

Objective Country Economic Policy Uncertainty, Institutional Environment And Manufacturing Export

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DOI: 10.26821/IJSRC.10.11.2022.101101

ABSTRACT

With the deepening of globalization and the evolution of international competition pattern, countries are forced to adjust their economic policies to improve their adaptability. The fluctuating economic policies have a profound impact on China's export trade. Based on the expansion of Johnson's (2012) theoretical framework, this paper explores the influence of institutional environment on export trade effects of economic policy uncertainty in destination countries, and conducts empirical research on China's practice by using manufacturing export data from 2007 to 2019. The results show that the economic policy uncertainty of destination country is not conducive to export trade (negative export trade effect), while the institutional environment optimization of exporting country can inhibit this effect (institutional adjustment effect). At the same time, there are differences between the two kinds of effects of different technology types of manufacturing industry.

Key words: economic policy uncertainty; export trade effect; manufacturing; institutional environment regulation effect

1. INTRODUCTION

Thanks to the open policy and cost advantages, the

scale of China's manufacturing exports has increased significantly and has become an important driving force and ballast for China's economic development. 2007-2019, the scale of China's manufacturing export trade grew from US\$699.546 billion to US\$1,319.73 billion, with an average annual growth rate of 6.8%. The aspects of population, policy dividends and the deepening of the international specialization division have been the main influencing factors for driving the rapid development of China's manufacturing export trade (Jiang and Liu, 2014). However, all these studies have a hypothetical premise of economic openness or trade liberalization. This means that the homogeneous and definite economic opening policy adopted by all countries ignores the uncertainty and differences in the reality of each country's economy. As China's main export destination, the US has seen a marked increase in economic policy uncertainty since 2007-2019 when the economic policy uncertainty index rose from 80.52 to 140.67.

In addition, institutional factors such as a stable domestic political situation, well-developed infrastructure, strong market dynamics and sound legal mechanisms have played an important role in the stable functioning of the economy, including export trade development (Dixit and Pindyck, 2012; Novy

and Taylor, 2015). The optimization of our institutional environment has enhanced our ability to conduct international trade, and at the same time has led to considerable export trade. Under the leadership of the Party Central Committee, China's institutional environment has been continuously optimized. A series of policy measures such as reform and opening up, accession to the WTO and the construction of a free trade zone have contributed to a significant improvement in China's institutional environment as the Global Governance Index jumped from -3.34 to -1.50 between 2007 and 2019.

So, is there and what are the export trade effects of economic policy uncertainty in the destination country? And how does the optimization of the institutional environment in the exporting country affect the above export trade effects (moderating effect)? These two questions are of high practical significance and research value. Based on this, this paper will analyze the theoretical mechanisms of the above questions, as well as the empirical analysis of the practical problems in China.

Compared with the existing literature, the marginal contributions of this paper are mainly: first, at the theoretical level, based on the theoretical framework of Johnson (2012), the theoretical model of the export trade effect of economic policy uncertainty and the moderating effect of institutional environment is extended; second, at the data level, based on the availability of data, the data breadth is extended to 2019; third, at the methodological level, examining the export trade effects of economic policy uncertainty and introducing the moderating effects of the institutional environment.

2. LITERATURE REVIEW

2.1 Export trade effects of the economic policy uncertainty

Economic policy uncertainty is essentially the increased uncertainty created for economic agents by the government's inability to accurately predict when making economic policy adjustments, and is essentially a form of economic risk (Baker, 2016). This economic risk can have an impact on economic growth (Alessandria and Choi, 2014), business innovation (Atanassov et al., 2015) and foreign investment (Julio and Yook, 2012; Jens, 2017). As research progresses and the 'economic policy uncertainty index' proposed by Baker (2016) is widely recognized, studies are beginning to integrate the effects of export trade.

