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The Values of Export Promotion: The Case of the Canton Fair during the SARS Epidemic[1]

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Abstract

An epidemic prevents face-to-face contact and increases information friction and search costs between firms. This paper analyzes the effects of attending the Chinese Export Commodity Fairs (the Canton fair) during the Severe Acute Respiratory Syndrome (SARS) on Chinese exports, using the information on exhibitors that attended the fair and the Chinese customs data. We utilize the random-shock nature of the SARS epidemic that impeded foreign buyers from attending the Canton fair and combine it with a difference-in-differences approach to solve selection issues. Our estimates suggest that firms attending at the Canton Fair during the SARS epidemic realized exports to fewer export destination countries compared to during non-SARS periods. The negative effect is particularly larger for firms with less access to foreign buyers, such as non-trading and small firms, suggesting that the absence of buyers raises information friction and search costs in the fair during the epidemic. Furthermore, the negative effect becomes insignificant a year after the fair, reflecting a short-term effect on export promotion.

Keywords: International trade; Export promotion; SARS; Canton fairs
JEL classification: D22, F13, F14, F23, L53

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1 Introduction

Information is essential to facilitate transactions between sellers and buyers. This is the case in any type of transaction in market economies, but especially in international trade where a cross-border relationship is harder to get. A firm that seeks to export its products to a foreign country needs to know foreign distribution networks and find credible foreign buyers, thus requiring search and matching costs. Such costs are large, especially for small- and medium-sized firms. According to WTO (2016), "Unable to find foreign partners" is the biggest obstacle to engaging in international trade for small- and medium-sized firms in the US. To reduce such costs in international businesses, trade fairs are expected to provide a place for personal contact and face-to-face communication between buyers and suppliers. Trade fairs also provide critical information on market trends and future industry direction. Because of their effectiveness, many export promotion agencies (EPAs) around the world support firms to attend trade fairs (Makioka 2021).

However, the value of export promotion is difficult to establish empirically, because information provided through trade fairs is essentially unobservable. Furthermore, the causal effect of export promotion is hard to achieve because of possible endogeneity problems. To derive the causal effect, we need to have an exogenous shock to export promotion by utilizing randomized controlled trials or natural experiments. Does export promotion by supporting a firm to attend trade fairs influence the firm's exporting behavior? The question is important not only for firms in trade fairs trying to globalize their business, but also for many other domestic firms and EPAs.

With these motivations, the objective of this study is to empirically investigate the value of export promotion for reducing information frictions between buyers and sellers. For this purpose, this paper investigates the effect of the absence of major buyers in a trade fair due to an epidemic on participating exporters' behaviors. Our case study focuses on a particular trade fair and epidemic: the Canton fair in China during the 2003 severe acute respiratory syndrome (SARS).

A common concern over analyzing a firm-level trade policy is a selection bias, coming from both a participant's self-selection and a positive selection by a program organizer. We address this concern by exploiting the random-shock nature of the SARS epidemic. The SARS epidemic hit unexpectedly around mainland China. The number of buyers in the Canton fair thus dropped sharply in Spring 2003, while the number of Chinese exhibitors did not (Figure 1). We combine this SARS shock with a difference-in-differences (DID) estimation approach by assuming the (conditional) parallel trend assumption. The assumption allows treatment to be assigned non-randomly as long as the bias from selecting into treatment is constant during the sample period. Because our sample periods are only two years, the assumption is likely to hold. We further check its validity by implementing several subsample analyses and a placebo test.

Using the approach, we find that attending the Canton fair as an exhibitor during the SARS epidemic caused fewer export destination countries by 5-7 percent, relative to those attending the fair during non-SARS periods and exporters that did not attend the fair at all. The negative effect of the absence of potential buyers in the fair was especially larger for firms that had more difficult access to foreign buyers: those that did not invest in marketing and advertising by themselves and those that had small export experiences and infrequent contacts with pre-existing buyers. The findings are consistent with the hypothesis that trade fairs reduce search and matching costs between sellers and buyers and therefore the absence of potential buyers in the fair undermines the benefit

of trade fairs. Furthermore, the negative effect of the SARS epidemic through the Canton fair was short-lived. We show that the negative effect disappeared about one year after the epidemic.

The paper is related to several strands of literature. First, it is related to the literature on export promotion, such as Volpe Martincus and Carballo (2010), Broocks and Van Biesebroeck (2017), Munch and Schaur (2018), Makioka (2021), and Buus et al (2022). Except for Buus et al (2022) that use the information on contacts from EPA's caseworker as an instrumental variable, most of them assume selection on observables and use quasi-experimental designs, such as the propensity score matching, a difference-in-differences (DID), and the fixed-effect estimation approach to identify the causal effect of export promotion. Among them, Makioka (2021) is the closest to our study because of its focus on a type of export promotion, i.e., trade-fair attendance. Compared to them, this paper focuses on China's largest trade fair and utilizes the timing of the SARS epidemic as a quasi-natural experiment in a DID approach for identifying the effect. Because the timing of the SARS epidemic is thought of as quasi-random, our estimates provide more credible causal effects.

Second, our work is related to studies on the effect of an epidemic disease on international trade, such as Huang (2019), Fernandes and Tang (2020), and Antras, Redding, and Rossi-Hansberg (2022). Fernandes and Tang (2020) are closest to our paper, in that they analyze the effect of the SARS epidemic on Chinese exports and imports using a difference-in-differences approach and the Chinese customs data. They utilize a regional variation in the existence and the timing of SARS cases to identify the effect of the SARS epidemic and find short to medium-run negative effects on both export and import growth in terms of both extensive and intensive margins. Compared to them, our paper uses a firm-level variation in the participation status in the Canton fair as well as the timing of the SARS epidemic as a quasi-natural experiment. Doing so allows us to control for the region-period fixed effects, thus enabling us to absorb supply-side shocks of the SARS epidemic common across firms within a region. Therefore, our estimate can be interpreted as a demand-side shock of the SARS epidemic on firms' exports.

The remainder of this paper is organized as follows. Section 2 briefly explains the background of the Canton fair, the toy industry in China, and the SARS epidemic. Section 3 introduces the empirical approaches and explains our identification strategy. After clarifying the datasets in Section 4, Section 5 shows our main results. Section 6 provides several robustness checks. Finally, Section 7 offers some concluding thoughts.

2 Background

2.1 Background on Canton fair

The Chinese Export Commodity Fairs, called the Canton fair, is China's largest trade exhibition. It is held twice a year in Spring (end of April) and Fall (end of October) in Guangzhou, China since it was initiated in Spring 1957[1]. The fair is hosted by the Chinese Ministry of Commerce and the Guangdong Provincial Government in Guangzhou (Canton) and organized by an affiliate of the Ministry of Commerce, the China Foreign Trade Centre (CFTC). The objective of the fair is to facilitate Chinese exports, internal-external exchanges, and economic development.

[1]Since Spring 2007, it was renamed to the China Import and Export Fair, allowing foreign sellers to attend the fair to find Chinese buyers.

The Canton fair has been the largest in China in terms of attendance, transaction values, and exhibition space. For instance, its accumulated transaction values amounted to 21.4 billion USD from 1966 to 1976, accounting for 42% of total foreign trade in China. In the 113th Canton Fair, held in April 2013, the total number of stands amounted to nearly 60 thousand, with 24,184 companies participating in the export fair, and 562 foreign companies participating in the import fair. More than 200 thousand buyers from over 200 countries visited the fair, and the final business turnover amounted to around 35 billion USD.

It is also one of the largest trade exhibitions around the world (Jin and Weber 2008). The fair covers a wide range of products: raw materials; machinery and tools; electrics and electric appliances; textile and garments; food stuff, native product, animal by-products and medicines, and health products; houseware and articles of daily use; gifts and decorations; office supplies and outdoor activity equipments. Because of China's joining the World Trade Organization (WTO) in 2001 and the expansion of globalization, the number of buyers attending the Canton fair had steadily risen and almost doubled from Spring 2000 to Fall 2006 (Figure 1).

In order to attend the fair, international buyers need to register with the organizer by identifying their business or are recruited by the CFTC (Bathelt et al. 2015; Jin and Weber 2008). For example, from 1997 to 2006, the CFTC sent out 103 promotion teams abroad and signed cooperation agreements with 32 overseas intermediaries to recruit good international buyers. On the other hand, potential Chinese exhibitors (sellers) can apply for participating and exhibiting their products at the fair once they satisfy several criteria. One of the criteria is about having a certain volume of exports in the past[2]. Then, actual exhibitors are selected and their exhibition stands are allocated by delegated groups formed by provincial and municipal governments and industry associations. Therefore, these pre-selections by the CFTC and the delegated groups generate credible and experienced buyers and exhibitors at the fair (Bathelt et al. 2017).

Once exhibitors are accepted, they pay the fee for using exhibition stands. For a standard stand with 3-meter$\times$3-meter, an exhibitor must pay about 20 thousand RMB, while large state-owned enterprises can get a bigger space for free or at reduced rates (Powell, 2007).

