Online Appendix for

Exchange Rate Regime Flexibility and Firms' Employment

Journal of International Money and Finance

A Alternative Modeling Assumptions

A.1 Capital Controls and Financial Openness

We return to the full budget constraint of the representative household:

$$C + \tau q D + \frac{M}{P} \leq \frac{WL + R\bar{K} + \Pi + T}{P},$$

where the parameter τ captures the cost of purchasing foreign assets and is interpreted as the degree of capital control. In this case, the first-order condition with respect to the investment portfolio becomes:

$$1 = \mathbb{E}\left[\frac{v'(D)}{C^{-1}}(\tau q)^{-1}\right]. \tag{A1}$$

For a representative household in the Foreign country, the first-order condition for investing in the same portfolio remains unchanged:

$$1 = \mathbb{E}\left[\frac{v'(D^*)}{C^{*-1}}\left(\frac{\mathcal{E}P^*}{P}\right)q^{-1}\right]. \tag{A2}$$

Combining equations (A1) and (A2), the perfect risk-sharing condition implies:

$$\frac{v'(D^*)}{C^{*-1}}\left(\frac{\mathcal{E}P^*}{P}\right) = \frac{v'(D)}{C^{-1}}\tau^{-1}. \tag{A3}$$

Under the assumption that $v(D)$ is linear, we obtain:

$$\mathcal{E} = \frac{PC}{P^*C^*}\tau^{-1}. \tag{A4}$$

Note that equation (A4) is log-linear. That is, when the system is log-linearized, the capital control parameter τ enters the equilibrium conditions as a simple linear term. The presence of capital controls affects the nominal exchange rate, which in turn influences firms' pricing decisions and production. However, after log-linearization, the capital control degree ($\log \tau$) does not jointly affect firms' pricing decisions with the term $\log(M^*) - \log(M)$ in our derivations.

In fact, given the capital control degree τ, the term $\log(\tau)$ is independent of the changes in $\log(M^*) - \log(M)$. This does not alter any of the qualitative results. Therefore, all qualitative results continue to hold even in the presence of capital controls. Empirically, we control for industry-time fixed effects, which capture the impact of capital controls on different industries at the aggregate level.

De jure restrictions affecting the Chinese financial account and international borrowing have been widely documented and measured in the literature. For example, the IMF Current Account Openness Index is 0 for the People's Republic of China for the entire period we consider (the range is [0,1] with 0 representing no openness). De facto access to international capital markets at the firm level is difficult to assess in general and in particular for China. Some papers in the literature discuss borrowing in foreign currency, either from local banks or international lenders and markets, but there is suggestive evidence supporting its limited quantitative relevance for Chinese firms. Kalemli-Ozcan et al. (2021) back out borrowing in foreign currency as a share of total debt for 10 asian economies using a combination of datasets from the BIS. These measures include firms and households borrowing from banks and the bond market (the share of bond borrowing is between 2% and 7% depending on the years). For China the share of FX borrowing out of total debt ranges from 3.87% in 2002 to 2.09% in 2015 and it's a much smaller share than in other countries for which data is available. Huang et al. (2024) shows that international bond issuing to Chinese firms is virtually nonexistent until 2009 and starts growing meaningfully after the end of our sample. For our sample/period, international or FX borrowing is negligible, and we can safely assume that firms' financial access is entirely domestic.

A.2 CES production funcion

We derived the model under a Cobb-Douglas assumption in the paper, but we showed explicitly the implications of the use of a CES production function. Consider the following alternative production function:

$$Y(j) = A\left[(1-\alpha_j)^{\frac{1}{\epsilon}} K(j)^{\frac{\epsilon-1}{\epsilon}} + \alpha_j^{\frac{1}{\epsilon}} L(j)^{\frac{\epsilon-1}{\epsilon}}\right]^{\frac{\epsilon}{\epsilon-1}}$$

In this case,

$$MC(j) = A^{-1}\left[(1-\alpha_j)R^{1-\epsilon} + \alpha_j W^{1-\epsilon}\right]^{\frac{1}{1-\epsilon}}$$

Note that with a CES production function, the marginal cost is no longer log-linear. To log-linearize the system, we let $\bar{R}$ and $\bar{W}$ denote the steady-state values of the capital rental rate and the wage rate, respectively. The steady state in our model is defined as the scenario in which

