

ASIA-PACIFIC POLICY PERSPECTIVE

Anatomy of the Post Global-Quota Trade Disputes on China's Textile Exports

Jai-Young Choi^{a*}

^aLamar University, USA

Abstract

This paper explores the trade disputes about China's textile exports that escalated after the expiration of the global quotas on January 1, 2005 and settled down after months of intensive negotiations. Particular attention is paid to China's export taxes which were revoked following the U.S. and E.U. decision to impose import quotas. Noting that the real issue was bigger than just textiles since the backbone of the disputes was the mounting trade deficits and flight of jobs from the U.S. and E.U., the paper studies the debates from a range of perspectives and concludes that the optimal solution is free trade.

JEL classifications: F13, F31, F33

Keywords: export taxes, import quota, pegged exchange rate system, dead weight loss, game theory

1. Introduction

The year of 2005 was an unusually turbulent period for China and its trading partners in which they engaged in intensive trade disputes on China's textile exports before reaching bilateral agreements after months of negotiations. The disputes, which can be viewed as a move toward new trade order, started when the four-decade-old system of global quotas expired on January 1, giving all World Trade Organization (WTO) members free access to the world market. Expecting a surge in its textile exports, China initially imposed a 1.3% export tax on textiles in December 2004, before the quota expired. However, the taxes were too low to prevent a surge of imports into the United States (U.S.) and European Union (E.U.), with imports in some categories rising more than 1,500% within a few weeks of the quota system ending. On May 20, in a drastic move to diffuse ensuing trade frictions, the Chinese government announced that it would

* Corresponding Author: Jai-Young Choi, Department of Economics and Finance, Lamar University, P.O. Box 10045, Beaumont, TX 77710. Tel: 409-880-8062. Fax: 409-880-1752. Email: Jai-Young.Choi@lamar.edu.

The first draft of this paper was written while the author was visiting the City University of Hong Kong in the summer of 2005, and it was updated in April 2006. The author is indebted to insightful comments from an anonymous referee.

voluntarily increase taxes on 74 types of textile and garment exports. This policy, later revoked by the Chinese government on May 30 following the U.S. and E.U.'s decision to impose import quotas on Chinese textiles, would have raised export taxes on most of the targeted goods by five-fold, from 0.20 Yuan per unit to one Yuan, or up to 400% – effective on June 1.

The following overview delineates the stance of China, the U.S, the E.U., and the WTO in the trade disputes, and the terms of the two bilateral agreements, one reached between China and the E.U. on June 11, and the other between China and the U.S. on November 8.

The U.S.

To prevent surges of textile imports from China, the U.S. Department of Commerce initially imposed an import quota on three categories of textile products in April. In early May, the U.S. government announced that it would add four more categories of garment to the quota list, citing that these four categories of goods recorded import surges of 78% to 328% since January. Later, on May 29, the U.S. government enacted the import quota on the four categories of textile goods, contending that China's imposition of export taxes on May 20 was not enough to curb surges in China's textile exports to the U.S. The quota controls would limit increases in U.S. imports of the affected garments to 7.5% a year, and the U.S. cited Clause 242 of China's WTO accession agreement as justification for restrictions on Chinese textile exports. Under the agreement, China guaranteed the orderly growth of textile exports to developed countries during a grace period from 2005-2008. It is notable that the U.S. actions came amidst the mounting U.S. trade deficit and flight of jobs from the U.S. In 2004, America's politically sensitive deficit with China was nearly \$162 billion, an all-time high for a trade deficit with any country, and it was still growing in 2005.¹ U.S. government officials, manufacturers, and labor unions contended that China was deliberately undervaluing its currency by as much as 40%, giving that country a considerable trade advantage over foreign companies, and that China should halt its practice of linking its currency to the U.S. dollar and adopt a flexible currency-exchange regime. In addition to the actions of the Commerce Department, there were several bills before Congress aimed at China's currency and trade policies including a bill introduced in the U.S. Senate that proposed a 27.5% tariff on Chinese exports unless China revalued its currency.

In a meeting held in June, U.S. officials argued that U.S. import quotas were to give U.S. textile producers time to adjust to the end of the quota system in 2008, while Chinese officials contended that China could not afford to yield to the U.S. and E.U.'s import restrictions which would affect the interests of 19 million workers and "tens of millions" of Chinese workers employed in supporting industries. However, the officials of the two countries expressed their willingness to settle the issue through bilateral negotiation.