The general findings suggest that increased economic policy uncertainty affects export trade effects, mainly through the lens of export size, marginal benefits and cost effects. Based on Portuguese export data, Handley and Limao (2015) find that an increase in economic policy uncertainty discourages firms from entering the market and shrinks the size of exports. Gu et al. (2018) draws the same conclusion in the context of Chinese data, but his study further finds that the type of exports also decreases due to economic policy uncertainty. While most scholars have concluded that economic uncertainty is negatively correlated with export size, this type of study does not further explore what marginal benefits this negative correlation would have for exporters. Therefore, in order to make the study more microscopic, some scholars decompose the export volume into an extensive margin and an intensive margin. It is found that the dampening effect of economic policy uncertainty on exports is mainly at the extensive margin (Das et al., 2007). This disincentive increases the fixed cost of exporting, which firms need to pay in order to explore foreign markets (Melitz, 2003), while increased economic

policy uncertainty implies instability in foreign markets, which exacerbates information asymmetries and market failures and increases firms' fixed costs of export entry (Kugler and Verhoogen, 2012).

These studies all suggest that economic policy uncertainty raises the barriers to exporting and that the entry and exit mechanisms for manufacturing firms come into play. Low-productivity manufacturing firms will choose to exit the market in the face of high thresholds and lead to a reduction in the size of manufacturing exports. At the same time, all firms will also form a pessimistic expectation due to uncertainty and will reduce manufacturing exports to hedge against potential economic risks.

2.2 Moderating effects of the institutional environment

Studies on the export trade effects of economic policy uncertainty in destination countries tend to ignore the impact of the internal institutional environment (Fan et al., 2017). Therefore, it is particularly important to study the export trade effects of economic policy uncertainty in the destination country based on the institutional environment perspective. In the factor market of the exporting country, an optimized institutional environment can accelerate the free flow of factors, with limited factor resources being accessed by more firms, and reduce the factor costs of firms (Coase, 1973). In the destination country market, increased economic uncertainty means that foreign markets are unstable, increasing firms' export entry fixed costs (Melitz, 2003). Therefore, the factor costs reduced by institutional environment optimization can compensate for certain fixed costs, i.e. institutional environment optimization can weaken the negative effects of economic policy uncertainty on the export trade effects of manufacturing.

Therefore, while discussing the export trade effects

of economic policy uncertainty in the destination country, this paper explores the moderating effect played by the institutional environment on the export trade effects of economic policy uncertainty in the destination country. For consumers, an optimized institutional environment means lower transaction costs, and for firms, an optimized institutional environment means lower factor costs. Therefore, an optimized institutional environment will have a positive moderating effect on the effects of economic policy uncertainty in the destination country, which will ultimately have an impact on the export trade effects of manufacturing.

3. THEORETICAL MODELS

The export trade effect of manufacturing is affected by trade costs (Ghironi and Melitz, 2005), which can be decomposed into domestic factor costs (Coase, 1973) and export fixed costs (Melitz, 2003). Therefore, this section explores the relationship between trade costs, product prices and export trade effects within the framework of Johnson's (2012) study, while considering product quality.

3.1 In terms of consumer demand in importing countries

Drawing on the analytical framework of Johnson (2012) and Ma et al (2021), it is assumed that representative individuals within importing country j consume a continuum of heterogeneous goods with a utility function of Dixit-Stiglitz form:

$$U_j = \left(\int [\tilde{x}(w)]^{\frac{\alpha-1}{\alpha}} dw \right)^{\frac{\alpha}{1-\alpha}} \quad (1)$$

where w denotes the product export, the product category exported is Ω_i and $w \in \Omega_i$. α is the elasticity of substitution between products. $\tilde{x}(w)$ is the consumer effective utility quantity, $\tilde{x}(w) = q(w)x_j(w)$, i.e. the effective utility quantity is the product of product quality and actual consumption.

Therefore, the actual consumption in the importing

country:

$$x_j[p_j(w),q(w)]=q(w)^{\alpha-1}p_j(w)^{-\alpha}\tilde{P}_j^{\alpha-1}E_j \quad (2)$$

$$\tilde{p}_j(w)=p_j(w)/q(w) \quad (3)$$

where x_j is the actual consumption, $p_j(w)$ is the selling price of the product, $q(w)$ is the product quality, $\tilde{p}_j(w)$ is the product price adjusted by product quality, $\tilde{P}_j = (\int [\tilde{p}_j(w)]^{1-\alpha} dw)^{\frac{1}{1-\alpha}}$ is the price index, and E_j is the total expenditure.