$A = 1$ and $M^* = 1$. Log-linearizing the marginal cost, we obtain

$$mc(j) = (1 - \tilde{\alpha}_j)r + \tilde{\alpha}_j w - a \tag{A5}$$

where

$$\tilde{\alpha}_j \equiv \frac{\alpha_j \bar{W}^{1-\epsilon}}{(1-\alpha_j)\bar{R}^{1-\epsilon} + \alpha_j \bar{W}^{1-\epsilon}}$$

Compared to the Cobb-Douglas production function, the CES production function yields a different steady-state labor intensity, which depends on relative factor prices (for example, $\tilde{\alpha}_j$ can be expressed as a function of $\bar{W}/\bar{R}$). However, the log-linear form of marginal cost takes the same structure as in the Cobb-Douglas case. Using equation (A5) in Appendices B, C, and D, we can show that all qualitative results still hold. When facing more uncertain exchange rates, firms may adjust the composition of capital and labor inputs — this is related to the higher-order terms in the polynomial approximation of marginal cost. As long as we assume that shocks are of small magnitude, the higher-order terms are dominated by the linear term, which justifies our use of a linear approximation. Therefore, the adjustments in marginal cost due to changes in uncertainty will not overturn the effects discussed in the model, and our results will still hold.

A.3 Pricing

We developed the model under the assumption of Local Currency Pricing. However, the literature also discusses the implications of Producers Currency Pricing (PCP) and Dominant Currency Paradigm (DCP). Under PCP, firms set their prices to maximize aggregate profits from both the domestic and foreign markets. Specifically, the optimization problem becomes

$$\max_{P_H(j)} \mathbb{E}\left[\Theta \frac{(P_H(j) - MC(j))(Y_H(j) + Y_H^*(j))}{P}\right],$$

where $Y_H(j)$ and $Y_H^*(j)$ denote the domestic and foreign demand for firm j's products, respectively. Similar to our benchmark model, we have

$$Y_H(j) = \frac{1}{2}\left(\frac{P_H(j)}{P_H}\right)^{-\eta} \frac{PC}{P_H}, \quad Y_H^*(j) = \frac{1}{2}\left(\frac{P_H(j)}{P_H}\right)^{-\eta} \frac{P^*C^*}{P_H/\mathcal{E}}.$$

The optimal price $P_H(j)$ is then given by

$$P_H(j) = \frac{\eta}{\eta - 1}\mathbb{E}[MC(j)], \tag{A6}$$

which takes the same form as the optimal price set by a firm in the domestic market under the assumption of LCP. Using this result, and following similar derivations to Appendix B, we obtain the following expression:

$$p_H^{\text{flexible}}(j) - p_H^{\text{fixed}}(j) = \Delta w - \Delta\xi - \frac{(1-\alpha_j)^2\lambda^{-2}}{4}\sigma_m^2. \tag{A7}$$

Equation (A7) shares the same form as in the benchmark model. However, under the PCP assumption, the expressions for $\Delta\xi$ and λ differ from those in the benchmark model. Since these terms are defined at the aggregate level and are not firm-specific, we can still derive the same result as in Lemma 1:

$$\frac{\partial\left(p_H^{\text{flexible}}(j) - p_H^{\text{fixed}}(j)\right)}{\partial\alpha_j} > 0. \tag{A8}$$

This condition in (A8) is the key driver of how the impact of exchange rate flexibility on firm employment depends on labor intensity in production. Hence, the main mechanism remains valid even under the PCP assumption. In other words, when we conduct empirical analysis on how labor intensity affects the consequences of exchange rate flexibility on firm employment, we expect to find similar signs on the coefficient of the interaction term between exchange rate flexibility and labor intensity. One point worth noting is that, although under PCP the role of labor intensity remains largely unchanged, a flexible exchange rate may be more desirable than a fixed one. This result is consistent with the findings in Devereux and Engel (2003). When shocks hit an open economy, resources used in the production of domestic and export goods should optimally be reallocated in response to shocks. Under PCP with price rigidity, although the price in the home currency is pre-set and cannot be adjusted, exchange rate adjustments can still facilitate resource reallocation. Thus, exchange rate flexibility can enhance efficiency. However, under LCP with price rigidity, both the domestic price in the home currency and the export price in the foreign currency are fixed. In this case, exchange rate adjustments do not aid in resource reallocation, and a fixed exchange rate may be preferable. The results under the DCP assumption are more similar to those under LCP. However, since all prices are set in U.S. dollars under DCP, our theoretical analysis in Appendix E shows that it is the exchange rate between the home currency and the U.S. dollar that primarily influences firm employment. Unfortunately, our data does not include information on the invoice currency of export transactions – a problem common to the rest of the empirical literature on the topic –, so we cannot directly distinguish between the DCP and LCP assumptions. Nevertheless, our employment and price regressions using the exchange rate against the U.S. dollar indicate that the flexibility of the home currency–U.S. dollar exchange rate appears to play a dominant role. This may reflect the prevalence of DCP pricing among exporting firms.