The 93rd Canton fair was held in Spring 2003 during the rise of the SARS epidemic. The first phase of the Spring session, phase 1, was from April 15 to 20 and the second one, phase 2, was from April 25 to 30. While there was a threat of the SARS epidemic, the fair was held as usual. To mitigate the threat, the organizer took strong sanitary measures against atypical pneumonia by establishing the Coordinating Group of Prevention and Treatment against Atypical Pneumonia, carrying out overall cleaning at the fair venues and other relevant public spaces, strengthening monitoring on the health status of all participants, and preparing counter-plans and emergency mechanisms, according to the speech by Mr. Xu Bing at the press conference[3]. These measures helped about 9,000 exhibitors to attend the fair during the rise of the SARS epidemic. Out of about 9,000 exhibitors, 13.5% were private-owned firms, 12% foreign-invested firms, and 69.5% were state-owned firms. The composition of firms' ownership types were close to that in other sessions during the early 2000s and reflected the fact that exhibitors had limited to state-owned trading firms during early periods of the Canton fair because of their having the right to export (Li and Bathelt 2017).

[2]For instance, according to the Canton fair website, a firm in a coastal province had to export at least 100 to 200 million USD, that in a midland province 50 to 100 million USD, and that in a western province 20 to 50 million USD in the last year in the application of 2004.

[3]See https://web.archive.org/web/20030401092948/http://icecf.com/en/index.html.

2.2 Background on toy industry in China

According to the "Global and China Toy Industry Report, 2010-2011", in 2010, global toy sales achieved 83.3 billion USD, up 4.7% year-on-year, wherein, the Asian toy market climbed to the world's second largest toy market with the strong growth of 9.2% on average. Chinese workers made 64% of all toys exported globally in 2010, according to Global Trade Information Services, and China has the largest and most diverse network of toy-part and toy-packaging suppliers anywhere. The first report also estimated that the export value of Chinese toys in 2010 reached 10.08 billion USD, up nearly 30 percent from 2009. According to the U.S. Department of Commerce, the U.S. imported toys, dolls & games (NAICS 33993) with a value of more than 19 billion U.S. dollars in 2011. China is by a wide margin the biggest exporter, accounting for more than 85% of U.S. toys, dolls & games imports. The world's leading toy manufacturing companies are Hasbro, Mattel, JAKKS Pacific, LEGO and Namco Bandai. The combined revenue of these five companies amounted to almost 20 billion USD in 2011.

In the 93rd Spring Canton fair, toy products were exhibited in phase 2, from April 25 to 30.

2.3 Background on SARS

The 2003 severe acute respiratory syndrome (SARS) epidemic was the first epidemic in the 21st century. It had 8,096 cases and 774 deaths in about 30 countries and regions around the world, though most of them were in China, Hong Kong, Canada, and Singapore. The first SARS case was observed in Guangdong province in China in November 2002 and the virus had then gradually spread through human-to-human transmissions such as international air travel. Even within China, the number of SARS cases increased steadily and was distributed unevenly across provinces and regions. Figure 2 shows that Guangdong, Beijing, and Shanzi had experienced the largest number of SARS cases, while midland and western provinces had less than 50 SARS cases (Xu et al. 2014).

Its economic impact was also large and concentrated in China, Hong Kong, and Singapore. According to Keogh-Brown and Smith (2008), China and Hong Kong experienced a decline in GDP in the second quarter of 2003 by 3% and 4.75%, mainly due to losses in the tourism industry and a reduction in foreign direct investments.

In response to the spread and the economic impact of SARS, the World Health Organization (WHO) issued a global alert on March 12 in 2003 for notifying the thread of a SARS epidemic. It then announced the first emergency travel advisory to airlines and travellers on March 15 for providing case definitions for probable and suspect cases of SARS and advising airline crews of the need to report all such cases. The WHO recommended that persons travelling to Hong Kong and Guangdong consider postponing all but essential travel on April 2 and those to Beijing on April 23. Within China, travellers entering or leaving affected areas were subject to thermal scanners and other types of restrictions. For example, Beijing screened people travelling within China and set up checkpoints on all 71 roads connecting Beijing to other areas in late April 2003 (Ahmad et al. 2009).

The travel warnings affected international buyers who had planned to attend the Canton fair in Spring 2003. According to a story of a US travel agency reported in the New York Times[4],

An official travel agency for the Canton Fair, a major trade show in China for merchants selling

[4]The New York Times on April 13, 2003

Chinese goods, said more than 80 percent of bookings from the San Francisco Bay Area had been cancelled. The fair opened this week. One of those who cancelled, James Fu, said the trade fair was crucial for his souvenir business. But he decided not to attend after customers at another business he owns, a beauty salon and spa in San Francisco's Chinatown, said they would stay away for at least two weeks after he returned home to make sure he was not infected.

This kind of cancelling business travels to the fair was also observed in statistics. Figure 1 shows a sharp and sudden decrease in the number of buyers attending the Canton fair in Spring 2003 and a quick recovery in Fall 2003.

While the outbreak of the SARS epidemic was massive, it was short-lived. The number of new SARS cases started to decrease in May 2003 and the WHO announced that the SARS epidemic was extinguished in July 2003. This short duration of SARS allows us to examine the aftermath of the epidemic.

2.4 Theoretical mechanism

The heterogeneous firm trade theory by Melitz (2003) and Chaney (2008) specifies that a firm must incur fixed and variable costs to export its product to foreign markets. Fixed export costs reflect those required for initial customs-clearance procedures, information acquisition, and locating appropriate buyers in foreign markets. Because of these costs, only high-productivity firms serve both domestic and foreign markets, while low-productivity firms are usually active only domestically.

Attending a trade fair is expected to lower fixed export costs by facilitating matching with buyers. Thus, non-exporting firms can begin exporting to foreign markets if their business becomes profitable enough to do so (extensive margin effect). Additionally, incumbent exporters can increase the value of their exports (the intensive margin effect). According to a standard specification with Pareto distribution, as in Chaney (2008), theory actually predicts no effects of reducing the fixed export costs on average export values.

3 Empirical Framework

3.1 Estimation equation

In order to estimate the causal effect of the buyers' absence in the Canton fair on exhibitors' export behavior under the non-random assignment of their attendance, we use a quasi-random timing of the SARS epidemic and a difference-indifferences (DID) approach. Our estimation equation is,

$$Y_{it+1} = \beta fair_{it} \times SARS_t + \delta fair_{it} + \gamma_i + \gamma_{o(i)t} + \gamma_{h(i)t} + \gamma_{p(i)t} + \epsilon_{it+1}, \quad (1)$$

where Y_{it+1} is an outcome variable (log export vales, log of the number of export destination countries, and log of the number of exporting products) for firm i in period $t+1$. Our outcome variable is mainly on a period after attending the Canton fair, i.e., period $t+1$, because it would take time before the effect of export support is observed in the data (Broocks and Van Biesebroeck, 2017; Buus et al. 2022). This specification is also consistent with a typical timeline of making contracts in the fair. Bathelt et al. (2017) show that two-thirds of all interviewed exhibitors in the Spring 2015 Canton

fair had only an initial knowledge exchange with potential buyers during the fair. They then had a follow-up contact after the fair to make an appointment for site visits and contract negotiations.

$fair_{it}$ is a dummy variable equal to 1 if firm i attends the Canton fair in period t, and $SARS_t$ is a dummy variable equal to 1 when the SARS epidemic was widely spread in Spring 2003. γ_i, $\gamma_{o(i)t}$, $\gamma_{h(i)t}$, and $\gamma_{p(i)t}$ are firm, ownership times period, the main product (HS 2-digits) times period, and province times period fixed effects, respectively. ϵ_{it+1} is an error term. Our main focus is the coefficient, β, of the interaction term between $fair_{it}$ and $SARS_t$. It represents the effect of attending the Canton fairs during the SARS epidemic on exhibitors, relative to those attending the fair during non-SARS periods and exporters that did not attend the fair at all.

Taking the log of the number of export destination countries as an outcome variable, we expect that β is negative because attending the Canton fair during the SARS epidemic in the absence of major buyers could give exhibitors fewer opportunities to meet with new foreign buyers (i.e., higher search and matching costs), compared to the fairs during the non-SARS periods. We also expect the coefficient on $fair_{it}$, δ, is positive as exhibitors in the fair are likely to have a larger number of export destination countries due to both self-selection and a positive selection by a program organizer.

3.2 Identification

Identification of the treatment effect comes from the (conditional) parallel trend assumption. This means the average outcome for firms that attended the Canton fair would have changed in parallel with that for those not attending the fair if there were no treatment after controlling for observable variables. Note that the parallel trend assumption allows treatment to be assigned non-randomly as long as the bias from selecting into treatment is constant during the sample period.

We put several fixed effects in our regression framework to assure the parallel trend. For instance, the ownership times period fixed effect aims to control for some differences across ownership types in each period as potential confounding factors that affect both attending the fair and outcome variables. State-owned enterprises (SOEs) could have different performances from private-owned firms during the SARS epidemic. Because the SOEs were overrepresented in the Canton fair, our results could simply capture the effect of the SARS epidemic on SOEs if we did not control for it.

Similarly, the province times period fixed effect absorbs regional differences in each period and their impact on both the fair attendance and outcome variables. For example, firms in provinces that were not affected by the SARS epidemic could have attended the Spring 2003 Canton fair. If they had export performance different from those in provinces that were affected severely by the epidemic, our estimates on the effect of the buyers' absence in the fair were biased.

