lead banks will take a larger allocation in loans to guarantee the due diligence (Sufi, 2007). Thus, on average, banks that lead Chinese firms' loans took more responsibilities after the shock.

Estimation results for the DDD analysis of model (4) is presented in Table 6 and 7. For Chinese borrowers-U.S. lenders pair, both loan maturity and lead bank allocation decreased significantly after the political shock, which is the opposite from the previous DD analysis. We observe an increase in loan maturity after the China-U.S. political shock when consider lenders from all countries, as shown in Table 4 and 5. Haselmann & Wachtel (2011) provides evidences that syndicated loans led by foreign lenders have higher spread and shorter maturity comparing to those led by domestic lenders. Under the rationale that lenders usually prefer loans with shorter maturity in cross-border lending to limit credit risk, the observed increase in maturity in the DD analysis might mostly stem from the demand side. Our finding is consistent with the previous findings show that firms manage to acquire loans with longer maturities during a crisis (Alexandre et al., 2014). That is, Chinese firms demand long maturities after the political shock.

As we turn to the DDD China-U.S. treatment group, a decrease in maturity indicates that the U.S. lenders (supply side) are unwilling to take the risk even with higher spread and more participants in a syndication. Moreover, lead banks from the U.S. reduced their committed allocation significantly, which is also rooted from the supply side. Similar implications emerge when comparing column 1 in Table 6 and Table 7. The loan amount increased whereas the share-weighted loan amount decreased after the political shock. Lenders' committed amount reduced even for larger loans. This indicates a more severe reduction in loan allocation than the DD analysis when we consider global lenders.

In sum, these results suggest that political tension between China and the U.S. yields negative impact on cross-border loans made by international lenders to Chinese borrowers at both the aggregate and facility level. Aggregate-level results observe a reduction in both loan amount and number of loan issuances. At facility-level, both price and non-price terms reflect the adverse effects of political tension. The tightening of loan terms become more severe when Chinese borrowers seek loan supplies from the U.S. lenders.

with and without allocation information (Ivashina, 2009). Following Chu et.al (2019), we also drop packages if the total share is larger than 101% (we add 1% to account for the rounding error), which further reduced our observations.

Robustness tests

We perform robustness checks to examine whether our estimations comply with the common trend assumption underlying our DD strategy. Specifically, we test whether Chinese borrowers and non-Chinese borrowers exhibit similar outcome trends before the political shock. We regress the following model for the DD analysis of loan characteristics:

$$\begin{aligned} \ln (FacilityDep)_{ijkt} &= \eta_0 + \eta_1 TimeTrend_t + \eta_2 ChinaB_i + \eta_3 TimeTrend_t * ChinaB_i + \theta_i + \alpha_j \\ &+ \epsilon_{ijkt} \end{aligned} \tag{5}$$

where $TimeTrend_t$ is a time trend variable. Definitions of other variables are the same with the previous model. The coefficient of interest is η_3 , which is the interaction term of time trend and treatment.

Four out of six loan characteristics passed the test. From column 1 to 4 in Table 8, the common trend assumption is valid since the η_3 is insignificant in the four regressions. That is, there is little difference between Chinese firms and non-Chinese firms in terms of the facility amount, pricing, number of lenders and lender allocations. Thus, our DD strategy is valid for key variables at facility level.

V Conclusion

In this study, we contribute to the international political economy literature by investigating the effects of the recent China-U.S. political tension on Chinese firms' international borrowing. By adopting the DD and DDD identification strategies, we find that at the aggregate level, loan amount and the number of loan issuances acquired by Chinese firms dropped significantly after the political shock. When jointly considering borrower and lenders, the Chinese borrowers-U.S. lenders pair were the most affected. Looking at the facility level, we observe an increase in the loan amount, maturities and the interest spread. Moreover, the probability of secured loan, the number of participants in loan syndication as well as the share of lead banks experienced an upswing following the political tension. However, for maturities and lead bank allocations of Chinese borrower-U.S. lender pairs, the political tension yielded negative impacts, indicating U.S. lenders' growing concern to Chinese borrowers' default risk.

Our study provides some initial evidences on the effects of political tension between China and U.S. on Chinese firms as intentional loan, especially syndicated loan seekers and also Chinese borrower-U.S. lender as pairs. We look at approximately two years after while leaving six years before the political shock. As the trade war between China and U.S. has not ceased, more evidences can be obtained in the coming period of time.

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Table 1—Definitions and sources of variables

| Variable | Source | Definitions |
|----------------------|---------------------|--|
| Post | Dealscan | Equals one if the loan has been issued after Aug 14th and zero otherwise |
| China Borrower | Dealscan | Equals one if the borrower is Chinese firm and zero otherwise |
| U.S. Lender | Dealscan | Equals one if the lender is Chinese firm and zero otherwise |
| Aggregate Amount | Dealscan | Natural logarithm of yearly aggregated facility amount (USD mil) |
| No. of Issuances | Dealscan | Natural logarithm of yearly aggregated number of loan issuances |
| Amount | Dealscan | Natural logarithm of individual facility amount (USD mil) |
| Spread | Dealscan | Natural logarithm of loan spread over LIBOR (bps) |
| Maturity | Dealscan | Natural logarithm of the loan maturity (months) |
| No. of lenders | Dealscan | Number of lenders participating in the loan. |
| Lender Share | Dealscan | A lender's share of the loan amount (decimals) |
| Whether Secured | Dealscan | Equals one if the loan is secured loan and zero otherwise |
| TPU | Davis et al. (2019) | The yearly average of China trade policy uncertainty index |
| TPU Change | Davis et al. (2019) | The monthly change of China trade policy uncertainty index |
| GDP Growth | The World Bank | Annual percentage growth rate of GDP (%) |
| GNI Growth | The World Bank | Annual percentage growth rate of GNI (%) |
| Exchange Rate Change | The World Bank | Annual change of official exchange rate (local currency units relative to the U.S. dollar) |
| Trade Change | The World Bank | Annual change of the sum of exports (% of GDP) |
| Credit Change | The World Bank | Annual change of domestic credit provided by financial sector (% of GDP) |