A.4 Less rigid wages

The wage rigidity assumption in our model greatly simplifies the derivation. However, relaxing this assumption by allowing a less rigid wage structure does not alter our qualitative results. For example, we can assume that the wage rate follows a simple *ad hoc* rule:

$$W = \bar{W}^{\psi} W^{*1-\psi}, \tag{A9}$$

where $\bar{W}$ is the same rigid wage as in our benchmark model, and W^* is a flexible wage influenced by macroeconomic conditions. The idea behind this wage rule is that equilibrium wages are partially determined by a social norm ($\bar{W}$) and partially by macroeconomic forces, with the parameter ψ capturing the degree of wage rigidity. We can now rewrite the marginal cost faced by firm j as:

$$MC(j) = \left(R W^{*\frac{\alpha_j(1-\psi)}{1-\alpha_j}} \right)^{1-\alpha_j} \bar{W}^{\alpha_j \psi}.$$

We define $\tilde{\alpha}_j \equiv \alpha_j \psi$, if effective exchange rate adjustments stabilize W^* (similar to how they stabilize R), we can treat the term $R W^{*\frac{\alpha_j(1-\psi)}{1-\alpha_j}}$ analogously to R in the benchmark model. By simply replacing α_j with $\tilde{\alpha}_j$ in all theoretical derivations, we can show that the main qualitative results still hold. In other words, introducing less rigid wages may strengthen the case for flexible exchange rates over fixed exchange rates. However, the qualitative result—namely, how labor intensity influences the effect of exchange rate flexibility on firm-level employment—remains unchanged.

B Deriving log-linear approximations to prices

By (5) and (10), we can re-write the capital market clearing condition as follows:

$$R\bar{K} = \int_0^1 (1-\alpha_j) \left(\frac{1}{2} \frac{MC(j)}{P_H(j)} S_H(j) M + \frac{1}{2} \frac{MC(j)}{\mathcal{E} P_H^*} S_H^*(j) M \right) dj. \tag{B1}$$

We log-linearize (B1) and obtain

$$r = \frac{1}{2} \int_0^1 \varphi_j \left(mc(j) - p_H(j) + s_H(j) \right) dj + \frac{1}{2} \int_0^1 \varphi_j^* \left(mc(j) - e - p_H^*(j) + s_H^*(j) \right) dj + m \tag{B2}$$

where e is the log nominal exchange rate and

$$\varphi_j \equiv \frac{(1-\alpha_j) \bar{S}_H(j)}{\int_0^1 (1-\alpha_i) \bar{S}_H(i) \, di}, \text{ and } \varphi_j^* \equiv \frac{(1-\alpha_j) \bar{S}_H^*(j)}{\int_0^1 (1-\alpha_i) \bar{S}_H^*(i) \, di}.$$

$\bar{S}_H(j)$ and $\bar{S}_H^*(j)$ denote the steady-state market shares of firm j in the domestic and export markets, respectively, among all Home firms. Note that

$$mc\,(j) = (1 - \alpha_j)\, r + \alpha_j w - a$$

By using (5), we can re-write (B2) as

$$0 = \lambda\,(w - r) + \frac{1}{2}m + \frac{1}{2}m^* + \Xi \tag{B3}$$

where

$$\lambda \equiv \frac{1}{2}\left(\int_0^1 \varphi_j \alpha_j dj + \int_0^1 \varphi_j^* \alpha_j dj\right)$$
$$\Xi \equiv \frac{1}{2}\left(\int_0^1 \varphi_j\,(s_H\,(j) - p_H\,(j))\, dj + \int_0^1 \varphi_j^*\,(s_H^*\,(j) - p_H^*\,(j))\, dj\right).$$