To further check the validity of the parallel trend assumption, we resort to several robustness checks. First, there could be a declining trend in the average performance of exhibitors in the Canton fair, simply because of more small-sized firms beginning to attend the fair (e.g., due to China joining the WTO in 2001 and some institutional changes of the Canton fair, such as using the new Pazhou complex). To mitigate the concern, we implement the same linear regression as equation (1), but (a) including linear-group trends, (b) focusing our sample on the balanced panel, and (c) the matched control group as robustness checks.

Second, the composition of exhibitors in the Canton fair could be different during during the

SARS epidemic and the non-SARS periods, and therefore these compositional differences could give us results. To mitigate the concern, we use the same estimation approach but focus on exhibitors that had attended the Canton fair all four times during our sample periods. Third, we also provide a pre-trend test using an event-study plot where the "treatment" effect before the actual treatment is provided. Not rejecting the null hypothesis that the pre-treatment estimates are zero supports the parallel trend assumption.

Another assumption that we put in the DID approach is no anticipatory effect assumption. The treatment should not have causal effects before its implementation. This is likely to be satisfied in our setting because of the unexpected nature of the SARS epidemic.

While our study uses the random-shock nature of the SARS epidemic and therefore is similar to the identification strategy by Fernandes and Tang (2020), it has significant differences. Fernandes and Tang (2020) utilize a geographic difference in the existence and timing of SARS cases across provinces. Thus, their comparison is exporting firms in regions affected by SARS and those not affected by SARS. Because the difference in these regions could come from both demand and supply shocks of the SARS epidemic (e.g., foreign travellers not coming to the regions affected by the epidemic as a demand shock; a temporary suspension of production plants as a supply shock), their estimate should be interpreted as the mixture of supply and demand shocks of the SARS epidemic.

On the other hand, our identification comes from comparing exporters that attended the Canton fair and those not attended during the SARS epidemic, controlling for the province times period fixed effect and other covariates. Therefore, as long as firms within a province face a similar level of the supply shock of the epidemic, our estimate can be interpreted as a demand shock of the SARS shock, a negative shock by not interacting directly with potential buyers. In addition, as we compare firms attending the Canton fair during the SARS epidemic with those in the fair during non-SARS periods, the comparison could cancel out time-invariant factors of selecting into the fair. Therefore, our estimate reflects the difference in whether a firm could interact directly with potential buyers or not in the Canton fair.

4 Data

We conduct the regression analysis by merging two datasets. The first data is the Chinese Customs transaction-level data. We observe the universe of monthly transactions by Chinese firms that participated in exports from 2000 to 2006. This data set includes basic firm information (such as ownership structures and provinces located), the value of each transaction in US dollars by product and trade partner for 243 destination/origin countries, and 7526 different products in the 8-digit Harmonized System.

The second data is a list of exhibitors attending the Canton fair in the toy industry from 2000 to 2006. The information is manually extracted from the official yearbooks of the Canton fair and then digitized for the purpose of the current study. We focus on firms in the toy industry because of its size in the world market. China was the largest exporter of toy products in the world and accounted for 58% of the world's total exports in 2002 according to UN Comtrade. Because of its massive size, the effect of being the absence of international buyers in the Canton fair is likely to be observed clearly.

Our analysis is focused on firms that had attended the fair (and their corresponding exporters

in the control group) from 2002 to 2003. This is because some events occurred in the Canton fair outside the sample periods. For instance, each of the Spring and Fall sessions had a consecutive phase with 12 days until 2001, while it had been split into two 6-day phases from 2002. In addition, the Canton fair started to use the Pazhou complex from 2004 in addition to the Liuhua complex, which is likely to cause changes in the composition of exhibitors. Such effects on the number of toy exhibitors are observed in Figure 1.

We merge the customs data with the list of exhibitors to construct firm-month-product-country observation data. To average out noises due to lumpy export transactions and misreports, it is further aggregated to the firm-semiyear level. This firm-semiyear level data are used for our short-run analysis. We also construct the bimonthly firm-level observational data to analyze the dynamic effect of the absence of buyers in the fair due to the SARS epidemic on exporting behaviors.

To grasp the features of the merged dataset, Table 1 shows the summary statistics on the firm-semiyear level observational data. Exhibitors that attended the Canton fair tend to be larger in terms of export values, export quantities, the number of export products, and the number of export destination countries. They are also likely to export products with lower unit values, to be experienced exporters, and to be state-owned enterprises compared with exporters not attending the fair. These statistics suggest that simply comparing their averages may not guarantee the parallel trend assumption in our DID approach, thus motivating us to conduct pre-trend tests and other robustness checks.

Another thing to notice in Table 1 is that the number of exhibitors that attended the Canton fair during the SARS epidemic did not decrease, as also confirmed in Figure 1. This might be slightly puzzling because the SARS epidemic had affected the Chinese economy, had some travelling restrictions within China, and therefore prevented Chinese exhibitors from attending the fair. In addition, the exhibitors must have expected the absence of international buyers at the fair during the SARS epidemic, thus being reluctant to attend the fair. This puzzling pattern could be explained first by the early deadline for the exhibitors' application to the fair. The deadline for the 2003 Spring Canton fair was October 1 in 2002, which was even before the first SARS case was observed in November 2002[5]. Second, Jin and Weber (2008) argue that some firms have attended the Canton fair due to a variety of reasons, ranging from image-building, political, and "face"-giving reasons. If cancelling the attendance at the fair had affected firms' images, they would attend the fair even without potential international buyers.

Figures 3 and 4 show the distribution of ownership types among firms that attended and those not attended the fair, and the geographic distribution of exhibitors over the period, respectively. Figure 3 shows that most of the exporters that attended the fair were SOEs throughout the sample period. Figure 4 makes clear that most of the exhibitors that attended the fair were from Hubei, Zhejiang, Jiangxi, and Fujian and the distribution is not much different across the sessions. This pattern mitigates a concern that our results come from the compositional change in exhibitors during the SARS epidemic.

The remaining of this section provides data patterns visually. A key point for identification in the DID approach is whether the parallel trend holds. In order to check it, we plot the average of residualized outcomes for firms that attended and not attended the Canton fair over the periods. We first regress an outcome variable on firm, ownership times period, main product times period,

[5]See https://web.archive.org/web/20030304010255/http://www.cantonfair.org.cn/cn/ *(in Chinese)*.

and province times period fixed effects and then calculate the residualized outcome variable for each group. Figure 5 shows the residualized outcome (normalized at Spring 2003 as 1) on the number of export destination countries (top left), export values (top right), and the number of exporting products (bottom left). They suggest that the trends of the residualized outcomes are similar between treated and control groups before the SARS epidemic and therefore support the common trend assumption.

To further see the effect of the absence of buyers in the Canton fair on exporting behaviors, we zoom into the period of the SARS epidemic and re-construct the figures in Figure 6. While exporters that attended the Canton fair before and after Spring 2003 had higher export performances (relative to the value in Spring 2002) than those not attending the fair, exporters that attended in Spring 2003 had lower export performances in terms of the number of export destination countries, the number of export products, and export values. This pattern suggests a negative effect of the absence of buyers in the Canton fair due to the SARS epidemic on their export performances. To investigate these patterns more formally, the next section presents regression results.

5 Results

5.1 Results

The result on the number of export destination countries is reported in Table 2. Column (1) is the baseline result, while the remaining columns present several robustness checks. The first row in each column shows a positive and statistically significant coefficient, thus suggesting that exhibitors that attended the Canton fair tend to have a larger number of export destination countries than those not attending the fair. This positive estimate is consistent with the selection process by delegated groups in the Canton fair, as explained in Section 2.1. However, more importantly, the estimate of the coefficient on the interaction term between a fair dummy and SARS shows that attending the Canton fair in the absence of buyers during the SARS epidemic gives exhibitors a fewer number of export destination countries by 7 percent, relative to those attending the fair during non-SARS periods and exporters that did not attend the fair at all. Given that a median exhibitor in our sample exported to 24 countries during non-SARS periods (Table 1), the estimate implies that the exhibitors during the SARS epidemic lost on average 1.6 export destination countries due to the SARS shock.

Note that these coefficients are obtained by controlling for province times period and ownership times period fixed effects among other control variables. These fixed effects absorb a direct negative effect of the SARS epidemic that is common for all exporters within provinces and within ownership types, respectively. Therefore, our key estimate captures the effect of the absence of buyers in the Canton fair due to the SARS epidemic on top of the direct negative effect. In addition, the estimate of -7 percent is obtained from comparing exhibitors during the SARS epidemic with those during non-SARS periods. This thus suggests that the Canton fair with many buyers during the normal periods has a positive effect on exhibitors in terms of the number of export destination countries, on the flip side. This is consistent with what the literature find.

The magnitude of the coefficient is also in line with the findings in the literature on export promotion if we interpret our estimate as reflecting a flip-side of the well-functioning export promotion. For instance, Makioka (2020) finds that attending a trade fair raises the probability of a firm's ex-

porting by 5-10 percentage points in Japan. Similarly, Broocks and Van Biesebroeck (2017) find that receiving an export promotion service raises the probability of participating in an export market by 3.5 percentage points for firms with more than 20 employees in Belgium. Our baseline estimate, 7 percent, is in line with these numbers.

