Foreign Banks as Trust Providers: Evidence from Firms' Export

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The authors would like to thank Haichao Fan, Kishore Gawande, Steven Ongena, Tony Tong, Yongjin Wang, and seminar participants in UT-Austin, Nankai University, Renmin University of China, Xiamen University, Nanjing University, and conference participants at the China International Conference of Finance, FMA Europe conference, China Conference on Development Economics, Econometric Society meetings, and Sustainable Development conference for helpful comments and discussions.

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Abstract: Exporting is a knowledge-intensive activity in understanding the foreign markets. Using firm-level destination country-specific export data and bank branch data from China, we find that foreign banks presenting in China can significantly promote local firms' export business toward the destination country where the banks are originated from. Specifically, foreign banks promote local firms' export more strongly in sectors in need of more trust and when a destination country is monolingual and culturally more distant. The promotion is economically significant for ordinary export but has almost zero impact on processing with assembly. Taken together, we conclude that foreign banks possibly serve as trust providers in local firms' international business.

Keywords: Foreign bank; Export; internationalization; Trust; Cultural distance; Processing Trade

JEL Codes: G21; F14

1. Introduction

Exporting is knowledge-intensive that the exporting firms need to understand the product demand in foreign markets and how to send products to these foreign markets. Patterns of product demand in foreign markets are often quite different from those in the local ones (e.g. the festivals are different across countries). In addition, international logistics chains involve container choice (packing, grouping), the use of container intermediate, freight exchanges, and intermodal transport. Customs clearance is also often demanding, involving the tariff classification of goods (scope of classification, customs nomenclature), determination of origin of goods (non-preferential, preferential, accumulation of origin), and customs value (on import, export, statistical value) and transactional). Importantly, international trade usually involves geographically distant and culturally different partners, and hence information asymmetries can pose risks on both sides of the transactions (Portes and Rey, 2005). Therefore, due to the imperfect enforcement of international contracts and payments, selling products overseas comes with greater risks, and may ultimately impede international business (Rodrik, 2000; Anderson and Marcouiller, 2002).[1]

An often-ignored factor in firms' international business strategy is the role of multinational banks. Multinational banks are increasing their presence across the world, especially in developing countries (Dages, Goldberg, and Kinney, 2000; Gormley, 2010; Claessens and van Horen, 2014). Foreign bank presence has been found to play an important role in releasing local credit constraints and promote economic growth.[2] However, not enough is known about the impact of foreign bank presence on the exporting business of local non-financial firms and how firms incorporate such resources in their business strategies. Some studies (e.g. Portes and Rey, 2005; Bronzini and D'Ignazio, 2017; Claessens and van Horen, 2021) utilize country-level or sector-level information and find foreign bank presence to be positively related with aggregate export by reducing financial frictions (see Contessi and

[1] In addition to trading, foreign investment is also found to be affected by host country environment, such as elections (Amore and Corina, 2021).

[2] Foreign banks have been found to improve access to financial services for firms and households (Martinez-Peria and Mody, 2004; Clarke, Cull, and Peria, 2006), increase local competition and improve local banks' technology and efficiency (Claessens, Demirgüç-Kunt, and Huizinga, 2001), promote entrepreneurship by facilitating business formation (Alfaro and Hammel, 2007 and consequently increase economic growth (Bruno and Hauswald, 2013).

de Nicola, 2012 and Foley and Manova, 2015 for surveys). However, as much evidence acknowledge that foreign banks only take up a tiny share in the domestic credit markets,[3] it is puzzling why they can promote firms' export in a meaningful way. Moreover, country-level or sector-level studies face identification challenges from unobservable with-country and with-sector variations.

In this paper, we investigate the role of foreign banks as trust providers, rather than credit providers, and hence bring novel insights to understand why foreign banks are important trade facilitators even if they are not salient in the domestic credit markets. By being present in multiple countries, foreign banks have the advantage of reducing information asymmetry regarding product demand in foreign markets, and building trust in enforcing international contracts as well as enhancing the credibility of payment guarantees (Olsen, 2016).

Utilizing firm-level destination country-specific export data and bank branch data from China, we first explore whether foreign banks are especially helpful in channeling host countries' firms to export to their home countries. To achieve this purpose, we match each firm *i*'s (located in prefecture *p*) export to destination country *c* in year *t* with the number of foreign bank branches of nationality *c* in prefecture *p* in year *t*. Our data offer a unique chance to address potential identification challenges. For example, entry of foreign banks from country *c* can direct firm *i*'s export from another country to country *c*, and thus firms' aggregate exports without destination country decomposition are likely to misestimate the impact of foreign bank presence. Moreover, industry-wide shocks can influence export and credit from foreign banks in general, which also make it difficult to isolate the causal effects of foreign banks on firms' export using sector-level data.

In this paper, we focus on the extensive margin of export, that is, whether a firm exports to a certain destination country in a given year. As the previous literature concludes, firms need to overcome substantial fixed costs to begin exporting, such as establishing distribution channels and building reputation, and both financial resources and non-financial resources are important in this process (e.g. Melitz, 2003; Ahn, Khandelwal, and Wei, 2011; Bronzini and D'Ignazio, 2017). Importantly, firms should afford to wait for uncertainty resolution before

[3] According to a report by PwC, foreign banks took up only 1.83% of the credit markets in China in 2010.

deciding to enter new markets when investment is associated with higher levels of commitment (Hawk, Pacheco-De-Almeida, and Yeung, 2013). We find that foreign bank presence would significantly promote firms' exports toward the destination country where the foreign banks are originated from. Economically, if the number of foreign bank branches from a certain country increases by 1 standard deviation, the probability of exporting to this destination country would increase by 1.2 percentage points or 16.12% of the average probability of exporting in the sample. This finding is robust when we distinguish between global systemically important (GSIB) banks and non-GSIB banks, excluding firms in big cities, and excluding banks from Hong Kong, Macao, and Taiwan.

Importantly, our setting enables us to address potential endogeneity concerns in various ways. The first concern is that foreign banks tend to pursue more branches in the more prosperous localities or localities that are easier to access and in these localities, firms might be more capable of exporting. To address this concern, we first take advantage of our firm-level destination country-specific export data. When we disaggregate foreign bank presence and firms' export by destination countries, zoom in to the bilateral relationships, and control for the firm by year fixed effects, we are able to absorb any locality-level or firm-level time-varying characteristics that may affect the locational choices of foreign banks and this alleviates the potential endogeneity concern. To further rule out this potential, we investigate if the export-promoting impact of foreign banks is more pronounced for firms that are located closer to the national borders or seaports, where foreign banks are more likely to enter and firms are more likely to engage in export according to the gravity model. The answer turns out to be no. Moreover, we find no evidence that foreign bank presence has a larger impact in prefectures with better transportation conditions proxied by the number of passengers per capita. Therefore, the attractiveness of certain localities to foreign banks should not be the driving force of our results.