The log-linear approximation to the cash-in-advance constraint implies

$$m = p + c.$$

Then the log-linearization of the marginal cost gives us

$$mc\,(j) = w - \frac{1}{2}\,(1 - \alpha_j)\,\lambda^{-1} m - \frac{1}{2}\,(1 - \alpha_j)\,\lambda^{-1} m^* - a - \lambda^{-1}\Xi. \tag{B4}$$

We now consider how labor intensity will affect the pricing behavior of firms. The steady state prices are

$$P_H\,(j) = P_H^*\,(j) = \frac{\eta}{\eta - 1}\bar{MC}\,(j)\,.$$

Then, we log-linearize (11) and (12) under flexible exchange rates and obtain

$$p_H^{flexible} = w^{flexible} - \xi^{flexible} + \frac{(1 - \alpha_j)^2\,\lambda^{-2}}{4}\sigma_m^2 + \frac{\sigma_a^2}{2} \tag{B5}$$
$$p_H^{*flexible} = w^{flexible} - \xi^{flexible} + \left(1 + \frac{(1 - \alpha_j)^2\,\lambda^{-2}}{4}\right)\sigma_m^2 + \frac{\sigma_a^2}{2} \tag{B6}$$

where $\xi^{flexible}$ is the log deviation of term Ξ from its steady state when the exchange rate regime is flexible. Under fixed exchange rates, it is easy to show that

$$p_H^{fixed} = p_H^{*fixed} = w^{fixed} - \xi^{fixed} + \frac{(1 - \alpha_j)^2\,\lambda^{-2}}{2}\sigma_m^2 + \frac{\sigma_a^2}{2}. \tag{B7}$$

C PROOF OF LEMMA 1

By (18) and (19), it is easy to show that

$$\frac{\partial\left(p_H^{flexible}(j)-p_H^{fixed}(j)\right)}{\partial\alpha_j}=\frac{\partial\left(p_H^{*flexible}(j)-p_H^{*fixed}(j)\right)}{\partial\alpha_j}=\frac{(1-\alpha_j)\,\lambda^{-2}}{2}\sigma_m^2>0.$$

D PROOF OF PROPOSITION 1

As shown in the previous analysis, both $p_H^{flexible}(j)-p_H^{fixed}(j)$ and $p_H^{*flexible}(j)-p_H^{*fixed}(j)$ are increasing in α_j, which implies that, as α_j increases, prices are relatively higher when the exchange rates are more flexible. Note that higher prices lead to lower employment given the realization of A, M and M^*. Mathematically, we have

$$\frac{\partial\left(L^{flexible}(j)-L^{fixed}(j)\right)}{\partial\alpha_j}<0.$$

E DOMINANT CURRENCY PARADIGM

The dominant currency paradigm, as highlighted by Gopinath et al. (2020), suggests that trade prices are primarily determined by fluctuations in the invoice currency, which is often the US dollar. How does the dominance of the US dollar as an invoice currency affect the relationship between exchange rate regime flexibility and firms' behavior?

In theory, we derive similar equilibrium conditions to the benchmark model by assuming dominant currency pricing (DCP) in export prices instead of local currency pricing. Under DCP, we assume that the export price set by a Home firm to Country i's buyers is denominated in US dollars, instead of Country i's currency.

We denote the prices of Home currency and Country i's currency in terms of US dollar by $\mathcal{E}_t^{H,US}$ and $\mathcal{E}_t^{i,US}$, respectively. A rise in the value of $\mathcal{E}_t^{H,US}$ ($\mathcal{E}_t^{i,US}$) is associated with a depreciation of the Home currency (Country i's currency). The optimal profit earned by Home exporter j from Country i is

$$\max_{P_H^{US}(j)}\mathbb{E}\left[\Theta\left(\mathcal{E}^{H,US}P_H^{US}(j)-MC(j)\right)Y_H^i(j)\right]$$

where $P_H^{US}(j)$ is the optimal dollar price set by firm j. The individual demand from Country i's market $Y_H^i(j)$ is