Our result on the number of export products is reported in Table 3. The estimate on the coefficient of a fair dummy variable in the first row is positive and statistically significant, thus suggesting some selections into attending the fair. However, the coefficient on the interaction term between the fair dummy and the SARS epidemic is negative and only marginally significant in the first column. This could suggest that the effect of the absence of major buyers in the Canton fair during the SARS epidemic reduced exhibitors' opportunities to interact with new buyers in new destination countries (as suggested in Table 2), more than reducing their opportunities to sell new products for incumbent destination countries (if exists). The result on export values is presented in Table 4. While the coefficient on the single term of the fair dummy is positive and statistically significant, the interaction term is negative but not statistically significant at all.

5.2 Results for subgroups: mechanism

If the negative effect of attending the Canton fair during the SARS epidemic comes from a rise in search and matching costs due to the absence of major buyers, the effect is expected to be larger for exhibitors that had more difficulty in accessing foreign buyers and those that did not invest in marketing and advertising by themselves. To check the hypothesis, we implement the same regression analysis but focus our sample on (1) non-trading firms as an approximation of exhibitors that have difficult access to foreign buyers and (2) small-sized firms as an approximation of those that do not invest in marketing and advertising activities by themselves.

Table 5 shows the results for these subsamples. The second column shows that the coefficient on the interaction term is negative and significant, as the baseline in the first column does. More importantly, the magnitude of the coefficient on the interaction term is larger in the second column than that with the baseline in the first column. This could imply that exhibitors with less access to foreign buyers lost a larger number of potential buyers because most international buyers did not attend the Canton fair during the SARS epidemic. Similarly, the third column shows that the key coefficient on the interaction term is negative with a larger magnitude for small-sized exhibitors, suggesting that smaller exhibitors suffered more from the absence of foreign buyers in the Spring 2003 Canton fair.

Fernandes and Tang (2020) find that Chinese SOEs were more likely to exit from export markets than other firms due to the SARS epidemic. They interpret this finding as a fact that the Chinese government did not provide extra support to them to survive during the SARS epidemic, as the Chinese government utilized trade liberalization in the early 2000s to promote privatization (Khandelwal et al. 2013). Because many of the exhibitors in the Canton fair were SOEs, our negative estimates might simply capture this pattern, not the pattern resulting from the larger search and matching costs due to the absence of buyers in the fair during the epidemic. To mitigate the concern, we implement the same regression as our baseline specifications but focus on the subsample of non-SOEs. The fourth column of Table 5 shows the result. The negative and significant estimate suggests that our results are due to the absence of buyers in the Canton fair during the SARS

epidemic, not due to the pattern of Chinese privatization.

5.3 Results: dynamic effects

We further investigate the dynamic effect of the absence of buyers at the fair due to the SARS epidemic on the exhibitors' exporting behavior. To do it, we construct bimonthly firm-level observational data and apply the data to the same linear regression equation. Table 6 and Figure 7 show the effect on the number of export destination countries. There are two points to notice. First, exhibitors that attended the Canton fair during the SARS epidemic had a statistically significant fewer number of export destination countries from periods $t+1$ to $t+4$ (from July 2003 until February 2004), relative to those attended the fair during non-SARS periods and those that did not attend the fair at all. Second, the negative effect of SARS in the Canton fair becomes smaller and statistically insignificant from period $t+5$ onward (from March 2004 onward). It suggests that the negative effect of the absence of buyers on exhibitors was temporary in the Spring 2003 Canton fair. This short-lived (negative) effect of export promotion is consistent with Cadot et al. (2015) which find, using Tunisian firm-level data, that the effect of export promotion on the number of export destinations and products disappears three years after treatment.

Table 7 and Figure 8 show the dynamic effect on the number of export products over the periods. Exhibitors that attended the Spring 2003 Canton fair had a fewer number of exporting products in periods $t+2$ and $t+3$ (from September until December 2003), relative to those that attended the fair during the non-SARS periods and those that did not attend it at all. This could reflect the fact that Chinese firms, as the largest exporter of toy products around the world, could not find buyers of Christmas toy products without the Canton fair. Finally, Table 8 and Figure 9 show the effect on export values using the bimonthly firm-level data. They show that while the coefficients on the interaction term are negative, these estimates tend to be statistically insignificant, consistent with the results of the short-run effect in Table 4.

To see further the mechanism behind the negative effect, we implement the same regression but include information on a firm's exporting history as a triple interaction and other corresponding explanatory variables. The results are reported in Table 9 for the number of export destination countries, Table 10 for the number of exporting products, and Table 11 for exporting values. While the coefficients on the double interaction term between a fair dummy variable and SARS are negative and statistically significant especially for the number of destination countries from periods $t+1$ to $t+3$ (columns 2 to 4 in Table 9), those on the triple interaction term with a firm's export history tend to be positive and statistically significant. These results suggest that while exhibitors with small amounts of export experience and infrequent contacts with foreign buyers had significant negative effects of the absence of buyers in the fair due to the epidemic, these negative effects are mitigated by their experience and frequent connections with pre-existing foreign buyers. These patterns are consistent with a story of larger information friction and search costs due to the absence of buyers in the fair.

6 Robustness

The biggest concern in our identification strategy is selection bias and a violation of the parallel trend assumption. For instance, exhibitors in the Canton fair self-select applying for the Canton fair and then are selected by the delegated groups formed by local governments and industry associations based on their export history and other information. Therefore, the selected exhibitors could have a different trend from other exporters even if there were no fairs. While our DID approach allows such self-selection and institution-selection as long as the selection bias is time-invariant during our two-year sample period, there could still remain some concerns.

To mitigate such concerns, the first robustness check is to augment our baseline regression by including linear group trends. Bilinski and Hatfield (2019) recommend researchers to include a trend difference between treatment and control groups, because it reduces potential bias by not artificially constraining the trend differences across groups to be 0. The results are reported in the second column of Tables 2 to 6. All of them confirm the robustness of our baseline results.

Second, one of the potential violations of the parallel trend could be due to small exhibitors starting to attend the Canton fair, thus providing the negative coefficient on the interaction term even without the SARS epidemic. To mitigate this concern, we focus our sample on exporters with the balanced panel from Spring 2002 to Fall 2003 and implement the matching before conducting the DID, respectively. The latter is because if the exporter's pre-treatment characteristics are similar between treatment and control groups, their trends are more likely to be similar too. These results are reported in the third and fourth columns of Tables 2 to 6. They suggest the robustness of our baseline results. The fifth column of Tables 2 to 6 shows the result when we apply these specifications (linear group trends, balanced panel, and matching) altogether.

Third, while the number of exhibitors did not decrease in the Spring 2003 Canton fair, the type of exhibitors might be different under the emergent situation during the SARS epidemic. If this is the case, the compositional difference could result in our negative estimate even without the effect of the absence of buyers. To mitigate this concern, we implement the same regression by focusing on exhibitors that had attended all four sessions from Spring 2002 to Fall 2003 (called, in-stayers). The results are reported in Table 12. While our key estimates become slightly smaller, implying the exhibitors constantly attending the Canton fair suffered less from the absence of potential buyers, the estimates are still negative and significant. This suggests that the change in exhibitors' characteristics in the Spring 2003 Canton fair is not the main driver of our results.

Finally, we implement the same DID approach for the pre-treatment periods and plot the estimates graphically to make sure that the parallel trend assumption is plausible. If there are no pre-existing differences in the outcome variables between treatment and control groups, they are more likely to move parallelly in the post-treatment periods, were there no treatments. Tables 6 to 8 and Figures 7 to 9 show the results. The estimates of the coefficient on the interaction term tend to be close to zero and statistically insignificant, supporting the common trend assumption.

7 Conclusion

This study investigates the value of export promotion by analyzing the impact of the absence of buyers in a trade fair due to an epidemic on an exhibitor's export performance. It utilizes infor-

mation on a list of exhibitors at the Canton fair in China and a quasi-random shock of the SARS epidemic toward the number of buyers attending the fair. We then apply the DID approach with the parallel trend assumption to identify the causal effect of the export promotion. The results show short-run negative effects of the absence of buyers in the Canton fair due to the SARS epidemic on the extensive margins of exports, i.e., the number of export destination countries and the number of export products, but not much on the intensive margin of exports. The negative effects are especially larger for non-trading firms and small-sized exhibitors, suggesting that rising search and matching costs to meet international buyers at the fair is the main underlying mechanism. Furthermore, the negative effect of the absence of international buyers is short-lived. The effect disappears a year after the Canton fair during the SARS epidemic.

