

# The influence of unsure trade policy for China

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**Abstract.** With the complex world political economic situation, the influence of unsure trade policy for trade, microeconomics, and macroeconomics gained a lot of attraction, which become an up-to-date topic in the political research industry in recent years. This article from the microeconomic of a Chinese entrepreneur perspective, which based on introduces the concept of the unsure trade policy (TPU), its theoretical mechanism, and empirical measurement to have further analysis of unsure political trade 's influence on Chinese companies: First of all, the influence of trade policy uncertainty on the export of Chinese enterprises includes four aspects: the export scale of enterprises, the quality and price of export products, and the technical complexity of export; Second is that the Chinese companies deciding TPU influence, the result may wait and delay investment, evaluate and carefully choose investment projects, adjust supply chains, prudently treat overseas investment and choose to stabilize the market. The end of the article concludes the influence of unsure political trade for Chinese entrepreneurs and expanding the future situation.

## 1 Introduction

With President Donald Trump announcing retreat from TPP, the UK's exit from the EU, and the crisis of European immigration, these events happened, the international political and economic situation became more and more complex, and instability increased significantly. From an international trade perspective, the China-American trade war, these kinds of reverse globalization events gradually upgrade. It has become a popular topic for observers to analyze whether should invest. With the flourish of trade protection, Chinese trade policy faces an increasing majority of uncontrol situations every year, which affected the stability of Chinese companies' exports seriously. While trade policy unsure (TPU) exists in international trade widely, trade friction or operational risks will directly or indirectly influence the export companies' distribution ways or production decisions, etc. In this way, the TPU is closely related to the export behavior of enterprises, and relevant research needs to be improved.

The existing essay on trade freedom, exchange rate fluctuations, financing restrictions, and a lot of other perspectives talks about export expansion and export upgrade in different ways, but the essay on TPU is not enough. As a result, this article from microeconomics connects the TPU with Chinese entrepreneurs to use a new version to explain the behavior of Chinese companies' exports, to help the companies more systematically, understand the entrepreneurs' export problems well-rounded under the TPU background, to know the future direction of the companies.

## 2 An overview of TPU research

### 2.1. The original research

With global political and economic changes, TPU already become an important issue in the international trade research industry. TPU is a type of economic trade uncertainty. Economic trade uncertainty includes trade policy, financial policy, currency policy, industry policy, etc. Most trade perspectives are always mainly focused on the effects of actual trade policies on trade prices and flows. But in recent years, some researchers have tended to change their concentrations, and begin to pay more attention to researching some connected questions about TPU, which will have an important influence on some participating international trade companies, then further affect the export trade and other relevant economic variates.

The academic research on the uncertainty of trade policy is gradually deepening. The creators of this are Professor Handley from the University of Michigan and Professor Limao from the University of Maryland [1-3]. They started talking about the effects of TPU after coming up with a method to quantify it. These studies fall into two categories of perspectives: the first examines the direct effects of TPU on trade and other economic variables, while the second looks at the effects of TPU reduction brought about by a variety of factors, particularly trade agreements, on trade and other economic variables. The other is researching how trade and other economic variables are affected when TPU is reduced for a variety of reasons, particularly trade

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agreements. The impact of TPU on Chinese enterprises is the main topic of this article.

## 2.2 The definition of TPU

Some foreign professors started to discuss how to define TPU, and what is uncertainty. From an economic perspective, Jurado & Ludvigson believe that uncertainty is that some policy fluctuations or future economics cannot be predicted [4]. Handley & Limao extend this mechanism to TPU. What is TPU? Handley believes that when trade policies are likely to change, especially when they are likely to become worse, they will significantly affect enterprises' decisions on irreversible investment [1]. In particular, Handley and Limao contended that, about the United States' Permanent Normal Trade Partnership with China, TPU pertains to the degree to which Chinese export companies' earnings will decline if China is not awarded the MFN designation [3].

This topic also attracts a lot of domestic trade professors' attention and followers, which makes it a popular research topic. Tong Jiadong and Li Shengqi defined TPU as a state without rules and legal protection in inter-country trade [5]. Nonetheless, TPU, according to Yu Miaojie and Zhu Guanghui, refers to potential changes in trade policy that are not predictable by the institutions or businesses that are in place at the moment [6]. Begin Match, according to Gong Lianmei and Qian Xuefeng, is the fourth source in the source list. submitted to the University of Birmingham on September 11, 2019 uncertainty is defined as the state of ambiguity around investment environment information, encompassing policy, economic, and Begin Match uncertainties to source 4 in the list of sources. Factor market price, product market price, end match, and begin match to source 4 in the source list were sent to the University of Birmingham on September 11, 2019; submitted on 2019-09-11 to the University of Birmingham; additional end match details [7].