**Table 2—Effects of political tension on aggregate loan amount and issuance
(without TPU)**

This table provides the results of the DD and DDD regressions of the yearly aggregate loan amount and the aggregate number of loan issuances before and after the political shock. The regressions are on the interactions of a *Post* dummy with Chinese borrowers and the former two with U.S. lenders. The analysis is based on data between August 14, 2010 and April 5, 2019, where *Post* equals one for years 2017 and 2018 (early 2019 is incorporated into 2018), *ChinaB* equals one for China borrowers and *USL* equals one for U.S. lenders. The dependent variables are $\ln(\text{Aggregate Amount} + 1)$ in Panel A and $\ln(\text{Aggregate Number})$ in Panel B. Column (1) is on the borrowers' country level, column (2) and (3) are on the borrowers-lender pairs. Each regression adds country and year fixed effects. Robust standard errors, clustered at the borrowers' country level, are in parentheses. *, **, and *** denote significance at the 10%, 5% and 1% level, respectively.

| Panel A: Log Loan Amount Panel | | | |
|--------------------------------|----------------------|--------------------------|--------------------------|
| Variables | Single Borrower | Borrower-Lender Pair | |
| | (1) | (2) | (3) |
| | Amount | Amount | Amount |
| Post*ChinaB | -1.000*** (0.260) | 0.210*** (0.0224) | 0.224*** (0.0221) |
| Post*ChinaB*USL | | | -1.522*** (0.210) |
| GDPgrowth | 0.0159 (0.0461) | -0.000282 (0.00355) | -0.000281 (0.00355) |
| GNIgrowth | 0.0118 (0.0416) | 0.00211 (0.00266) | 0.00211 (0.00266) |
| Tradechange | -0.0804 (1.071) | -0.0271 (0.0877) | -0.0271 (0.0877) |
| ExRatechange | 1.569 (0.977) | 0.0424 (0.101) | 0.0425 (0.101) |
| Creditchange | -0.0568 (0.0590) | -0.00505*** (0.00142) | -0.00505*** (0.00142) |
| Constant | 6.609*** (0.126) | 0.539*** (0.0118) | 0.537*** (0.0118) |
| Observations | 847 | 95,265 | 95,265 |
| Country FE | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes |
| R-squared | 0.836 | 0.349 | 0.349 |

| Panel B: Log Number of Loan Issuances Panel | | | |
|---|-----------------|----------------------|-----------------|
| Variables | Single Borrower | Borrower-Lender Pair | |
| | (1) | (2) | (3) |
| | No.of Issuances | No.of Issuances | No.of Issuances |
| Post*ChinaB | -0.321*** | 0.0219*** | 0.0266*** |

| | | | |
|-----------------|----------------------|--------------------------|--------------------------|
| | (0.0949) | (0.00519) | (0.00502) |
| Post*ChinaB*USL | | | -0.529*** (0.0788) |
| GDPgrowth | 0.0132 (0.0160) | | |
| GNIgrowth | 0.00208 (0.0132) | 0.000589 (0.000432) | 0.000589 (0.000432) |
| Tradechange | 0.144 (0.453) | 0.00449 (0.0205) | 0.00448 (0.0205) |
| ExRatechange | 0.491 (0.390) | 0.00491 (0.0281) | 0.00492 (0.0281) |
| Creditchange | -0.0169 (0.0187) | -0.00107** (0.000426) | -0.00107** (0.000426) |
| Constant | 2.674*** (0.0476) | 0.138*** (0.00199) | 0.138*** (0.00199) |
| Observations | 847 | 95,265 | 95,265 |
| Country FE | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes |
| R-squared | 0.904 | 0.336 | 0.337 |

**Table 3—Effects of political tension on aggregate loan amount and issuance
(with TPU)**

This table provides the additional results of the DD and DDD regressions after controlling the trade policy uncertainty of the yearly aggregate loan amount and the aggregate number of loan issuances before and after the political shock. The regressions are on the interactions of a Post dummy with Chinese borrowers and the former two with U.S. lenders. The analysis is based on data between August 14, 2010 and April 5, 2019, where *Post* equals one for years 2017 and 2018 (early 2019 is incorporated into 2018), *ChinaB* equals one for China borrowers and *USL* equals one for U.S. lenders. The dependent variables are $\ln(\text{Aggregate Amount} + 1)$ in Panel A and $\ln(\text{Aggregate Number})$ in Panel B. Column (1) is on the borrowers' country level, column (2) and (3) are on the borrowers-lender pairs. Each regression adds country fixed effects. Robust standard errors, clustered at the borrowers' country level, are in parentheses. *, **, and *** denote significance at the 10%, 5% and 1% level, respectively.