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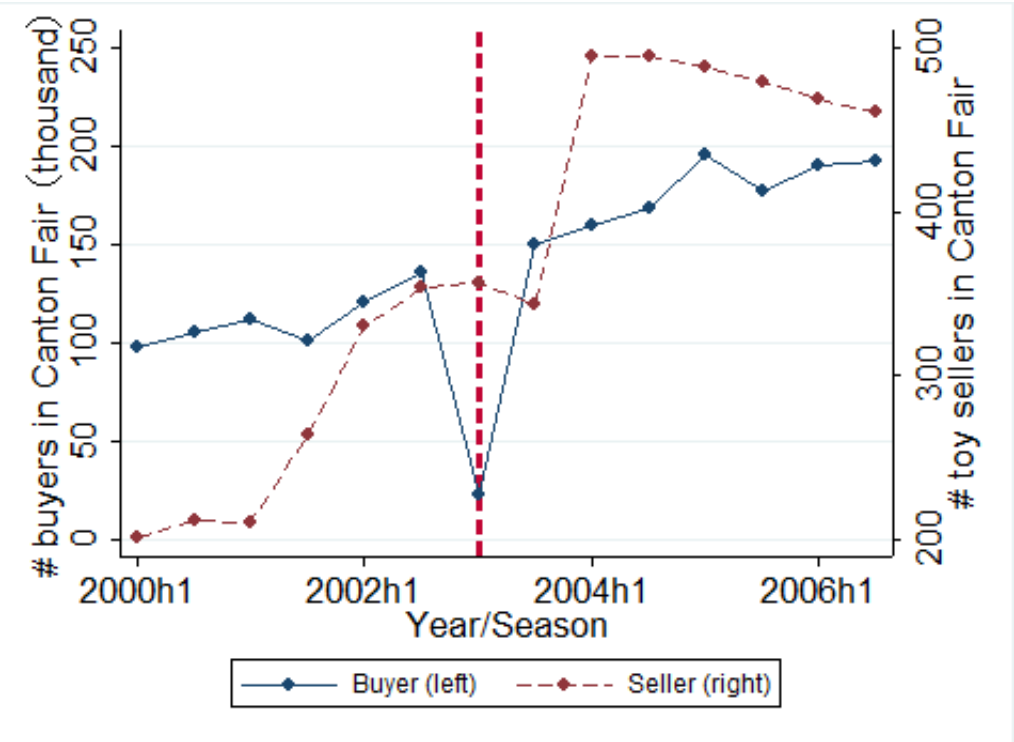
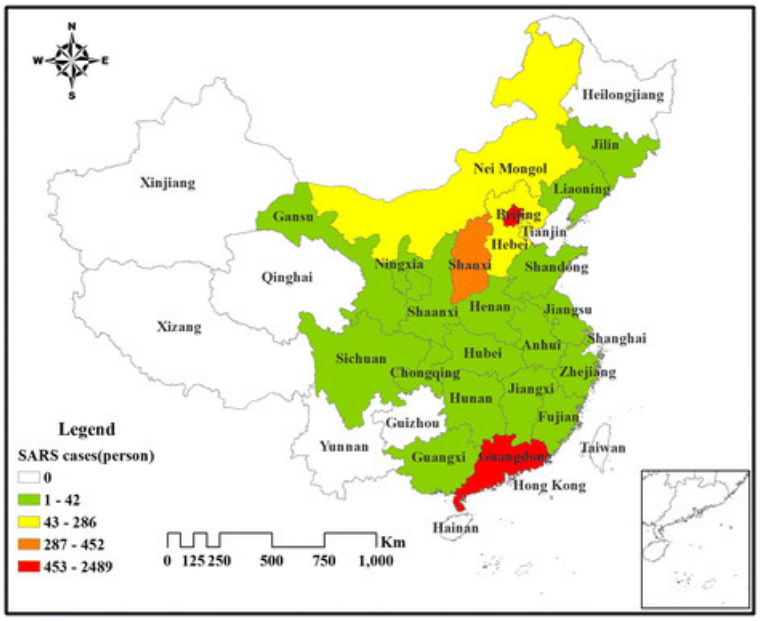
A1 Figure

Figure 1. # buyers and sellers in Canton fair



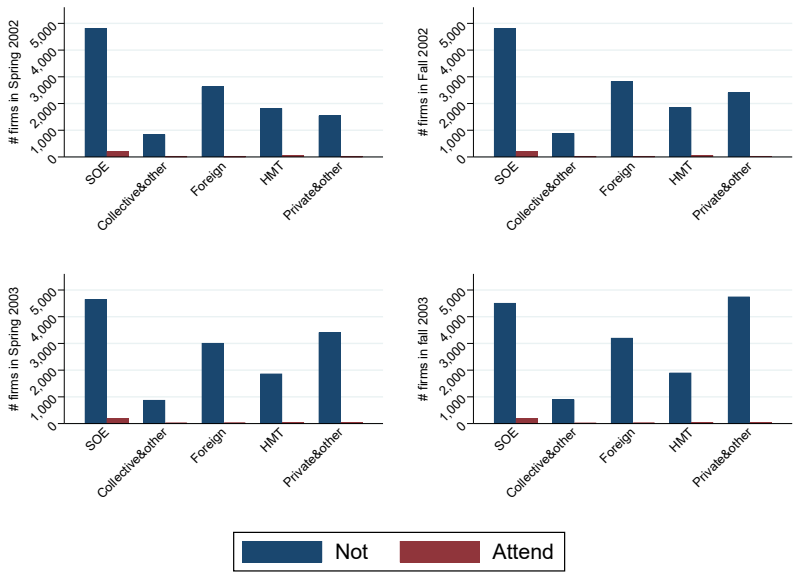
Note: The figure plots the number of total buyers and toy sellers attended the Canton fair from Spring 2000 to Fall 2006. The number of total buyers is constructed from the Canton fair website (https://www.cantonfair.org.cn/en/), plotted with the blue line, and measured in the left axis (in thousand). The number of toy sellers is from our data set, plotted with the red dashed line, and measured in the right axis. The vertical dotted line denotes the timing of the SARS epidemic in Spring 2003.

Figure 2. Distribution of SARS cases



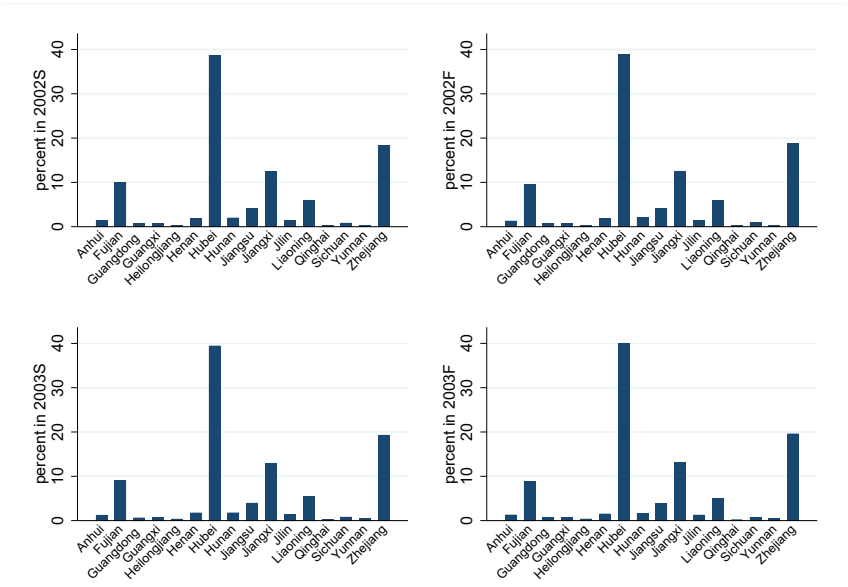
Note: The figure shows the geographic distribution of the SARS cases across provinces and regions within China. The original figure is in Xu et al. (2014).

Figure 3. Ownership share for each participation status



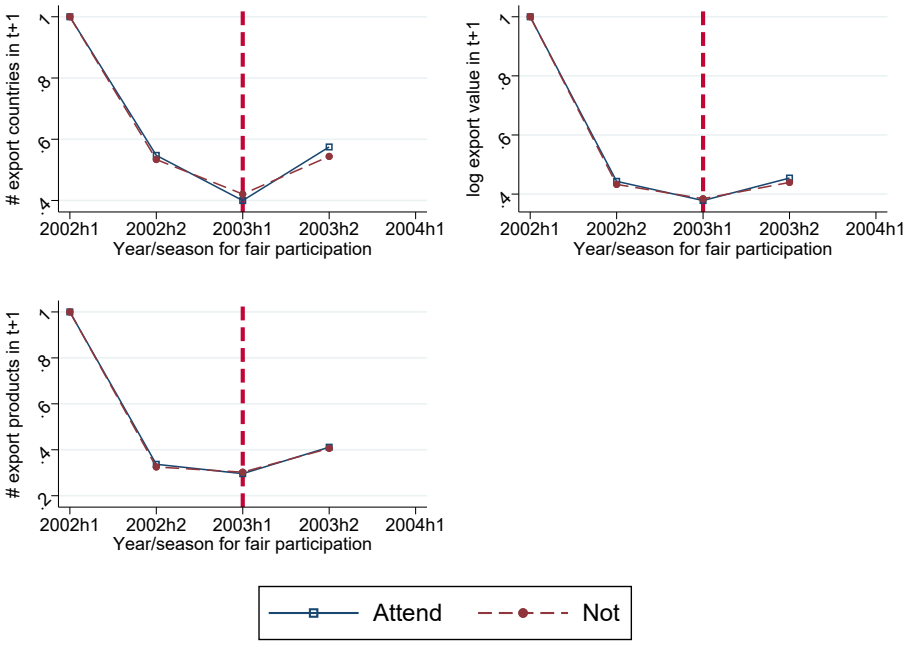
Note: The figure shows the ownership share for firms attended (with red bars) and those not attended (with blue bars) the Canton fair, respectively, in each period. The top left window is for Spring 2002, the top right for Fall 2002, the bottom left for Spring 2003, and the bottom right for Fall 2003. The bars in "SOE" show the number of state-owned enterprises. Those in "HMT" is the number of firms in Hong Kong, Macao, and Taiwan.