According to a tidy analysis of the essay, it is clear to summarize the commonality, change, unknowability, unpredictability, irreversibility, and loss between different people's different expressions, and the concept of TPU. Based on these words, the whole article makes the concept and definition of TPU: In the absence of rules and laws, future trade policy fluctuations that cannot be predicted by institutions, enterprises, or other economic variables may cause certain economic losses.

## 3 Research basis

### 3.1 Theoretical mechanism

The study of TPU has its origins in the general study of uncertainty in the economic environment, and the focus of this study of uncertainty in the economic environment has been to explore the impact of uncertainty in the external environment on the investment decisions of firms. The theoretical mechanism by which TPU affects trade is derived from the mechanism by which external

environmental uncertainty affects firms' investment as articulated by Bernanke [8] and Dixit [9], who are pioneers in the study of uncertainty in the economic environment, and who laid out the theoretical foundations of corporate investment decisions under environmental uncertainty. Among them, Bernanke explored the risks caused by uncertainty in the economic environment (including uncertainty in the market prices of products and factors, and the operating state of the macroeconomy) [8], while Dixit explored the non-recoverable nature of firms' market entry costs [9].

According to their idea, a company should begin matching to source 13 in the source list if its investment costs are irrecoverable sunk costs and its external environment is unpredictable. submitted on September 7, 2022, to the University of Bristol will postpone investing until the business climate improves or the investment risk is removed. Put simply, a firm's investment is delayed by uncertainty in the external environment Match. In the case of uncertainty in the external environment, enterprises are faced with the choice of investing immediately or postponing investment: the cost of investing immediately is that once the external environment deteriorates, its return may be lower than the cost of investment; the cost of postponing investment is that if the external environment does not deteriorate, it will lose the benefits of the current investment. Enterprises make decisions based on whether the enterprise expects future returns higher than the cost of investment, it will choose to invest immediately, otherwise, it will choose to postpone investment. Uncertainty in the external environment can cause the firm's expected future returns to be lower than the cost of investment, thus causing the firm to postpone investment.

Handley and Handley & Limao extend the application of this mechanism to the impact of TPU on trade [1-3]. At this point, the external environmental uncertainty evolves into TPU, and the firm's investment is an investment in the export market. Under external TPU, firms face the choice of entering export markets immediately or delaying entry. It decides that if the firm's expected future earnings are higher than its cost of entering the export market, it will choose to enter the export market immediately, otherwise, it will choose to delay entry. TPU, on the other hand, can cause a firm's expected future earnings to be lower than its cost of entering the export market, which can lead to a firm's delayed entry into the export market.

According to the above mechanism, when TPU increases, that is, when the probability of an unfavorable change in trade policy increases or the magnitude of the change increases, the firm's expected returns will decrease. In contrast, the firm's cost of entering the export market will not change, which will lead to the fact that only a smaller number of firms with their efficiency higher than a certain threshold will be able to enter the export market, and some of the less-efficient ones that have already entered the export market firms in the export market will exit the export market. If TPU is reduced, this leads to the opposite result. In sum, TPU affects exports by influencing the choices of firms in

entering and exiting export markets (trade breadth, i.e. the margin of expansion of trade).

### 3.2 Empirical measurement

TPU is measured by an empirical measure of TPU, which is established based on its theoretical mechanism. According to its theoretical mechanism, the impact of TPU depends on the probability of an unfavorable change in trade policy and the magnitude of its change. The empirical measure of TPU has the following two main methods: text extraction method and difference estimation method.

The text extraction method focuses on measuring the probability of an unfavorable change in trade policy. The metric for this approach is represented by the "uncertainty index". This metric is derived from the "economic policy uncertainty index" constructed by Baker et al using the frequency of news reports approach [10], which was extended by Handley & Limao to construct the "TPU index" [11]. The basic idea is to combine the news reports of newspapers or news websites in a certain period that mention "trade", "economy", "policy", "laws and regulations", "uncertainty", and "TPU index". The idea is to standardize the number of articles in a certain period in a newspaper or news website that mention the keywords "trade", "economy", "policy", "laws and regulations", "uncertainty", "deficit", and so on. This is a relatively intuitive measure, but the problem is that the accuracy of the metrics may be greatly affected by the fact that the selection of newspapers, news websites, and keywords is highly subjective and may not accurately reflect changes in a specific trade policy and that there are problems with the multiple distribution and re-dissemination of news stories.