Combining equations (2) and (3) yields the effective consumption of the importing country:

$$\begin{aligned} \tilde{x}_j[\tilde{p}_j(w)] &= q(w)^{\alpha-1}p_j(w)^{-\alpha}\tilde{P}_j^{\alpha-1}E_jq(w) \\ &= \tilde{p}_j(w)^{-\alpha}\tilde{P}_j^{\alpha-1}E_j \end{aligned} \quad (4)$$

3.2 Supply side of production in exporting countries

Referring to the research framework of Johnson (2012) and Fan and Guo (2015), it is assumed that the marginal cost of production and product quality of manufacturer i in the exporting country are different, and that the ex-factory price of the product depends only on the marginal cost and product quality of the manufacturer, irrespective of other conditions.

$$p_i(c, q) = \frac{\alpha}{\alpha-1} \frac{c}{q} \quad (5)$$

where p_i is the ex-factory price of the product, c is the marginal cost of the firm, and q is the quality of the product. An optimized institutional environment can accelerate the free flow of factors, with limited factor resources being made available to more firms and reducing the factor costs of firms (Coase, 1973).

At the same time, an optimized institutional environment means better product market infrastructures, such as the construction of high-speed trains that reduce the cost of transporting goods, and increased internet penetration that reduces consumers' search costs as well as the cost of offline activities

(Han, 2016), all of which reduce the transaction costs that consumers have to pay. As a result, lower factor and transaction costs make imported goods more competitive, and the competitive effects among firms lead to a reduction in their pricing power and a lower market markup (Feenstra and Weinstein, 2010; Edmond et al., 2012), which leads to a negative correlation between market markup and institutional environment.

Therefore, the export price of the product is:

$$p_{ij}(c, q) = [\theta_j f_{ij} + \varphi_i(\text{ins}_i)] p_i(c, q) \quad (6)$$

where f_{ij} denotes the fixed cost of exporting and θ_j denotes the coefficient of increase in the fixed cost of exporting, where rising economic policy uncertainty in the destination country increases the fixed cost of exporting (Fan, Haichao and Guo, Guangyuan, 2015). $\varphi_i(\text{ins}_i)$ denotes that the market markup of the product is related to the institutional environment. Since the market markup is negatively related to the institutional environment, so $\partial \varphi_i(\text{ins}_i) / \partial \text{ins}_i < 0$.

Therefore, the export revenue of the enterprise is:

$$R_{ij}(c, q) = p_{ij}(c, q)x_{ij}(c, q) \quad (7)$$

Combining equations (4) and (6) into equation (7) yields the firm's export revenue as:

$$R_{ij}(c, q) = [\theta_j f_{ij} + \varphi_i(\text{ins}_i)]^{1-\alpha} \tilde{P}_j^{\alpha-1} E_j \quad (8)$$

3.3 Export decisions

Since there is heterogeneity in the products produced by manufacturing manufacturers, and this heterogeneity is mainly reflected in product quality, there is also a difference in the size of export trade for each manufacturer based on the consideration of product quality. Therefore, it is assumed that product quality obeys the Pareto distribution, a distribution function is:

$$G(q) = \frac{q_L^{-K} - q^{-K}}{q_L^{-K} - q_H^{-K}} \quad (9)$$

where the product quality $q \in [q_L, q_H]$ and K is

shape parameter. Thus, the size of a firm's export trade when considering the product quality distribution:

$$EX_{ij} = \int_{q_L}^{q_H} R_{ij}(c, q) dG(q) \quad (10)$$

Combining equations (8) and (9) into equation (10) yields:

$$EX_{ij} = \tilde{p}_i(q_H)^{1-\alpha} [\theta_j f_{ij} + \varphi_i(INS_i)]^{1-\alpha} \tilde{p}_j^{\alpha-1}$$

$$E_j \left\{ \frac{K}{\partial_1} \left[\left(\frac{q_L}{q_H} \right)^{-\partial_1} - 1 \right] \right\} \quad (11)$$

