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Understanding China’s Foreign Trade Policy: A Literature Review

Abstract  China has continued to experience rapid growth in its foreign trade since the implementation of its reform and opening-up policies. In recent years, the country has become the world’s largest exporter and second largest importer of goods and commodities. China’s trade policy has also gradually been transforming from protectionism to open trade. This paper aims to provide a comprehensive survey on the literature of China’s trade policy. The review covers (1) export and import policies, (2) tariff and non-tariff barriers, and (3) policy effects and motivations behind the policy design. This paper also reports on important topics and issues that deserve more research attention.

Keywords  trade, trade policy, reform, China

JEL Classification  F13

1 Introduction

China has gradually been integrated into the global economic system since the implementation of its reform and opening-up policies in 1979. Before 1980, China was a negligible player in the global market; since 2009, however, the country has become the largest exporter of goods and commodities. China’s share in world merchandise export surpassed 10% in 2010 and reached 11% in 2013. China is also the second largest country in terms of merchandise import, comprising 10.32% of world import in 2013. Along with this impressive
performance in export and import, China’s trade policy has also undergone dramatic changes. The policy has been moving away from stringent export qualification and restrictive import barrier system toward a more market-oriented and transparent framework of trade policy. In particular, China had continuously lowered its tariff and non-tariff barriers (NTBs) during the 1990s in the pursuit of WTO accession, and liberalized in line with its commitment to the WTO since 2001. Trading rights have been fully liberalized; most quotas, licenses, and price controls have been removed, and strong disciplines have been imposed on state trading enterprises, remaining subsidies, and other NTBs. Import quotas were eliminated in 2005. China does not maintain any export subsidies, including those in agriculture (WTO review, 2014). In addition to its active participation in multilateral negotiations under the WTO framework, China is also actively engaged in the establishment of regional trade agreements (RTAs), especially with other Asian countries.

Trade policies not only directly effect a country’s foreign trade, but also economic growth and social welfare (Harrison, 1996; Frankel and Romer, 1999). In general, open and transparent trade policies can considerably promote economic development and enhance social welfare. In contrast, restrictive and discriminatory policies are harmful to the development of foreign trade and economic activities. China is an ideal subject of investigation because we have witnessed rapid growth in both trade and GDP in the past 30 years along with trade liberalization.

Our objective is not to list all regulations on imports and exports, but to understand the effects of these policies and the rationale behind them. Through this literature review, we hope to develop a more comprehensive understanding of China’s trade policy. This review will also help identify areas/topics that have not yet received sufficient attention. Numerous research papers have discussed China’s trade policy. Similar to any survey article, our survey is highly selective in a number of dimensions. First, we only review the literature on China’s merchandise trade policies, leaving out service trade policies. 1 Second, we focus mainly on the most recent articles. Specifically, we only include research articles from 2000 onwards because China’s trade policies have undergone dramatic

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1 Although service trade also has significant impacts on China’s economic growth and employment, we choose to focus our discussion on merchandise trade policies due to space constraint. For readers interested in China’s service trade policy, please refer to the survey by Chen and Whalley (2014).
changes over the past two decades, especially after China’s accession to the WTO in 2001. We must obtain a systematical picture of these policy changes and the present situation. Third, we mainly select already published and forthcoming articles, with some very recent and important working papers. Our survey is strongly biased toward research papers published in English journals. Fourth, our survey only covers papers related to China’s foreign trade policy; we exclude studies on the effects of foreign countries’ trade policies on China. Finally, almost all studies on China’s trade policy are empirical by nature. A few papers include some theoretical analyses, but with the primary purpose of understanding their empirical findings. However, pure theoretical papers on China’s trade policy are rare.

All papers discussed in our survey have some common features. First, in their analyses, most papers adopt methodologies developed in the existing literature on international trade. Hence, our discussion will focus on the applications of these methodologies to China’s trade data, regardless of the analytical frameworks of these studies. Second, many papers conduct their empirical analyses using the same sources of data on China’s trade and manufacturing activities. Thus, to avoid repetition, we list a few common sources here instead of mentioning the data source of each paper at a latter part. The main sources of trade data include *China Customs Monthly Statistics, China Customs Statistical Yearbook*, United Nations Comtrade database, World Integrated Trade Solution (WITS) database, and United Nations Conference on Trade and Development trade database. Tariffs and other tax rates are obtained from the World Development Indicators database of World Bank, WITS database, and WTO website. Chinese firm-level statistics are obtained from the Annual Survey of Industrial Firms from the National Bureau of Statistics of China and ORBIS database. Chinese provincial and industry-level data are gathered from *China Statistical Yearbooks* and *Almanac of China’s Finance and Banking*. Later in the paper we will also mention data uniquely collected and compiled by the authors.

The rest of this paper is organized as follows. Section 2 provides a brief summary of China’s foreign trade policies. Section 3 discusses papers investigating the effects of China’s export and import policies. Section 4 reviews articles on China’s participation in multilateral and regional trade negotiations. Section 5 analyzes the formation of China’s trade policies. Finally, we present concluding remarks in Section 6.
2 Trade Policy Review

2.1 Import Policies

Import policies include tariffs, quantitative restrictions, and contingency trade policies. In 2013, China’s simple average applied most-favor-nation (MFN) duty rate was 9.4%. The simple average applied MFN rates for agricultural and non-agricultural products were 14.8% and 8.6%, respectively. Approximately 70% of the lines of imported products face MFN tariff of less than 10%. As a result, tariff revenue only accounted for a very small part of China’s total tax revenue. Of the 37 least developing countries (LDCs), 30 enjoy duty-free treatment on 95% of all tariff lines for their export to China, and the average preferential tariff applied to the 37 LDCs was 5% at the beginning of 2013 (WTO review, 2014). In addition to tariffs, China also collects value-added tax (VAT) on imports at border. The current VAT rates are 17% for most manufacturing goods and 13% for most agriculture goods. However, imports used for processing trade may be granted VAT reductions or exemptions in accordance with relevant provisions.

On non-tariff barriers, China has no import restrictions inconsistent with the WTO, except for several import prohibitions on public health and environment protection collectively called technical barriers to trade (TBTs). China is an active member of the WTO Committee on TBTs and has made more than 167 notifications to the Committee on TBTs from 2012 to 2013.