Second, a number of papers find a positive relation between foreign bank and foreign firm presence, and explain this link as foreign banks following their home-country customers to enter into the new markets (e.g. Goldberg and Saunders, 1981; Gray and Gray, 1981; Kindleberger, 1983). Foreign firms are, of course, more likely to export to the home countries where they come from and at the same time, attract more foreign banks from their home

countries.[4] For this potential concern, we further include the firm by destination country fixed effects in all regressions to tease out any persistent linkages between foreign banks and foreign firms. After taking this into account, we restrict our comparison within each firm-destination country pair and focus on the over-time variation. Furthermore, we show that the export-promoting impact of foreign banks is equally important for foreign-controlled and native-controlled firms, and this further mitigates this concern.

To further address potential endogeneity concerns, we construct a Bartik-type instrumental variable for foreign bank presence from certain destination countries: the interaction between prefecture-level foreign bank deregulation in China since 2001 and the country-specific bank asset to GDP ratio in 2000. According to China's commitments upon accession to WTO at the end of 2001, for local-currency business, the geographic restrictions on foreign banks in China would be phased out gradually over time across different prefectures (Lin, 2011). This gradual phasing out would attract more foreign banks to enter into the deregulated prefectures. Moreover, countries with higher bank asset to GDP ratios usually have higher credit supply relative to investment opportunity, and thus banks from these countries have a higher tendency to expand internationally. After taking the instrument into play, our results are found to be consistent.

Finally, we investigate the potential mechanisms on how foreign banks promote international business. Theoretically, there are two possible mechanisms. The first is the financing mechanism. Export activities need financing and if domestic banks cannot fully satisfy this demand, foreign banks can enter the market and facilitate exporting by providing more credit.[5] To formally check the existence of this mechanism, we utilize the industry-wide external finance dependence measure from Rajan and Zingales (1998), which is the fraction of capital expenditures not financed with cash flows from operations and reflects the intrinsic external finance dependent tendency of an industry. We do not find evidence that firms in

[4] Indeed, the lower labor costs in many developing countries have attract manufacture firms in the developed countries to gain and sustain competitive advantages (Aulakh, Kotabe, and Teegen, 2000).

[5] Besides, foreign banks are better at providing trade finance instruments that are important in shaping firms' export decisions (Ahn, Amiti, and Weinstein, 2011; Antras and Foley, 2015; Paravisini, Rappoport, Schnabl, and Wolfenzon, 2015). Such instruments as letter of credit are widely used in international trade (Bronzini and D'Ignazio, 2017).

industrial sectors that are more dependent on external finance benefit more from foreign bank presence in terms of export.

The second mechanism is providing trust in environments with information asymmetries. Information barriers on foreign countries are deemed the main obstacle to firms' internationalization strategies (Bronzini and D'Ignazio, 2017). Such liability of foreignness put large burden on firms' operations management and strongly hurdles firms' decision to export. Foreign banks are usually large, well-connected to and possess a wide range of information on potential importers in their home countries and exporting processes, which can be creditably transmitted to their customers in the host countries. The sharing of such information can facilitate the formation of links between exporters in host countries and importers in foreign banks' home countries. In practice, multinational banks offer a wide range of non-financial services to support local firms' internationalization, which range from helping firms to find profitable foreign markets and suitable foreign clients, to consulting facilities on foreign legal systems or institutional frameworks. Such non-financial services give considerable support to the internationalization of firms. A difference from us and most of the previous literature is that bidirectional trust between countries is important for us, and hence country-level or regional-level social trust measures are not appropriate for us. For example, residents in some countries may trust neighbors or even general people in their own country, but they may not trust people from a distant country.

To examine the validity of this mechanism, we conduct four sets of tests. We first follow Nunn (2007) to measuring industry-wide need of trust in trade by the fraction of inputs not sold on exchange and not reference priced. This measure captures the fraction of inputs that are relationship-specific, therefore, higher values indicate higher contract intensity and more need of bidirectional trust in trade. On the other hand, when products are standard, logistics chain management and customs clearance are easy to determine. The estimates show that firms from industries that are more in need of trust benefit more from foreign bank presence in terms of export. We then follow Yu (2015) to identify if firms engage in ordinary trade, and two types of processing export: processing with inputs and processing with assembly. Compared with those in ordinary trade, exporters conducting processing trade, especially processing with assembly, generally have well-established relationship with their importers.

For this reason, partners can take some responsibility for the local firms' export operations management, such as logistical management and customs clearance. The need of trust toward importers is hence highest in ordinary trade, and lowest in processing with assembly (Ahn, Khandelwal, and Wei, 2011). Consistent with our prediction, foreign banks play a stronger positive role in promoting ordinary export but has almost zero impact on processing with assembly.

Furthermore, following Gambardella, Mariani, and Torrisi (2009), who show that the share of the population that speaks a second language is an index of regional openness and utilization of wider knowledge networks, we find that that foreign banks promote export more toward monolingual countries. Moreover, using Hofstede's cultural index and calculating a destination country's cultural distance to China following Kogut and Singh (1988), we find that foreign banks promote local firms' export more to the destination countries with higher cultural distances to China, consistent with the previous findings that cultural distance between two countries is often associated with less trust (e.g. Guiso, Sapienza, and Zingales, 2009). Taken together, we conclude that foreign banks serve as trust providers in promoting local firms' export business.

This paper contributes to three strands of literature. First, it adds to the literature that studies the relationship between foreign bank presence and firm business outcomes (e.g., Clarke, Cull, and Peria, 2006; Giannetti and Ongena, 2009; Detragiache, Gupta, and Tressel, 2008). A closely related paper is Gormley (2010). He studies the impact of foreign bank entry using the variation in the location of foreign banks in India following a change in India's foreign bank lending policy. He finds that, on average, firms are less likely to get bank credit after the policy change, but profitable firms are more likely to secure bank credit. Our paper is also related to Lin (2011), who find that after foreign bank entry in China, profitable firms use more long-term bank loans. Claessens and van Horen (2021) also find that foreign bank presence promote export using cross-country and cross-sector data and argue that financing is the likely channel. We contribute to this strand of literature by improvement in identification strategies and provide novel evidence that foreign banks serve as trust providers in facilitating international trade.

Second, we make contributions in firms' international business facing supply/demand disruptions. The Sino-US trade war and Covid-19 highlight such risk. Ding, Tu, Pu, Qiu (2021) show that air quality changes lead to fluctuations in product demand. Consistent with Ahn, Khandelwal, and Wei (2011), we provide novel evidence that intermediaries facilitate export participation through non-financing channels. Our findings suggest that a firm should seek assistance from foreign banks more when it exports nonstandard products, when it engages in ordinary exports (rather than processing trade), and when it exports to monolingual countries or culturally distant countries. These novel findings have strong implications in international business. Moreover, our study is also related to Li, Makaew, and Maksimovic (2018), who find that export propensity of foreign invested firms in China is more responsive to and hence benefit more from trade liberalization. Our research complements it by documenting the key role of foreign banks in facilitating export operations management of both native and foreign firms in China.