| Panel A: Log Loan Amount Panel | | | |
|--------------------------------|----------------------------|----------------------------|----------------------------|
| Variables | Single Borrower | Borrower-Lender Pair | |
| | (1) Amount | (2) Amount | (3) Amount |
| Post*ChinaB | -1.112*** (0.242) | 0.204*** (0.0222) | 0.218*** (0.0219) |
| Post*ChinaB*USL | | | -1.522*** (0.210) |
| TPU | -0.00390*** (0.00147) | -0.000676*** (0.000157) | -0.000676*** (0.000157) |
| GDPgrowth | 0.00509 (0.0474) | -0.000549 (0.00358) | -0.000548 (0.00358) |
| GNIgrowth | 0.00805 (0.043) | 0.00226 (0.00265) | 0.00227 (0.00265) |
| Tradechange | -1.759* (1.006) | -0.124 (0.0880) | -0.124 (0.0880) |
| ExRatechange | 2.602*** (0.873) | 0.0765 (0.0875) | 0.0765 (0.0875) |
| Creditchange | -0.0572 (0.0535) | -0.00597*** (0.00132) | -0.00597*** (0.00132) |
| Constant | 6.827*** (0.174) | 0.588*** (0.0195) | 0.588*** (0.0195) |
| Observations | 847 | 95,265 | 95,265 |
| Country FE | Yes | Yes | Yes |
| Year FE | No | No | No |
| R-squared | 0.831 | 0.348 | 0.349 |

Panel B: Log Number of Loan Issuances Panel

| Variables | Single Borrower | Borrower-Lender Pair | |
|-----------------|-----------------------------|----------------------------|----------------------------|
| | (1) No.of Issuances | (2) No.of Issuances | (3) No.of Issuances |
| Post*ChinaB | -0.370*** (0.0894) | 0.0209*** (0.00509) | 0.0255*** (0.00491) |
| Post*ChinaB*USL | | | -0.529*** (0.0788) |
| TPU | -0.00238*** (0.000565) | -0.000200*** (4.87e-05) | -0.000200*** (4.87e-05) |
| GDPgrowth | 0.00885 (0.0163) | | |
| GNIgrowth | 0.000815 (0.0137) | 0.000562 (0.000417) | 0.000562 (0.000417) |
| Tradechange | -0.564 (0.403) | -0.0225 (0.0221) | -0.0225 (0.0221) |
| ExRatechange | 0.912*** (0.339) | 0.0151 (0.0237) | 0.0151 (0.0237) |
| Creditchange | -0.017 (0.0178) | -0.00130*** (0.000473) | -0.00130*** (0.000473) |
| Constant | 2.840*** (0.0717) | 0.153*** (0.00534) | 0.153*** (0.00535) |
| Observations | 847 | 95,265 | 95,265 |
| Country FE | Yes | Yes | Yes |
| Year FE | No | No | No |
| R-squared | 0.9 | 0.336 | 0.337 |

Table 4—Effects of political tension on syndicated loan terms

This table provides the results of the facility-level DD regressions for loan terms. The regressions are on the interaction of a Post dummy with Chinese borrowers. The analysis is based on data between January 1, 2010 and April 5, 2019, where *Post* equals one for the periods after August 14, 2017 and *ChinaB* equals one for China borrowers. The dependent variables are $\ln(\text{Facility Amount} + 1)$, $\ln(\text{Maturity})$, $\ln(\text{Spread})$, *No. of lender*, *Whether secured* and *Lender share* in Column (1), (2), (3), (4), (5) and (6) respectively. Column (1) - (6) are on the facility level while column (6) limits the sample to lead bank lenders. Each regression adds deal (package), industry, country, year and month fixed effects. Robust standard errors, clustered at the borrowers' country level, are in parentheses. *, **, and *** denote significance at the 10%, 5% and 1% level, respectively.

| Variables | (1) Amount (log) | (2) Maturity (log) | (3) Spread (log) | (4) No.of Lender | (5) Whether Secured | (6) Lender Share |
|-------------------|------------------------|--------------------------|-------------------------|------------------------|---------------------------|--------------------------|
| Post*ChinaB | 0.255** (0.126) | 0.193*** (0.0230) | 0.268*** (0.0492) | 3.365*** (0.998) | 0.0530** (0.0265) | 0.0433* (0.0237) |
| Amount (log) | | 0.0280*** (0.00730) | -0.125*** (0.0101) | 0.336*** (0.0814) | -0.00821 (0.00516) | -0.0205** (0.00818) |
| Maturity (log) | 0.272*** (0.0928) | | 0.0809*** (0.0248) | 0.711** (0.315) | 0.0225 (0.0145) | -0.00566 (0.00649) |
| Spread (log) | -0.773*** (0.0434) | 0.0515*** (0.0167) | | -0.486* (0.259) | 0.0773*** (0.015) | -0.00822 (0.0156) |
| No.of Lender | 0.0496*** (0.0114) | 0.00367*** (0.000849) | -0.00587** (0.00230) | | -0.0026 (0.00187) | -0.00732*** (0.00181) |
| TPUchange | -0.0153** (0.00677) | 0.0112** (0.00460) | -0.0133*** (0.00448) | | -0.00701 (0.0064) | -0.00572 (0.00780) |
| Constant | 8.624*** (0.409) | 3.518*** (0.101) | 5.874*** (0.130) | 7.785*** (1.722) | 0.274** (0.124) | 0.396*** (0.107) |
| Deal FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Industry FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Country FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Month FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 100,289 | 100,289 | 100,289 | 94,533 | 94,529 | 3,275 |
| R-squared | 0.519 | 0.725 | 0.679 | 0.921 | 0.893 | 0.859 |