On July 21, after several years of resisting pressure from its major trading partners, China announced that it would no longer peg its currency strictly to the U.S. dollar, but

¹ In February 2006, the U.S. Department of Commerce announced that trade deficit with China in 2005 was \$201.6 billion, another record high following 2004.

to the basket of currencies where the U.S. dollar, the euro, the yen and the South Korean won were the dominant currencies in the basket.²

Then, on November 8, after several more months of negotiation, the U.S. and China reached a comprehensive (bilateral) textile agreement that exports of Chinese clothing and textiles would be allowed to rise between 8% to 10% in 2006, by 12.5% in 2007, and by 15% to 16% in 2008.

The E.U.

Like the U.S., the E.U. alleged that huge surges of Chinese textile exports harmed domestic industry since the global quota system ended in January. In fact, the E.U. was the world's second largest exporter of textile and garments in 2004, accounting for an approximately 11% share of total world exports, just behind China. However, the E.U. was also the second largest importer of textile and clothing goods (importing about 20% of total world imports), after the U.S. (which accounted for 22% of world imports). Accordingly, E.U. officials claim that their trade policy on textiles aimed at achieving fair conditions of world-wide trade, and that it attached importance to ensuring a smooth transition to the quota-free trade environment. Indeed, one third of E.U. imports of textile and clothing was duty free. However, the surge of Chinese textile exports in the period from January to April placed pressure on European products. Consequently, in early May, the E.U., in a move initiated by the French and Italian governments, announced that it would impose import quotas on two Chinese garment categories (T-shirts and flax yarn), and warned of further action. On May 30, the E.U. joined the U.S. in defending quota restrictions placed on Chinese textile exports as being consistent with China's WTO accession agreement.

The E.U. also argued that China should halt its practice of linking its currency to the U.S. dollar and adopt a flexible currency-exchange regime. China has emerged as an increasingly contentious issue in E.U. domestic politics, albeit for reasons different from those of the U.S. E.U. trade commissioner Peter Mandelson and French President Jacques Chirac seized on the textile issue to demonstrate the E.U.'s power and relevance to European workers in the June referendums in France and Holland on the E.U.'s new constitution, which was later voted down in both countries.

Later, in the trade negotiation on June 11, China and the EU agreed to avoid the textile trade disputes by consenting that China would limit growth in exports of 10 textiles and clothing products to the E.U. to 8.0-12.5% a year until the end of 2007, and that in 2008, the E.U. would only apply "with restraint" paragraph 242 of China's WTO accession protocol on textiles, which requires China to limit exports of textile products voluntarily.

² The Chinese currency (yuan) had been pegged at 8.28 yuan for a dollar for more than a decade (11 years); the July 21 revaluation set the rate at 8.11 and let it fluctuate against a basket of currencies. The new system floats the currency within a set policy band (0.3% per day) to keep it basically stable. In March 2006, the rate rose to around 8.04 yuan for a dollar, but some critics argued that the yuan is still undervalued 15-40%.

China

Following the imposition of the “safeguard” quotas by the U.S. and E.U. on May 29, the Chinese government abolished the export tariffs on 81 categories of textile goods imposed since the beginning of the year and revoked the decision made on May 20 to raise export taxes on 74 textile and garment products by 400%. The Chinese government maintained that, by imposing the import quotas, the U.S. and E.U. disregarded China’s voluntary concessions (i.e., the export taxes) taken to stabilize the international textile market and violated WTO principles, and thus China would resort to the WTO’s dispute settlement mechanism so that a third party could judge the conflicting positions. However, China suggested that it would still prefer to resolve the issue through bilateral negotiations. Then, in the following months, China took a sequence of decisive actions to settle the disputes – the bilateral agreement with the E.U. on June 11; the switch of its pegged exchange rate system (to the U.S. dollar) to a managed floating system based on a basket of foreign currencies on July 21; and the comprehensive bilateral textile agreement with the U.S. on November 8.

World Trade Organization (WTO)

The WTO took a cautious approach to the trade disputes arguing (in late May) that it was premature to assess the impact of Chinese export growth since the global quota system was dismantled on January 1. The WTO called for due restraint by WTO member states who feared their markets would be flooded by Chinese fabric and garment products. It announced that its own study of the issue in response to concerns of importing nations was under way, and thus its members should wait, rather than act, until the completion of the report at the end of June when at least six months worth of data were collected. Meanwhile, the WTO strongly urged China, the U.S., and the E.U. to resolve the disputes through talks warning that unilateral action by individual nations could lead to the reemergence of import restrictions that the world had worked for 40 years to eliminate. It considered that the disputes provided an unavoidable test of the WTO, which, if managed well, could show the importance of the organization.