China maintains contingency trade policies. Contingency trade policies are policies that will be invoked depending on the trade practice of other countries and various situations. These policies include, but are not limited to, anti-dumping (AD), countervailing (CV), and safeguards.

The legal framework to conduct AD investigations and apply measures is provided by the Foreign Trade Law of China, which entered into force on July 1, 2004. AD is widely used by China. For example, China launched 5, 9, and 11 AD investigations in 2011, 2012, and 2013, respectively. By the end of 2013, China had 113 AD duties in effect. Imports from 16 countries or territories were affected. Imports from Japan are subject to the largest number of China’s AD duty, accounting for about 19.5% of the total, followed by those from the US (17.7%) and South Korea (14.2%). Chemical products account for 62.8% of AD cases in China, while the other 22.1% of the cases involve resins, plastics, and
rubbers. China’s exports are subject to many more AD investigations by other countries, making China the world’s largest AD target.

The main legal framework of the other two types of contingency import policies is also contained in the Foreign Trade Law of China, but these policies are used less frequently. The investigation process of foreign export subsidy and imposition of CV duty in China is similar with that of AD. China only initiated two CV investigations in 2012 and none in 2013. In the previous years, one investigation was held in 2009 and two in 2010, all of which resulted in the imposition of CV duties. At the end of 2013, three CV duties affected imports from the US and EU. Safeguarding is rarely implemented in China. China has initiated only one safeguard investigation, on certain steel products, after the country’s accession to the WTO.

2.2 Export Policies

According to government reports, China has eliminated all export subsidies. Export tax is seldom used in China. The simple average export tax rate on dutiable items was around 14.5% in 2011, but was only 0.6% when all HS-8 digit tariff lines were included.

Under Chinese policy, all domestic excise taxes are fully rebated upon export. However, VAT rebate is generally lower than the VAT rates actually paid, and the rebate rates differ across industries and time. China adjusts the VAT rebate rates as part of its industrial policies to “manage” the export of certain products. In the revision promulgated in December 2014, China removed VAT rebate for exports of several steel products and increased rebate rates for exports of several corn-produced and textile products. The extent of VAT rebate rates adjustment in this round is minor compared with the previous ones.

China has released five batches of export prohibition catalogues since its accession to the WTO. Introduction of export prohibition catalogues is based mainly on China’s international obligations and domestic considerations on environmental protection, human health protection, and preservation of natural resources. The latest revision of export prohibition catalogue was on January 1, 2009. This revised catalogue lists commodities and technologies under 150 codes,

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2 The export tax rebate policy generally refers to the VAT rebate policy. Thus, export rebate rates are actually VAT rebate rates.
33 of which are prohibited from export and 117 restricted from export. Examples of prohibited or restricted items include seeds and breeding technologies of certain varieties of plants and animals, such as silkworm eggs and breeding technologies of giant pandas. The revised catalogue also prohibits or restricts the export of certain raw materials used in Chinese medicine and of global positioning system (GPS) technologies that transmit China’s geodetic data.

Among the products subject to export restrictions, rare-earth products have captured significant attention in recent years. Rare earth has been subject to export tax and quota since 1999, but the quotas became much more restrictive in 2010. The annual quotas are allocated to enterprises twice a year. Since June 1, 2011, enterprises exporting rare earth and other related products are required to declare the percentage of rare-earth components, by weight, contained in their export goods. In response to these restrictions, the US, EU, and Japan filed petitions to the WTO regarding China’s rare-earth export policy in 2012 (case codes DS431, DS432, and DS433). The WTO made preliminary rulings against China on March 26, 2014, stating that China’s rare-earth export restriction violates WTO rules. The panel report claims that China failed to justify their reasons, such as the need to conserve resources and protect the environment, in implementing the restriction policy. While no restriction is imposed on domestic enterprises to produce or trade rare earth, the WTO considered China’s quota system as discriminatory. On August 7, 2014, the WTO appellate panel rejected China’s appeal on rare-earth disputes and upheld the original ruling that China’s trade policy on rare-earth export violates the WTO rules. To comply with this WTO ruling, China officially announced the abolishment of all quota and export tax applied to rare-earth exports at the end of December, 2014.

2.3 Summary and Comments

China’s *de jure* trade policies are comparable with those of a developing country in the WTO. The average import tariff rate is not high and most administrative restrictions, such as quotas and licenses, for both imports and exports have been removed. Trade policies have become increasingly transparent.

China has also been highly involved in various trade disputes with its trading partners. The high percentage of participation of state-owned enterprises in trade
causes many issues such as implicit government subsidy. VAT rebate for exports is also controversial because some countries view this as *de facto* export subsidy.

### 3 Effects of Import and Export Policies

In this section, we review both theoretical and empirical research on China’s import restriction and export promotion policies. Most studies examine the effects of China’s trade policy on trade volume at the aggregate or industry/product level. Some articles also investigate the effects of trade policy at firm level.

#### 3.1 Import Policies and Their Effects

#### 3.1.1 Tariffs

In the early 1990s, China maintained high tariff barriers to protect domestic industries from foreign competition. During its pursuit of WTO accession, China substantially reduced its tariff rates. More specifically, China’s simple average tariff rate decreased from 42.9% in 1992 to 17% in 1997. After its entry to the WTO in 2001, China further decreased tariff rates to fulfill its commitment to the WTO. In the following section, we review articles on the determination of tariffs and discuss their various effects.

When trade is imbalanced, inside money, which is defined as money issued by countries with trade deficit in the form of debt, is proven to have a significant effect on the determination of a country’s optimal tariff rates. China has long been maintaining trade surplus with the rest of world (ROW). Hence, China can be considered as a buyer of inside money issued by the ROW. In a study on the effects of inside money on China’s optimal tariff policy determination, Zhang and Yu (2009) introduce inside money into a two-country-two-good static tariff game model that considers tariff retaliation and then estimate the parameters of the model using output and trade data of China and the ROW in 2005. Results show that inside money can increase the retaliation power of the country with trade deficit, while weakening the negotiation power of the country with trade surplus. China’s tariff rate in 2005 was observed to be slightly higher than its optimal level, whereas the ROW’s tariff rate was much lower than the optimal level. The authors suggest that China should slightly reduce its tariff rates to the
optimal level, especially those levied on imported primary products, to improve the country’s total welfare.

