

TAIWAN IN THE WTO:

An Economic and Policy Analysis

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INTRODUCTION

The 1990s have been a time of change and achievement for Taiwan (a.k.a. the Republic of China). Politically, Taiwan has undergone a dramatic transition from an authoritarian government to a true democracy. On the economic front, Taiwan has continued to grow and prosper. With a 258 billion dollar economy, Taiwan has established itself as the world's twelfth largest trading power. Taiwan has a multi-billion dollar annual trading relationship with the United States, Japan, Germany, Korea, France and a number of other countries. Taiwan is a producer of advanced manufactured products from semiconductors to computers to steel.

Taiwan has also tried to establish its own "international space" in its complex relationship with mainland China. The decades long dispute over the status of Taiwan in relation to the People's Republic of China (PRC) has impaired international recognition and participation in international organizations for Taiwan. Without taking provocative steps, however, Taiwan has tried to establish an increased presence in international organizations, such as the Asia Pacific Economic Council (APEC) and the World Health Organization (WHO). Through most of the decade, one of Taiwan's most important objectives in this regard has been to secure membership in the world trading system, now represented by the World Trade Organization (WTO).

In many ways, WTO membership is a logical step for Taiwan. First, membership in the WTO does not necessarily require recognition of the party joining as an independent state. For example, Hong Kong joined the world trading system in 1986,

though it was at the time under the control of Great Britain on territory leased from China.¹ Second, given its trading success, Taiwan is already recognized as a responsible trading partner by most countries and extended most of the benefits of WTO membership. After some negotiations, there is now wide consensus that Taiwan is qualified for WTO membership.

As is the case with so many international issues involving Taiwan, the PRC complicates matters. For more than thirteen years,² the PRC has itself been trying to join the WTO, but there have been numerous problems. Ongoing disputes with many important WTO members and a trading regime that did not meet WTO standards, has kept the PRC outside the WTO. There has been significant progress in recent talks between the United States and the PRC which may lay the groundwork for PRC WTO membership in the not too distant future. Still, PRC accession remains less than certain.

Unfortunately, the PRC has attempted to link its WTO membership to that of Taiwan. There is no precedent for such a linkage under the WTO and most major countries have, at least publicly, repudiated the linkage. Still the PRC insists that it should be allowed to join the WTO before Taiwan. Even though it is not a member of the WTO, the PRC may be able to convince some of its close allies in the WTO to act on its behalf to slow Taiwan's membership.

¹ Hong Kong became a contracting party to the GATT under Article 26 in April, 1986.

² The PRC formally requested to join the GATT in July, 1986.

Despite these hurdles, Taiwan has succeeded in having a WTO working party formed to consider its application and completing bilateral negotiations with all members of the working group. Shortly, the working group could close its work and send the package for Taiwan's membership to the larger WTO General Council for a final vote on membership.³ To provide some perspective on these upcoming events, this monograph seeks to trace the history of the issue, examine the results of the WTO accession negotiations with Taiwan, and estimate the likely economic impact of Taiwan's membership on the economies of Taiwan's trading partners.

³ A two-thirds vote in favor is required to admit a new member. Working groups, however, traditionally work by consensus.

TIMELINE FOR TAIWAN'S WTO MEMBERSHIP

After WW II, the Republic of China (ROC) became an original member of the world trading system, then known as the General Agreement on Tariffs and Trade (GATT), when it signed the Final Act of Geneva (which created the GATT) on October 30, 1947.⁴ It became a founding member of the GATT on May 21, 1948.⁵

The ROC's original membership was short lived, however. The communist revolution drove the nationalist government from the mainland to the island of Taiwan. In the confusion that this move brought about, the ROC formally withdrew from the GATT in the spring of 1950.⁶

For a time neither the ROC nor the PRC was represented in the GATT. The PRC initially had little interest in trade with the non-communist world and thus little need for GATT membership. In any event, it is unlikely the GATT would have welcomed PRC membership at that time. In the tense years that followed the move to Taiwan, with a capital in Taipei, GATT membership was not a high priority for the ROC either. But in the 1960s, as Taiwan began to establish itself as a trading power, interest in GATT participation returned. On March 16, 1965, the ROC began attending GATT meetings as an observer.⁷

⁴ The General Agreement on Tariffs and Trade (1947, as amended) 55 U.N.T.S. 194, GATT, BISD.

⁵ *Ibid.*

⁶ The events are discussed in more detail in H. Jacobson and M. Oxenberg, *China's Participation in the IMF, and the GATT: Toward a Global Economic Order* (Ann Arbor, MI: University of Michigan Press) 1990.