Noteworthy in the foregoing overview is the fact that while the heated trade disputes in 2005 centered on China’s surging textile exports and seemingly settled down, the backbone of the trade tensions (especially with the U.S.) was the mounting trade deficits of the U.S., for which pressure groups in the U.S. and E.U. blamed the distortions created by unfair trade practices by China. Hence, the real trade issue was much bigger than just textiles, and trade disputes on the issue are still under way.³

This paper aims to help students of international economics (i.e., prospective decision makers in the public or private sectors, officials of international trade agencies such as the WTO or IMF, journalists, and academicians) acquire a good understanding of the trade environment and the analytical skills needed to make efficient decisions. For

³ Despite the textile agreements, trade disputes between China and the U.S. over fair trade have not been resolved. For example, in April 2006, members of U.S. Congress pushed legislation that would impose punitive tariffs of 27.5% tariff on all Chinese exports if China does not move faster to allow its currency to rise in value.

the purpose, section 2 employs the (traditional) comparative static model to investigate (i) the effects of the two major trade actions taken by the two trade blocs (namely, China's export taxes and the U.S. and E.U.'s import quotas) on China, the U.S. and E.U., and the world, (ii) the reason why China preferred export taxes to import quotas – and vice versa for the U.S. and E.U.; it further discusses other relevant factors of the textile trade that are not captured in the traditional analysis.

Section 3 approaches the textile trade from an aspect of bilateral monopoly where game theory is applicable. It further discusses other issues of trade disputes, and suggests an economically desirable way towards which the overall trade disputes need to be resolved. Section 4 presents concluding remarks.

2. Analyses of China's Export Taxes and the U.S. and E.U. Import Quotas

2.1 Analysis of China's Export Taxes

From the outset, it is noteworthy that the primary objective of China's export taxes was to defuse trade tensions with its major trading partners (i.e., the U.S. and the E.U.). To be specific, surges of Chinese textile exports (since the global export quotas expired on January 1, 2005) ignited mounting China-U.S. trade tensions that came from America's politically sensitive trade deficit with China (which reached an all-time high in 2004 and 2005) and the flight of jobs from the U.S. Like the U.S., the E.U. alleged that huge surges of Chinese textile exports had harmed domestic industry since the global quota system ended in January. Thus, the China's export taxes differed from the ordinary objectives of export taxes, such as protecting domestic buyers or users, raising government tax revenue, improving the terms of trade, diversifying the production structure, and/or the redistribution of income. Many countries employ export taxes, but for different reasons from China's, for example, Argentina on several agricultural products, Brazil on sugar, Indonesia on palm oil, Russia on petroleum, and the E.U. on wheat. In the U.S., export taxes are unconstitutional.

Export taxes, like import tariffs, create a wedge between international and domestic prices. With export taxes, domestic prices are pushed below international prices by the amount of the taxes, and thus export taxes are a mirror image of import tariffs (or quotas) which raise domestic prices above international prices.⁴

⁴ For the symmetry between import and export taxes, see Lerner (1936).

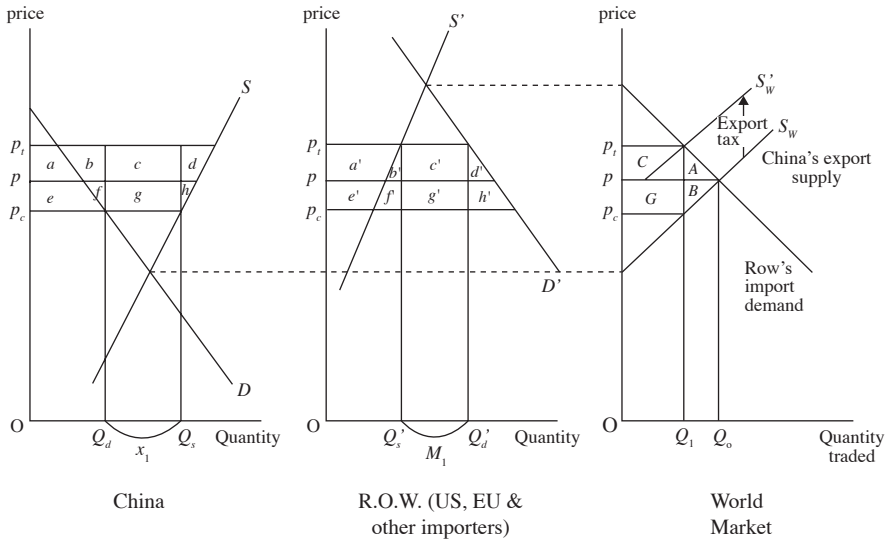


Figure 1

To analyze the effects of export taxes, the traditional partial equilibrium model is utilized. Suppose that there are two countries trading textiles in the world market, where China exporting and the rest of the world (the U.S., the E.U., and others) importing textiles. Both countries are large, such that China has monopoly power and the rest of the world (ROW, henceforth) monopsony power in the world market. There are three adjoining diagrams in Figure 1. The first two diagrams show the demand and supply curves of the two countries and the third diagram the import demand and the export supply curves in the world market. Q_d (Q_s) in the first diagram indicates the quantity demanded (supplied) in China, P represents the price of the textiles under free trade, a superscript, “ ’ ”, denotes the importing country (i.e., the ROW), and Q_0 (Q_1) in the third diagram measures the quantity traded under free trade (after the export tax). China’s export supply curve in the third diagram is derived from the first diagram, and it equals the differences between Q_d and Q_s at each price above the domestic equilibrium price.