Third, we address the identification challenges around the debate regarding the "following the customers" hypothesis between foreign bank presence and foreign direct investment. The early research often finds a positive relation between the two and explain this as foreign banks following their customers (e.g. Moshirian and Van der Laan, 1998). Esperanca and Gulamhussen (2001) also find a positive relation between foreign bank presence and the investment of non-enterprise entities. However, the causal effect is not well identified. In a study on foreign banks in the US, Seth, Nolle, and Mohanty (1998) find that most of banks' customers were not originated from the same countries as the banks. Miller and Parkhe (1998) also find no relation between US banks' existence in a certain developing country and the economic link between the US and that country.

The findings turn out to be relevant a firm's strategic purposes. Firms can leverage the role of foreign banks as trust providers in environments with high information asymmetries, especially for small and median-sized firms and firms starting to export. Therefore, we provide insights on the forces able to strengthen a firm's international competitiveness and the spillover effects of foreign bank presence. This fact is particularly relevant under the COVID-19, which impose great supply/demand disruptions on international business (Sa ̈ah, Vega, de Vries, Kembro, 2022).

2. Theoretical Framework and Hypothesis Development

2.1. Foreign Bank Presence and Firm Export

The strategic pattern of foreign expansion of local firms follows the internationalization (Johanson and Vahlne, 1977) and international product life cycle (Vernon, 1966) models: firms first expand into foreign countries through exporting and, with increased market knowledge and network, escalate commitments with more equity and direct investments. Given that a majority of firms from developing markets are still in the early stages of the internationalization process, with exporting rather than equity and direct investment being the dominant mode of their foreign market participation, an important research issue is what are the conditions for these firms to export to a destination country (Vernon-Wortzel and Wortzel, 1988; Dominguez and Sequeira, 1993; Aulakh, Kotabe, and Teegen, 2000).

There has also been a dramatic globalization trend in banking over the past few decades. According to previous research on foreign expansion in the banking industry (Khoury, 1979; Nigh, Cho, and Krishnan, 1986; Hultman and McGee, 1989; Grosse and Goldberg, 1991), though a foreign bank's entry into a host market may initially be a consequence of simply following its client firms abroad, it may progress to seek business from local firms once established. [6]According to Melitz (2003) and Melitz and Redding (2014), potential exporters are usually more profitable and productive than non-exporters, and hence they are more valuable customers to foreign banks. Therefore, whether and the extent to which foreign bank presence promotes/hurts local firms' export is an important question for economic growth, financial stability, and global business (Fang, Hasan, Leung and Wang, 2020).

From a theoretical perspective, the potential shifts in the quality of financial intermediation due to the entry of foreign banks, could either benefit or harm local firms (Beck, Demirguc-Kunt, Laeven, and Maksimovic, 2006; Berger, Hasan, and Zhou, 2009; Giannetti and Ongena, 2009, 2012; Bruno and Hauswald, 2014). Some research document a few dark sides of foreign banks, such as cherry-picking elite clients and serving mainly big

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[6] Such market-seeking behavior has been the subject of several studies (Graham and Krugman, 1995; Seth and Quijano, 1991). For example, Seth and Quijano (1991) find that Japanese banks extend substantial loans to native firms after entering the US market.

cities in host countries, consequently they fail to enhance credit supply and financial inclusion to many potential borrowers (Detragiache, Tressel, and Gupta, 2008; Allen, Otchere, and Senbet, 2011; Beck and Brown, 2015; Allen, Carletti, Cull, Qian, Senbet, and Valenzuela, 2017). Recent financial crises also raise new concerns that foreign banks transmit liquidity shocks across borders (Dages, Goldberg, and Kinney, 2000; Cetorelli and Goldberg, 2012), which could in turn hurt local firms.

In contrast, compared to domestic banks, foreign banks are supported by their multinational networks and can thus tap international capital markets more effectively. At the same time, local non-financial firms' access to international capital markets is highly restricted in many developing countries. Therefore, the presence of foreign banks can potentially release the financial constraints of local firms and thus facilitate direct export participation. Moreover, being able to engage in exporting requires establishing marketing channels and accumulating information on demand sources in other countries (e.g. Roberts and Tybout, 1999), and preparing for logistics and customs clearance. This is difficult and costly for most local firms, but foreign banks have rich information and client networks in their home countries; therefore, local firms as clients of these foreign banks can take advantage of their banks' resources to export to the relevant home countries (Dell'Ariccia and Marquez, 2004).

The current literature mostly believes that in markets where foreign banks take up a significant position the second impact dominates and thus banking globalization could promote local firms' export, especially the export to foreign banks' home countries. However, in markets where foreign banks take up a trivial position or face stringent regulations, such impact is possibly limited or negative (Grandy and Hiatt, 2020). There could also be country-level or sector-level factors that determine foreign bank presence and local firms' export simultaneously, and foreign banks may simply follow their customers from their home countries. Consequently, these considerations make the study of the causal relationship complicated. Thus our first hypothesis is as follows:

Hypothesis 1: Foreign banks originated from a certain home country promotes local firms' export to this home country.

Two possible mechanisms may be at work: foreign banks may be able to promote local firms' export by either releasing the financial constraints of the local firms or serving as trust providers to address information asymmetries that are faced by the local exporters.

2.2. Foreign Banks in Releasing Financial Constraints

Export business needs financing and if domestic banks cannot fully satisfy this demand, foreign banks can enter the market and facilitate exporting by providing more credit. They can do so by moving funds from their parent banks or international financial markets into the exporting country, as well as raising funds locally. All of this can raise credit supply and reduce the overall cost of financial services, especially in countries with lower levels of institutional and financial development (Claessens and Van Horen, 2013, 2021). Besides, foreign banks are better at providing trade finance instruments that are important in shaping firms' export business (Ahn, Amiti, and Weinstein, 2011; Antras and Foley, 2015; Paravisini, Rappoport, Schnabl, and Wolfenzon, 2015). For example, letters of credit are widely used in international trade (Bronzini and D'Ignazio, 2017).

However, most FDI theories posit that foreign banks are at a disadvantage relative to native banks in lending in the host markets. That is, foreign banks suffer from issues such as liability of foreignness arising from information disadvantages in the host market (Hymer, 1960), long-distance decision makings and local biases (Kindleberger, 1969). The liability of foreignness is formally defined as the costs of doing business abroad that result in a competitive disadvantage for subsidiaries of a multinational company. Indeed, previous research finds that foreign banks face severe liability of foreignness (Miller and Parkhe, 2002; Li, 2008). This is especially the case in markets that are crowded with domestic banks already. When considering business entry decisions, foreign banks possibly evaluate the competitive conditions in the host market and attempt to avoid entering markets already crowded with a large number of domestic banks (Li, 2008).

Furthermore, in many countries, foreign banks take up only a tiny share in the local lending markets. For example, according to Claessens and Van Horen (2021), foreign banks take up only 2% and 11% of the market shares in Japan and India respectively and this

number is even lower in China. Claessens and van Horen (2014) show that foreign banks may even have a negative impact on credit supply in low-income countries and in countries where they have a limited market share. For this reason, even if many cross-country studies show a positive impact of foreign banks in providing finance to local firms, such findings are not necessarily relevant for many economies around the world. Therefore, the impact of foreign banks in releasing financial constraints of exporting firms might not work in the case of China, and other similar developing countries. Thus we get to our second hypothesis:

Hypothesis 2: Foreign banks originated from a certain home country promotes local firms' export to this home country by releasing export firms' financial constraints.