In 1971, the issue of GATT membership became entangled with the issue of recognition of the PRC. When the PRC began to open relations with western countries and gained admission to the United Nations, it insisted on a derecognition of the ROC. As a result, the ROC lost its observer status in the GATT on November 19, 1971.⁸

In the early 1980s, the PRC gained observer status in the GATT and eventually membership in the Multi-Fiber Agreement, a sub-group of the world trading system devoted to textiles.⁹ As noted, despite launching efforts to rejoin the GATT in the mid-1980s, the PRC has not satisfied the conditions of membership.

In 1990, the ROC began its own effort to rejoin the GATT. To avoid a clash with the PRC, Taiwan applied as the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu. This application was transferred to the WTO after its establishment in 1995. To make its membership more attractive to other GATT/WTO members, Taiwan agreed to assume all the responsibilities of a developed country member, which involved wider market opening.¹⁰

In September of 1992, the GATT Council formally appointed a working group to consider Taiwan's application for membership. The appointment of the working group,

⁷ *Ibid.* and various GATT documents.

⁸ *Ibid.*

⁹ *Ibid.*

¹⁰ For a full discussion of events surrounding this step in the United States and elsewhere see Dick Kirschten, "The Other China," *The National Journal*, October 8, 1994, Volume 26 No. 41, p. 2332 and T.Y. Wang, "Taiwan's GATT Membership – Fully Deserved, Yet Elusive," *Christian Science Monitor*, March 4, 1991, p.19.

which is typically made up of those WTO members that have a significant trading interest with the applicant, is a major step toward membership. At the same time, Chinese Taipei was granted observer status in the GATT/WTO.¹¹

Between 1992 and the present, the working group has met a number of times and Taiwan has engaged in intense bilateral negotiations with key members. After years of sometimes difficult talks, Taiwan has concluded bilateral negotiations with all members of the working group. This includes striking accession agreements with major WTO members, including the United States,¹² the European Union,¹³ and Japan.¹⁴

Taiwan's membership is thus at a critical stage. If past practice were followed, with the negotiations complete, the working group would report Taiwan's application to the WTO General Council for final approval at its next meeting, scheduled for August, 1999. It remains to be seen, however, if the PRC will attempt to hold up the application of Chinese Taipei because it is not yet clear that it will be granted membership in a similar time-frame. Since it is not a WTO member, the only way the PRC could block Taipei's accession would be to convince a WTO member to do its bidding.

¹¹ GATT Documents, 1992.

¹² The United States and Taiwan completed a market access agreement on February 20, 1998 – for the announcement see Office of the United States Trade Representative, “Press Release: The United States and Taiwan Conclude Comprehensive Market Access Agreement,” February 20, 1998.

¹³ The European Union and Taiwan completed a market access agreement on July 23, 1998 – for the announcement see Directorate General I of the European Commission, “Press Release: European Union and Taiwan Conclude Bilateral Market Access Negotiations,” July 23, 1998.

¹⁴ Japan and Taiwan completed a market access agreement on February 4, 1997 – for the announcement see Taiwan Central News Agency, “Japan, Taiwan Strike WTO Accord,” February 4, 1997.

The United States and most other major WTO members continue to take the position that the applications of Chinese Taipei and that of the PRC should proceed separately based upon their own merits. It is not certain, however, how inclined other WTO members are to press the issue in the face of Chinese opposition. It is also unknown if other WTO members, which have no apparent trade objections to Taiwan's application but close ties to the PRC, will attempt to stall Taiwan's application on the PRC's behalf.

The WTO agreements provide a set of clearly defined accession procedures. This means that any acceding country that has completed the established requirements will be granted WTO membership. In this regard, any country that has fulfilled the WTO requirements should accede on their own merit, independent from non-economic factors.