Figure 4. Geographic distribution of participants



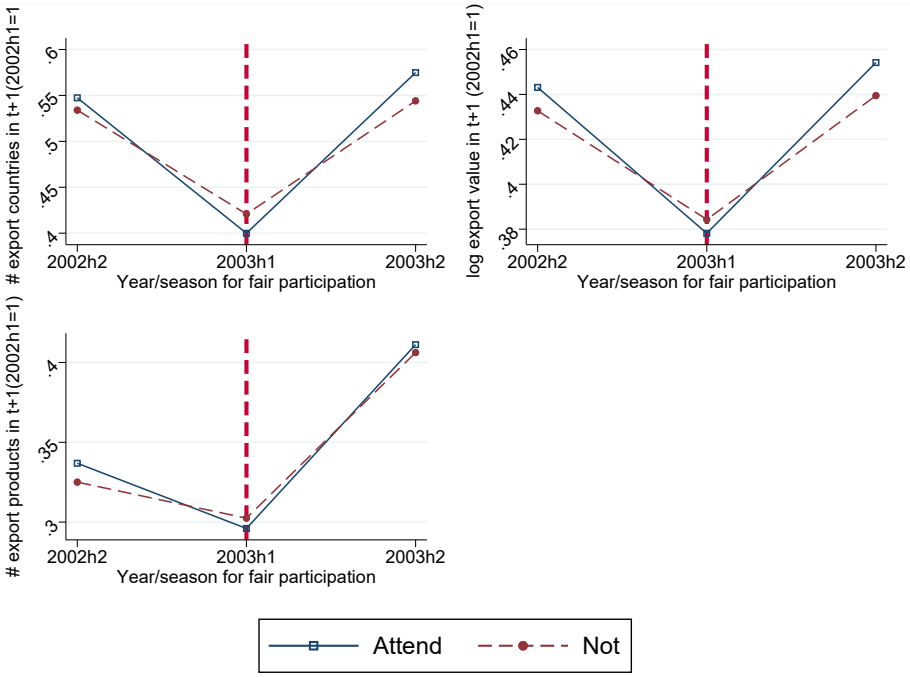
Note: The figure shows the geographic distribution of exhibitors attended the Canton fair in each period. The top left window is for Spring 2002, the top right for Fall 2002, the bottom left for Spring 2003, and the bottom right for Fall 2003.

Figure 5. Visual representation



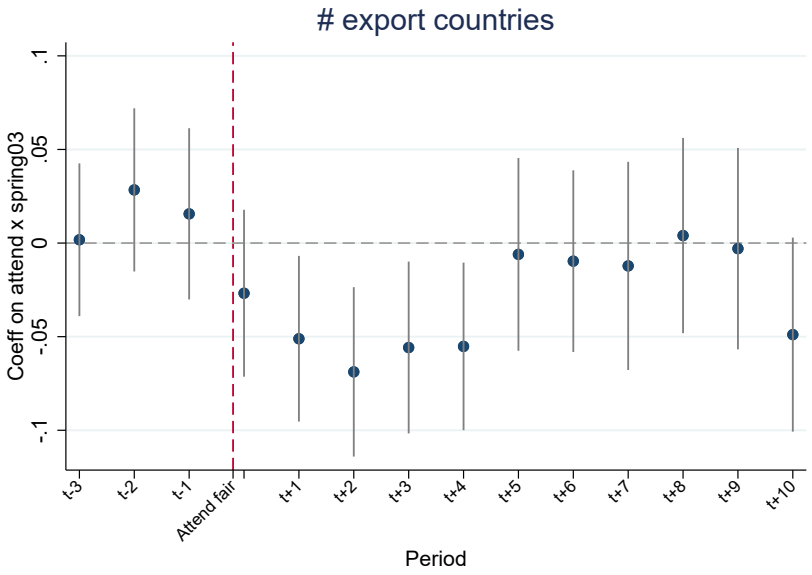
Note: The figure plots the residualized outcome variable calculated from, $\hat{\epsilon}_{it+1} = Y_{it+1} - \hat{\gamma}_i - \hat{\gamma}_{o(i)t} - \hat{\gamma}_{h(i)t} - \hat{\gamma}_{p(i)t}$. The value is normalized in Spring 2002. The top left figure is the result on the number of exporting countries, the top right is that for export values, and the bottom left is that for the number of exporting products. The blue line denotes the value for exhibitors attended the Canton fair and the red dashed line shows the value for exporters not attended the fair. The vertical dotted line denotes the timing of the SARS epidemic in Spring 2003.

Figure 6. Visual representation



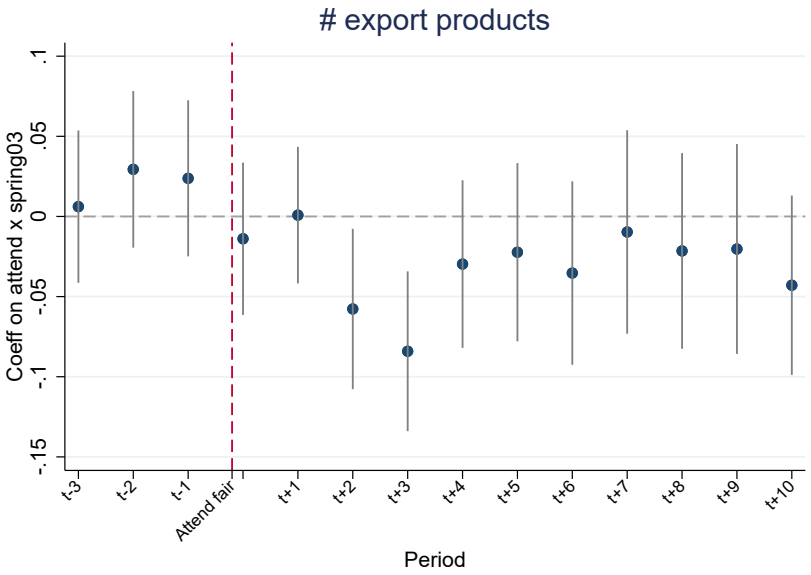
Note: The figure plots the residualized outcome variable calculated from, $\hat{\epsilon}_{it+1} = Y_{it+1} - \hat{\gamma}_i - \hat{\gamma}_{o(i)t} - \hat{\gamma}_{h(i)t} - \hat{\gamma}_{p(i)t}$. The figure is the same as that in Figure 6, but zooming into the period of the SARS epidemic. The value is normalized in Spring 2002. The top left figure is the result on the number of exporting countries, the top right is that for export values, and the bottom left is that for the number of exporting products. The blue line denotes the value for exhibitors attended the Canton fair and the red dashed line shows the value for exporters not attended the fair. The vertical dotted line denotes the timing of the SARS epidemic in Spring 2003.

Figure 7. Number of export destination countries



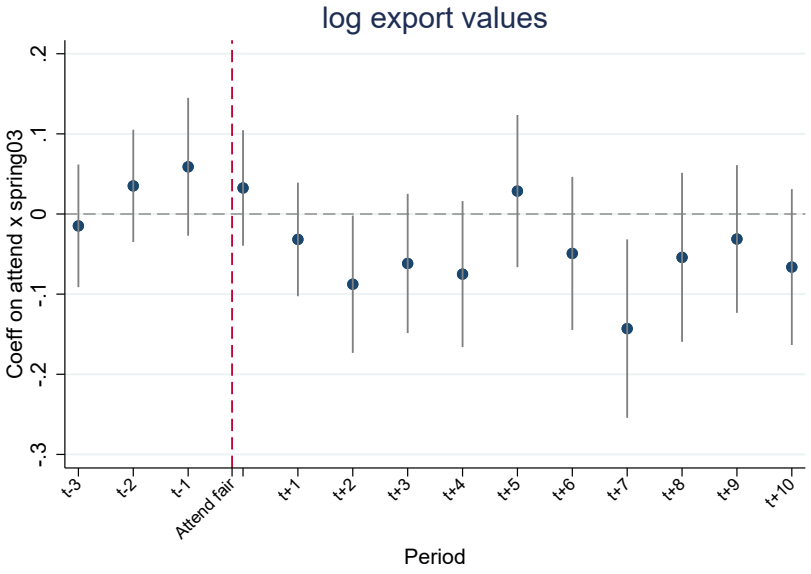
Note: The figure plots the estimated coefficient (and its 90% confidence interval) on the effect of attending the Canton fair during the SARS epidemic on the number of exporting countries at a different point in time, from period $t-3$ to $t+10$. It contains the same information as that in Table 6. The vertical red dashed line denotes the timing of attending the Canton fair during the SARS epidemic.

Figure 8. Number of export products



Note: The figure plots the estimated coefficient (and its 90% confidence interval) on the effect of attending the Canton fair during the SARS epidemic on the number of exporting products at a different point in time, from period $t-3$ to $t+10$. It contains the same information as that in Table 7. The vertical red dashed line denotes the timing of attending the Canton fair during the SARS epidemic.

Figure 9. Export values



Note: The figure plots the estimated coefficient (and its 90% confidence interval) on the effect of attending the Canton fair during the SARS epidemic on export values at a different point in time, from period $t-3$ to $t+10$. It contains the same information as that in Table 7. The vertical red dashed line denotes the timing of attending the Canton fair during the SARS epidemic.