2.3. Foreign Banks in Releasing Information Constraints

Foreign banks do not only compete with domestic banks in lending, do they also compete in other businesses where foreign banks have comparative advantages. Using the concept of the niche, as defined in terms of organizational resource requirements, two subpopulations of organizations can be said to compete if and only if their fundamental niches intersect (Hannan and Freeman, 1989; Baum and Singh, 1994). At one extreme, organizations occupying the same organizational niche (that is, organizations with the same resource requirements) are perfect competitors (niche overlap). At the other extreme, organizations with distinct resource requirements do not compete directly with each other (no niche overlap). In terms of banking competition, foreign banks often provide services with little niche overlap with domestic banks, where foreign banks have their unique competitive advantages. One of such advantage is international knowledge and especially knowledge about their home countries.

It is wide accepted that information barriers on foreign countries are deemed as the main obstacle to firms' internationalization practices (Bronzini and D'Ignazio, 2017) and put large burden on firms' international business. Such liability of foreignness strongly hurdles firms' decision to export. To export to developed country markets, producers in developing countries are often required to invest in product quality upgrading. Exporting also needs transportation, customs clearance, and shipping services, as well as information on prices, potential buyers, and product standards or requirements in other countries. Trading companies or distribution

agents are not often available and their service is also often too expensive. These information costs thus discourage potential exporters (Roberts and Tybout, 1999).

However, foreign banks are well-connected and possess a wide range of information on their home countries. This information can be creditably transmitted to their customers in the host countries through the informal bank-firm relationships. Such a valuable flow of information allows firms to reduce the costs associated with entering a new foreign market and as a result, facilitate export to the foreign banks' home countries. Indeed, foreign-owned banks are found to have a unique advantage in facilitating information flows among global trading partners (Portes and Rey, 2005), which has a potential in narrowing the information gap and fostering more trustworthy trade relationships. So our last hypothesis is as follows:

Hypothesis 3: Foreign banks originated from a certain home country promotes local firms' export to this home country by releasing export firms' information constraints.

3. Data and Summary Statistics

In order to examine the possible impact of foreign banks on firms' export and understand the underlying channels, we utilize the disaggregated product-level trade transaction data from the *General Administration of Customs of China*. The data record a variety of detailed information regarding each trading firm's product list. Following the previous literature (e.g. Yu, 2015), we analyze ordinary trade, processing with assembly, and processing with inputs, and exclude the other types of exports. These excluded exports are often for nonprofit purposes and are thus not appropriate for our analyses (Yu, 2015). Noticeably, this trade data set is also disaggregated at the destination country level, which enables us to focus on the firm-destination country-year level analyses.

The export data is then combined with the industrial firms' accounting data from the *Annual Surveys of Manufacturing Firms* conducted by China's *National Bureau of Statistics*. Complete information on both the balance sheet and the income statement is available. The accounting data cover all state-owned enterprises (SOEs), together with non-SOEs with annual sales revenue above CNY 5 million. We following Cai and Liu (2009) in cleaning the sample. We identify foreign-controlled firms based on whether the capital paid by foreign investors is more than that paid by any other types of investors.

The matching between the trade transaction data and the industrial firms' accounting data is first done based on the name of the firm. To increase the size of the matched sample, we in addition also match them based on the zip code and telephone number pairs. Our sample period ranges from 2001 to 2006, determined by the starting and ending points of our export data. Luckily, this time period provides us with an excellent laboratory for studying the impact of foreign bank entry. China imposed geographic and client restrictions on local-currency business of foreign banks. During 2001-2006, such restrictions were phased out based on the WTO accession agenda.[7] As a result, the number of foreign bank branches and representative offices in China increased from 251 in 2001 to 474 in 2006.

We then match the firm-level data with the foreign bank penetration data. Specifically, such information in China is obtained from the *2007 Almanac of China's Finance and Banking* for foreign bank branch information. Using these data, we construct, for each prefecture-destination country-year combination[8], the log number of bank branches from a certain destination country in a certain year in a certain prefecture (*Foreign Bank Presence from Destination Country*). The way we measure foreign bank presence is based on the extant literature. The number of foreign banks (branch and representative offices) and the total assets of foreign banks are intuitively regarded as two measures of foreign bank presence in the host countries. Claessens, Demirgüç-Kunt, and Huizinga (2001) and Hermes and Lensink (2003), however suggest that the number of foreign banks, rather than their share in the domestic bank sector's assets, is a better measurement for foreign bank presence.[9] Detailed variable definitions are presented in Table 1.

Among these foreign banks, we further classify them into GSIB (global systemically important banks) and non-GSIB foreign banks designated by the *Basal Committee on*

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[7] According to the commitments, there would be no geographic restriction for foreign-currency business upon accession, and for local-currency business, the geographic restriction on foreign banks would be phased out gradually. By the end of 2001, geographic restriction was relaxed for 4 cities including Dalian, Tianjin, Shanghai, and Shenzhen. By the end of 2002, another 5 cities were to relaxed (Guangzhou, Nanjing, Qingdao, Wuhan, and Zhuhai). Restrictions in Chengdu, Chongqing, Fuzhou, and Ji'nan was phased out by the end of 2003. Another 3 cities would be relaxed in year 2004 including Beijing, Kunming, and Xiamen. Phasing out was continued in Ningbo, Shantou, Shenyang, and Xi'an in year 2005. Lastly, the geographic restriction on local-currency business were completely lifted at the end of 2006.

[8] A prefecture in China is a level of jurisdiction right below the provincial level, similar in size to a metropolitan statistical area (MSA) in the US.

[9] Branch-level assets are not available in China.

Banking Supervision. According to the *Basal Committee*, GSIBs are perceived as being larger, more interconnected, more complex, and more globally operated. Therefore, due to their global scope, the presence of GSIBs in a host country might not only link this country to the bank's home country but also to other countries where the bank has operations. In other words, the potential impact foreign bank penetration on local firms' exporting business might differ across GSIBs and non-GSIBs. In addition, we further classify, at the firm-year level, whether a firm engages in *processing with inputs and processing with assembly* and whether this firm is a *Foreign-controlled Firm* (where a firm is controlled by foreign shareholders including those from Hong Kong, Macao, and Taiwan).

According to the gravity theory and in order to avoid random noise associated with tiny export destinations, we restrict our sample to the top 100 destination countries based on the aggregate export level in the sample period. To mitigate the potential concern of selection bias, we only keep the firms that have ever engaged in exporting in our sample period and keep only prefectures with foreign bank existence till 2016. The number of firms in the final sample is 37,541. We create one observation for each firm-destination country-year, and if a firm engages in any export toward this destination country in that year, export status is set to be 1; otherwise, it is set to be 0 (*Export to Destination Country*). This practice gives us 11,885,200 observations. Because many firms start and close within the sample period, the number of observations is not equal to the number of firms multiplied by the number of destination countries multiplied by the number of years.