The second difference-in-differences estimation method focuses on measuring the magnitude of unfavorable changes in trade policy for firms. This method uses the difference in tariff changes as a measure of TPU, and this measure is widely used. For example, Handley states that TPU arises from the difference between WTO members' tariff ceilings (bound tariff) and actual tariffs (applied tariffs), which may be raised to the tariff ceilings, and therefore the difference between the two is used as a measure of tariff uncertainty [1]. Handley & Limao note that TPU stems from the possibility that Portugal loses the preferential tariffs it enjoyed before EC accession and returns to general MFN tariffs, and therefore measures tariff uncertainty in terms of the difference between the two [2]. Handley&Limao, and numerous others discussing the uncertainty of U.S. trade policy towards China before China acceded to the WTO point out that this uncertainty stems from the possibility that the U.S. could remove China's MFN trade treatment and raise its tariffs on China to the historical Smooth-Hawley tariffs, and therefore use the difference between the two as a measure of tariff uncertainty [3].

The second measure mentioned above sometimes directly uses the algebraic difference between the two

tariffs and sometimes makes some technical adjustments according to the theoretical model of the article. Yu Miaojie and Zhu Huihuang, on the other hand, introduce these metrics with technical adjustments as a separate method [6]. However, no matter what the specific metrics are, the core idea is the same, which is to measure the size of the magnitude of possible tariff changes. This measure is simple, easy to calculate, and more accurate, which is significantly better than the first method, so its application is more common.

### 3.3 The impact of TPU on Chinese firms' exports

As the direct target of TPU, and as the world's largest manufacturing exporter, China has a strong export base and market diversity, so Chinese exporters are usually able to adapt to different trade policy environments. Still, in general, TPU will have a certain negative impact on the exports of Chinese enterprises, but China is capable of adapting to and coping with such challenges. Many scholars have conducted in-depth research on the impact of TPU on enterprise exports, and the research direction mainly focuses on the following three directions: the scale of enterprise exports, the quality and price of enterprise exports, and the technical complexity of enterprise exports.

First, Wei Xi conducted an empirical study on the impact of TPU on China's exports, taking into account the type of enterprise. The study found that TPU significantly negatively affects China's enterprises' export behavior, which is specifically manifested as follows. The study was based on China's enterprise level and used customs data, industrial enterprise data, and WTO tariff data from 2007 to 2016. A more notable detrimental effect on Chinese businesses' export values, as well as the kinds and quantities of goods they export [12]. Wang Yannan et al. attempted to explain China's export expansion and export upgrading from the new perspective of TPU based on the policy background of China's conclusion of free trade agreements. They did this by introducing TPU into the quality heterogeneity model and reasoning out the equation of the relationship between TPU on export expansion and export upgrading. They found that a decrease in TPU is conducive to the expansion of the export scale and that TPU reduction has become a new strategy for Chinese enterprises looking to expand their exports [13].

Secondly, in terms of the quality and price of export products, Wei Yueyue Antelope and Zhang Hongsheng used the double difference method and triple difference method to find that when TPU is reduced, State-owned enterprises, private enterprises, and foreign-funded enterprises have seen a significant decrease in the export prices of their products., so it can promote the enhancement of the productivity of enterprises, and the construction of stable foreign trade environment is an important way of stabilizing the growth of foreign trade, and when trade friction is intensified The negative impact of rising uncertainty can be hedged by accelerating domestic reforms [14]. Sun Lin and Zhou

Kechuan conducted an empirical test by using nearly 15 years of micro enterprise-level data for the China-ASEAN Free Trade Area, pointing out that the decline in TPU is conducive to the introduction of advanced technology and equipment by enterprises, thus further improving the quality of product exports [15].

Finally, in terms of the technical complexity of enterprise exports, Liu Meixiu found that the decline in TPU has a significant contribution to the improvement of the technical complexity of enterprise imports, and this effect changes with the size of the enterprise, its age, whether it exports, and the different forms of enterprise ownership, and the decline in TPU affects the improvement of the technical complexity of imported technology through the export effect of the enterprise, including the export-induced scale-up effect and the export learning effect [16]. Han Huixia put forward the impact of trading partner unsure trade policy on the technical complexity of a country's high-tech industry exports, the study found that the rise of trading partner unsure trade policy will inhibit the deepening of the complexity of a country's high-tech industry exports, and the unsure trade policy caused by the technical barriers to trade initiated by the trading partner on a country's high-tech industry export technical complexity is more than that of the tariff changes brought about by the unsure trade policy.