TAIWAN'S ECONOMIC AND TRADE PROFILE

In strictly economic terms, a strong case can be made for Taiwan's WTO membership. Taiwan's GDP already totals \$258 billion, making Taiwan the world's 13th largest economy. Taiwan is also the world's 12th largest trading power. In 1998, Taiwan's international trade totaled more than 216 billion dollars; import from all sources were worth 105 billion dollars.¹⁵

The figures from 1998 reflect a decrease in both imports and exports of nearly 10 percent due to the impact of the Asian economic crisis. Interestingly, Taiwan was hit less hard by the Asian crisis than many of its regional neighbors, such as Indonesia and South Korea, but Taiwan's currency and markets did feel some impact. In addition, many of the countries hit hard by the Asian crisis are important trading partners for Taiwan. Taiwan's ability to avoid the crisis is largely due to a combination of quick intervention by the government and good fortune.¹⁶

As some have noted, however, Taiwan also has a diversified economy that emphasizes small and medium sized businesses more than some of its trading partners, such as Korea.¹⁷ Although still in need of some reform, the banking sector in Taiwan is also more independent than those of some of its neighbors, which prevents the

¹⁵ All import and export figures are drawn from Taiwan's official trade statistics, available at www.cetra.org.tw/english/statistics/indexset.htm.

¹⁶ For a discussion of this see Christopher Anderson, "How Has Taiwan Been Able to Brush Off the Asian Crisis?" *The Economist*, November 7, 1998, p. 3.

¹⁷ Tain-Jy Chen and Ying-Hua Ku, *Reflections on Economic Development in Korea and Taiwan Since 1980*, Paper Prepared for the Brookings Institution Conference on The Asian Financial Crisis and Taiwan's Role in the Region, April 5, 1999 – on file with the author.

speculative buildups and collapses typical of what is commonly referred to as “crony capitalism.”¹⁸

Taiwan’s Trade Profile

Like most countries in the region, Taiwan trades a great deal with the world’s major trading partners – the United States, Japan, and Europe. Probably owing to its proximity, historical ties, and investment relations with the PRC, Taiwan also trades a great deal with Hong Kong. Because of certain restrictions, much trade and travel with mainland China passes through Hong Kong. As a result, Hong Kong is Taiwan’s second largest trading partner after the United States.

It is worth noting, however, the Taiwan’s trade with the world is geographically and nationally diversified. Taiwan’s total trade reaches the one billion dollar threshold with 15 countries, including a number, such as Canada, Switzerland, and Brazil, that lie well outside of the Asian region.

¹⁸ See Paul Krugman, “I Told You So,” *The New York Times Magazine*, May 3, 1998, p.34, Paul Krugman, “Has Asia Recovered?” *Time*, July 5, 1999, p. 48 and Paul Krugman “The Return of Depression Economics,” *Foreign Affairs*, January/February 1999, pp. 56-68.

Table 1. Taiwan's Top Trading Partners and Total Trade in 1997 & 1998
(in US\$ Millions)

Country	1997	1998
United States	52,785.6	49,067.7
Japan	40,712.7	36,350.2
Hong Kong	30,684.2	26,793.6
Germany	9,059.8	9,235.8
Korea	7,390.4	7,156.4
France	6,120.3	6,706.1
Netherlands	5,936.3	5,960.6
Singapore	8,045.0	5,956.0
Malaysia	7,263.7	5,909.8
United Kingdom	5,231.0	4,990.4
Australia	5,090.2	4,544.7
Thailand	4,489.0	3,893.8
Philippines	3,617.1	3,757.7
Indonesia	4,318.5	3,150.2
Italy	2,735.2	2,826.4
Canada	3,184.9	2,732.9
Saudi Arabia	2,395.4	1,622.5
Belgium	1,341.5	1,447.2
Switzerland	1,420.6	1,413.3
Brazil	1,673.3	1,259.4
Others	33,010.4	30,604.8
Total	236,505.1	215,379.8

Source: CETRA

Table 2. Taiwan's 10 Major Export Markets in 1997 & 1998
(in US\$ Millions)

Country	1997	1998
United States	29,551.8	29,386.0
Hong Kong	28,688.1	24,841.3
Japan	11,691.0	9,331.7
Netherlands	4,298.0	4,369.3
Germany	3,690.6	4,086.8
United Kingdom	3,278.2	3,280.2
Singapore	4,894.6	3,259.1
Malaysia	3,035.4	2,286.8
Philippines	2,242.5	1,934.7
Thailand	2,562.1	1,926.1
Others	28,148.3	25,938.0
Total	122,080.6	110,640.0

Source: CETRA

Table 3. Taiwan's 10 Major Import Sources in 1997 & 1998
(in US\$ Millions)

Country	1997	1998
Japan	29,021.7	27,018.8
United States	23,233.8	19,681.7
Korea	5,024.5	5,670.2
France	4,726.0	5,328.5
Germany	5,369.2	5,149.0
Malaysia	4,228.3	3,623.0
Australia	3,217.2	2,912.9
Singapore	3,150.4	2,697.0
Thailand	1,926.9	1,967.7
Hong Kong	1,996.1	1,952.3
Others	32,530.4	28,738.7
Total	114,424.5	104,739.8

Source: CETRA

Similarly, Taiwan's imports from the world are diversified. As would be expected from an island with limited natural resources, Taiwan imports a considerable amount of agricultural products and petroleum. Taiwan also imports, however, a range of industrial products, including chemical, steel products, electrical machinery, household appliances wood, and paper products. Although it is also a major exporter of the same, Taiwan imports a substantial volume of textile products. As Taiwan liberalizes trade in connection with WTO accession, a substantial portion of the growth is likely to be in these same sectors.