3.4 Mechanisms of influence

In order to obtain the relationship between economic policy uncertainty and the size of export trade, taking the logarithm of equation (11) yields:

$$\begin{aligned} \ln EX_{ij} = & (1 - \alpha) \ln q_H + \ln \tilde{p}_i \\ & + (1 - \alpha) \ln [\theta_j f_{ij} + \varphi_i(INS_i)] + \\ & (\alpha - 1) \ln \tilde{p}_j + \ln E_j + \ln \left\{ \frac{K}{\partial_1} \left[\left(\frac{q_L}{q_H} \right)^{-\partial_1} - 1 \right] \right\} \end{aligned} \quad (12)$$

Derivation of the fixed costs in equation (12) yields the relationship between the size of export trade and economic policy uncertainty in the destination country.

$$\frac{\partial \ln EX_{ij}}{\partial \ln f_{ij}} = \mu(f_{ij}) = \frac{(\alpha - 1) \theta_j f_{ij}}{\theta_j f_{ij} + \varphi_i(INS_i)} < 0 \quad (13)$$

Since $0 < \alpha < 1$ and $0 < \theta_j < 1$, so $\mu(f_{ij}) < 0$. Showing that economic policy uncertainty in the destination country will be negatively related to the export trade size of the exporting country, we propose that

Hypothesis 1: The export trade effect of economic policy uncertainty in the destination country is negative.

Since an optimized institutional environment increases the speed of flow of factors of production and breaks down resource constraints, companies can obtain more factors of production at less cost, reducing their production costs.

Combining $\partial \varphi_i(INS_i) / \partial INS_i < 0$, the partial derivative of equation (13) with respect to the regime

environment yields equation (14).

$$\begin{aligned} \frac{\partial \mu(f_{ij})}{\partial INS_i} &= \frac{\partial \mu(f_{ij})}{\partial \varphi_i(INS_i)} \frac{\partial \varphi_i(INS_i)}{\partial INS_i} \\ &= \frac{-(\alpha - 1) \theta_j f_{ij}}{[\theta_j f_{ij} + \varphi_i(INS_i)]^2} \frac{\partial \varphi_i(INS_i)}{\partial INS_i} < 0 \end{aligned} \quad (14)$$

Equation (14) shows that in an optimized institutional environment, factor mobility is less constrained and firms can obtain more resources at a lower cost. Thus, an optimized institutional environment can reduce firms' production costs and weaken the negative export trade effects of economic policy uncertainty in the destination country.

Hypothesis 2: An optimized institutional environment will attenuate the negative export trade effects of economic policy uncertainty.

4 MODEL SETTING

To further investigate the export trade effects of economic policy uncertainty in the destination country, the institutional environment and the moderating role of the institutional environment on the negative export trade effects of economic policy uncertainty. This paper applies the moderating effect to construct three models for empirical analysis as follows.

$$\begin{aligned} \ln Ex_{ijt} = & \alpha_0 + \alpha_1 \ln Epu_{ijt} + \alpha_2 \ln INS_{ijt} + \\ & \alpha_3 \ln INS \times Epu_{ijt} + \theta X_{ijt} + \beta_i + \gamma_j + \delta_t + \varepsilon_{ijt} \end{aligned} \quad (17)$$

In Equation (17), i is the destination country of manufacturing exports; j is the manufacturing industry segment; t is the year; Ex is the value of manufacturing export trade; Epu is the economic policy uncertainty of the destination country; INS is the institutional environment; $INS \times Epu$ is the interaction term between institutional environment and economic policy uncertainty; X is the control variable; β_i , γ_j , δ_t and ε_{ijt} denote individual effects, year effects and random error terms to control for unobserved factors that do not vary with individuals and time and to measure other influences that affect the explanatory variables but are not included in the

model; α_1 , α_2 and θ are parameters to be estimated. At the same time, the control variable destination country market size (*Per*), the destination country economic scale (*Gdp*), the geographical distance (*Dist*) between the two countries are added, and the trade openness degree of (*Tra*) are added