Table 5—Effects of political tension on syndicated loan terms (weighted)

This table provides the results of the facility-level DD regressions for loan terms weighted by lender allocations. The regressions are on the interaction of a *Post* dummy with Chinese borrowers. The analysis is based on data between January 1, 2010 and April 5, 2019, where *Post* equals one for the periods after August 14, 2017 and *ChinaB* equals one for China borrowers. The dependent variables are $\ln(\text{Weighted Amount} + 1)$, $\ln(\text{Weighted Maturity})$ $\ln(\text{Weighted Spread})$ in Column (1), (2), (3) respectively. Column (1) - (3) are on the facility level. Each regression adds deal (package), industry, country, year and month fixed effects. Robust standard errors, clustered at the borrowers' country level, are in parentheses. *, **, and *** denote significance at the 10%, 5% and 1% level, respectively.

| Variables | (1) Weighted Amount(log) | (2) Weighted Maturity(log) | (3) Weighted Spread(log) |
|----------------|-----------------------------|-------------------------------|-----------------------------|
| Post*ChinaB | 0.104*** (0.0290) | 0.0103 (0.0285) | 0.0115 (0.0387) |
| Amount (log) | | -0.0839*** (0.0139) | -0.118*** (0.0165) |
| Maturity (log) | -0.0799 (0.0549) | | -0.0552 (0.0539) |
| Spread (log) | -0.0339* (0.0172) | -0.0302 (0.0222) | |
| No.of Lender | -0.0316*** (0.00166) | -0.0163*** (0.00110) | -0.0218*** (0.00141) |
| TPUchange | -0.00275 (0.00836) | -0.00186 (0.00726) | -0.00864 (0.0122) |
| Constant | 0.670*** (0.130) | 1.172*** (0.195) | 1.619*** (0.152) |
| Deal FE | Yes | Yes | Yes |
| Industry FE | Yes | Yes | Yes |
| Country FE | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes |
| Month FE | Yes | Yes | Yes |
| Observations | 14,956 | 15,514 | 15,514 |
| R-squared | 0.706 | 0.467 | 0.446 |

Table 6—Effects of political tension on syndicated loan terms between China borrower and U.S. lenders

This table provides the results of the facility-level DDD regressions for loan terms. The regressions are on the interaction of a Post dummy with Chinese borrowers and U.S. lenders. The analysis is based on data between January 1, 2010 and April 5, 2019, where *Post* equals one for the periods after August 14, 2017 and *ChinaB* equals one for China borrowers and *USL* equals one for U.S. lenders. The dependent variables are $\ln(\text{Facility Amount} + 1)$, $\ln(\text{Maturity})$, $\ln(\text{Spread})$, *No. of lender*, *Whether Secured* and *Lender share* in Column (1), (2), (3), (4), (5) and (6) respectively. Column (1) - (6) are on the facility level while column (6) limits the sample to lead bank lenders. Each regression adds deal (package), industry, country, year and month fixed effects. Robust standard errors, clustered at the borrowers' country level, are in parentheses. *, **, and *** denote significance at the 10%, 5% and 1% level, respectively.

| Variables | (1) Amount (log) | (2) Maturity (log) | (3) Spread (log) | (4) No.of Lender | (5) Whether Secured | (6) Lender Share |
|-----------------|------------------------|---------------------------|-------------------------|------------------------|---------------------------|--------------------------|
| Post*ChinaB*USL | 0.260*** (0.0973) | -0.105** (0.0467) | 0.188*** (0.0629) | 1.191*** (0.306) | 0.0359*** (0.0133) | -0.0495*** (0.00971) |
| Amount (log) | | 0.0281*** (0.00731) | -0.125*** (0.0101) | 0.336*** (0.0815) | -0.00822 (0.00517) | -0.0206** (0.00818) |
| Maturity (log) | 0.273*** (0.0928) | | 0.0808*** (0.0248) | 0.710** (0.315) | 0.0226 (0.0145) | -0.00582 (0.00650) |
| Spread (log) | -0.773*** (0.0433) | 0.0514*** (0.0167) | | -0.487* (0.259) | 0.0773*** (0.0150) | -0.00823 (0.0156) |
| No.of Lender | 0.0496*** (0.0113) | -0.00367*** (0.000847) | -0.00587** (0.00230) | | -0.00259 (0.00187) | -0.00732*** (0.00181) |
| TPUchange | -0.0154** (0.00675) | 0.0113** (0.00460) | -0.0133*** (0.00447) | 0.0346 (0.0952) | -0.00702 (0.00640) | -0.00574 (0.00781) |
| Constant | 8.622*** (0.409) | 3.525*** (0.0996) | 5.874*** (0.130) | 7.789*** (1.720) | 0.274** (0.124) | 0.397*** (0.107) |
| Deal FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Industry FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Country FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Month FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 100,289 | 100,289 | 100,289 | 94,533 | 94,529 | 3,275 |
| R-squared | 0.519 | 0.725 | 0.679 | 0.921 | 0.893 | 0.859 |

Table 7— Effects of political tension on syndicated loan terms between China borrower and U.S. lenders (weighted)