A2 Table

Table 1: Summary statistics

Variable (median)	# firm	Value	Quantity	Unit value	# product	# country	History	SOE share
Exporters attending fairs								
Spring 02	330	2.76	3.76	0.89	33	23.5	5	0.65
Fall 02	354	2.98	3.28	0.99	31	26	6	0.60
Spring 03	357	2.86	3.64	0.92	25	23	7	0.56
Fall 03	344	3.36	3.30	1.11	24.5	22.5	8	0.57
Not-attending exporters								
Spring 02	11673	0.73	0.60	1.25	9	8	5	0.41
Fall 02	12787	0.86	0.67	1.30	10	8	6	0.38
Spring 03	13855	0.71	0.59	1.27	10	8	6	0.34
Fall 03	15303	0.80	0.64	1.33	11	8	6	0.30

Note: The table reports the summary statistics for firms attended the Canton fair (top panel) and those not attended the fair (bottom panel) for each semi-year. Values (export values) are in million USD and Quantity (export quantity) is in million. Unit value is calculated from the export values divided by quantities. # products is the number of products measured by 8-digit HS code. "History" shows the median value of the semi-years of export history calculated from Spring 2000. If a firm's history is 5 in Spring 2002 for example, this means that it have exported for all semi-years from Spring 2000 to Spring 2002. "SOE share" is the share of state-owned firms.

Table 2: Effect on the number of export destination countries

Variable	(1)	(2)	(3)	(4)	(5)
Specification	Baseline	Linear trend	Balanced	Matching	All
Outcome:	**log # exporting countries**				
$fair_{it}$	0.162***	2.325*	0.169***	0.203***	1.082
	(0.0407)	(1.340)	(0.0422)	(0.0464)	(1.603)
$fair_{it} \times SARS_t$	-0.0701***	-0.0562**	-0.0568**	-0.0635**	-0.0575*
	(0.0265)	(0.0252)	(0.0272)	(0.0323)	(0.0315)
Firm FE	YES	YES	YES	YES	YES
Region-period FE	YES	YES	YES	YES	YES
Main product-period FE	YES	YES	YES	YES	YES
Ownership-period FE	YES	YES	YES	YES	YES
Linear trend	NO	YES	NO	NO	YES
Balanced panel	NO	NO	YES	YES	YES
Matching	NO	NO	NO	YES	YES

Note: The table reports the estimation results on the number of exporting countries using the firm-semiyear level observation data. Column (1) reports the baseline result, column (2) is that using linear group trends, column (3) using the the balanced panel, column (4) using the propensity score matching before implementing DID, and column (5) is that using all methods from columns (2) to (4). Clustered robust standard errors at the prefecture-level are in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 3: Effect on the number of export products

Variable	(1)	(2)	(3)	(4)	(5)
Specification	Baseline	Linear trend	Balanced	Matching	All
Outcome:	**log # exported products**				
$fair_{it}$	0.195***	2.119	0.210***	0.250***	0.9420
	(0.0479)	(1.633)	(0.0490)	(0.0534)	(1.985)
$fair_{it} \times SARS_t$	-0.0490*	-0.0367	-0.0356	-0.0354	-0.0307
	(0.0290)	(0.0277)	(0.0284)	(0.0348)	(0.0338)
Firm FE	YES	YES	YES	YES	YES
Region-period FE	YES	YES	YES	YES	YES
Main product-period FE	YES	YES	YES	YES	YES
Ownership-period FE	YES	YES	YES	YES	YES
Linear trend	NO	YES	NO	NO	YES
Balanced panel	NO	NO	YES	YES	YES
Matching	NO	NO	NO	YES	YES

Note: The table reports the estimation results on the number of exporting products using the firm-semiyear level observation data. Column (1) reports the baseline result, column (2) is that using linear group trends, column (3) using the the balanced panel, column (4) using the propensity score matching before implementing DID, and column (5) is that using all methods from columns (2) to (4). Clustered robust standard errors at the firm-level are in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 4: Effect on export values

Variable	(1)	(2)	(3)	(4)	(5)
Specification	Baseline	Linear trend	Balanced	Matching	All
Outcome:	**log export values**				
$fair_{it}$	0.336***	0.900	0.357***	0.408***	-0.008
	(0.0765)	(2.378)	(0.0783)	(0.0847)	(2.881)
$fair_{it} \times SARS_t$	-0.0756	-0.0720	-0.0705	-0.0595	-0.0624
	(0.0491)	(0.0479)	(0.0499)	(0.0584)	(0.0576)
Firm FE	YES	YES	YES	YES	YES
Region-period FE	YES	YES	YES	YES	YES
Main product-period FE	YES	YES	YES	YES	YES
Ownership-period FE	YES	YES	YES	YES	YES
Linear trend	NO	YES	NO	NO	YES
Balanced panel	NO	NO	YES	YES	YES
Matching	NO	NO	NO	YES	YES

Note: The table reports the estimation results on export values using the firm-semiyear level observation data. Column (1) reports the baseline result, column (2) is that using linear group trends, column (3) using the the balanced panel, column (4) using the propensity score matching before implementing DID, and column (5) is that using all methods from columns (2) to (4). Clustered robust standard errors at the firm-level are in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 5: Effect on the number of export destination countries

Variable	(1)	(2)	(3)	(4)
Sample	Baseline	Non-trading	Small	non-SOE
Outcome:	**log # exporting countries**			
$fair_{it}$	0.162***	0.133**	0.132*	0.0933*
	(0.0407)	(0.0602)	(0.0740)	(0.0486)
$fair_{it} \times SARS_t$	-0.0701***	-0.111**	-0.111**	-0.0808**
	(0.0265)	(0.0436)	(0.0440)	(0.0412)
Firm FE	YES	YES	YES	YES
Region-period FE	YES	YES	YES	YES
Main product-period FE	YES	YES	YES	YES
Ownership-period FE	YES	YES	YES	YES

Note: The table reports the estimation results on the number of exporting countries using the firm-semiyear level observation data, but focusing on different subsamples. Column (1) reports the baseline result reported in Table 2, column (2) shows the result for the sample of non-trading firms, column (3) for the sample of small firms, and column (4) for the sample of non state-owned enterprises. Clustered robust standard errors at the firm-level are in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 6: Dynamic Effects on the number of export destination countries

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
VARIABLES	t-3	t-2	t-1	t	t+1	t+2	t+3	t+4	t+5	t+6	t+7	t+8	t+9	t+10
$fair_{it}$	0.0128	-0.00498	0.0483***	0.0363**	0.0599***	0.0396***	0.0466***	0.0100	0.0252*	-0.0171	-0.000671	-0.0310**	0.00613	0.00483
	(0.0153)	(0.0151)	(0.0131)	(0.0150)	(0.0148)	(0.0144)	(0.0152)	(0.0145)	(0.0148)	(0.0165)	(0.0155)	(0.0157)	(0.0187)	(0.0146)
$fair_{it} \times SARS_t$	0.00177	0.0288	0.0156	-0.0268	-0.0511*	-0.0688**	-0.0558**	-0.0552**	-0.00604	-0.00965	-0.0122	0.00401	-0.00297	-0.0489
	(0.0248)	(0.0267)	(0.0278)	(0.0271)	(0.0269)	(0.0275)	(0.0279)	(0.0272)	(0.0313)	(0.0295)	(0.0338)	(0.0317)	(0.0327)	(0.0315)
Firm FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Region-period FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Main product-period FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Ownership-period FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Observations	125,347	138,070	137,252	148,169	140,606	137,900	135,450	133,065	130,682	128,644	106,032	123,834	121,627	119,608
R-squared	0.874	0.868	0.865	0.0854	0.869	0.872	0.874	0.876	0.878	0.880	0.887	0.885	0.887	0.888

Note: The table reports the estimation results on the number of exporting countries using the bimonthly firm-level observational data. Columns (1) to (3) reports the results for the pre-treatment period (placebo tests), and the remaining columns show those for after the treatment. Clustered robust standard errors at the firm-level are in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 7: Dynamic Effects on the number of export products

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
VARIABLES	t-3	t-2	t-1	t	t+1	t+2	t+3	t+4	t+5	t+6	t+7	t+8	t+9	t+10
$fair_{it}$	0.0177	0.0212	0.0504***	0.0314**	0.0309*	0.0448***	0.0612***	0.0188	0.0300*	-0.0135	0	-0.0296*	0.00914	-0.000997
	(0.0165)	(0.0156)	(0.0160)	(0.0159)	(0.0164)	(0.0163)	(0.0155)	(0.0157)	(0.0162)	(0.0183)	(0.0174)	(0.0180)	(0.0201)	(0.0181)
$fair_{it} \times SARS_t$	0.00614	0.0250	0.0238	-0.0139	0.000842	-0.0577*	-0.0841***	-0.0297	-0.0223	-0.0353	-0.00968	-0.0215	-0.0203	-0.0429
	(0.0289)	(0.0292)	(0.0296)	(0.0289)	(0.0259)	(0.0304)	(0.0303)	(0.0318)	(0.0338)	(0.0348)	(0.0386)	(0.0371)	(0.0398)	(0.0340)
Firm FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Region-period FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Main product-period FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Ownership-period FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Observations	125,347	138,070	137,252	148,169	140,606	137,900	135,450	133,065	130,682	128,644	106,032	123,834	121,627	119,608
R-squared	0.900	0.894	0.0893	0.880	0.895	0.896	0.897	0.0898	0.901	0.903	0.907	0.906	0.907	0.908

Note: The table reports the estimation results on the number of exporting products using the bimonthly firm-level observational data. Columns (1) to (3) reports the results for the pre-treatment period (placebo tests), and the remaining columns show those for after the treatment. Clustered robust standard errors at the firm-level are in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 8: Dynamic Effects on export values