Tariffs may not fully reflect the degree of trade protection. Feenstra (1995) propose a tariff restrictiveness index (TRI) to measure the level of trade restriction better. Following this idea, Chen, et al. (2014) extend the conventional TRI by relaxing the assumption of “small open economy” and then developing a generalized trade restrictiveness index (GTRI). GTRI is then applied to quantify the reduction of China’s trade restriction for the period before and after China’s accession to the WTO. China’s trade restrictiveness measured by GTRI presented a declining trend between 1997 and 2008, particularly after WTO accession in 2001. The level of trade protection measured by GTRI is found to be higher than that measured by simple and import-weighted average tariffs, but lower than that measured by TRI. The correlation between tariffs and product export supply elasticity before WTO accession was negative and converged to nearly zero after WTO accession.

High tariffs may cause various responses from the economy. Fishman and Wei (2004) show that the high tariff policy of China before the WTO accession led to various tax evasion behaviors. They quantify the relationship between China’s tax rates (tariffs plus VAT rates) and the “evasion gap,” which is defined as the difference between Hong Kong’s reported exports to China and China’s reported imports from Hong Kong at HS six-digit levels in 1998. Econometric results show that on average, evasion gap increased by 3% as tax rate increased by 1%. Therefore, the value of Chinese imports is underreported to evade high tariffs. The authors also add average tax rates for similar products into the baseline regression to test the channel of tax evasion through misclassification of products. The negative and significant coefficient of average tax rates indicates that evasion gap widens when tax rate for similar products is lower. The authors replace the evasion gap in value with evasion gap in quantity and find the correlation with tax rate to be positive but insignificant, whereas the average tax rate for similar products still has a significant negative effect on evasion gap in quantity. The authors conclude that tax evasion in China occurs mainly through the underreporting of import values and mislabeling imports from high-taxed categories to low-taxed ones.

As China’s accession to the WTO results in tariff rate reduction from 18.53% in 2001 to 8.87% in 2006, tax evasion in China should reasonably be less
prevalent. Substantial tariff reduction could also lead to other important changes. Yu (2011) study the effects of tariff reduction on Chinese firms’ productivity. The author constructs firm-specific tariff rate and then calculates the firm’s total factor productivity (TFP) using an augmented Olley-Pakes (1996) method. Results from OLS regressions show that tariff reduction is associated with TFP increase. On average, a 10% tariff reduction will increase a firm’s productivity by 2% to 6%. To handle the potential endogeneity of tariff cuts, this study also conducts IV estimation and obtains robust results similar to those of Yu (2014).

Unlike Yu (2011), Bas and Causa (2013) consider the productivity effect of upstream sectors’ regulation on downstream manufacturing firms. The types of upstream regulation include input trade policy, product market regulation in non-manufacturing sectors, and financial market reform. ORBIS data of Chinese manufacturing enterprises from 2001 to 2008 are used. China experienced significant reductions in input tariffs after its accession to the WTO. The input trade policy indicators are constructed from the weighted average of tariffs on intermediate goods at the three-digit industry level for 50 manufacturing industries from 2003 to 2008. Econometric results show that these policies have improved firm-level productivity. In particular, input tariff cuts and deregulation of upstream sectors lead to larger productivity gains for downstream firms with close proximity to industrial technology frontiers, whereas financial reforms result in more productivity increase for firms far from industry frontiers.

3.1.2 Non-tariff Barriers

In most countries worldwide, NTBs emerge when tariffs drop. However, the protectionist nature and magnitude of NTBs are difficult to determine. Bao and Qiu (2010) provide two inventory approaches, namely, coverage ratio and frequency index, to quantify China’s TBT and other NTBs such as import license and import quota for 96 agricultural and manufacturing products at the HS2-digit level. These measures were employed for NTBs in an extended gravity equation to investigate the effect of China’s NTBs on its imports from 1998 to 2006. Information on Chinese tariffs and NTBs is obtained mainly from the Administrative Measures Regarding Import and Export Trade of the People’s Republic of China (Ministry of Commerce and Custom General Administration of China). Their Tobit regressions indicate that TBT measured through a
frequency index has a significant negative effect on Chinese imports. However, this trade restriction effect is found to be insignificant when the coverage ratio approach of TBT is employed. More importantly, both the frequency index and coverage ratio measurements of TBT are found to generate significant trade promotion effect on manufacturing products, whereas trade reduction effect on agricultural products.

Bao (2014) adopts a two-stage gravity model to re-examine the TBT effects on China’s imports from 1998 to 2006. The estimation results reveal that TBT tends to reduce China’s import probability with potential trade partners, but increases the value of traded goods with existing trade partners. TBTs are found to increase particularly the import likelihood of agricultural products, but decrease the import likelihood of manufactured products. Moreover, TBTs have a positive and significant effect on China’s import probability from developing countries but impose a significantly negative effect on the import probability from developed countries.

Bao and Qiu (2012) further extend their analysis to other countries to verify whether TBT effects are similar to those found in China. Their empirical analysis is based on TBT notifications of 105 countries to the WTO from 1995 to 2008. A modified two-stage gravity model is also employed to control for sample selection bias and firm heterogeneity bias. In general, importers’ TBT are found to reduce the extensive margins but increase the intensive export margins of their trade partners. However, a developing country’s TBT appears to have no significant effects on either the extensive or the intensive margins of exports from developed countries.