The summary statistics are reported in Table 2. On average, 7.3 percent of firms export to a certain destination country in a certain year, and among these exporting firms, 5.4, 3.2, and 0.3 percent of the firms engage in ordinary trade, processing with inputs, and processing with assembly, respectively. We notice that their sum is not equal to 7.3 percent because some firms may conduct ordinary trade and process trade in the same year. We also find that among firms that have ever engaged in exporting, about one half are foreign controlled firms. Regarding the prefecture-level banking market structure, an average prefecture in an average year has 0.23 foreign bank branch from each destination country and 30 percent of the foreign banks are GSIBs.

4. Methodology and Results

4.1. Baseline Results and Robustness Checks

We start with our baseline estimates to examine the impact of foreign bank presence on firms' export participation. Specifically, we apply the following regression model:

$$Export\ to\ Destination\ Country_{ipct}=\beta_0+\beta_1 Number\ of\ Foreign\ Bank\ Branch\ from\ Destination\ Country_{pct}+FE+\varepsilon_{ipct} \quad (1)$$

where $Export\ to\ Destination\ Country_{ipct}$ is firm i's export status toward destination country c in year t, where firm i is located in prefecture p. $Number\ of\ Foreign\ Bank\ Branch\ from\ Destination\ Country_{pct}$, our main variable of interest, is the log number of bank branches from foreign banks of nationality c in prefecture p in year t. We include firm by destination country fixed effects in all regressions to tease out any persistent linkages between foreign banks and foreign firms. And in order to absorb any locality-level or firm-level time-varying characteristics that may affect the locational choices of foreign banks, we control for firm by year fixed effects. Therefore, both the competition from other types of banks' branches and time-varying global export shocks are already implicitly controlled for. We use linear probability model because nonlinear models with fixed effects suffer from the incidental parameter problem, which may bias asymptotic standard errors downward (Greene, 2004). All standard errors are clustered at the prefecture * destination country level to account for the gravity between such pairs, though our estimation is fairly robust to different clustering ways.

The results are presented in Table 3. Columns 1-2 show the results with the full sample, with firm by destination country fixed effects included in Column 1 and both firm by destination country fixed effects and firm by year fixed effects included in Column 2. We always find a significantly positive impact of foreign bank presence on the possibility of export. Economically, if the number of foreign bank branches from a certain country increases by 1 standard deviation, the probability of exporting to this destination country would increase by 1.2 percentage points or 16.12% of the average probability of exporting in the sample.

We next conduct several robustness checks. In Columns 3-4, we include the number of foreign non-GSIB banks from a destination country and the number of foreign GSIB banks from a destination country separately. Although GSIBs are active not only in their home country, their sheer size gives them high influence, and thus it is not clear whether GSIB banks affect local firms' export to their home countries more than non-GSIB banks. We find that both GSIB and non-GSIB banks have similar impact on local firms' export business.

In Columns 5-6, we exclude the big cities with the largest number of foreign banks (Beijing, Shanghai, and Guangzhou) as it may be worried that our findings are driven by the special features of these big cities. Typically, these big cities often obtain preferential policy treatments from the central government. We find that the results are almost identical. Hong Kong, Macao, and Taiwan are geographically close to and share many linguistic and cultural links with mainland China. Moreover, Hong Kong and Macao serve as a port of transit trade for many firms in mainland China, which means that they are not necessarily the final destination of the exported goods. In Columns 7-8, we exclude banks originated from Hong Kong, Macao, and Taiwan, and our results are slightly stronger.

In Appendix Table A1, we conduct firm-level heterogeneity analysis. We find foreign bank presence has a stronger positive impact on larger firms, measured by either total assets or total employees. However, the impact does not vary by firms' profitability. Therefore, although foreign banks are likely to be somewhat conservative, it is not necessary that they are cherry-picking.

4.2. Addressing Endogeneity

Our findings may suffer from potential endogeneity issues. First, foreign banks usually pursue more branches in more prosperous localities or localities that are easier to access and in these localities, firms might be more willing or capable in exporting. When we control for the firm by year fixed effects, we are able to absorb any locality-level or firm-level time-varying characteristics that may affect the locational choices of foreign banks and this alleviates the concern regarding locality attractiveness. To further rule out this potential, we investigate if the export-promoting impact of foreign banks is more pronounced for firms that are located closer to the national borders or seaports, where foreign banks are more likely to enter and

firms are more likely to export according to the gravity model. We include an interaction term of foreign bank presence with a measure of such closeness. Specifically, we estimate following regression model:

$$\begin{aligned} \textit{Export to Destination Country}_{ipct} = \beta_0 + \beta_1 \textit{Number of Foreign Bank Branch from Destination Country}_{pct} + \beta_2 \textit{Number of Foreign Bank Branch from Destination Country}_{pct} * \textit{Locality Accessibility}_p + FE + \varepsilon_{ipct} \end{aligned} \quad (2)$$

where *Locality Accessibility*$_p$ is measured by the log distance in kilometers to the nearest national borders or seaports using the optimal route.[10] As shown in Column 1 of Table 4, the estimated coefficient of the interaction term is close to 0, whereas the estimated coefficient of foreign bank presence does not change at all. Therefore, the impact of foreign bank presence does not cluster in localities close to national borders or seaports. In Column 2, we measure the access to localities by the number of passengers per capita in 2000.[11] Again, the estimated coefficient of the interaction term is close to 0. Therefore, the attractiveness of certain localities to foreign banks is not the driving force of our results.

The literature show that foreign banks may follow their customers to enter a new market (e.g. Goldberg and Saunders, 1981; Gray and Gray, 1981; Kindleberger, 1983). If this is the case, then foreign bank presence would be more helpful for foreign firms from their home countries and our results may simply be driven by these foreign firms. We include the firm by destination country fixed effects in all regressions to tease out any persistent linkages between foreign banks and foreign firms and thus alleviate the "following the customers" concern. Furthermore, to address the time-varying impact of the links between foreign banks and foreign firms, we examine whether the positive impact of foreign bank presence on export is more important for foreign-controlled firms rather than their native counterparts. Therefore,

[10] We obtain maps from Openstreetmap (https://www.openstreetmap.org) and calculate the optimal route using the osrmtime method, where we assume a driving speed of 120 km/hour. See Huber and Rust (2015) for more details. This method takes advantage of the Open Source Routing Machine (OSRM) and the OpenStreetMap in order to find the optimal route by car, bicycle, or foot.

[11] The data are obtained from China City Statistical Yearbooks.

we include an interaction term of foreign bank presence and a dummy variable for foreign-controlled firms and estimate the following model:

$$\begin{aligned} \textit{Export to Destination Country}_{ipct} = \beta_0 + \beta_1 \textit{Number of Foreign Bank Branch from Destination} \\ \textit{Country}_{pct} + \beta_2 \textit{Number of Foreign Bank Branch from Destination Country}_{pct} * \\ \textit{Foreign-Controlled Firm}_p + FE + \varepsilon_{ipct} \end{aligned} \quad (3)$$

As shown in Column 3, the estimated coefficient of the interaction term is close to 0. The export-promoting impact of foreign banks is equally important for foreign-controlled and native-owned firms, and this result further mitigates the concern regarding "following the customers". This is consistent with the recent evidence that casts some doubt on the "following the customers" strategy as the sole explanation for cross-border bank entry and presence (Focarelli and Pozzolo, 2005).