5. EMPIRICAL ANALYSIS

5.1. Baseline regression

In this paper, in order to maintain the stability of the model and reduce errors in the parameter estimation, country fixed effects, industry fixed effects and time fixed effects are controlled in the model based on the Hausman test. The estimation results are as follows: Table 1 Baseline regression results show that the inclusion of control variables affects the size of the coefficient on economic policy uncertainty without affecting its significance, positivity or negativity. The coefficients of economic policy uncertainty are all significantly negative and less than one at the 1% significance level, indicating that the export trade effect of economic policy uncertainty in the destination country is negative. The higher the economic policy uncertainty, the lower the export trade volume of China's manufacturing industry. While model (4) introduces control variables after controlling for time, industry and country level fixed effects, the significance of the coefficient of economic policy uncertainty does not change significantly. Meanwhile, the economic size of the destination country, market size and trade openness are positively correlated with the explained variables and the geographical distance is negatively correlated with the explained variables in line with the economic implications is significant at the 1% level of significance. In summary, the results of the empirical tests are generally consistent with the results of the theoretical analysis.

Table 1 Export trade effects of economic policy uncertainty

	(1)	(2)	(3)	(4)
	<i>Ex</i>	<i>Ex</i>	<i>Ex</i>	<i>Ex</i>
<i>Epu</i>	-0.144*** (0.019)	-0.087*** (0.019)	-0.087*** (0.019)	-0.060*** (0.019)
<i>Gdp</i>		0.591*** (0.037)	0.583*** (0.037)	0.674*** (0.052)
<i>Dist</i>			-0.083*** (0.018)	-0.096*** (0.018)
<i>Per</i>				1.446*** (0.272)
<i>Tra</i>				0.552*** (0.074)
<i>_Cons</i>	20.041*** (0.085)	3.419*** (1.035)	9.273*** (1.652)	-20.310*** (4.631)
<i>N</i>	6825	6825	6825	6825
<i>F</i>	268.371	278.022	261.673	238.580
<i>R²</i>	0.357	0.382	0.384	0.392
<i>Fixed effect</i>	Y	Y	Y	Y

Note (1) *, **, and *** are significance levels of 10%, 5%, and 1% respectively; (2) standard error in parentheses; The following table with.

5.2. Robustness analysis

In this paper, the explained variables, the explanatory variables and the empirical methodology are changed on the basis of the baseline regression to verify the robustness of the above findings. Firstly, the explanatory variables are replaced by a one-period lag of the economic policy uncertainty indicator in the destination country. There is a time lag between the enactment and implementation of economic policies, and there is also a lagged effect on the impact on the subjects of economic behavior. Secondly, the ratio of various manufacturing exports to total manufacturing exports replaces the explained

variables to show the strength of China's various manufacturing exports. Lastly, the explained variables were subjected to a tailing process to remove outliers and extreme values from the data, making the results more robust. The results are as follows: In contrast to the results in Table 1, the regression results in Table 2 shows that the direction and significance levels are essentially the same between the variables, except for slight fluctuations in the regression coefficients. The export trade effect of economic policy uncertainty in the destination country is still negative, and the empirical results are stable regardless of the indicators chosen, indicating the stability of the model setting and the selection of indicators.

Table 2 Robustness analysis

	(5)	(5)	(5)
	<i>Epu_1</i>	<i>Ex1</i>	<i>Winsor</i>
<i>Epu</i>	-0.054*** (0.020)	-0.060*** (0.019)	-0.032** (0.015)
<i>Gdp</i>	0.617*** (0.055)	0.674*** (0.052)	0.474*** (0.040)
<i>Dist</i>	-0.069*** (0.026)	-0.096*** (0.018)	-0.062*** (0.014)
<i>Per</i>	1.837*** (0.303)	1.446*** (0.272)	1.952*** (0.206)
<i>Tra</i>	0.614*** (0.077)	0.552*** (0.074)	0.280*** (0.056)
<i>_Cons</i>	-28.049*** (5.177)	-47.492*** (4.631)	-24.892*** (3.506)
<i>N</i>	6300	6825	6825
<i>F</i>	209.819	33.566	321.949
<i>R²</i>	0.368	0.083	0.466
<i>Fixed effect</i>	Y	Y	Y