$$Y_H^i(j)=\left(\frac{P_H^{US}(j)}{P_H^{US}}\right)^{-\eta}Y_H^i$$

where Y_H^i is the aggregate export by Home firms to Country i. Let γ^c denote the share of Chinese exported goods in the total consumption basket of a Country i's consumer, we can obtain

$$Y_H^i = \gamma^c \frac{M^i}{\mathcal{E}^{i,US} P_H^{US}}.$$

The complete international financial market assumption implies that

$$\mathcal{E}^{H,US} = \frac{PC}{P^{US}C^{US}},\ \mathcal{E}^{i,US} = \frac{P^i C^i}{P^{US}C^{US}}.$$

Similar to the proof of Lemma 1, we can show that under the complete capital depreciation assumption,

$$P_H^{US}(j) = \frac{\eta}{\eta - 1}\mathbb{E}\left[\frac{MC(j)}{\mathcal{E}^{H,US}}\right]. \tag{E1}$$

The only difference between Equations (E1) and (12) in Lemma 1 is the replacement of the bilateral exchange rate between Home and the export destination country $\mathcal{E}$ with the bilateral exchange rate between Home and the United States $\mathcal{E}^{H,US}$. This means that the export price (in US dollars) is only affected by the exchange rate between the Home currency and the US dollar.[1] Following the same steps in the benchmark model, we can demonstrate that firms with labor-intensive production technology are more likely to increase their employment if the exchange rate of the Home currency against the currency of the export destination is less flexible. On the other hand, firms with capital-intensive production technology are more likely to hire more workers if the exchange rate is more flexible.

We conduct an empirical analysis to investigate how the dominant currency paradigm affects the relationship between exchange rate regime flexibility and employment and prices. To this end, we augment the baseline estimation with two additional variables: bilateral exchange rate regime flexibility between the Chinese RMB and the US dollar, and the interaction term between labor intensity and China-US exchange rate regime flexibility. The theoretical prediction suggests that the coefficient on bilateral exchange rate regime flexibility should be negative while the coefficient on the interaction term should be positive. Furthermore, under the dominant currency paradigm, the coefficients on terms with bilateral exchange rate regime flexibility between the Chinese RMB and the currency in the exporting destination are expected to be less significant.

One caveat to our DCP estimation is that our data does not contain information on the invoice currency used in international trade. As a result, we cannot separate firms that use DCP from others in our sample. For this empirical experiment, we assume that all firms follow DCP.

[1] The result is due to the simplifying assumptions made in the model, such as the log utility function. Relaxing these assumptions may incorporate shocks in the export destinations into the price function, and the exchange rate between Home and US dollar may not be the only determinant of export prices. However, the model still shows that the exchange rate between Home and US dollar plays a crucial role in determining prices set by Home exporters.

It is important to note that the US is China's biggest trading partner, so the bilateral exchange rate regime flexibility between the Chinese RMB and the US dollar may be correlated with the measure of $fixed$ in our baseline estimation. To address this potential collinearity, we exclude firms whose shares of exports to the US are above the sample mean in the regression. In other words, we mainly focus on how the bilateral exchange rate regime flexibility between China and the US will affect firms' behaviors, even though firms may not be involved in trade with US buyers.[2]

Table A1 presents the results of the estimation on employment. In Columns (1) and (2), the industry-time fixed effects are not included, and we observe that the coefficients on $US\ fixed$ are negative, while the coefficients on the interaction term $labor \times US\ fixed$ are positive. All coefficients are statistically significant at the 1% level, which is consistent with our theoretical prediction. In Columns (3) and (4), we control for the industry-time fixed effect, and the time trend captures the bilateral exchange rate regime against the US dollar. Therefore, the coefficients on $US\ fixed$ are dropped from the regressions. The results from Columns (3) and (4) support the theoretical prediction that firms with labor-intensive production technology are more likely to increase employment if the China-US exchange rate is less flexible, while firms with capital-intensive production technology are more likely to hire more workers if the China-US exchange rate is more flexible. Additionally, the insignificant coefficients on terms that include the bilateral exchange rate regime flexibility between China and the export destination suggest that the China-US exchange rate is the primary factor affecting firms' employment decisions, consistent with the DCP literature.