To further address potential endogeneity concern, we construct a Bartik-type instrumental variable for foreign bank presence from certain destination countries: the interaction between prefecture-level foreign bank deregulation in China since 2001 and country-specific bank asset to GDP ratio in 2000. We use the ratio calculated in 2000 so that it is unlikely to be affected by the bank expansion in China in our sample period.[12] First, according to China's commitments upon accession to WTO at the end of 2001, for foreign-currency business, there would be no geographic restriction upon accession, and for local-currency business, the geographic and client restrictions on foreign banks in China would be phased out gradually over time across different prefectures. This induces more foreign banks to enter into the deregulated prefectures. Second, countries with higher bank asset to GDP ratios usually have higher credit supply relative to investment opportunity, and thus banks from these countries have a higher tendency to expand internationally. The typical examples include Japan, Switzerland, and Germany, with ratios well above 1. Our first-stage regression is as follows:

[12] The data on the country-specific bank asset to GDP ratio in 2000 are obtained from the International Monetary Fund.

$$\textit{Number of Foreign Bank Branch from Destination Country}_{pct} = a_0 + a_1 \text{Bank Asset to GDP Ratio at } \textit{Destination Country}_c * \text{Bank Entry Deregulation}_{pt} + FE + \varepsilon_{ipct} \quad (4)$$

And the second-stage regression equation is Equation (1). The results are presented in Table 5. The Stock and Yogo (2005) tests reject the null hypothesis that our instrument is weak, as the F-test value of the excluded instrumental variable in the first-stage regression is above 10, the critical value. Therefore, foreign banks from countries with higher bank asset to GDP ratio are more likely to enter prefectures that were deregulated due to the WTO commitment. After taking the instrument into play, our conclusion does not change.

4.3. Underlying Channels

Export activities need financing. Foreign banks might directly increase the availability of external finance in the exporting country, either by moving funds from their parent banks or international financial markets into the exporting country, as well as raising funds locally. This increase in external finance likely benefits in particular for firms that plan to export as their external financing needs tend to be greater compared to those of producers selling locally (Melitz, 2003; Claessens and van Horen, 2021). If this is the case, then the impact of foreign banks in fostering export would be more pronounced among firms that rely more on external financing.

In order to test whether the financing channel works or not, we utilize the sector-wide external finance dependence measure from Rajan and Zingales (1998). This measure captures the fraction of capital expenditures that is not financed with cash flows from operations in the US (*Dependence on External Financing*). Rajan and Zingales (1998) find that industrial sectors that are relatively more in need of external finance develop disproportionately faster in countries with more developed financial markets, and this result is unlikely to be driven by omitted variables, outliers, or reverse causality. This measure is widely used in the literature studying financial constraints (e.g. Cetorelli and Gambera; 2001; Fisman and Love, 2007; Manova, 2013; Ding, Fan, and Lin, 2018). One advantage of this measure in our case is that it is exogenous to the Chinese firms and reflects the intrinsic external finance tendency of an industry.

The results are presented in Column 1 of Table 6. Specifically, we interact the *Number of Foreign Bank Branch from Destination Country* with the *Dependence on External Financing* measure. We find that industrial sectors that are more dependent on external financing do not benefit more from foreign bank presence in terms of export. Therefore, releasing financial constraints should not be the main channel for foreign banks in China to promote export.

We then investigate the role of foreign banks in providing trust in information asymmetric environment in four ways. Although each piece of evidence may not be enough, together they form strong support to the existence of such a role.

First, we follow Nunn (2007) to construct an industry-wide need of trust in trade measure by the fraction of inputs not sold on exchange and not reference priced. This measure captures the fraction of inputs that are relationship-specific, therefore, higher values indicate higher contract intensity and more need of trust in trade. On the other hand, when products are standard, logistics chain management and customs clearance are easy to determine. The estimates reported in Column 2 of Table 6 show that local firms benefit more from foreign bank presence in terms of export business both statistically and economically meaningful. When the need of trust increases by one standard deviation (=0.2), the impact of foreign bank presence on export participation increases by 12 percentage points (=0.2*0.014/0.025).

Second, compared with those in ordinary trade, exporters conducting processing trade especially processing with assembly generally have well-established relationship with importers. For this reason, partners can take some responsibility for the local firms' export operations management. The need of trust is hence highest in ordinary trade, and lowest in processing with assembly (Ahn, Khandelwal, and Wei, 2011). We follow Yu (2015) to identify if firms engage in ordinary trade, processing with inputs and processing with assembly, and then use the participation of each of the three types of trade as the dependent variables. Table 7 report the results. We find that foreign banks play a stronger positive role in promoting ordinary export. Although foreign banks still have a significantly positive impact in encouraging processing with inputs, the estimate is only one fourth of that for ordinary export. And importantly, foreign bank presence has almost zero impact on processing with assembly.

Furthermore, following Gambardella, Mariani, and Torrisi (2009), who show that the share of the population that speaks a second language is an index of regional openness and

utilization of wider knowledge networks, we find that that foreign banks promote export more to monolingual countries relative to bilingual countries.[13]

Finally, longer cultural distance between two countries is often associated with less trust (e.g. Guiso, Sapienza, and Zingales, 2009). We obtain the six-dimension Hofstede's cultural indexes, and follow Kogut and Singh (1988) to calculate the cultural distance between a destination country and China: we calculate the squared difference between each index of a destination country and that of China, and normalize the difference by the variance of that index. The sum of them divided by 6 is then the measure of cultural distance. We also pay special attention to the distance of long-term orientation between a destination country and China. As the measures are not quite meaningful in quantitative sense, we divide the sample to high (low) cultural distance groups, as well as high (low) long-term orientation distance groups based on the medians. We also notice that the sample size declines as Hofstede's cultural indexes are not available for some countries. Table 8 report the results. We find that foreign banks promote firms' export more to countries with a higher cultural distance to China.

Together, these pieces of evidence suggest that foreign banks provide trust in information asymmetric environment. Although we are among the first to provide evidence that foreign banks promote export by serving as trust providers, our findings are consistent with other research. Banks entering the US market, for example, did not only have a lending-to-the-home-country-customer motive but were also engaged in providing other financial services to local and third-country clients (e.g. Buch and Golder, 2001). At the same time, local firms may seek "concierge" services from foreign banks (Berger, Dai, Ongena, and Smith, 2003). Other services such as the consulting and marketing services are likely to be more important. These services will be likely to improve local firms' export operations management.

5. Contributions to Theory and Managerial Implications

[13] The list of bilingual countries is from https://www.uottawa.ca/clmc/55-bilingual-countries-world.