Yu (2010) also includes NTBs to explore the effects of China’s trade liberalization since 1990s on manufacturing firms’ productivity by examining both firm-level panel data and disaggregate import data of China from 1998 to 2002. China’s trade liberalization from reduction in both tariff barriers and NTBs is quantified by employing import penetration rate, measured as the import proportion in total output as proxy for trade liberalization. Empirical results show that China’s trade liberalization significantly promotes firm TFP. In particular, the TFP increase of exporting firms is found to be smaller than that of non-exporting firms. The author also emphasizes that exporting firms with assemblies do not need to pay for imported materials; thus, the effect of tariff cut along with NTBs reduction on firm productivity could be limited for these firms.
3.1.3 Contingency Policy

Existing studies on China’s contingency policy focus mainly on the evaluation of the trade remedy effect of China’s AD measures. China is a relatively late user of AD compared with other countries. China performed its first AD action in 1997 against newsprint imports from the US, Canada, and Korea. Bin (2003) uses newsprint import data of China from 1995 to 2003 to show that both import volume and import value of newsprint from these three countries declined sharply after AD initiation. Specifically, the total import volume of newsprint decreased by 55.8% from 1997 to 2001. The import share of these three countries combined declined from 56.5% in 1996 to 0.6% in 2002, implying the trade diversion effect of this AD measure. Moreover, the average import price of newsprint from the US, Canada, and Korea increased by 26.4%, while that from all other trading partners increased by 24.3% from 1997 to 1998. In sum, China’s first AD action generated notable trade remedy effect and effectively protected the domestic newsprint industry.

From 1997 to 2004, China filed 34 AD cases and made preliminary rulings. Bao (2007) empirically test the trade depression and trade diversion effects of the 31 AD cases that contain complete information and details of preliminary decisions from 1997 to 2004. Information on China’s AD filings is obtained from the China Trade Remedy Information website. Regressions based on random effect models show that China’s AD measures have significant trade destruction effect on imports, in both value and quantity of investigated products from named-countries. Moreover, AD measures significantly increase the import price of investigated products from named-countries. China’s AD measures are found to divert import from named-countries in the petition to other countries. The import volume, value, and price of unnamed-countries increase significantly after AD investigations. However, the higher number of named-countries included in China’s AD measures, the lower the trade diversion effect. In sum, China’s AD measures effectively protect domestic industries from foreign competition because of the substantial increase in import price after AD rulings.

Park (2009) also investigates the trade depression and diversion effect of China’s AD investigations from 1997 to 2004, but uses different estimation models from those of Bao (2007). Data on AD duties are collected from the WTO and the Ministry of Commerce (MOC) of China. The author addresses
endogeneity and unobserved case-specific factors by adopting fixed-effect, first-differenced GMM, and system GMM estimators for the empirical tests. Results from fixed-effects estimation indicate that China’s AD investigations have a significant trade depression effect. Specifically, the imposition of a 10% AD duty will lead to a 10.7% decrease in imports from named-countries in the first year following an AD investigation. The estimated coefficient on AD duties by first-differenced GMM is close to that by fixed-effect regression. However, system GMM generates higher estimates of AD duties than fixed-effect and first-differenced GMM. The author also shows that AD duties significantly reduce the import share of named-countries, confirming the trade diversion effect of China’s AD measures. These findings in the study of Park (2009) are consistent with those of Bao (2007).

In addition to the direct trade remedy effect of AD measures on domestic industries, AD also affects the price of other industries that have certain input/output linkages with the industries involved in AD cases and then further influence the entire economy. Zhu and Bao (2004) quantify the price effect of China’s AD duties on chemical industry based on the Input/Output table of China covering 124 sectors in 1997. Specifically, this study measures the effect of AD duties levied on chemical sectors on the price of other sectors in China. The results show that AD duties on intermediate goods sectors generate a negative effect on downstream sectors, resulting in a price increase in the downstream sectors because of increased input costs. The authors suggest that China should consider public interest, including downstream industries and consumers, when initiating AD actions because the intermediate goods sectors are highly affected by AD.

Why does China become involved in AD investigations frequently? Bao and Qiu (2010) study the determinants of China’s AD filings by performing a comparison of the determinants of AD filings by China and the US, who are among the most active users and targets of AD investigations in the world. More interestingly, they investigate whether China’s AD filings are more retaliatory than that of the US. The US’s AD filings against 39 target countries from 1991 to 2004 are drawn from the Global Antidumping Database version 2.1 constructed by Chad Bown. Econometric results from negative binomial panel regressions indicate that AD filings of both the US and China are determined by macroeconomic conditions and retaliatory motives. For China, an increase of one
AD filing initiated by its trade partner will increase China’s AD filing against that country in the following year by 1.8% to 2.0%. For the US, a significant tit-for-tat retaliatory effect exists: the US will initiate 36.6% to 73.8% more AD filings against countries that have launched AD filings against the US than those that have never had AD filings against the country. Moreover, an increase in one more AD filing by a country will lead to 1.2% to 1.9% more AD filings by China against that country in the following year. The authors also pool the filings of the US and China and re-run the regression. The results indicate that the degree of retaliation of China’s AD filings does not differ significantly from that of the US’ AD filings. In other words, the AD filings of China are no more (and may be even less) retaliatory than those of the US.

3.1.4 Summary and Comments

Very few papers study the motivations or determinants of China’s import policies. The study of Bao and Qiu (2010) is an exception, but it is only about AD investigations. Understanding the policy initiations and changes in China is desirable. The political economy of trade policy analysis is a useful tool to explore this issue. We will discuss this line of research in Section 5.

Almost all studies on China’s trade policy relate to the effects of the policy. Among those studies, most examine the effects of the policy on trade itself, while the rest explore other effects such as productivity and price. Earlier studies focus on tariffs, whereas recent ones concentrate on NTBs and contingency policies, especially AD. In general, China’s import policies can effectively affect its imports. More specifically, China’s NTBs have generated prominent trade restriction effects. Contingency policies such as AD have been found to have a trade remedy effect for Chinese industries. Moreover, the reduction of tariffs and NTBs can also result in positive effects to Chinese manufacturing firms through a significant improvement in their productivity.

3.2 Export Policies and Their Effects

Since China’s entry into the WTO, the country has gradually removed all regulatory policies on exports to fulfill its commitment to the organization. However, VAT rebate is an exception, and is permitted by the WTO. Therefore,
almost all existing studies on China’s export policy focus exclusively on VAT rebate. As we mentioned earlier, the current VAT rate is 17% for manufacturing goods and 13% for agriculture goods. The export tax rebate rates also vary according to time, region, and product. These substantial variations provide researchers with the opportunity to examine the effects of export tax rebate of VAT on China’s trade in general and exports in particular.