Table 4. Taiwan's Major Imports in 1997 & 1998
(in US\$ Millions)

Commodities	1997	1998
Electronic Products	18,656.8	18,110.2
Machinery	11,475.1	12,050.2
Chemicals	11,440.1	9,550.7
Transport Equipment	5,360.7	5,595.7
Information and Communication Products	3,531.8	5,296.6
Precision Instruments	6,375.5	5,192.4
Iron & Steel	6,137.8	5,167.8
Metal Products	5,356.5	4,334.5
Minerals	5,217.7	4,279.8
Raw Materials	3,821.0	3,973.8
Others	30,788.1	46,049.1
Total	114,424.6	104,739.8

Source: CETRA

Obviously, Taiwan is a substantial exporter of a number of industrial products. Although Taiwan does export some agricultural products, given its small land area and limited endowment of natural resources its comparative advantage lies in the production of manufactured products. Since most countries already grant Taiwan MFN tariff treatment voluntarily (a major benefit of WTO membership), WTO accession is less likely to have immediate impact on Taiwan's export volume or composition. Over time, however, the dynamic benefits of an increased selection of products and composition will likely spur overall growth and movement of resources within Taiwan's economy. These changes may have a longer term impact on Taiwan's exports.

Table 5. Taiwan's Major Exports in 1997 & 1998
(in US\$ Millions)

Commodities	1997	1998
Electronic Products	18,024.0	16,911.6
Information and Communication Products	14,441.8	13,773.9
Fiber, Yarn, Linen & Fabric	11,741.5	10,246.8
Machinery	9,651.3	7,809.6
Plastic & Rubber	7,716.3	6,873.2
Iron & Steel	6,649.4	6,408.7
Transport Equipment	5,587.6	5,216.2
Metal Product	4,881.3	4,471.6
Electrical Machinery	4,767.8	4,354.7
Chemicals	3,277.6	2,858.1
Others	35,341.9	31,715.6
Total	122,080.5	110,640.0

Source: CETRA

Taiwan's Trade Regime

Again, like a number of its Asian neighbors, Taiwan's economy was protected in many sectors in the 1950s and 1960s. As part of a trade liberalization effort encouraged by Taiwan's major trading partners, notably the United States, many of these trade barriers have been reduced or dismantled in recent years. Substantial barriers remain in a number of sectors, including agriculture and automobiles. On the whole, however,

Taiwan's trade regime before WTO accession is more liberal than that of its neighbors and on a par with that of most developed countries.

Taiwan has substantially reduced the applied level of tariffs over the years. Taiwan's average nominal tariff rate of 8.2 percent¹⁹ is similar to that of other developed countries. For comparison, the average U.S. tariff rate is just over 5 percent.²⁰ There are, however, still substantial tariff spikes in the Taiwanese tariff schedule on food products such as fruits and fruit juices, frozen foods, and ice cream.²¹ Tariffs are also quite high on automobile parts (nearly 20 percent) and passenger vehicles (average tariff nearly 30 percent).²² There have also been complaints regarding the tariff classifications applied to some imported products.²³

A number of products are also subject to various trade licensing and import permit restrictions in Taiwan. These restrictions effect several hundred product classifications and in cases ranging from pharmaceuticals to sport fishing boats they constitute significant barriers to imports.²⁴ Notable restrictions are applied to a number of agricultural products, including sugar and rice.²⁵ Foreign companies exporting to Taiwan have also raised issues regarding various arbitrarily enforced standards on products, such

¹⁹ Taiwanese trade statistics available at www.cetra.org.tw/english/statistics/indexset.htm. See also Chung-Hua Institution for Economic Research, "The Market Opportunities of Taiwan's Accession to the WTO," unpublished manuscript on file with the author, June 1999, p. 94.

²⁰ U.S. trade statistics available at www.ita.doc.gov.