Similarly, the ROW’s import demand curve in the third diagram is derived from the second diagram, and it equals the differences between Q_d' and Q_s' at each price below the domestic equilibrium price. Note that China’s export supply is matched by the import demand of the ROW at international equilibrium. China’s imposition of an export tax will shift China’s export supply curve by the amount of the tax (from S_w to S_w') in the third diagram – a specific tax will raise it by the amount of the tax (T), and an *ad valorem* tax of $t\%$ by tP . Therefore, the international price of the textiles (i.e., the terms-of-trade) will rise to P_t , which also becomes the new domestic price in the ROW. In China, the domestic price of the textiles will fall to P_c , which is lower than P_t by the amount of the export tax (T or tP) and below the free-trade equilibrium price (P). Consequently the volume of trade in the world market will fall from Q_0 to Q_1 in the third diagram. Notice that $Q_1 = X_1 = M_1 = Q_s - Q_d = Q_d' - Q_s'$.

The following table summarizes the welfare effects of China's export taxes on consumers, producers, and the governments of the two countries, and the world:

Table 1: Welfare Effects of China's Export Tax on Textiles

	China	ROW
(1) Consumer Surplus	+e	$-(a' + b' + c' + d')$
(2) Producer Surplus	$-(e + f + g + h)$	+a'
(3) Government revenue	+c + g	0
(1)+(2)+(3) National Welfare	$c - (f + h)$ or $(C - B)$	$-(b' + c' + d')$ or $-(C + A)$
World Welfare	$-(f + h + b' + d')$ or $-(A + B)$	

where $c = c' = C$, $g = g' = G$, $b' + d' = A$ and $f + h = B$ (because China's export supply (X) is matched by ROW's import demand (M) at each international equilibrium).

To summarize the results,

(i) In China, textile consumers will gain and producers will lose (due to decreased domestic price), and the government will gain (owing to tax revenue);

(ii) The export tax evokes both positive and negative welfare effects for China - there is a positive terms-of-trade effect ($c = C$) and a negative efficiency effect which is known as a dead weight loss ($-(f + h) = -B$). Consequently, the net national welfare effects for China can be either positive or negative. In general, the more elastic China's export supply and the less elastic the ROW's import demand, the larger the positive effect (C) and the smaller the negative effect (B) will be, and hence the more likely China will to be gain from its export tax.⁵ This implies that export taxes may work for the exporting nation with monopoly power (i.e., China). Higher export taxes work even better - but only up to a certain point. If an export tax is too high and reaches a prohibitive level, foreign buyers stop importing from China - and then trade will not occur, and there will be no national gains and losses. Therefore, the optimum export tax - the tax rate that creates the maximum net gain for the exporting country - should be somewhere between zero and the prohibitive tax. (The optimum export tax rate (t^*) is derived in the Appendix.)

(iii) In the ROW, consumers will lose and producers will gain (due to increased domestic price), but there will be no gain for the government.

(iv) The export tax results in two negative welfare effects for the ROW - there is a negative terms-of-trade effect ($-c' = -C$) and a negative efficiency effect (i.e., a dead weight loss of $-(b' + d') = -A$). In general, the more elastic China's export supply and the less elastic the ROW's import demand, the more likely the ROW will lose.

⁵ Since the import demand (or export supply) of a country is the difference between the domestic quantity demanded and quantity supplied in the country at each possible price, factors affecting the elasticity of the country's import demand (or export supply) include the demand side factors (such as the availability of close substitutes, the importing country's income, the price of the importable, and the time period under consideration) and the supply side factors (such as marginal cost conditions and the time period under consideration). However, it should be mentioned that as for the textile trade between China and the U.S. and E.U., little research has been done on these parameters, especially on the supply side of the textile trade between China and the U.S. and the E.U.

(v) The welfare effect of the export tax on the world is the sum of the national welfare effects on the two countries. Noting that the positive terms-of-trade effect on China ($c = C$) is equal to the negative terms of trade on the ROW ($-c' = -C$), the net terms-of-trade effect of the export tax on the world welfare is zero, but the export tax leaves two efficiency losses, one to China ($-B$) and the other to the ROW ($-A$). The two efficiency losses (i.e., dead weight losses for the world), resulting from misallocation of resources due to the export tax, will unambiguously make the world worse off.