### 3.2.1 Research with Theoretical Analysis

Two approaches have been employed to analyze China’s export tax rebate policy. One approach is the computable general equilibrium (CGE) model and the other is the strategic trade policy model.

Chao et al. (2001) use a CGE model to show that export tax rebate can boost exports and help expand industries of the exported goods and their upstream. However, tax rebate is likely to generate negative effects on import sectors. If import sectors are highly labor-intensive, then export tax rebates may lead to a rise in unemployment, reduction in tax revenues, and decrease in consumer surplus. They test their theory using Chinese data from 1985 to 1998 and find the results provide broad support for the predictions of the model.

Based on the study of Chao et al. (2001), Chao et al. (2006) introduce a dual production structure with domestic sales and export processing into the model. Chao et al. (2006) also consider the possible effects of duty drawback policy. The main results from a modified CGE model imply that these policies promote exports effectively and raise social welfare. They show that export expansion is achieved mainly by gaining access to cheaper foreign inputs, and that this input substitution can be found in both export processing sectors and domestic activities.

Several researchers analyze China’s export tax rebate using strategic trade models. Chen et al. (2006) apply the Brander–Spender type of strategic trade policy model to explore the effects of China’s export tax rebates policy on export performance and derive the optimum tax rebate rate. Their theoretical findings indicate that the rise of export tax rebates will increase domestic firms’ output of final goods for export and raise the profits of domestic firms. The optimal tax rebate rate is greater than one, and under the optimal rate, social welfare will improve but the government’s tax revenue will decline because of the subsidy for
exports. Their empirical results, which use Chinese data from 1985 to 2002, fully support their theory.

An export rebate policy implemented together with other industrial policies may generate very different effects. Thus, considering other policies is necessary when analyzing the effects of tax rebate policy. Chen and Zhu (2008) investigate the effectiveness of China’s policy on rebating export tax and subsidizing innovation. They extend the Spencer–Brander model by considering the effects of low-technology products and high-skilled labor endowment. The model predicts that this policy will stimulate innovation and increase consumer surplus and social welfare for developing countries with a certain labor endowment structure. Based on the monthly data of China from 2002 to 2008, their empirical results confirm the predictions, indicating that a lower rebating rate for low-technology exports is associated with more innovation output, whereas subsidizing innovation appeared to fail in achieving such effects for China.

The effectiveness of an export tax rebate policy may also be affected by market structure. Ma and Li (2008) investigate whether export tax rebate is the equilibrium policy outcome in a multi-market oligopoly model. They demonstrate that export tax rebate is not the optimal policy if the government’s objective is to maximize national welfare, whereas export tax rebate is a robust policy if the government cares more about producer surplus than consumer surplus and tax rebate costs. Given that domestic firms or industries have the ability to lobby the government, export tax rebate is very likely to be the policy choice.

3.2.2 Empirical Studies

Empirical papers on China’s export tax rebate generally investigate the effect of the changes of export tax rebate rate on China’s exports. The results from earlier studies are mainly based on industrial- or product-level data. More recent studies have begun to explore the possible effects on individual firms.

Bai et al. (2011) investigate the effects of export tax rebate rates cut, which was implemented in July 2007, on Chinese exports over the period of 2006–2008. Using the difference-in-differences approach, their empirical results indicate that export growth rates for goods involved frequently in trade disputes are reduced significantly after rebate rates are cut. This finding implies that many trade
disputes with China are because of the high export subsidy (or tax rebate) in China.

Wang et al. (2010) focus on an important export industry in China, the textile industry, to explore the effects of export tax rebate on exports. The rebate rates are found to vary across different products within the textile industry in the post financial crisis period. This variation allows them to use the difference-in-differences approach to test the effect of rebate rate on textile export empirically. Monthly data of the US’s imports of textile products from China (at the most disaggregate HS-10 level) from January 2007 to May 2009 are sourced from the Office of Textiles and Apparel website. Wang et al. (2010) find that the Chinese textile products that experienced an increase in rebate rates reached an export growth of 9% to 22%. This result implies that changes in rebate rate could affect products not only across different industries (as other studies have shown) but also within the same industry.

The aforementioned papers are all based on industry- or product-level data. Chandra and Long (2013) provide the first piece of evidence at the firm level by showing that an increase in rebate rate significantly promotes export performance of Chinese firms. They address the potential endogeneity problem of rebate rates by exploiting a quasi-natural experiment of policy changes in 2004, when the provincial fiscal condition became a determinant factor of the actual VAT rebate value for exporters. Since 2004, export tax rebates have changed from being funded solely by the central government to being funded jointly by the central and local governments at a ratio of 3 to 1. The central government will grant funding only if the local governments contribute their parts. Hence, the authors use the fiscal revenues of local governments as instruments of VAT rebate rates. The regression results show that on average, the value of Chinese exports will increase by 13% as the VAT rebate rate increases by 1%. In other words, a dollar of tax rebates will lead to an increase in export by 4.7 dollars.

Researchers have also explored other possible effects of export tax rebates. For instance, Liu (2013) empirically studies the relationship between export tax rebates and China’s re-imports by using highly disaggregate Chinese Customs data over the period of 2002–2008. The econometric results show that China’s re-imports under processing trade are positively correlated with export rebate rate, indicating that Chinese processing firms are highly motivated to commit VAT evasion using re-imports. Import duty rates are also shown to restrain China’s
re-imports of normal goods. The author also suggests that tax authorities provide tax rebates to inter-firm transactions and exports of processing firms to reduce re-imports.

3.2.3 Summary and Comments

A number of papers have conducted a theoretical analysis of China’s export policies, most of them focusing on export tax rebate. These studies utilize two widely used approaches for theoretical analysis. One is based on general equilibrium models, and is used by researchers to examine the effects of export tax rebate. The second approach is based on strategic trade policy models. Studies using the second approach ask whether export tax rebate is an optimal policy. The answer is yes, which is not surprising because strategic trade policy literature points to this fact.