²¹ Problems cited in United States Trade Representative, *1998 National (U.S.) Trade Estimate Report on Foreign Trade Barriers* (Washington, D.C.: U.S. GPO) 1998. P. 317.

²² *Ibid.*

²³ *Ibid.*

²⁴ *Ibid.*, p.318.

as air conditioners.²⁶ Taiwan's import system for alcohol and tobacco products has been criticized as "cumbersome and costly."²⁷ Many of these non-tariff barriers are the subject of ongoing bilateral discussions with major trading partners and inconsistent with the WTO and would be reduced or eliminated by WTO accession.

As is the case with a number of countries, Taiwan also enforces substantial government procurement preferences and requirements that limit the importation of foreign goods and services. Taiwan's technology transfer requirements have also drawn some criticism, particularly in the aerospace sector. Taiwan has, however, agreed to adhere to the WTO Government Procurement Agreement upon accession to the WTO and has voluntarily undertaken some reform in this area.²⁸

Protection of intellectual property in Taiwan has been a long-standing trade issue between the United States and Taiwan. Piracy in various forms has been a significant problem in the past. Through several bilateral agreements with the United States and a number of legislative changes, Taiwan has brought intellectual property protection to a high-level – comparable to that of most other developed countries. Concerns are sometimes raised, however, concerning some alleged connections between Taiwanese firms and piracy on the mainland. As a developed country, Taiwan would be bound to

²⁵ *Ibid.*

²⁶ *Ibid.*, p. 319.

²⁷ *Ibid.*, p. 326.

²⁸ *Ibid.*, p. 320-321.

fully adhere to WTO provisions on Trade Related Intellectual Property (TRIPs) upon accession.²⁹

Again, as is the case in a number of countries, Taiwan maintains substantial restrictions with regard to a number of services. Financial services and telecommunications services are two sectors in which there is substantial potential for imports. Taiwan has voluntarily liberalized in both sectors and made particularly significant moves regarding telecommunications services. Taiwan has also agreed to fully participate in the General Agreement on Trade in Services (GATS) upon WTO accession.³⁰

As noted, Taiwan has substantially reduced both tariff and non-tariff barriers and improved protection of intellectual property voluntarily over the years. In a number of sectors, however, WTO membership as a developed country would commit Taiwan to economically significant further liberalization.

²⁹ *Ibid.*, p. 322.

³⁰ *Ibid.*, p. 323-324.

TAIWAN'S WTO ACCESSION PACKAGE

In many respects the WTO can be thought of as a package deal. Except for some extended phase-ins for intellectual property, subsidies, and a few other measures for developing countries, all WTO members must meet essentially the same set of disciplines. Since Taiwan has sought membership in the WTO as a developed country, even these limited exceptions do not apply.

There are, however, some complications when it comes to new members. On some issues, such as tariffs, there is not a single WTO permissible level. Existing members have negotiated progressive tariff reductions through numerous rounds of tariff negotiations and now partly on an ongoing basis. Thus, a country joining the WTO today without having gone through these successive negotiations on tariffs and other issues is likely to have higher tariffs than a WTO member. For this reason, the WTO accession provides for initial negotiations with interested WTO members to lower tariffs and address other trade concerns. In a sense, the accession negotiations provide for new members to “catch up” with existing members through this process.

As noted in the opening section, Taiwan has been engaged in accession negotiations since 1992, before the WTO, as presently constituted, existed. Recently, Taiwan has made dramatic progress in these negotiations. Accession talks have now been completed with all members of the working group, including the United States,

Europe, and Japan. (All concessions granted to one member must be granted to all. Most Favored Nation or MFN status, which requires equal treatment, is a cornerstone of the WTO.) Some of the key outcomes of these accession talks regarding tariff and non-tariff barriers are worthy of some discussion.

Tariff Provisions

Currently, Taiwan's average nominal tariff rate is 8.2 percent, a fairly low level comparable to the low single digit rates of the United States, Europe, and Japan. In accession talks, Taiwan has agreed to lower its average tariff rate to 5 percent. This may not sound like an enormous change, but even small shifts in many sectors can have a notable effect. These tariff concessions will ultimately impact 3,470 industrial products and 1,021 agricultural products.³¹ In fact, it is this reduction in tariffs that is responsible for many of the economic benefits projected in the next section.

Beyond that, the average tariff hides the fact that in a number of sectors tariffs remain important barriers to trade. As is the case in many countries, tariff spikes are quite high in a number of sectors; automobiles and agriculture provide two notable examples.