We also examine the theoretical mechanism under DCP by investigating how the exchange rate regime flexibility between China and the US affects export prices when production technology varies. Following the same steps as in the benchmark model, we can show that under dominant currency pricing, a decrease in exchange rate regime flexibility between China and the US is more likely to result in lower (higher) export prices for firms with more labor-intensive (capital-intensive) technologies. The regression results on trade prices are reported in Table A2. In Columns (1) and (2), where we do not control for time fixed effects, the coefficients on the China-US exchange rate regime are not statistically significant. However, the coefficients on the interaction term between the China-US exchange rate regime and labor intensity are both negative and statistically significant, which is consistent with the theoretical prediction under the DCP scenario. In Columns (3) and (4), we add the time fixed effect to the regressions, and as a result, the coefficients on the China-US exchange rate regime flexibility are dropped. In this case, the coefficients on the interaction term between the China-US exchange rate regime and

[2] In an unreported robustness check, we exclude the firms that solely export to the US. Our regression results remain robust.

labor intensity are still negative and statistically significant. Furthermore, the interaction term between the bilateral exchange rate regime between China and the export destination country and labor intensity becomes less statistically significant. Interestingly, the coefficients on *peg* are negative and statistically significant in Columns (2) and (4). In Columns (5) and (6), we exclude processing trade producers, and in Columns (7) and (8), we exclude both trade intermediaries and processing trade producers. The results are quite similar to those in Columns (3) and (4).

Table A1: DCP Employment Regression

	(1)	(2)	(3)	(4)
$labor \times$ .US fixed	0.292***	0.311***	0.251***	0.279***
	(0.073)	(0.073)	(0.073)	(0.075)
$labor \times fixed$	-0.032		0.002	
	(0.148)		(0.145)	
$labor \times peg$		-0.086		-0.080
		(0.152)		(0.152)
$labor \times inpeg$		0.367		0.612*
		(0.392)		(0.357)
US fixed	-0.208***	-0.213***		
	(0.033)	(0.033)		
$fixed$	0.041		-0.024	
	(0.069)		(0.067)	
peg		0.055		0.004
		(0.070)		(0.071)
$inpeg$		-0.050		-0.199
		(0.177)		(0.155)
$log\ rer$	0.061***	0.060***	0.130***	0.130***
	(0.020)	(0.020)	(0.020)	(0.020)
Control variables	YES	YES	YES	YES
$Industry \times Time$ FE	NO	NO	YES	YES
Firm FE	YES	YES	YES	YES
R-squared	0.949	0.949	0.959	0.959
Observations	27,358	27,358	26,526	26,526

Note: We exclude firms whose shares of exports to the US are above the sample mean. Robust standard errors (in parentheses) are clustered at the firm-level, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Control variables include log average wage payment, profit margin, leverage ratio, firm age and the dummy variable that shows whether the firm receives a subsidy from the government or not.

Table A2: DCP Price regression

	All Firms				Excluding P. T.		Excluding P. T. and T. I.	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
labor × US fixed	-0.175***	-0.194***	-0.173***	-0.197***	-0.133**	-0.168**	-0.131*	-0.165**
	(0.048)	(0.055)	(0.048)	(0.056)	(0.066)	(0.076)	(0.067)	(0.077)
labor × *fixed*	-0.009		-0.007		-0.060		-0.062	
	(0.042)		(0.044)		(0.061)		(0.062)	
labor × *peg*		0.049		0.055		0.015		0.009
		(0.060)		(0.061)		(0.081)		(0.082)
labor × *inpeg*		-0.027		-0.031		-0.093		-0.093
		(0.049)		(0.051)		(0.068)		(0.069)
US fixed	0.009	0.029						
	(0.022)	(0.023)						
fixed	-0.023		-0.012		0.009		0.011	
	(0.020)		(0.020)		(0.026)		(0.026)	
peg		-0.073***		-0.054**		-0.021		-0.018
		(0.027)		(0.027)		(0.032)		(0.032)
inpeg		-0.004		0.003		0.022		0.022
		(0.022)		(0.022)		(0.028)		(0.029)
log rer	-0.465***	-0.474***	-0.026	-0.034	-0.028	-0.030	-0.024	-0.025
	(0.044)	(0.044)	(0.035)	(0.035)	(0.040)	(0.040)	(0.040)	(0.040)
Control variables	YES	YES	YES	YES	YES	YES	YES	YES
Firm × *Product* × *Country* FE	YES	YES	YES	YES	YES	YES	YES	YES
Time FE	NO	NO	YES	YES	YES	YES	YES	YES
R-squared	0.952	0.952	0.952	0.952	0.952	0.952	0.952	0.952
Observations	158,832	158,832	158,832	158,832	101,906	101,906	101,068	101,068