2.2 Analyses of U.S. and E.U. Import Quotas

As is well known, an import quota and an import tariff are theoretically equivalent if import licenses for the quota are efficiently allocated through competitive auctions.⁶ Since a tariff is a mirror image of an export tax, an efficient import quota should also be a mirror image of an export tax. For simplicity, let the ROW be the U.S. and E.U., and compare U.S. and E.U. import tariffs or quotas with China's export taxes that reduce China's exports by equal amounts. A U.S. and E.U. import quota or tariff shifts down the U.S. and E.U. import demand curve in the third diagram in Figure 1, improves (deteriorates) the terms-of-trade for the U.S. and E.U. (China), and raises (lowers) the domestic prices of textiles in the U.S. and E.U. (China). Thus, the import quota or tariff gives rise to both positive and negative welfare effects for the importing country (i.e., the U.S. and E.U.) — there is a positive terms-of-trade effect ($g' = G$) and a negative efficiency effect (i.e., dead weight loss $= -(b' + d') = -A$). Consequently, the net national welfare effects of the quota or tariff on the importing country ($G - A$) can be either positive or negative such that an optimum tariff rate may exist for the importing country.⁷ However, the import quota or tariff unambiguously harms the exporting country (China) by evoking two negative welfare effects - there is a negative terms-of-trade effect ($-g = -G$) and a negative efficiency effect (i.e., dead weight loss $= -(f + h) = -B$). The welfare effect of the import quota or tariff on the world is the sum of the national welfare effects on the two countries. Noting that the positive terms-of-trade effect on the ROW ($g' = G$) is equal to the negative terms of trade on China ($-g' = -G$), the net terms-of-trade effect on the world welfare is zero, but the import quota or tariff leaves two efficiency losses, one to the ROW ($-(b' + d') = -A$) and the other to China ($-(f + h) = -B$). The two efficiency losses (i.e., dead weight losses), resulting from misallocation of resources via the decreased volume of trade, should definitely make the world worse off.

2.3 Preferential Policy by China and the U.S. and E.U.

The foregoing welfare analyses (based on the traditional model) reveals why China preferred its export taxes over the U.S. and E.U. import quotas – vice versa for the U.S. and E.U. China's export tax may increase or decrease its own welfare, while it unambiguously decreases the welfare of the U.S. and E.U., and the world. Similarly, the

⁶ For the equivalence of tariffs and Quotas, see Bhagwati (1965).

⁷ For the optimum tariff rate of a large importing country, see Metzler (1949), and Pugel and Lindert (2000).

U.S. and E.U. import quota or tariff may increase or decrease their welfare, but it clearly lowers the welfare of China and the world.

Other reasons why China prefers export taxes to import quotas — and vice versa for the U.S. and E.U. — can be found in the administrative power and flexibility of the governments, and in which government receives revenue from use of the policy instruments. China's export taxes give administrative power and flexibility to the Chinese government, while the U.S. and E.U. import quotas or tariffs to their governments. Further, the Chinese government would receive tax revenue from its export taxes, while the U.S. and E.U. government would receive revenue from their tariffs or import quotas (assuming that in the case of quota, import licenses are efficiently allocated through competitive auctions).

2.4 Other Factors of Textile Trade Hidden in the Traditional Analysis

The traditional model provides a powerful intellectual device that uncovers the major economic impacts of the two policy instruments. Nonetheless, it bypasses several important aspects of textile trade and policy actions.

(i) A crucial, but missing, factor in the traditional analysis is the complexity of the strategic intentions behind the policies of China and the U.S. and the E.U., especially when their effectiveness is highly questionable on economic grounds. China's export tax was clearly dwarfed by its huge cost advantages over the U.S. and E.U., and China was not ready to put an end to its export sector. As for the U.S. and E.U. import quotas, their effectiveness is also very questionable in the medium run given the substitution effect from other exporting countries. Hence, beside each side's intention to benefit from the "terms of trade effect", the actions of China and the U.S. and the E.U. should comprise a broader perspective that covers political economy factors as well as the global trade imbalances that underpin the dispute.⁸

(ii) Although smaller than China in their volumes of exports, there are other textile exporting countries, and they are likely to benefit from the trade frictions between China and the U.S. and the E.U. Among them, India, an emerging power in the world textile market, openly expressed its positive view of China's export taxes and the U.S. and E.U. import quotas. The Federation of Indian Export Organization (FIEO) contended that much of the increase in Chinese exports was due to unfair trade practices such as export tax rebates, non-tariff loans, and currency manipulation, and an imposition of import restrictions by the U.S. and the E.U. or an increase in export taxes by China would undoubtedly provide an opportunity to Indian textile manufacturers. A recent study predicted that India's textile exports could increase to up to 20% of the world market by 2010. Meanwhile, smaller exporters such as Hong Kong, Malaysia, Pakistan, Thailand,

⁸The task of analyzing the political factors is not undertaken in the present paper. The traditional partial equilibrium approach does not show the other side of the trade equation, namely, China's imports from the U.S. and the E.U. For example, while it is quite unlikely that the U.S. and the E.U. will tax their exports to China, China certainly has the option to impose a tariff on these imports to retaliate against U.S. and E.U. import restrictions on its textile exports. Albeit minor in possibility, this consideration should be taken into account by the two parties in the trade negotiation. Trade imbalances as a backbone of the trade disputes are discussed in sections 1 and 3.