We make contributions to international business theory on firm's internationalization process. Given that a majority of firms from developing markets are still in the early stages of the internationalization process, an important research issue is what are the conditions for these firms to export to a destination country. From a theoretical perspective, the potential shifts in the quality of financial intermediation due to the entry of foreign banks, could either benefit or harm local firms' export or have zero impact. The current literature mostly believes that in markets where foreign banks take up a significant position the export promotion impact dominates via the financing channel. However, in markets where foreign banks take up a trivial position or face stringent regulations, such impact is possibly limited. The current literature poses a puzzle regarding the real role of foreign banks in affecting local firms' internationalization process.

Our study is novel in identifying the role of foreign banks in releasing information constraints. Using the concept of the niche, as defined in terms of organizational resource requirements, two subpopulations of organizations can be said to compete if and only if their fundamental niches intersect. Organizations with distinct resource requirements do not compete directly with each other (no niche overlap). In terms of banking competition, foreign banks often provide services with little niche overlap with domestic banks, where foreign banks have their unique competitive advantages. One of such advantage is international knowledge and especially knowledge about their home countries. Indeed, foreign-owned banks are supposed to have a unique advantage in facilitating information flows among global trading partners (Portes and Rey, 2005), which has a potential in narrowing the information gap and fostering more trustworthy trade relationships.

One weakness in our study is that we do not observe the exporting processes directly. For example, we do not observe how a foreign bank assist its customers in exporting. Future research can probably investigate more interactions between foreign bank and customers using new data.

Managers of firms in the early stages of the internationalization process usually face challenges in highly uncertain environments. For example, international logistics chain involves container choice (packing, grouping), the use of containers intermediate, freight exchanges, intermodal transport. Customs clearance is often demanding, involving the tariff

classification of goods (scope of classification, customs nomenclature), determination of origin of goods (non-preferential, preferential, accumulation of origin), and customs value (on import, export, statistical value) and transactional).

Our findings have strong managerial implications in that managers can leverage the information advantages of foreign banks. For example, this is especially the case when the firm exports nonstandard products or engages in ordinary exports (rather than processing trade). Moreover, when a firm exports to monolingual countries or culturally distant countries, managers probably need to seek assistance from foreign banks more. Taken together, we conclude that managers should consider the role of foreign banks serving as trust providers in promoting export, rather than focus only on financial resources.

7. Conclusions

Using firm-level destination country-specific export data and bank branch data from China, we find that foreign banks can significantly promote firms' export toward the destination country where the banks are originated from. Further evidence reveals that information barriers on foreign countries are deemed the main obstacle to firms' internationalization practices (Bronzini and D'Ignazio, 2017). Indeed, we find that foreign banks promote local firms' export more in sectors in need of trust, promote ordinary export strongly but has almost zero impact on processing with assembly, and promote export more to a destination country that is monolingual and culturally more distant. Taken together, we conclude that foreign banks serve as trust providers in improving local firms' export business, rather than via financial services such as enhanced credit supply and trade credit.

Our paper turns out to be relevant a firm's strategic purposes. Firms can leverage the role of foreign banks as trust providers in environments with high information asymmetries, especially for small and median-sized firms and firms starting to export. This fact is particularly relevant under the COVID-19, which impose great supply/demand disruptions on international business.

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Table 1 Variable definitions

Variable	Definitions
Firm Characteristics	
Export to Destination Country	dummy = 1 if a firm exports toward a certain destination country in a year, 0 otherwise
Ordinary Export	dummy = 1 if a firm sell its final goods to other countries without importing raw materials & parts.
Processing with Inputs	dummy = 1 if a firm pays for raw materials from a foreign seller. After local processing, the firm can then sell its final goods to foreign countries.
Processing with Assembly	dummy = 1 if a firm obtains raw materials and parts from its foreign trading partners, and after local processing, the firm sells its products to the same partner by charging an assembly fee.
Foreign-Controlled Firm	dummy = 1 if a firm is controlled by foreign shareholders including Hong Kong, Macao, and Taiwan, 0 otherwise
Industry Characteristics	
Need of Trust in Trade	fraction of inputs not sold on exchange and not reference priced, higher value indicates more need of trust in trade
Dependence on External Financing	fraction of capital expenditures that is not financed with cash flows from operations, higher value indicates more dependence on external financing
Prefecture Characteristics	
Foreign Bank Presence from Destination Country	log # bank branches from a destination country in a certain year in a certain prefecture
Foreign Non-GSIB Bank Presence from Destination Country	log # non-GSIB bank branches from a certain destination country in a year in a certain prefecture
Foreign GSIB Bank Presence from Destination Country	log # GSIB bank branches from a certain destination country in a year in a certain prefecture
Bank Entry Deregulation	dummy = 1 if the restriction for foreign banks to conduct local-currencty business is phased out in a certain year in a certain prefecture based on China's commitments upon accession to WTO.
Distance to Nearest Border/Seaport	log distance in kilometers to the nearest national borders or seaports using the optimal route
Passengers per Capita	The number of passengers (times) scaled by total population in 2000
Destination Country Characteristics	

Destination Country Bank Asset to GDP Ratio	bank assets to GDP ratio in a certain destination country in 2000
Cultural Distance	Sum of distance across the six dimensions of Hofstede cultural indexes between a destination country and China divided by 6.

Table 2 Summary statistics

Variable	Obs.	Mean	Std.	Min.	Max.
Firm Characteristics					
Export to Destination Country	11,885,200	0.073	0.261	0	1
Ordinary Export	11,885,200	0.054	0.225	0	1
Processing with Inputs	11,885,200	0.032	0.175	0	1
Processing with Assembly	11,885,200	0.003	0.058	0	1
Foreign-Controlled Firm	11,885,200	0.523	0.499	0	1
Industry Characteristics					
Need of Trust in Trade	11,022,800	0.549	0.204	0.058	0.859
Dependence on External Financing	10,888,900	0.495	0.412	-0.450	1.490
Prefecture Characteristics					
Foreign Bank Presence from Destination Country	11,885,200	0.080	0.347	0.000	3.555
Foreign Non-GSIB Bank Presence from Destination Country	11,885,200	0.062	0.293	0.000	3.434
Foreign GSIB Bank Presence from Destination Country	11,885,200	0.031	0.203	0.000	2.565
Bank Entry Deregulation	11,885,200	0.370	0.483	0	1
Distance to Nearest Border/Seaport	11,885,200	1.833	2.236	0.000	6.820
Passengers per Capita	11,885,200	34.4	43.5	3.8	201.1
Destination Country Characteristics					
Destination Country Bank Asset to GDP Ratio	11,053,236	59.567	46.143	1.300	225.790
Cultural Distance	7,012,268	2.458	1.096	0.300	4.639

Table 3 Impact of Foreign Bank Presence on Firm Exporting

Dependent Variable	Export to Destination Country							
	Full Sample				*Excluding Big Cities*		*Excluding HMT*	
	1	2	3	4	5	6	7	8
Foreign Bank Presence from	0.057***	0.034***			0.061***	0.035***	0.062***	0.039***
Destination Country	[0.007]	[0.006]			[0.007]	[0.006]	[0.007]	[0.006]
Foreign Non-GSIB Bank Presence			0.049***	0.030***				
from Destination Country			[0.006]	[0.005]				
Foreign GSIB Bank Presence from			0.058***	0.036**				
Destination Country			[0.019]	[0.016]				
Firm * Destination Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm * Year Fixed Effects	No	Yes	No	Yes	No	Yes	No	Yes
R-Squared	0.703	0.726	0.703	0.726	0.703	0.727	0.696	0.720
Observations	11,885,200	11,885,200	11,885,200	11,885,200	9,402,000	9,402,000	11,528,644	11,528,644

This table presents of the impact of foreign bank presence on firm exporting. In Columns 1-2, we report the results with the full sample. In Columns 3-4, we include variables the number of foreign non-GSIB banks from destination country and the number of foreign GSIB banks from destination country separately. In Columns 5-6, we exclude the big cities with the largest number of foreign banks (Beijing, Shanghai, and Guangzhou). In Columns 7-8, we exclude banks originated from Hong Kong, Macao, and Taiwan. Coefficients are listed in the first row, robust prefecture * destination country clustered standard errors appear in [parentheses] below. *p <= 0.10; **p <= 0.05; ***p <= 0.01.