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
VARIABLES	t-3	t-2	t-1	t	t+1	t+2	t+3	t+4	t+5	t+6	t+7	t+8	t+9	t+10
$fair_{it}$	0.0132	0.0370	0.0619**	0.0555*	0.0659**	0.0752***	0.0946***	0.0479*	0.0232	-0.0518	0.0261	-0.0505*	0.0389	0.0204
	(0.0288)	(0.0272)	(0.0254)	(0.0289)	(0.0284)	(0.0270)	(0.0308)	(0.0276)	(0.0278)	(0.0348)	(0.0313)	(0.0300)	(0.0388)	(0.0290)
$fair_{it} \times SARS_t$	-0.0148	0.0351	0.0589	0.0325	-0.0317	-0.0876*	-0.0617	-0.0750	0.0286	-0.0492	-0.143**	-0.0541	-0.0312	-0.0662
	(0.0465)	(0.0426)	(0.0523)	(0.0438)	(0.0431)	(0.0521)	(0.0528)	(0.0554)	(0.0577)	(0.0581)	(0.0677)	(0.064)	(0.0560)	(0.0591)
Firm FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Region-period FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Main product-period FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Ownership-period FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Observations	125,347	130,986	137,252	148,169	140,606	137,900	135,450	133,065	130,682	128,644	106,032	123,834	121,627	119,608
R-squared	0.831	0.826	0.824	0.810	0.828	0.831	0.833	0.835	0.838	0.840	0.848	0.845	0.848	0.849

Note: The table reports the estimation results on export values using the bimonthly firm-level observational data. Columns (1) to (3) reports the results for the pre-treatment period (placebo tests), and the remaining columns show those for after the treatment. Clustered robust standard errors at the firm-level are in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 9: Dynamic Effects on the number of export destination countries (interacted with export history)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
VARIABLES	t	t+1	t+2	t+3	t+4	t+5	t+6	t+7	t+8	t+9	t+10
$fair_{it}$	0.124*	0.156***	0.0821*	0.163***	0.0448	0.0701	-0.0339	0.0318	0.0109	0.149***	0.0507
	(0.0541)	(0.0457)	(0.0497)	(0.0474)	(0.0469)	(0.0509)	(0.0524)	(0.0493)	(0.0530)	(0.0523)	(0.0467)
$fair_{it} \times SARS_t \times history_{it}$	0.00601	0.0137**	0.00877*	0.00344	0.00292	-0.00227	-0.00217	-0.00386	0.00272	-0.000131	-0.00888*
	(0.00530)	(0.00571)	(0.00461)	(0.00486)	(0.00583)	(0.00542)	(0.00453)	(0.00524)	(0.00566)	(0.00508)	(0.00496)
$fair_{it} \times SARS_t$	-0.112	-0.270**	-0.210**	-0.0926	-0.0986	0.0438	0.0295	0.0617	-0.0309	0.0211	0.110
	(0.0988)	(0.106)	(0.0827)	(0.0873)	(0.109)	(0.0936)	(0.0829)	(0.0921)	(0.102)	(0.0853)	(0.09180.0918)
Firm FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Region-period FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Main product-period FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Ownership-period FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Observations	148,169	140,606	137,900	135,450	133,065	130,682	128,644	106,032	123,834	121,627	119,608
R-squared	0.854	0.870	0.872	0.874	0.876	0.878	0.880	0.887	0.885	0.887	0.888

Note: The table reports the estimation results on the number of exporting countries, using the bimonthly firm-level observational data and the firms' export history. Each column shows the result for the outcome variable in each period. $fair_{it}$ and $SARS_t$ are constructed similarly as the main regression with the bimonthly data. $history_{it}$ denotes the number of periods that the firm have exported until then. For example, if $history_{it} = 13$ for a firm in January-February 2002, it had been exported for all periods from January-February 2000 until the period. Other single and double interaction terms with $history_{it}$ are also included in the regression. Clustered robust standard errors at the firm-level are in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 10: Dynamic Effects on the number of export products (interacted with export history)

VARIABLES	(1) t	(2) t+1	(3) t+2	(4) t+3	(5) t+4	(6) t+5	(7) t+6	(8) t+7	(9) t+8	(10) t+9	(11) t+10
$fair_{it}$	0.0947	0.0521	0.0570	0.125**	0.0633	0.0914	0.00738	0.0710	-0.00150	0.147**	-0.0150
	(0.0608)	(0.0577)	(0.0539)	(0.0536)	(0.0550)	(0.0558)	(0.0585)	(0.0564)	(0.0584)	(0.0638)	(0.0546)
$fair_{it} \times SARS_t \times history_{it}$	0.00538	0.00616	0.0109*	0.00709	0.00576	0.00617	0.00430	-0.00171	0.00140	0.000860	-0.00788
	(0.00608)	(0.00507)	(0.00596)	(0.00508)	(0.00587)	(0.00590)	(0.00556)	(0.00589)	(0.00702)	(0.00826)	(0.00498)
$fair_{it} \times SARS_t$	-0.0896	-0.0950	-0.236**	-0.189**	-0.122	-0.116	-0.103	0.0340	-0.0342	-0.0114	0.0921
	(0.113)	(0.0930)	(0.111)	(0.0880)	(0.104)	(0.105)	(0.0999)	(0.103)	(0.127)	(0.148)	(0.0897)
Firm FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Region-period FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Main product-period FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Ownership-period FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Observations	148,169	140,606	137,900	135,450	133,065	130,682	128,644	106,032	123,834	121,627	119,608
R-squared	0.880	0.895	0.896	0.897	0.898	0.901	0.903	0.907	0.906	0.907	0.908

Note: The table reports the estimation results on the number of exporting products, using the bimonthly firm-level observational data and the firms' export history. Each column shows the result for the outcome variable in each period. $fair_{it}$ and $SARS_t$ are constructed similarly as the main regression with the bimonthly data. $history_{it}$ denotes the number of periods that the firm have exported until then. For example, if $history_{it} = 13$ for a firm in January-February 2002, it had been exported for all periods from January-February 2000 until the period. Other single and double interaction terms with $history_{it}$ are also included in the regression. Clustered robust standard errors at the firm-level are in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 11: Dynamic Effects on export values (interacted with export history)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
VARIABLES	t	t+1	t+2	t+3	t+4	t+5	t+6	t+7	t+8	t+9	t+10
$fair_{it}$	0.198**	0.116	0.130	0.225*	0.153	0.196**	-0.0488	0.179*	-0.00174	0.333***	0.121
	(0.101)	(0.0872)	(0.0876)	(0.0874)	(0.0935)	(0.0946)	(0.110)	(0.0997)	(0.0902)	(0.106)	(0.0816)
$fair_{it} \times SARS_t \times history_{it}$	0.00744	0.0135	0.0108	0.00149	0.00669	0.00903	-0.00175	-0.0101	0.00554	0.00357	-0.00430
	(0.00911)	(0.00879)	(0.00983)	(0.00851)	(0.00997)	(0.0119)	(0.0113)	(0.0107)	(0.0118)	(0.0113)	(0.00916)
$fair_{it} \times SARS_t$	-0.0636	-0.246	-0.252	-0.0545	-0.169	-0.101	-0.0168	0.0588	-0.131	-0.0499	0.0279
	(0.163)	(0.160)	(0.175)	(0.151)	(0.180)	(0.215)	(0.208)	(0.197)	(0.217)	(0.202)	(0.166)
Firm FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Region-period FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Main product-period FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Ownership-period FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Observations	148,169	140,606	137,900	135,450	133,065	130,682	128,644	106,032	123,834	121,627	119,608
R-squared	0.810	0.828	0.832	0.834	0.836	0.838	0.840	0.848	0.845	0.848	0.850

Note: The table reports the estimation results on export values, using the bimonthly firm-level observational data and an interaction with the firms' export history. Each column shows the result for the outcome variable in each period. $fair_{it}$ and $SARS_t$ are constructed similarly as the main regression with the bimonthly data. $history_{it}$ denotes the number of periods that the firm have exported until then. For example, if $history_{it} = 13$ for a firm in January-February 2002, it had been exported for all periods from January-February 2000 until the period. Other single and double interaction terms with $history_{it}$ are also included in the regression. Clustered robust standard errors at the firm-level are in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 12: Effect on the number of export destination countries (in-stayers)

Variable	(1)	(2)	(3)
Specification	Baseline	Linear trend	Balanced
Outcome:	**log # exporting countries in t+1**		
$fair_{it}$	0.251***	1.854	0.219**
	(0.0844)	(1.500)	(0.0850)
$fair_{it} \times SARS_t$	-0.0606**	-0.0495*	-0.0526*
	(0.0287)	(0.0270)	(0.0290)
Firm FE	YES	YES	YES
Region-period FE	YES	YES	YES
Main product-period FE	YES	YES	YES
Ownership-period FE	YES	YES	YES
Linear trend	NO	YES	NO
Balanced panel	NO	NO	YES

Note: The table reports the estimation results on the number of exporting countries using the firm-semiyear level observation data, but focusing our treatment group on firms attended all four fairs during the sample period. Column (1) reports the baseline result, column (2) is that using linear group trends, and column (3) using the the balanced panel. Clustered robust standard errors at the firm-level are in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$