Many countries have employed various trade barriers to protect the automotive sector. In the case of Taiwan, most of this protection has come in the form of tariffs. Currently, tariffs on passenger vehicles range up over 60 percent, the average tariff on

automobiles is almost 44 percent. At this level, tariffs have a strong impact upon trade and greatly restrain imports. There are similar high tariffs on imports of auto parts; auto part tariffs reach over 20 percent and average over 17 percent.

Most of these tariffs will be reduced substantially upon WTO accession. The average tariffs on automobiles falls to 16 percent after phase in and auto parts tariffs fall to just over 10 percent. At these levels, tariffs will still impact trade, but imports of both can be expected to rise substantially.

Agriculture

Tariffs as well as non-tariff measures (NTMs) are also quite significant in the agriculture sector. Tariffs on many meat products exceed 50 percent. Tariffs on various types of fruits and vegetables are also prohibitive.

Textiles and Apparel

Taiwan's textile and apparel market is also potentially a promising export opportunity for many developing countries around the world. Taiwan has a large textile industry, but it has already been adapting in the face of increased competition from abroad and Taiwan does import a significant volume of textiles and apparel.

Most of the formal protection in this sector is provided by tariffs, which average almost 12 percent. Upon completing accession the average tariff on textiles will be

³¹ Chung-Hua Institution for Economic Research, *op.cit*, p. 94.

lowered by about 20 percent – to under 10 percent. At this level, tariffs will still restrain imports, but substantial trade opportunities will be created. Tariffs on specific products will fall even more dramatically creating various niche opportunities.

Industrial Tariffs

Many of Taiwan's other industrial tariffs are already fairly low. For example tariffs on semiconductors are now at less than 1 percent and scheduled to fall to zero. Tariffs on semiconductor manufacturing equipment are now just under 6 percent and scheduled to be cut by more than 50 percent.

Tariffs on a number of consumer electronic products, such as cassette players, are sizeable – many in the low teens – and scheduled for substantial reduction. Tariff reductions on these and other consumer products are likely to create substantial opportunities for Taiwan's trading partners.

Estimates of Taiwanese Non-Tariff Barriers

Of course, tariffs are not the only barriers to trade. In Taiwan and most other countries, there are a number of Non-Tariff Measures, as well. NTMs take a wide variety of forms, including quotas, import licenses, and product standards that discriminate against imports. The steps taken to reduce these measures are also quite important and have considerable impact on economic estimates of the value of Taiwan's accession for its trading partners.

The most widely accepted method of estimating the impact of NTMs and that used here involves estimating a tariff equivalent of the various NTMs. Under the best of circumstances, estimating an equivalent tariff for NTMs is a challenging task. There have, however, been efforts to create such tariff equivalents in several sectors and for a number of countries. This makes it possible to borrow from past efforts and compare results with estimates of protection in other countries to test the “reasonableness” of the estimate.³²

Overall Estimate

There is a wide range in estimates of the tariff equivalent of various non-tariff barriers in other countries, including Japan at 173 percent³³ to South Korea at 30.7 percent.³⁴ Because this involves estimating the trade impact of real, but difficult to quantify, trade barriers, such as government tolerated collusion in the marketplace, such estimates are always open to debate.

The process of making overall estimates for Taiwan is complicated by the fact that many of the objectionable trade programs are being changed or have recently been changed. Nonetheless, an analysis of the WTO working party³⁵ process and the concerns

³² On this basis, an estimate of non-tariff barriers in China of 22 percent was rejected as not consistent with other estimates or the reports of trading partners.

³³ T. Sananami, et.al, *Measuring the Costs of Protection in Japan* (Washington, D.C.: IIE) 1994.

³⁴ J. Kim, *Measuring the Costs of Visible Protection in Korea* (Washington, D.C.: IIE) 1996.

³⁵ Working Party on the Accession of Chinese Taipei, “Draft Report of the Working Party on the Accession of the Separate Customs Territory of Taiwan, Penghu, Kinmen, and Matsu,” (Geneva: WTO) April 23, 1999.

raised by Taiwan's trading partners³⁶ indicate that substantial non-tariff restrictions, including import licenses, quotas, import bans, sanitary and phytosanitary restrictions continue to have significant impact upon trade. These non-tariff measures are most pronounced in the agricultural and high technology sectors. A more detailed breakdown of the barriers in particular sectors is included below.