Singapore, South Korea, and Vietnam (with their market shares ranging from 1% - 3%) maintained “wait and see” attitudes towards the trade frictions between China and the U.S. and the E.U. For example, Hong Kong, whose textile exports are exempted from both China’s export taxes and the U.S. and E.U. import quotas, would clearly gain from the friction, but remained cautiously optimistic. After the U.S. imposition of quotas on Chinese textile exports, some Hong Kong textile producers planned to move their plants in China to Hong Kong. Vietnam, which was yet to be a WTO member and was still under a U.S. trade embargo, did not anticipate a noticeable gain from the trade frictions, at least until it acquired WTO membership.

Here, the focal point of attention should be on how the presence of these other textile exporting countries would affect the outcome of the dispute. In particular, if these countries’ exports are indeed viable alternatives to Chinese exports, why would the U.S. and the E.U. initially take a tough stance on China (although this was moderated later)? A 2004 report by the United States Trade Commission (USAITC) maintains that China was expected to be the supplier of choice for most U.S. importers because of its ability to make almost any type of textile or apparel product at a competitive price. This implies that the exports from those other textile-exporting countries could yet be viable alternatives to Chinese exports. Meanwhile, some political considerations might also play a role here.

iii) The traditional model does not consider intra-industry trade among countries. This aspect is particularly relevant to the E.U., which is a major importer, as well as a major exporter of textiles in the world market. While the E.U. contended that the surge of Chinese textile exports clearly inflicted damage on its textile industry, Chinese officials argued that China and the E.U. were not in a competing position in textile markets because Chinese exports were mostly low-end products, while the EU’s products aimed at the high-end market.

Another question is whether some E.U. countries foresee that Chinese exports might also threaten their mid-priced textile market segment (although E.U. countries certainly have a comfortable lead over China in the high-end segment). Here, it is also reasonable to expect that there are concerns from some E.U. countries about retaliations from China on its mid-end textile export to China. These concerns should contribute to softening the hardliner stance initially taken by the E.U.

(iv) The traditional model does not consider the backward and forward markets in the production chain. For example, China was the largest importer of American cotton, and the import content of some Chinese textile exports was as high as 80%. This implies that a decrease in Chinese textile exports should harm the suppliers of the intermediate goods in the U.S. and the E.U. Lau and Stiglitz (2005) assumed the import content of Chinese textile exports to be 70%-80%. Based on this assumption, they reasoned that a 5% export tax would have an effect on trade flows equivalent to a 15%-20% revaluation of the yuan. However, Rumbaugh and Brancher (2004) found the figure to be “over 40%”. More empirical research is under way to gauge the effects of this variable in the trade dispute.

Meanwhile, decreases in imports from China should negatively affect the distribution firms of imports and their workers in the U.S. and the E.U., and this forward linkage should be an essential factor to be considered in the trade negotiation.

Lastly, the role of linkage between trade and foreign investment is missing in the traditional model. To the extent that U.S. and E.U. firms invest in China's export sector, any trade restrictions on China's export hurt the interest of these firms as well. This should also constitute a crucial factor and one that is taken into consideration in trade negotiation.

3. The Optimum Solution to the Trade Disputes

3.1 Bilateral Monopoly and Cooperative Game

The results from the traditional analysis in section 2 are based on the assumption that while a country exercise a policy action, its trading partners do not. However, the structure of the current world textile market is characterized by a bilateral monopoly with two international distortions- the monopoly power of China and the monopsony power of the U.S. and the E.U. In this situation, each country's action is likely to bring about reaction(s) from its trading partner, and hence the trade and policy actions enter the status of a game.