Empirical research focuses entirely on the effects of export tax rebate and lends some support to the predictions derived from theoretical analysis. However, tackling the optimal policy question empirically is difficult. This difficulty is especially true for strategic trade policy, which is based on oligopolistic competition models. Perhaps researchers interested in this topic should focus on analyzing the market and industry structures of China’s exports to determine whether they fit the conditions for export subsidy.

3.3 Processing Trade and Other Trade Policy

Processing trade in China began in the early 1980s. Compared to ordinary trade, processing trade is the process by which a domestic firm initially obtains raw materials or intermediate inputs from abroad, and after local processing, exports the value-added final goods. There are two types of processing trade, processing with assembly and processing with inputs. Essentially both types of processing trade enjoy duty free imported inputs, though they have a slight difference in the tax reporting procedure.

The duty free treatment of imported inputs in processing trade has had a profound impact on China’s exports. First, processing trade has significantly contributed to the expansion in China’s trade activity. Starting from 1992, processing export has represented more than half of China’s total export. Its
share in total export only falls slightly below 50 percent in recent years.

An important question is how much value added of those exports is made in China? Koopman et al. (2008) develop a formula to compute the shares of foreign and domestic value added in a country’s exports when processing trade is pervasive. Applying it to Chinese data, they estimate that the share of foreign content in China’s export is about 50%, which is very high compared to other countries. Moreover, the share of foreign value added of Chinese export varies across sector and firm ownership. The sophisticated sectors such as electronic devices and computers have particularly high foreign content (about 80%). Foreign invested firms also tend to have higher foreign content in their export than do Chinese domestic firms.

Processing firms are different from ordinary firms in terms of productivity among many other dimensions. Processing firms are less productive than firms involved in ordinary trade but have larger productivity growth after trade liberalization. Yu (2011) finds that firms that engage in processing trade, while controlling for other firm characteristics, achieve significantly higher productivity gains than non-processing firms. Besides, processing trade provides an alternative channel for external financing in face of credit constraint. Manova and Yu (2014) show that the choice of processing trade affect firm’s export outcomes, profitability and its position on the global value chain.

On top of productivity difference, processing trade has influence on multinational firms’ choice of organizational structure in China. Feenstra and Hanson (2005) develop a property-rights model of international outsourcing to analyze the ownership and control of input purchase decisions. Applying this model to China’s processing trade, they find that multinational firms engaging in export processing trade in China tend to split factory ownership and input control. They also find that the most popular outcome of China’s processing trade firm is to have foreign factory ownership and Chinese control over input purchase. Moreover, this pattern is especially prevalent in the southern coastal provinces, where export markets are thickest and contracting costs are lowest.

It is very likely that some firms might abuse the processing trade policy. Liu (2013) finds that China’s re-imports under processing trade are positively correlated with export rebate rate, indicating that Chinese processing firms are highly motivated to commit VAT evasion using re-imports.
The differential tax treatment on processing trade even has impact on the effectiveness of regional trade agreement. In considering the effect of “potential” free trade agreement (FTA) between China and Korea, Lee and Han (2008) incorporate the duty free characteristics of processing trade policy in China. Given the trade pattern that China’s imports from Korea are highly concentrated on intermediate inputs, the authors conclude that the effect of China-Korea FTA would be unbalanced. That is, the FTA would increase Chinese exports to Korea more than Korean exports to China.3

4 China’s Participations in Multilateral and Regional Trade Negotiations

Multilateral trade agreements are generally referred to as agreements resulting from multinational trade negotiations such as those under the WTO (e.g., Doha round negotiation). Regional trade agreements on the other hand, are signed between two or more countries to achieve bilateral trade liberalization, preferential trade liberalization, or regional trade integration. Before 2000, a large body of studies focused on China’s participation in the WTO. Issues of interest are those related to the reasons for China joining the WTO, China’s commitments, and the implementation of those commitments. Since China’s successful accession to the WTO in 2001, research in this area has been shifted to examining the effects of China’s WTO entry on its trade at the country, industry, and firm levels. This part of the literature has been reviewed by Qiu and Xue (2014). Therefore, this section focuses on China’s participation in RTAs in general and FTAs in particular.

China currently has more than ten FTAs in force, including FTAs with the ASEAN, Chile, Costa Rica, Iceland, New Zealand, Singapore, Switzerland, and other countries.

3 In the spirit of gradualism, China has set up various trial zones at different stages of reform and opening up. The Shanghai Pilot Free Trade Zone (SPFTZ) is the most notable example in the recent wave of China’s new opening and reform strategy. Launched in 2013, the SPFTZ is a unilateral set of measures and procedures relating to a small area in Shanghai, which has promised capital account liberalization and trade facilitation as its main objectives. It is too early to evaluate the impact of FTZ in general and SPFTZ in particular. However, Yao and Whalley (2015) have already provided a first evaluation on the effects of SPFTZ. They find supporting evidences that capital control weakens after the implementation of SPFTZ, and anticipate that China would further diminish its capital control in the following decades. It is clear that the study is about financial policy, not trade policy, a different angle from the present survey article.
Pakistan, and Peru; Closer Economic Partnership Arrangement (CEPA) with Hong Kong and Macau; and Cross-Straits Economic Cooperation Framework Agreement (ECFA) with Taiwan. Two FTAs, with Australia and Korea, respectively, have recently been signed. Eight FTAs are under negotiations, including FTAs with the Gulf Cooperation Council (GCC), Norway, Pakistan, China–Japan–Korea FTA, Regional Comprehensive Economic Partnership (RCEP), and China–ASEAN 10+1 upgraded FTA. China is also a member of Asia-Pacific Trade Agreement (APTA).

After reviewing the existing FTAs of China, Antkiewicz and Whalley (2005) find that China’s FTAs have the following distinguishing features. First, China’s FTAs are largely diverse, in both form and coverage. Some agreements focus on specific aspects, whereas others are very comprehensive. Second, many agreements are very brief and hence are inevitably vague in contents. Third, no explicit and clear dispute resolution procedure is stated in the agreements. Lastly, extensive lists of specific bilateral commitments in services are found.