5.3 Heterogeneity analysis

This paper classifies China's industrial sectors into low, medium and high technology level manufacturing industries based on the United Nations Standard

International Trade Classification (SITC Rev. 3) and a cross-reference table. The empirical results show that there are significant differences in the effects of economic policy uncertainty on the export trade of manufacturing industries at different technology levels. The results are shown in Table 3: after the inclusion of control variables, the export trade effect of economic policy uncertainty on low-tech and high-tech manufacturing industries is negative, and both are significantly negative at the 1% level of significance. However, it is worth noting that economic policy uncertainty has the largest negative export trade effect on low-tech manufacturing, followed by high-tech manufacturing, and no effect on medium-tech manufacturing. This is mainly due to the fact that low-tech manufacturing products tend to be resource-based products, while medium-tech manufacturing products tend to be essential and consumer goods. As a result, domestic and foreign consumers, who are the main demanders of products, are more concerned with necessities and consumer goods that are closely related to their own lives, and these consumer demands will create scale and competition effects for products and thus absorb the negative effects of economic policy uncertainty. In addition, high-tech manufacturing products are mainly parts and components of highly sophisticated industries such as electronics, aerospace and telecommunications, and the enterprises exporting these products have monopoly status.

Table 3 Heterogeneity of technology types

	(1)	(2)	(3)
	<i>Low-tech</i>	<i>Medium-tech</i>	<i>High-tech</i>
<i>Epu</i>	-0.106*** (0.029)	0.006 (0.034)	-0.069* (0.035)
<i>Gdp</i>	0.664*** (0.077)	0.850*** (0.091)	0.307*** (0.095)

<i>Dist</i>	-0.105*** (0.027)	-0.116*** (0.032)	-0.020 (0.034)
<i>Per</i>	1.773*** (0.401)	1.546*** (0.477)	0.241 (0.498)
<i>Tra</i>	0.559*** (0.109)	0.749*** (0.130)	0.087 (0.135)
<i>_Cons</i>	-25.436*** (6.808)	-26.318*** (8.111)	8.586 (8.468)
<i>N</i>	3276	2457	1092
<i>F</i>	135.052	69.758	56.229
<i>R²</i>	0.433	0.345	0.491
<i>Fixed effect</i>	Y	Y	Y

5.4 Further tests

5.4.1 Moderating effects of the institutional environment

In this paper, heterogeneity in the moderating effects of the institutional environment is regressed on manufacturing industries at different technology levels when using the China WGI index. When considering the moderating effect of institutional environment, the coefficient on institutional environment is significantly positive at the 1% significance level after the introduction of the institutional environment variable in (1), indicating that the export trade effect of institutional environment is positive. The coefficients of the cross-product terms of economic policy uncertainty and institutional environment in the destination country are both significantly negative at the 1% level of significance, indicating that optimization of the institutional environment weakens the negative export trade effect of economic policy uncertainty, which in turn increases Chinese manufacturing exports. At the same time, when considering the heterogeneity of technology types in the moderating effect, the institutional environment has a positive export trade effect on low-tech and high-tech manufacturing

industries, and no effect on medium-technology manufacturing industries. The significance of the interaction term suggests that the moderating effect of the institutional environment on the export trade effect of economic policy uncertainty in the destination country is also only for low-technology manufacturing, but not for medium- tech and high-tech manufacturing.