This table provides the results of the facility-level DDD regressions for loan terms weighted by lender allocations. The regressions are on the interaction of a Post dummy with Chinese borrowers and U.S. lenders. The analysis is based on data between January 1, 2010 and April 5, 2019, where *Post* equals one for the periods after August 14, 2017 and *ChinaB* equals one for China borrowers and *USL* equals one for U.S. lenders. The dependent variables are $\ln(\text{Weighted Amount} + 1)$, $\ln(\text{Weighted Maturity})$, $\ln(\text{Weighted Spread})$ in Column (1), (2), (3) respectively. Column (1) - (3) are on the facility level. Each regression adds deal (package), industry, country, year and month fixed effects. Robust standard errors, clustered at the borrowers' country level, are in parentheses. *, **, and *** denote significance at the 10%, 5% and 1% level, respectively.

| Variables | (1) Weighted Amount(log) | (2) Weighted Maturity(log) | (3) Weighted Spread(log) |
|-----------------|-----------------------------|-------------------------------|-----------------------------|
| Post*ChinaB*USL | -0.262*** (0.0388) | -0.180*** (0.0256) | -0.248*** (0.0358) |
| Amount (log) | | -0.0150*** (0.00382) | -0.0257*** (0.00601) |
| Maturity (log) | 0.0155 (0.0174) | | 0.0165 (0.0120) |
| Spread (log) | -0.0456* (0.0263) | 0.0295 (0.0264) | |
| No.of Lender | -0.00386 (0.00347) | -0.00427 (0.00375) | -0.00392 (0.00463) |
| TPUchange | | | -0.00860 (0.0122) |
| Constant | 0.670*** (0.130) | 0.286** (0.118) | 0.536*** (0.0648) |
| Deal FE | Yes | Yes | Yes |
| Industry FE | Yes | Yes | Yes |
| Country FE | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes |
| Month FE | Yes | Yes | Yes |
| Observations | 14,956 | 14,956 | 14,956 |
| R-squared | 0.706 | 0.809 | 0.805 |

**Table 8 – Test common trend in key outcome variables before the political shock
(DD analysis)**

This table provides the results of the common trend test for loan terms. The regressions are on the interaction of a time trend variable with Chinese borrowers. The analysis is based on data between January 1, 2010 and August 13, 2017, where *Year* represent time trend and is equal to the year difference between the sample year and 2010. *ChinaB* equals one for China borrowers. The dependent variables are $\ln(\text{Facility Amount} + 1)$, $\ln(\text{Spread})$, *No. of lender*, and *Lender share* in Column (1), (2), (3) and (4) respectively. Column (1) - (4) are on the facility level while column (4) limits the sample to lead bank lenders. Each regression adds deal (package), industry, country, year and month fixed effects. Robust standard errors, clustered at the borrowers' country level, are in parentheses. *, **, and *** denote significance at the 10%, 5% and 1% level, respectively.

| | (1) | (2) | (3) | (4) |
|----------------|------------------------|-------------------------|-----------------------|---------------------------|
| Variables | Amount (log) | Spread (log) | No.of Lender (log) | Lender Share |
| Year | 0.00571* (0.00297) | -0.0310*** (0.00376) | -0.274** (0.107) | 0.00134 (0.00120) |
| Year*ChinaB | -0.0146 (0.0267) | -0.0139 (0.0129) | -0.0176 (0.187) | -0.00375 (0.00227) |
| Amount (log) | | -0.123*** (0.0117) | 1.918*** (0.288) | -0.0210*** (0.00328) |
| Spread (log) | -0.709*** (0.0157) | | -1.122** (0.454) | -0.00155 (0.00396) |
| No.of Lender | 0.0481*** (0.00166) | -0.00517* (0.00276) | | -0.00374*** (0.000724) |
| Maturity (log) | 0.288*** (0.0196) | 0.0453 (0.0283) | -2.345** (0.950) | -0.00335 (0.0119) |
| Constant | 8.194*** (0.0967) | 6.092*** (0.154) | 14.87*** (1.709) | 0.283*** (0.0274) |
| Deal FE | Yes | Yes | Yes | Yes |
| Industry FE | Yes | Yes | Yes | Yes |
| Country FE | Yes | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes | Yes |
| Month FE | Yes | Yes | Yes | Yes |
| Observations | 79,631 | 79,631 | 83,892 | 20,143 |
| R-squared | 0.539 | 0.688 | 0.660 | 0.349 |

Figure 1— Development of Aggregate Loan Amount (China vs. Non-China)

This figure compares the aggregated loan amount acquired by Chinese borrowers (treatment group) to the aggregate loan amount acquired by Non-Chinese borrowers (control group) over the 2010-2019 period.