Note: We exclude the firms whose shares of export to the US are above the sample mean. In Columns (5) and (6), we exclude processing trade producers. In Columns (7) and (8), we exclude processing trade producers and trade intermediaries. Robust standard errors (in parentheses) are clustered at the firm-level, *** p <0.01, ** p <0.05, * p <0.1. Control variables include log average wage payment, profit margin, leverage ratio, firm age and the dummy variable that shows whether the firm receives a subsidy from the government or not.

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Data and replication information for

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Describe the full name, website, and contact information associated with your data.

The dataset used in our empirical analysis has been merged from three databases: the Annual Survey of Industrial Enterprises Database, China's Customs Statistics, and the bilateral exchange rate regime index as detailed in Klein and Shambaugh (2008). In particular:

1. The Annual Survey of Industrial Enterprises Database covers over 160,000 manufacturing firms in China. This dataset was purchased by Shandong University of Finance and Economics, through which we accessed the data. For more details, visit https://lib.sdufe.edu.cn/info/1165/1356.htm.
   Once opened, browsers, such as Chrome, will offer an option to translate into English. To access this dataset, researchers typically require authorization through universities or other research institutes, primarily in China, which often have a contract with China's National Bureau of Statistics (NBS). Other published works use this dataset confidentially, such as
   - Hsieh, C. -T., & Klenow, P. J. (2009). Misallocation and manufacturing TFP in China and India. Quarterly Journal of Economics, 74(4).

   The page above links to the so-called CCER special data system platform that is used by researchers with permission to access the data.
2. China's Customs Statistics provide data on China's imports and exports broken down by countries and regions. This dataset was acquired by Nankai University. For additional information, see https://econlab.nankai.edu.cn/sjkxt/list.htm. Once opened, browsers such as Chrome will offer an option to translate this page into English.

3. The bilateral exchange rate regime data can be accessed freely at: https://iiep.gwu.edu/jay-c-shambaugh/data/.

Please describe the conditions under which researchers can access this data and all restrictions that the source imposes.

1. The Annual Survey of Industrial Enterprises Database is accessible to the staff of any university or research centre that obtains access contractually to this dataset from China's NBS.

   In our case, it was accessed at Shandong University of Finance and Economics. Other universities have similar contracts. The dataset has been used in other studies, among which:

   - Feenstra, R.C., Z. Li, M. Yu (2014). "Exports and credit constraints under incomplete information: Theory and evidence from China." Review of Economics and Statistics 96 (4), 729-744.
   - Dai, M., & Xu, J. (2017). "Firm-specific exchange rate shocks and employment adjustment: Evidence from China." Journal of International Economics, 108, 54-66.
   - Lu, Y., Z. Tao and L. Zhu (2017). "Identifying FDI Spillovers", Journal of International Economics (July 2017), Vol. 107, 75-90.
2. Similarly, in order to access China's Customs Statistics, researchers need access to the platform through a contract that is available through universities and research centres, for example, Shandong University of Finance and Economics and Nankai University. Any researcher affiliated with universities or research canters that have a contract with China's Bureau of Statistics to access this dataset can do so. An example of such use is:
   - Felbermayr, G. and A. Sandkamp (2020). "The trade effects of anti-dumping duties: Firm-level evidence from China." European Economic Review Volume 122, February 2020, 103367.
3. The bilateral exchange rate regime data are publicly available.

The relevant restriction that apply to datasets 1 and 2 is that the dataset cannot be shared publicly.

Please describe how other researchers can obtain access to the exact data that produced your results. Where will this data be archived?

Other researchers can access this dataset by signing a contract with China's National Bureau of Statistics, or through affiliation with a University or research centre that has access to these data through a contract. For the Annual Survey of Industrial Enterprises Database, further information is available at https://lib.sdufe.edu.cn/info/1165/1356.htm.

The matched dataset is currently stored on our computers and in the cloud.