In the well-known game theory, if the two players play a non-cooperative game, they may be trapped in a situation of the prisoners' dilemma, where both players are worse off (although the payoffs may not be the worst for each individual player); but if they play a cooperative game both the players can be better off (although the payoffs may not be the best for each individual player). This implies that if China, and the U.S. and the E.U. play a non-cooperative game by engaging in trade war, both trade blocs and hence the world may be worse-off; but if the two trade blocs play a cooperative game through negotiation, both blocs and the world can be better off. Here, the worst prisoners' dilemma from the non-cooperative game will occur under no trade, and the most desirable outcome from the cooperative game will be realized under free trade (although free trade may not be the best for each of the two bloc). Regardless, under free trade, there is no dead weight loss and the world can enjoy the highest level of welfare, and this is why China, the U.S. and the E.U., and the WTO preferred to resolve the textile disputes through negotiations, and indeed, they reached at agreements through bilateral negotiations.⁹

Here, once free trade is taken as the cooperative outcome of a prisoners' dilemma game while a trade war (which in an extreme case leads to autarky) is considered as the non-cooperative equilibrium of the game, it is important to agree on how to enforce the cooperative equilibrium that is inherently unstable in a prisoners' dilemma game. The time horizons as well as discount rates taken by both sides would be important factors in the game and, further, some sorts of commitments made by either side (in the form of unilateral initiative and bilateral agreement) should be needed to make the cooperative game a stable equilibrium. The negotiation process and the agreement of gradual transition to free trade (described in section 1) evidently expound these factors.

⁹ For the game theory, see Appleyard and Field (1992) and McGuigan, and et al. (2005).

3.2 Other Distortions, Unresolved Issues and the Optimal Policy

The theory of distortions in international trade stipulates that free trade is the optimal policy for a nation in a first-best world with no distortion but, in a world of second-best with distortion(s), policy intervention may be good for the nation than doing nothing. On policy intervention in the presence of distortion(s), the specificity rule prescribes that the policy should directly target the cause of the problem.¹⁰

In the present case of trade dispute, the monopoly power of China and the monopsony power of the U.S. and the E.U. imply that free trade, albeit best for the world, is not necessarily the best policy for each of these blocs. That is, free trade may worsen distortion(s) caused by monopoly power. Since the self-imposed export taxes by China and the policy responses taken by the U.S. and the E.U. did not materialize, there was no assessment of whether these policies led to more efficient resource allocation for the countries. Nonetheless, as discussed in 3.1, once the two trading partners determined that free trade was in their best interest (due to the benefit of the cooperative game) and was the optimal policy for the world, the remaining task was how to actually realize free trade.¹¹

It is mentioned above that, while the heated trade disputes in 2005 were directed toward China's surging textile exports, the backbone of the trade tensions was the mounting trade deficits of the U.S. and the E.U., for which pressure groups in the U.S. and E.U. blamed the distortions created by unfair trade practices by China, such as China's linking its currency to the U.S. dollar, its violation of international rule of intellectual property, product dumping, restrictions on sales and financial service institutions, and the poor working conditions of Chinese workers. Indeed, until today, pressure groups in the U.S. and the E.U. view these as distortionary factors that should be eliminated for free trade to really work. In the three diagrams in Figure 1, the free trade price (P), which does not entail any dead weight loss, must be the price under no distortion. In other words, if the price (P) is the price under distortion, it is not an efficient price for at least one country in the trade game and for the world. Therefore, trade disputes on those distortions are expected to go on, and, in fact, the debates on the distortions are healthy movements essential in seeking economic efficiency and new trade orders.

4. Conclusions

This paper explores the trade disputes on China's textile exports that began with the expiry of the global quotas on January 1, 2005 and settled down after several months of intensive negotiations. Particular attention is paid to China's export taxes, which were later revoked following the U.S. and E.U. decision to impose import quotas. Noting that the backbone of the textile disputes was the mounting trade deficits and flight of jobs

¹⁰ For the optimum trade policy under distortions, see Johnson (1965) and Chacholiades (1981).

¹¹ If countries do not necessarily gain from free trade in the presence of some domestic distortions, free trade may worsen distortion caused by the monopoly power. Then, China and the U.S. and the E.U. might consider certain types of corrective domestic policies (that would not invite foreign repercussions) to accompany the free trade agreement.

from the U.S. and the E.U., for which pressure groups in the U.S. and E.U. blame the distortions created by unfair trade practices by China, this study approaches the trade issue from a range of perspectives and finds that the optimal policy is free trade, and the trade disputes are healthy movements essential in seeking economic efficiency and new trade orders.

Finally, albeit not dealt in this study, additional questions of interest related to the textile disputes may include:

- (i) Does the analysis apply to negotiation in other sectors as well?
- (ii) How will the situation to evolve in the next five years, especially after 2008?
- (iii) In what ways will the outcome of the 2005 textile negotiation affect the future of the WTO?

Appendix

Derivation of the Optimal Export Tax

Figure 1 demonstrates that an export tax brings an area of gain and an area of loss to the exporting country. Figure 2 compares the two areas for a small increase in the export tax (t) above its initial level. An increase in export tax shifts up China's export supply curve and raises international price (P). The increase in international price decreases quantity of foreign imports (M) along the foreign import demand curve.