Table 4 Moderating effects of the institutional environment

	(1)	(2)	(3)	(4)
	<i>Full sample</i>	<i>Low-tech</i>	<i>Medium-tech</i>	<i>High-tech</i>
<i>Epu</i>	-0.256*** (0.064)	-0.400*** (0.094)	-0.082 (0.112)	-0.216* (0.117)
<i>Ins</i>	0.303** (0.150)	0.525** (0.221)	-0.209 (0.263)	0.790*** (0.275)
<i>Ins×Epu</i>	-0.079*** (0.024)	-0.118*** (0.036)	-0.035 (0.043)	-0.059 (0.045)
<i>Gdp</i>	0.700*** (0.053)	0.703*** (0.078)	0.862*** (0.093)	0.326*** (0.097)
<i>Dist</i>	-0.099*** (0.018)	-0.110*** (0.027)	-0.118*** (0.032)	-0.022 (0.034)
<i>Per</i>	1.229*** (0.280)	1.448*** (0.412)	1.449*** (0.492)	0.078 (0.513)
<i>Tra</i>	0.555*** (0.074)	0.564*** (0.109)	0.750*** (0.130)	0.089 (0.135)
<i>_Cons</i>	-16.285*** (4.797)	-19.174*** (7.046)	-25.663*** (8.408)	13.478 (8.775)
<i>N</i>	6825	3276	2457	1092
<i>F</i>	226.238	128.561	65.911	53.241
<i>R²</i>	0.393	0.435	0.345	0.492
<i>Fixed effect</i>	Y	Y	Y	Y

5.4.2 Endogenous problems

Referring to the instrumental variables chosen by Hu et al. (2021), the 1993 government stability index of the destination country provided by the International Country Risk Guide (ICRG) is used as the

instrumental variable and the model is regressed using panel 2sls least squares to further mitigate the endogeneity effect. 1993 government stability index is an indicator of the stability of a country's development, and a larger value means that a more stable government higher stability means lower economic policy uncertainty, satisfying the correlation hypothesis. In addition, the 1993 destination government stability index is not directly related to China's manufacturing exports in 2007 and beyond, satisfying the exogeneity hypothesis. Table 5 reports the results of the estimation using the 1993 destination government stability index as an instrumental variable. The results show that: there is a significant negative correlation between the 1993 destination government stability index as an instrumental variable and economic policy uncertainty in the destination country, based on the instrumental variable estimation results, it can be seen that the core findings of this paper are consistent with the benchmark regression after accounting for endogeneity.

Table 5 Estimates of instrumental variables

	(1)	(2)	(3)
	Baseline	Stage I	Stage II
<i>Epu</i>	-0.060*** (0.019)		-2.361*** (0.182)
<i>IVEpu</i>		-0.110*** (0.003)	
<i>Gdp</i>	0.674*** (0.052)		1.322*** (0.047)
<i>Dist</i>	-0.096*** (0.018)		-0.058*** (0.006)
<i>Per</i>	1.446*** (0.272)		-0.132*** (0.035)
<i>Tra</i>	0.552*** (0.074)		0.527*** (0.060)
<i>N</i>	6825	6825	6825

<i>Anderson canon.</i>			860.603
<i>corr. LM statistic</i>			
<i>Cragg-Donald</i>			982.182
<i>Wald F statistic</i>			
<i>Fixed effect</i>	Y	Y	Y

6. CONCLUSIONS AND POLICY RECOMMENDATIONS

6.1. Conclusions

The results show that: firstly, the export trade effect of economic policy uncertainty in the destination country is negative; secondly, institutional environment optimization not only has a positive export trade effect, but also moderates the negative export trade effect of economic policy uncertainty; finally, economic policy uncertainty has the largest negative export trade effect on low-tech manufacturing, followed by high-tech manufacturing, and basically has no effect on medium-tech manufacturing. There is no effect on medium-tech manufacturing.

6.2 Policy recommendations

Combined with the findings of this paper, the following recommendations are made: Firstly, the rapid development of national economies foreshadows the inevitability of increased economic policy uncertainty. Therefore, instead of passively accepting the negative effects of economic uncertainty, manufacturing enterprises should take the initiative to actively respond to the changes in the international environment. Secondly, the strength of the institutional environment has always been an important influencing factor on China's foreign trade. In order to better promote China's exports and better cope with the external environment, the government should play to its strengths, establish a good information communication mechanism and build an information sharing platform to break the uncertainty

of the domestic market shocks. Thirdly, as a major manufacturing country, China's exports are still concentrated in low-tech and medium-tech levels, with high-tech manufacturing lagging far behind that of developed countries. Therefore, China should promote the upgrading of the manufacturing export structure and improve the influence of the institutional environment on medium-tech and high-tech manufacturing.

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