Table 4 Impact of Foreign Bank Presence on Firm Exporting: Potential Endogeneity Concern

Dependent Variable	Export to Destination Country		
	1	2	3
Foreign Bank Presence from Destination Country	0.034***	0.031***	0.035***
	[0.006]	[0.006]	[0.006]
Foreign Bank Presence from Destination Country	0.000		
* Distance to Nearest Border/Seaport	[0.002]		
Foreign Bank Presence from Destination Country		0.000	
* Passengers per Capita		[0.000]	
Foreign Bank Presence from Destination Country			-0.002
* Foreign-Controlled Firms			[0.002]
Firm * Destination Country Fixed Effects	Yes	Yes	Yes
Firm * Year Fixed Effects	Yes	Yes	Yes
R-Squared	0.726	0.726	0.726
Observations	11,885,200	11,885,200	11,885,200

We investigate potential concern regarding geographic closeness, transportation conditions, and reverse causality about customer-following. We control for the interaction terms of foreign bank presence with the minimum distance to national border/seaports, passengers per capita, and the dummy variable for foreign-owned firms. Coefficients are listed in the first row, robust prefecture * destination country clustered standard errors appear in [parentheses] below. *p <= 0.10; **p <= 0.05; ***p <= 0.01.

Table 5 Impact of Foreign Bank Presence on Firm Exporting: Instrumental Varaible

Dependent Variable	Foreign Bank Presence from Destination Country	Export to Destination Country
	First-Stage	*Second-Stage*
	1	2
Bank Entry Deregulation * Destination Country Bank Asset to GDP Ratio	0.039*** [0.011]	
Foreign Bank Presence from Destination Country		0.233*** [0.011]
Firm * Destination Country Fixed Effects	Yes	Yes
Firm * Year Fixed Effects	Yes	Yes
F statistics for excluded instruments	12.97	
Observations	11,053,236	11,053,236

We report the 2SLS results using the interaction term of bank entry deregulation and bank asset to GDP ratio at the destination country in 2000 as the instrumental variable for foreign bank presence. Coefficients are listed in the first row, robust prefecture * destination country clustered standard errors appear in [parentheses] below. *p <= 0.10; **p <= 0.05; ***p <= 0.01.

Table 6 Impact of Foreign Bank Presence on Firm Exporting: Mechanisms

Dependent Variable	Export to Destination Country	
	1	2
Foreign Bank Presence from Destination Country	0.034***	0.025***
	[0.006]	[0.006]
Foreign Bank Presence from Destination Country	0.002	
* Dependence on External Financing	[0.003]	
Foreign Bank Presence from Destination Country		0.014***
* Need of Trust in Trade		[0.005]
Firm * Destination Country Fixed Effects	Yes	Yes
Firm * Year Fixed Effects	Yes	Yes
R-Squared	0.724	0.726
Observations	11,885,200	11,885,200

We investigate the potential mechanism by interacting foreign bank presence with industry-level dependence on external financing and need of trust in trade. Coefficients are listed in the first row, robust prefecture * destination country clustered standard errors appear in [parentheses] below. *p <= 0.10; **p <= 0.05; ***p <= 0.01.

Table 7 Impact of Foreign Bank Presence on Different Types of Exporting

Dependent Variable	Ordinary Export	Processing with Inputs	Processing with Assembly
	1	2	3
Foreign Bank Presence from Destination Country	0.036***	0.007***	-0.001
	[0.006]	[0.003]	[0.001]
Firm * Destination Country Fixed Effects	Yes	Yes	Yes
Firm * Year Fixed Effects	Yes	Yes	Yes
R-Squared	0.702	0.739	0.703
Observations	11,885,200	11,885,200	11,885,200

We investigate the impact of foreign bank presence on different types of exporting: ordinary export, processing with inputs, and processing with assembly. The need of trust declines one by one. Coefficients are listed in the first row, robust prefecture * destination country clustered standard errors appear in [parentheses] below. *p <= 0.10; **p <= 0.05; ***p <= 0.01.

Table 8 Impact of Foreign Bank Presence Differing by Countries' Cultural Distance

Dependent Variable: Export to Destination Country	High Cultural Distance	Low Cultural Distance	High Long-term Orientation Distance	Low Long-term Orientation Distance	Monolingual	Bilingual
	1	2	3	4	5	6
Foreign Bank Presence from Destination Country	0.055***	0.018***	0.052**	0.026***	0.041***	0.033***
	[0.014]	[0.006]	[0.022]	[0.006]	[0.009]	[0.008]
Firm * Destination Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Firm * Year Fixed Effects	No	Yes	No	Yes	Yes	Yes
R-Squared	0.743	0.745	0.723	0.746	0.725	0.716
Observations	3,565,560	3,446,708	4,278,672	4,397,524	9,032,752	2,495,892

We divide the sample to high (low) cultural distance groups and high (low) long-term orientation distance groups based on the median, as well as divide the sample by whether a destination country is monolingual or bilingual. Coefficients are listed in the first row, robust prefecture * destination country clustered standard errors appear in [parentheses] below. *p <= 0.10; **p <= 0.05; ***p <= 0.01 (two-tailed test).

Online Appendix

Table A1 Firm-level Heterogeneity

Dependent Variable	Export to Destination Country		
	1	2	3
Foreign Bank Presence from Destination Country	-0.147***	0.046***	0.034***
	[0.020]	[0.010]	[0.006]
Foreign Bank Presence from Destination Country	0.016***		
* Log (Total Assets)	[0.002]		
Foreign Bank Presence from Destination Country		0.020***	
* Log (Total Employees)		[0.002]	
Foreign Bank Presence from Destination Country			0.004
* Log (ROA)			[0.003]
Firm * Destination Country Fixed Effects	Yes	Yes	Yes
Firm * Year Fixed Effects	Yes	Yes	Yes
R-Squared	0.726	0.726	0.726
Observations	11,885,200	11,885,200	11,885,200

We investigate whether the impact of foreign bank presence differs by firms' size and profitability. Coefficients are listed in the first row, robust prefecture * destination country clustered standard errors appear in [parentheses] below. *p <= 0.10; **p <= 0.05; ***p <= 0.01.