Recent empirical studies have attempted to estimate the ex-post effects of China’s FTAs. In general, they find that FTAs can significantly promote trade between China and other member countries. More importantly, trade creation of FTA dominates trade diversion, implying a positive effect on social welfare for members. For example, Yang and Martinez-Zarzoso (2014) investigate the trade creation and trade diversion effects of the ASEAN–China FTA using an augmented gravity model. They use panel data of 31 countries (China, 10 ASEAN countries, and China’s top 20 trading partners) from 1995 to 2010 at both aggregate and disaggregate levels and find a substantial trade creation effect for both agriculture and manufactured goods. They find the same effect in two of the most important manufacturing industries, namely, chemical products and machinery and transport equipment.

Furthermore, FTAs can also have a significant effect on the employment of participating countries. In particular, Ching et al. (2012) evaluate the treatment effect of CEPA, which began in 2004, on the unemployment rate in Hong Kong. Using cross-sectional correlations between the unemployment in Hong Kong and that in Germany, Finland, Japan, and UK over the period of 1998Q1–2003Q2 to construct Hong Kong’s unemployment rate in the absence of CEPA from 2004 to 2010, they compare Hong Kong’s actual data with this predicted one to evaluate the treatment effect of CEPA. The results show that CEPA increasingly reduced
the unemployment rate from 2004 to 2008 and reached a constant level from 2009 onwards. Over the period of 2009Q1–2010Q4, the predicted average unemployment rate is 14.1%, whereas the actual unemployment rate with CEPA implementation is only 4.76%.

Given that China’s FTA history is short, there is insufficient data for empirical analysis in most cases. Thus, researchers turn to other approaches to evaluate the possible effects of FTAs. Zhang et al. (2012) employ the GTAP framework to estimate the effects of ECFA on economic growth, trade, and industries of the Chinese mainland, Taiwan, and Hong Kong. ECFA is a preface to FTA between Taiwan and Chinese mainland, implemented in January 2011. The study finds that early-stage tariff reductions of ECFA generate negative effects on trade balance and terms of trade for the mainland, but significantly boost economic growth, trade, and welfare gains for both the mainland and Taiwan in the long run. The full implementation of ECFA will exert even stronger positive effects, especially on Taiwan, but will significantly weaken the role of Hong Kong as an entrepôt because of the trade diversion effect.

Chen et al. (2012) also explore the possible effects of ECFA by considering the cross-strait global production networks (GPNs). Previous studies on the trade effect of ECFA are based largely on the general equilibrium approach. This paper differs from previous studies by first conducting empirical tests on the determinants of Taiwan-based firms’ localization in Chinese mainland and then applying the empirical results to revisit the trade effect of ECFA on Taiwan. Data on mainland subsidiaries of Taiwan-based firms are drawn from the Investment Commission, MOEA, Taiwan, over the period of 2009–2010. In their econometric specification, the ratio of local raw materials and components to the total intermediate inputs (or the ratio of locally purchased machinery to total purchased machinery) is regressed on local sales to total sales ratio, degree of Chinese subsidiaries’ autonomy, regional headquarters dummy, and year 2010 dummy variable through a bivariate Tobit regression model. The coefficient of local sales to total sales ratio in both regressions is positive and significant at the 5% level, that is, the extent of local procurement of intermediate inputs and capital goods appears to be higher for Taiwanese affiliates with higher local sales orientation. Outward investment to the mainland explains well Taiwan’s exports to the mainland and its structural changes. Thus, ECFA will generate a trade creation effect on Taiwan. ECFA will lead to more relocation of production to the
mainland because of cross-strait GPNs, shifting the production of Taiwan toward the upstream and leaving less room for investment-induced trade.

Lee and Han (2008) estimate the effect of tariff rates on intra-industry trade (IIT) using factional logistic regression models to assess the potential policy implications of the FTA between China and Korea. They find that Korea’s tariff rates have a negative effect on the share of IIT between China and Korea, whereas China’s tariff rates appear to exert no significant effect on IIT share during the period of 1999–2004. Considering the trade structure of the two countries as well as China’s tariff refund policy for imports of intermediate inputs for export processing, the authors conclude that FTA between China and Korea might not raise the exports of Korea to China.

In all, The motivation of China’s accession to the WTO was a popular topic. Researchers view China’s accession to the WTO as a drastic trade liberalization to evaluate its effects on the economy, industries, and firms. China has been actively engaged in FTA negotiation. China’s FTAs have distinguishing characteristics from those of other countries. However, establishing extensive empirical results to evaluate China’s FTAs is premature given the short history of China’s FTAs. Instead, to provide useful policy recommendations, more studies should be conducted to address issues such as countries that China should have FTA with and the order of the countries in this aspect. Indeed, existing FTA literature has not been able to provide satisfactory answers to these questions.

5 Formation of Trade Policies

Although most of the studies focus on the effects of trade policies, understanding the reasons and methods by which the policies are introduced is also important. Generally, researchers take two approaches. One is the welfare maximization approach, which is based on the efficiency argument. The other is the political economy approach, which is based on the income distribution or redistribution argument. In this study, we are interested in identifying the approach that better fits China’s trade policymaking.

Chen and Feng (2000) investigate China’s tariff structure and its determinants by using tariff rates data of 95 industries in 1996 and find that China’s tariff rates are correlated with several variables prescribed by the national or foreign policy model and the status quo or social change model. Specifically, tariff rates are
found to be correlated positively with value added per worker and foreign direct investment, which is consistent with the predictions of the national or foreign policy model. In the national policy model, tariffs are largely determined by national interests. In contrast, the foreign policy model emphasizes the crucial role of foreign lobbying, foreign relations, and trade retaliations in determining tariff rates. Industries with higher levels of loss, inventory of products, and lack of education among employees are found to enjoy higher levels of protection, lending support to the status quo or social change model. By and large, China’s tariff policy has reflected a balance of an industrial policy that shields high-tech industries from foreign competition and a social policy that protects low-income and unskilled workers for social stability.

As a complement to Chen and Feng (2000), Sheng (2006) studies the determinants of China’s non-tariff barriers and effective protection rate. He formulates a new political economy theory of China’s trade protection to investigate the formation of trade policy and test the results empirically using industry level data. The results show that industries with higher productivity, labor intensity, and profits tend to obtain higher protection. The social concern model, also called the national interest model, provides a better explanation for China’s trade protection pattern than the self-interest model or the lobbying model. Interestingly, the author argues that Chinese trade policy formation continues to be dominated by leaders’ ideological preferences and concerns on national interests, such as security and development strategy. However, clear evidence of local level governments and business influence are shown to erode the unchallenged authoritarianism of making trade policies. External forces, such as China’s commitment to the WTO and regional trade negotiations, also play an important role in shaping China’s trade policy.