For China, the extra gains, $M(dP/dt)$, come from being able to raise the international price of foreign imports (i.e., the positive terms-of-trade effect). The extra losses come from losing the extra foreign imports (dM/dt) that were worth tP less per unit to Chinese producers than the price at which foreigners are willing to buy from China.

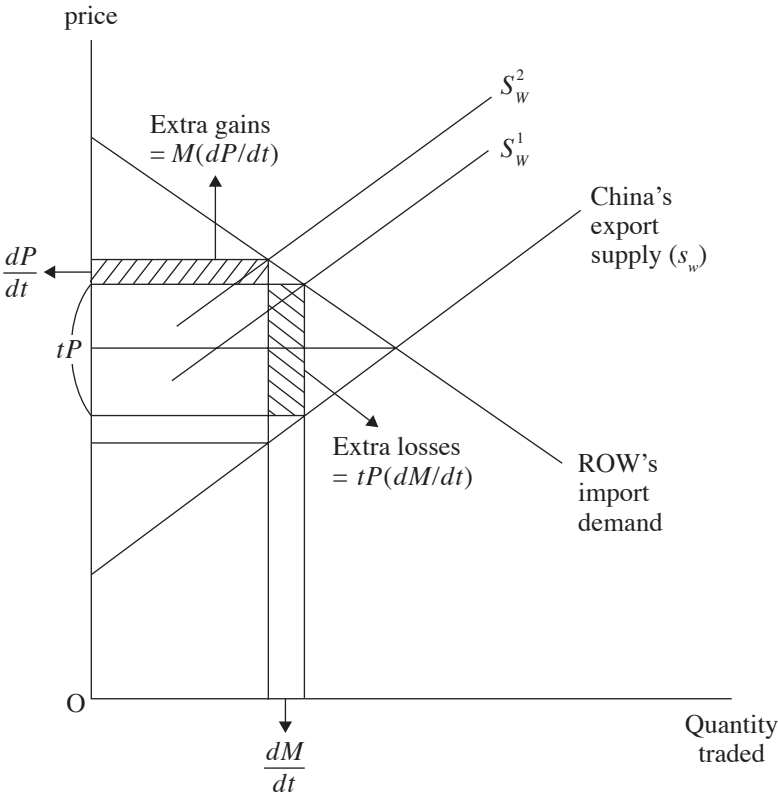
Since Net National Gain (π) = National Gains (G) – National Losses (L),

$$d\pi/dt = \text{extra gains} - \text{extra losses} = M(dP/dt) - tP(dM/dt) = 0.$$

Therefore

$$t^* = 1/|E_m|$$

where $E_m = ((dM/dP)(P/M)) < 0$ is the elasticity of foreign import demand for China's exports.



World Market

Figure 2

References

- Appleyard, D. R. and A. J. Field, Jr., 1992, *International Economics* (Richard D. Irwin, Inc., Homewood, IL), 397-418.
- Bhagwati, J. N., 1965, "On the Equivalence of Tariffs and Quotas," in: R.E. Baldwin *et al.*, eds., *Trade, Growth and the Balance of Payments* (Rand McNally and Company, Chicago, IL).
- Chacholiades, M., 1981, *Principles of International Economics* (McGraw-Hill, New York).
- Johnson, H. G., 1965, "Optimal Trade Intervention in the Presence of Domestic Distortions, in: R. E. Baldwin *et al.*, eds., *Trade, Growth and the Balance of Payments* (Rand McNally and Company, Chicago, IL).
- Lau L. and J. Stiglitz, 2005, "China's Alternative to Revaluation," *Financial Times*, April 24.
- Lerner, A. P., 1936, "The Symmetry Between Import and Export Taxes," *Economica* 3, 306-313. Reprinted in R.E. Caves and H.G. Johnson eds., *AES Readings in International Economics* (Richard D. Irwin, Inc., Homewood, IL, 1968).
- McGuigan, J. R., R. C. Moyer, and F. H. deB. Harris, 2005, *Managerial Economics*, (South-Western Publishing, Mason, Ohio), 537-600.
- Metzler, L., 1949, "Tariffs, the Terms of Trade, and the Distribution of National Income," *Journal of Political Economy* 57, 1-29.
- Pugel, T. A. and P. H. Lindert, 2000, *International Economics* (Irwin McGraw-Hill, New York).
- Rumbaugh, T. and N. Blancher, 2004, "China: International trade and WTO Accession," *International Monetary Fund Working Paper* 04/36, March.
- Various Sources of News (April 2005 – May 2006): *China Daily*, *CNN*, *Forbes*, *New York Times*, *South China Morning Post*, *Wall Street Journal*.