Given the uncertainty involved in the process, each of the estimates of NTM levels should be taken as the mid-point of a range of reasonable estimates that would be as much as 25 percent more or less than the estimate. To reflect this uncertainty, in making the economic estimates of the impact of NTM reduction in the next section, a range of possible impacts is calculated using this plus or minus 25 percent range for NTMs in each sector.

Based on this information, the average tariff equivalent of NTMs for Taiwan, reflecting substantial reductions in recent years, was estimated to be approximately 20 percent. Full implementation of WTO requirements would likely reduce the overall level of non-tariff barriers by about 50 percent or to approximately a tariff equivalent of 10 percent.³⁷

³⁶ The most detailed of which is the United States' *1999 National Trade Estimate Report on Foreign Trade Barriers* (Washington, D.C.: US GPO) 1999.

³⁷ The reader should note that in many cases the WTO does not necessarily require the elimination of trade barriers considered in this analysis. This is particularly true in the agricultural sector.

Agriculture: Fruits and Vegetables

Taiwan maintains a number of non-tariff barriers on fruit and vegetable imports, many of which are specifically listed in the WTO working party report.³⁸ In addition, various sanitary and phytosanitary regulations impede imports of a number of these products. In addition, farmers in Taiwan are eligible for a number of subsidy programs, some of which may have a trade impact. Because of the high frequency of non-tariff barriers in this area and their relative severity -- for example, import bans on a number of citrus fruits and potatoes -- the tariff equivalent rate in this sector was set quite high -- 60 percent.

Most of these barriers are specifically listed in the Working Group Report and scheduled for phase-out, though some subsidies will remain. For this reason, the post-accession estimate reflects a substantial reduction to approximately 20 percent.

Agriculture: Meat and Meat Products

Much of the analysis applied to fruits and vegetables also applies to meat and meat products. A number of non-tariff barriers, such as import licenses, sanitary and phytosanitary restrictions, and subsidies also appear to impact Taiwan's meat imports. But again, many of these problems are specifically listed in the Working Group Report and scheduled for elimination. The pre-accession tariff equivalent for this sector is thus estimated at 45 percent; it is considerably lower than fruits and vegetables because there

³⁸ Working Group, *op. cit.*, Attachment C.

has already been significant liberalization in this sector. The post-accession rate is estimated to be 20 percent.

Auto Parts

Over the years, Taiwan has imposed substantial import protection in the auto part sector, but much of it has been in the form of tariffs. There are, however, substantial technical (product standard) barriers to trade and industrial subsidies also present in this sector. Some of the protection applied to automobiles (passenger vehicles) also impacts imports of auto parts. The pre-accession tariff equivalent is estimated at 10 percent, the post-accession at 5 percent.

Automobiles

As is the case in a number of developed countries, the auto sector has enjoyed significant protection in Taiwan, but most has been in the form of very high tariffs. As in other industrial sectors, however, there are also significant non-tariff barriers. Import restrictions on several types of passenger vehicles are given attention in the Working Group Report.³⁹ In addition the technical barriers to trade and industrial subsidies cited above, have a substantial impact in this sector. Given the high tariff levels, however, it is difficult to ascribe a precise value to the impact of these non-tariff barriers. Despite these difficulties, the pre-accession equivalent for NTMs is estimated at 20 percent, post-accession at 10 percent.

Textiles

As noted above, Taiwan is both a substantial exporter of textile products as well as a significant importer. Some of the technical barriers to trade and import restrictions applied to other products are applied to textiles, but the overall level of non-tariff measures seems fairly low; pre-accession is estimated at 5 percent, post-accession at 3 percent.

Semiconductors

Over the years, Taiwan's aggressive programs to encourage the establishment and nurture the development of high technology industries, have often been criticized by trading partners and received substantial mention in the Working Groups proceedings.⁴⁰ Semiconductor manufacturing received considerable attention under these programs over the years. In addition, Taiwan is in the process of applying antidumping duties on some imported semiconductors. Antidumping duties are permissible under the WTO, but some trading partners have criticized the procedures applied as WTO inconsistent.⁴¹

Taiwan has pledged to make its antidumping procedures WTO consistent as part of the WTO accession process as well as reduce or modify various government industrial policies that have been cited.⁴² Some trading partners have continued to express concern over these programs, however. This issue is particularly complex because Taiwanese

³⁹ Working Group, *op. cit.*, and p. 53.

⁴⁰ Working Group, *op. cit.*, and pp. 43-51.

⁴¹ Working Group, *op. cit.*, p.37

⁴² *Ibid.*

authorities are now considering antidumping cases on imported semiconductors which could impose large duties; there are some significant WTO compliance issues raised in these cases.