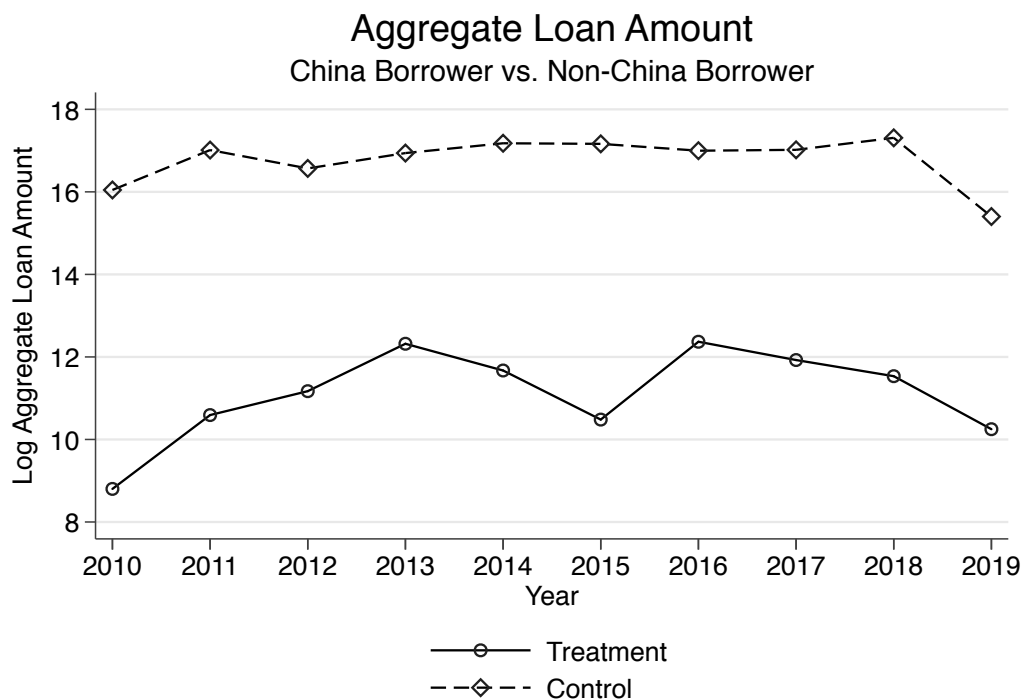
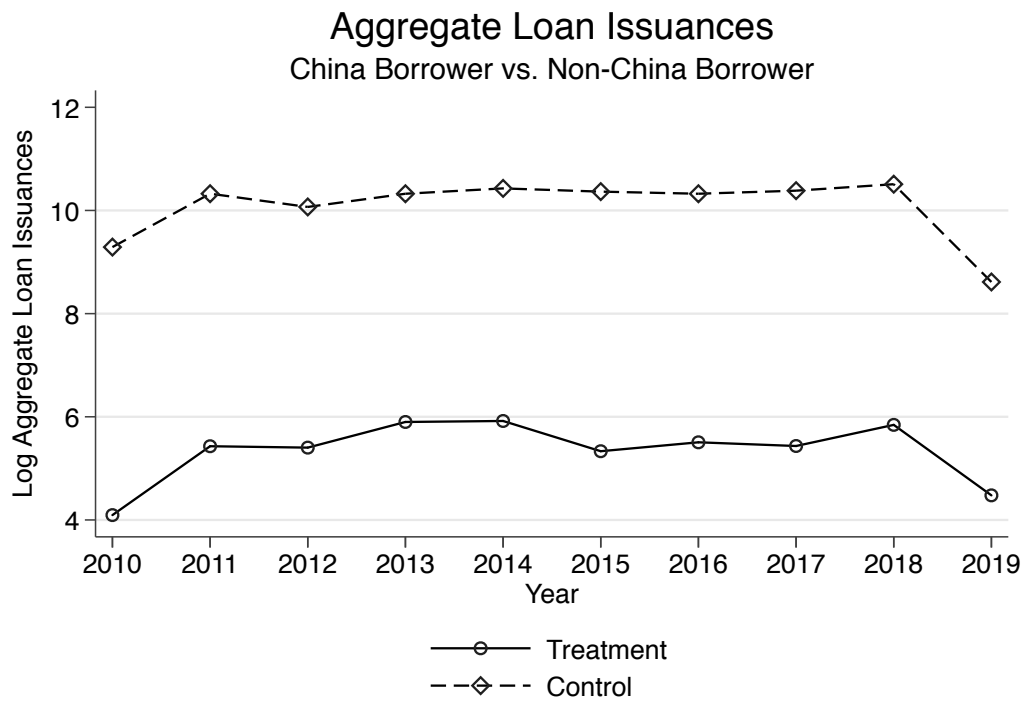


Figure 2— Development of Number of Loan Issuances (China vs. Non-China)

This figure compares the aggregated number of loan issuances acquired by Chinese borrowers (treatment group) to the aggregate number of loan issuances acquired by Non-Chinese borrowers (control group) over the 2010-2019 period.



Appendix Table 1—List of borrower countries

This table provides the list of borrower countries in our final data set for both the aggregate and facility level analyses after the sample selection.