While the two papers mentioned above attempt to explain the effects of China’s trade policies, Gu (2003) aims to explore how they are determined. Gu (2003) points out that during the early period of opening-up, China’s trade policies were more or less in the form of executive orders issued directly by the state government. This mode of policymaking, while effective, ignores the interests of various parties such as consumers and producers, as shown in the case of China’s AD decisions. In the later period, China’s trade policies became more subjected to lobbying from various interest groups. Gu (2003) uses different tariff reductions in the automobile industry and agriculture products to
demonstrate the influences of lobbying on trade policymaking and utilize his findings to suggest that China should determine its trade policies endogenously, which requires further reforms in the structures of trade policymaking and implementation.

In contrast with the studies on the formation of China’s import policy, Wang and Xie (2010) investigate the decision-making mechanism of China’s export tax rebate policy under the framework of the political economy trade policy. Using industry-level data in 2008, they test the national interest, interest group, and combined models. Their results indicate that export proportion and state capital proportion in an industry had a positive effect on export tax rebate rate of the industry, which is consistent with the national interest model. They also find significant and positive effects of total assets and production scale on tax rebate rates, which lend some support to the interest group model. As both models are supported, the combined model should also be supported, which is confirmed by their empirical analysis.

The abovementioned studies focus on specific trade policies in China and are based on data from specific years or special cases. By contrast, Branstetter and Feenstra (2002) conduct a rigorous empirical estimation on the structural parameters of China’s government objective function, by relying heavily on the political models of Grossman and Helpman (1994, 1996) and China’s provincial trade and FDI data from 1984–1995. Their findings indicate that China’s trade policymaking favors state-owned enterprises (SOEs), as the weight of consumer welfare in the government’s objective function is found to be only one-seventh of that of the SOEs’ output.

Moreover, China’s trade policymaking could be influenced by political factors. Fuchs and Klann (2013) employ a gravity model to investigate the potential export-deteriorating effect for countries that officially receive the Dalai Lama at the highest political level. The analysis uses bilateral trade data between China and its 159 trading partners over the period of 1991–2008. Results indicate that bilateral tensions resulting from the Dalai Lama’s visit significantly reduce a country’s exports to China only in 2002–2008. In particular, exports of machinery and transport equipment are found to be affected severely by meeting of head officials with the Dalai Lama. Moreover, this trade-deteriorating effect is no longer significant in subsequent years after the Dalai Lama’s visit. Trade deterioration is considered as the result of China’s punishment for countries that
officially receive the Dalai Lama, which is a form of trade policy. Therefore, bilateral political relations can significantly affect China’s trade policymaking.

Furthermore, China’s trade policies respond to financial crisis and economic downturns. The 2008 financial crisis induced far-reaching shocks not only on the global financial systems but also on international trade activities. From 2008 to 2009, international trade volumes collapsed dramatically for almost all the economies in the world (WTO, 2009). For China, a sudden collapse in trade flows was observed in late 2008. In general, China’s merchandise exports and imports declined by 16.0% and 11.1%, respectively, over 2008–2009.4

To cope with the dramatic changes in the global economic environment during the crisis, China increased its trade protection level by raising tariffs on major imported products. Kee et al. (2013) quantitatively analyze the trade policy changes and the associated trade impacts for about 100 countries, including China, between 2008 and 2009. The authors construct the overall trade restrictiveness Indices (OTRI) based on bilateral tariff rates of a wide range of countries. They find that only a few countries, including China, Russia, Malawi, Argentina, and Turkey, increase tariffs on major imported goods to protect their domestic markets. Specifically, the tariff lines of China increase by 4.2% over 2008–2009. Meanwhile, the OTRI of China is found to increase by 0.3 percentage points. The authors show that increases in tariffs account for about 5 billion US dollars of drops in trade flows for China. In contrast, the US and EU implement more of AD measures on their trade partners, instead of raising tariffs, to protect domestic producers. However, the results of Kee et al. (2013) indicate that the overall trade impacts of these policy changes are minimal, merely explaining less than 2% of world trade collapse during the 2008 financial crisis.

In summary, Few studies focus on the formation of trade policy in China. Similar to the situation in many other countries, the political economy approach appears to be more relevant in explaining the reality. However, the Chinese political and institutional systems differ significantly from those of Western countries, on which existing models of political economy of trade policies are based. Moreover, the Chinese system is also under reform. Analyzing China’s trade policy under the framework of political economy is a clear challenge. A good model to describe the Chinese political system does not yet exist. Will trade

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4 Data source: China’s merchandise trade data from National Bureau of Statistics of China.
policies from countries under centralism or authoritarianism be very different from those under the political system of check-and-balance in Western democracy? This question is difficult to answer, but is important for future research.

6 Concluding Remarks

This study provides a comprehensive literature review of China’s trade policy from 2000 onward. In particular, we review the effects of China’s import and export policies, China’s participation in multilateral and regional trade negotiations, and determinants of trade policymaking in China. Current research on the import policy of China covers tariff barriers, non-tariff barriers, and contingency policies. Studies on China’s export policy focus exclusively on export tax rebate. For NTBs and contingency policies, TBTs and AD receive significant attention. Generally, China’s trade policies are found to be effective.

In recent years, China has engaged actively in various negotiations of bilateral and regional FTAs. However, literature in this area is still quite weak because it cannot provide guidance on the formation of the FTA network; for instance, countries that China should form FTAs with and the sequence of the countries in this aspect. Another interesting and important area of research is trade policy formation. Political factors are important, yet a good model of the Chinese political economy that can be utilized to analyze the trade policies of the country does not exist. This review points out a clear future research agenda.

Acknowledgements The authors benefitted from presenting the paper in the Summer Workshop held in Shanghai University of Finance and Economics in 2014. They also like to thank the reviewer for valuable comments and suggestions.

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