### **3.4 The impact of TPU for Chinese entrepreneurs on investment decision**

The general study of uncertainty in the economic environment, which focuses on the influence of uncertainty in the external environment on business investment decisions, is the source of research on TPU. Chinese corporate investment decision-makers are significantly impacted by TPU. The impact of TPU on Chinese corporate investment decisions has been examined in prior research using four different influencing elements. They are as follows: modify supply chains, assess and pick investment projects carefully, postpone investment and wait, and use caution when selecting stable foreign investment markets.

First, TPU increases the prudence of enterprises in investment decision-making, which leads to enterprises choosing to postpone or cancel originally planned investment projects, because decision-makers of enterprises worry that the change of trade policy will adversely affect the feasibility and return of investment projects, so enterprises will choose to wait and see and delay investment. However, prudent decision-making does not mean that enterprises give up opportunities altogether. Enterprises can also cope with uncertainty through flexibility and agility, for example, by diversifying trading partners, adjusting product mix, and exploring emerging markets to diversify risks and seek growth opportunities.

Secondly, TPU increases the risk of investment. TPU will lead to changes in market access conditions, tariff increases, export restrictions, etc., which will have an impact on the feasibility and expected returns of an

enterprise's investment projects. Enterprises will assess the policy risks and choose investment projects carefully to minimize the risks. However, enterprises can mitigate the investment risks associated with TPU in several ways, for example, they can diversify their trade to reduce their dependence on a particular market or trading partner, and they can look for more stable investment opportunities, long-term partners and reliable suppliers.

Third, TPU can prompt firms to reassess their supply chain strategies. Increased TPU can lead to trade frictions or export restrictions, so in some cases firms may need to adjust their supply chains to reduce their dependence on markets, thereby reducing the impact of policy uncertainty on their business.

Fourth, increased TPU may be influenced by geopolitical factors in different countries, i.e. policy uncertainty may increase geopolitical risks, including intergovernmental tensions, trade frictions, and sanctions against foreign firms, which would force firms to be more cautious about investing abroad and encourage them to choose stable and relatively low-risk markets.

## **4 Conclusion**

TPU refers to the uncertainty of the degree or probability of possible changes in trade policy in the future, trade policy is a policy measure formulated by national and regional governments to manage and adjust international trade activities, including tariffs, trade subsidies, changes in trade barriers, etc. TPU can originate from government adjustments, trade frictions, changes in tariff policy, and other factors. In this paper, we sort out the literature on the impact of TPU on Chinese enterprises and study the impact of TPU on Chinese enterprises from the impact of TPU on Chinese enterprises' exports and the impact of TPU on Chinese enterprises' investment decisions.

Chinese enterprises will make the following four adjustments in response to the increase in TPU: increase innovation investment and technological upgrading, adjust investment choices, strengthen international cooperation, and policy trade agreement adjustments.

Firstly, as TPU will have an impact on the exports of Chinese enterprises, Chinese enterprises will, in the face of this challenge, increase their investment in innovation and technological upgrading to improve the competitiveness of their products and reduce their dependence on imports, and to cope with the more intense international trade competition by improving production efficiency, product quality, and technological level. Chinese firms can work closely with the government to better cope with and respond to the impact of policy uncertainty while maintaining and increasing their competitiveness in an uncertain environment to seek more development and growth.

At the same time, Chinese companies will adjust their investment choices, turning their attention to the domestic market or looking for other relatively stable markets to reduce the impact of TPU on their business. As China strengthens its policy of guiding domestic demand and diversifying its market layout, Chinese

companies are likely to continue to look for opportunities in the domestic market and increase their investments in emerging markets and developing countries. At the same time, Chinese companies need to establish effective investment risk management mechanisms to cope with risks and enhance internal resource allocation to ensure changes in an uncertain environment.

Secondly, in the face of TPU and the challenge of unilateralism, Chinese enterprises will advocate strengthening international cooperation and support multilateralism by actively participating in and promoting the negotiation and signing of free trade agreements, establishing more trade partnerships, and strengthening economic cooperation with other countries and regions, thereby creating more opportunities and market access for Chinese enterprises. Reduce dependence on a single market and explore new international markets to share risks and find more opportunities in more diversified markets. At the same time, we should actively transmit our national values and business ethics and maintain confidence in our market based on a good corporate reputation to increase the trust of domestic and foreign consumers.

Finally, in the face of the development trend of the global economic community, Chinese enterprises need to make changes in policies and trade agreements, and actively adjust and plan according to the maximization of benefits and the needs of multinational markets. In addition, governments need to break down trade barriers between countries and actively promote economic integration, including changes in tariffs and trade agreements, to open to the principle of mutual benefit in trade.

## Authors Contribution

All the authors contributed equally and their names were listed in alphabetical order.

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