| Borrower Countries | Observations | Percentage (%) | Cumulation (%) |
|--------------------|--------------|----------------|----------------|
| USA | 79,699 | 46.28 | 46.28 |
| United Kingdom | 12,201 | 7.09 | 53.37 |
| Turkey | 9,414 | 5.47 | 58.84 |
| Germany | 6,397 | 3.71 | 62.55 |
| Australia | 5,982 | 3.47 | 66.02 |
| Canada | 5,406 | 3.14 | 69.16 |
| France | 4,844 | 2.81 | 71.98 |
| Switzerland | 4,696 | 2.73 | 74.7 |
| Spain | 4,606 | 2.67 | 77.38 |
| Netherlands | 4,513 | 2.62 | 80 |
| Singapore | 3,233 | 1.88 | 81.88 |
| Luxembourg | 2,420 | 1.41 | 83.28 |
| Indonesia | 2,354 | 1.37 | 84.65 |
| Bermuda | 2,140 | 1.24 | 85.89 |
| India | 1,812 | 1.05 | 86.94 |
| Italy | 1,812 | 1.05 | 88 |
| Russia | 1,749 | 1.02 | 89.01 |
| China | 1,373 | 0.8 | 89.81 |
| Ireland | 1,368 | 0.79 | 90.6 |
| Mexico | 1,356 | 0.79 | 91.39 |
| Brazil | 1,234 | 0.72 | 92.11 |
| Belgium | 1,127 | 0.65 | 92.76 |
| Sweden | 1,094 | 0.64 | 93.4 |
| South Africa | 884 | 0.51 | 93.91 |
| Poland | 554 | 0.32 | 94.23 |
| Japan | 549 | 0.32 | 94.55 |
| Norway | 450 | 0.26 | 94.81 |
| Egypt | 438 | 0.25 | 95.07 |
| Finland | 402 | 0.23 | 95.3 |
| Denmark | 399 | 0.23 | 95.53 |
| Czech Republic | 385 | 0.22 | 95.76 |
| Chile | 378 | 0.22 | 95.98 |
| Oman | 367 | 0.21 | 96.19 |
| Portugal | 358 | 0.21 | 96.4 |
| Austria | 356 | 0.21 | 96.6 |
| Qatar | 352 | 0.2 | 96.81 |
| Vietnam | 352 | 0.2 | 97.01 |
| Ghana | 317 | 0.18 | 97.2 |

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|------------------|-----|------|-------|
| Saudi Arabia | 309 | 0.18 | 97.38 |
| Philippines | 292 | 0.17 | 97.54 |
| Israel | 255 | 0.15 | 97.69 |
| Malaysia | 253 | 0.15 | 97.84 |
| Kuwait | 228 | 0.13 | 97.97 |
| Mauritius | 225 | 0.13 | 98.1 |
| Peru | 207 | 0.12 | 98.22 |
| Hungary | 204 | 0.12 | 98.34 |
| Greece | 169 | 0.1 | 98.44 |
| Ukraine | 164 | 0.1 | 98.53 |
| Monaco | 162 | 0.09 | 98.63 |
| Kenya | 160 | 0.09 | 98.72 |
| New Zealand | 160 | 0.09 | 98.81 |
| Colombia | 155 | 0.09 | 98.9 |
| Nigeria | 154 | 0.09 | 98.99 |
| Romania | 137 | 0.08 | 99.07 |
| Iceland | 124 | 0.07 | 99.15 |
| Azerbaijan | 113 | 0.07 | 99.21 |
| Cyprus | 105 | 0.06 | 99.27 |
| Sri Lanka | 101 | 0.06 | 99.33 |
| Thailand | 97 | 0.06 | 99.39 |
| Malta | 90 | 0.05 | 99.44 |
| Argentina | 78 | 0.05 | 99.48 |
| Slovenia | 77 | 0.04 | 99.53 |
| Angola | 72 | 0.04 | 99.57 |
| Kazakhstan | 68 | 0.04 | 99.61 |
| Lithuania | 58 | 0.03 | 99.64 |
| Slovakia | 57 | 0.03 | 99.68 |
| Bangladesh | 54 | 0.03 | 99.71 |
| Belarus | 33 | 0.02 | 99.73 |
| Pakistan | 33 | 0.02 | 99.75 |
| Bulgaria | 32 | 0.02 | 99.77 |
| Croatia | 27 | 0.02 | 99.78 |
| Zambia | 26 | 0.02 | 99.8 |
| Papua New Guinea | 24 | 0.01 | 99.81 |
| Liberia | 23 | 0.01 | 99.82 |
| Macedonia | 23 | 0.01 | 99.84 |
| Cameroon | 19 | 0.01 | 99.85 |
| Laos | 19 | 0.01 | 99.86 |
| Gabon | 17 | 0.01 | 99.87 |
| Jamaica | 17 | 0.01 | 99.88 |
| Maldives | 16 | 0.01 | 99.89 |

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|--------------------|----|------|-------|
| Cambodia | 15 | 0.01 | 99.9 |
| Jordan | 15 | 0.01 | 99.91 |
| Guyana | 14 | 0.01 | 99.91 |
| Costa Rica | 13 | 0.01 | 99.92 |
| Dominican Republic | 12 | 0.01 | 99.93 |
| Uzbekistan | 12 | 0.01 | 99.94 |
| Congo | 11 | 0.01 | 99.94 |
| Ecuador | 11 | 0.01 | 99.95 |
| Botswana | 8 | 0 | 99.95 |
| Guinea | 8 | 0 | 99.96 |
| Moldova | 7 | 0 | 99.96 |
| Ethiopia | 6 | 0 | 99.97 |
| Honduras | 6 | 0 | 99.97 |
| Madagascar | 6 | 0 | 99.97 |
| Morocco | 6 | 0 | 99.98 |
| Senegal | 6 | 0 | 99.98 |
| Venezuela | 6 | 0 | 99.98 |
| Paraguay | 5 | 0 | 99.99 |
| Gibraltar | 4 | 0 | 99.99 |
| Mozambique | 4 | 0 | 99.99 |
| Uganda | 4 | 0 | 99.99 |
| El Salvador | 3 | 0 | 99.99 |
| Myanmar | 3 | 0 | 100 |
| Nepal | 3 | 0 | 100 |
| Tanzania | 3 | 0 | 100 |
| Chad | 1 | 0 | 100 |

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|-------|---------|-----|--|
| Total | 172,200 | 100 | |
|-------|---------|-----|--|

Appendix Table 2—List of lender countries

This table provides the list of lender countries in our final data set for both the aggregate and facility level analyses after the sample selection.

| Borrower Countries | Observations | Percentage (%) | Cumulation (%) |
|--------------------|--------------|----------------|----------------|
| United Kingdom | 27,376 | 15.9 | 15.9 |
| Canada | 21,447 | 12.45 | 28.35 |
| USA | 21,046 | 12.22 | 40.57 |
| Japan | 18,799 | 10.92 | 51.49 |
| France | 18,018 | 10.46 | 61.95 |
| Germany | 15,134 | 8.79 | 70.74 |
| Switzerland | 11,529 | 6.7 | 77.44 |
| Netherlands | 9,636 | 5.6 | 83.03 |
| Italy | 4,256 | 2.47 | 85.51 |
| Spain | 3,868 | 2.25 | 87.75 |
| Australia | 3,647 | 2.12 | 89.87 |
| Singapore | 2,996 | 1.74 | 91.61 |
| Norway | 1,929 | 1.12 | 92.73 |
| Austria | 1,554 | 0.9 | 93.63 |
| Ireland | 1,367 | 0.79 | 94.43 |
| India | 1,149 | 0.67 | 95.09 |
| Belgium | 989 | 0.57 | 95.67 |
| Sweden | 987 | 0.57 | 96.24 |
| Israel | 493 | 0.29 | 96.53 |
| Malaysia | 480 | 0.28 | 96.81 |
| Brazil | 472 | 0.27 | 97.08 |
| South Africa | 423 | 0.25 | 97.33 |
| Qatar | 399 | 0.23 | 97.56 |
| Denmark | 397 | 0.23 | 97.79 |
| Portugal | 349 | 0.2 | 97.99 |
| Luxembourg | 320 | 0.19 | 98.18 |
| Kuwait | 276 | 0.16 | 98.34 |
| Lebanon | 257 | 0.15 | 98.49 |
| Saudi Arabia | 221 | 0.13 | 98.61 |
| Russia | 209 | 0.12 | 98.74 |
| Thailand | 187 | 0.11 | 98.84 |
| Philippines | 180 | 0.1 | 98.95 |
| Jordan | 154 | 0.09 | 99.04 |
| Indonesia | 151 | 0.09 | 99.13 |
| Pakistan | 135 | 0.08 | 99.2 |
| Mauritius | 129 | 0.07 | 99.28 |
| Mexico | 106 | 0.06 | 99.34 |
| Finland | 91 | 0.05 | 99.39 |

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|----------------|----|------|-------|
| Egypt | 89 | 0.05 | 99.45 |
| Turkey | 84 | 0.05 | 99.49 |
| Albania | 79 | 0.05 | 99.54 |
| Chile | 79 | 0.05 | 99.59 |
| Poland | 56 | 0.03 | 99.62 |
| Greece | 55 | 0.03 | 99.65 |
| Czech Republic | 52 | 0.03 | 99.68 |
| Malta | 52 | 0.03 | 99.71 |
| Oman | 48 | 0.03 | 99.74 |
| Morocco | 43 | 0.02 | 99.76 |
| Nigeria | 39 | 0.02 | 99.79 |
| Colombia | 37 | 0.02 | 99.81 |
| Bangladesh | 28 | 0.02 | 99.82 |
| Iceland | 25 | 0.01 | 99.84 |
| New Zealand | 25 | 0.01 | 99.85 |
| Zimbabwe | 24 | 0.01 | 99.87 |
| Slovakia | 22 | 0.01 | 99.88 |
| Togo | 21 | 0.01 | 99.89 |
| Ukraine | 21 | 0.01 | 99.9 |
| Gabon | 19 | 0.01 | 99.92 |
| Ghana | 18 | 0.01 | 99.93 |
| Sri Lanka | 15 | 0.01 | 99.93 |
| Peru | 13 | 0.01 | 99.94 |
| Venezuela | 12 | 0.01 | 99.95 |
| North Korea | 9 | 0.01 | 99.95 |
| Romania | 9 | 0.01 | 99.96 |
| Cyprus | 8 | 0 | 99.96 |
| Hungary | 8 | 0 | 99.97 |
| Brunei | 6 | 0 | 99.97 |
| Bermuda | 5 | 0 | 99.98 |
| Kazakhstan | 5 | 0 | 99.98 |
| Croatia | 4 | 0 | 99.98 |
| Latvia | 4 | 0 | 99.98 |
| Bulgaria | 3 | 0 | 99.98 |
| Gibraltar | 3 | 0 | 99.99 |
| Lithuania | 3 | 0 | 99.99 |
| Macedonia | 3 | 0 | 99.99 |
| Uganda | 3 | 0 | 99.99 |
| Estonia | 2 | 0 | 99.99 |
| Georgia | 2 | 0 | 99.99 |
| Cambodia | 1 | 0 | 99.99 |
| Cameroon | 1 | 0 | 99.99 |

| | | | |
|------------------|---|---|-----|
| Ecuador | 1 | 0 | 100 |
| El Salvador | 1 | 0 | 100 |
| Honduras | 1 | 0 | 100 |
| Iraq | 1 | 0 | 100 |
| Liechtenstein | 1 | 0 | 100 |
| Papua New Guinea | 1 | 0 | 100 |
| Slovenia | 1 | 0 | 100 |
| Tanzania | 1 | 0 | 100 |
| Vietnam | 1 | 0 | 100 |

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|-------|---------|-----|
| Total | 172,200 | 100 |
|-------|---------|-----|