The cumulative pre-accession level of non-tariff measures, except for antidumping measures, is likely equivalent to a 6 percent tariff. Upon accession, this figure would be reduced to approximately 4 percent. The cumulative impact of pending antidumping measures is considerably larger, approximately 30 percent. Accession is assumed to eliminate this NTM. The total pre-accession NTM level is thus 36 percent, post-accession is 4 percent.

ECONOMIC ESTIMATE OF THE IMPACT OF WTO ACCESSION BY TAIWAN

For this study, an attempt was made to measure the potential increase in imports in each of the aforementioned industrial and agricultural sectors.⁴³ This exercise required data for the top-7 imports for each sector in 1998; tariff rates at accession and the liberalization timetable; the incorporation of non-tariff measures; and own-price elasticities for each product. Assumptions about endogenous import demand during the phase-in period were also required.

Import Data

Data on the price, quantity, and value of imports (in U.S. dollars) at the ten-digit HS level were taken from the December 1998 version of the “World Trade Atlas, Taiwan Edition.” This CD-ROM, produced with Taiwanese data by Global Trade, Information Services, Inc., contains statistics released through the end of 1998. The Taiwanese government will release revised trade data for 1998 later this year that may differ from the data used in these estimates. However, revisions are typically small and would have only a minor impact on the estimates contained in this study.

⁴³ A similar analysis was conducted by the Chung-Hua Institution for Economic Research in June 1999. They estimated that Taiwan's proposed tariff cuts would boost agricultural imports by \$91.1 million and manufacturing imports by \$902 million (conversion from New Taiwanese dollars was performed at the rate of US\$ 1 = NT\$ 33.5).

Rather than estimate the impact of WTO accession for each ten-digit product, this analysis focuses on the top-7 products in each sector. The top-7 imports on average (weighted) accounted for 67 percent of total sector imports. Among individual sectors, the coverage ratio ranged from 64 percent to 98 percent for all but the textile and apparel sector, for which the coverage ratio was only 26 percent. (See exhibit.)

Tariff Rates and Liberalization Timetable

The tariff rates and liberalization timetable were taken from the *Schedule for the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu Part I and Part II*. The tariff reductions illustrated on this schedule are listed at the eight-digit HS level. Most tariff rates are expressed as a percent of import value. For some products, the duties are calculated according to quantities rather than values. This complicated the task of incorporating non-tariff measures, which were expressed as percentage points. In such cases, tariff rate equivalents were calculated based on 1998 data. This required converting the volume-based tariff, expressed in New Taiwanese dollars, into U.S. dollars. This was done at an exchange rate of NT\$ 33.5 per U.S. dollar.

The timetable for liberalization varied between and within sectors. For semiconductors, liberalization is completed on the second year after accession. For automobiles, the phase-in period varied from 2 to 9 years. (See exhibit) Rates are reduced in equal increments for almost all products, the exception being the auto industry, in which implementation is staggered for several products.

Because the model used in this study is dynamic, it requires an assumption about the year of accession. The year of accession is assumed to be 2001. Due to growth in the Taiwanese economy, if accession is one year earlier, the gains from liberalization will be roughly 5 percent lower than expressed in this report. Similarly, if accession occurs in 2002, the gains will be roughly 5 percent greater than estimated here.

Dealing with Non-Tariff Measures

The estimates of non-tariff barriers discussed earlier were simply added to the tariff rates and reduced according the same schedule.

Own-Price Elasticities for Imports

Ideally, own-price elasticities would be calculated using monthly price and quantity data for imports, domestic output, and domestic demand. However, elasticities traditionally have varied from study to study, depending on the methodology, data sources, and time frame of the data. Rather than using estimates that may not correspond to the current data, a range of values is used for each industry being considered. For agricultural products, the elasticity used here ranges from minus 0.5 to minus 1.5. For other sectors, the range is minus 1.0 to minus 2.0.

Endogenous Import Demand

In order to calculate more accurately the change in imports during the phase-in period, it is necessary to incorporate some measure of changes in domestic demand for each sector. Because Taiwan is a high growth economy, growth in import demand is

high as well, roughly reflecting the rapid growth in the country's GDP; an endogenous growth rate of 5 percent was used.

Methodology

The following steps were taken to estimate the impact of lower tariffs (and lower NTMs) on imports.

- 1) Phase-in schedules were calculated.
- 2) A baseline of import values was created, assuming a five-percent annual increase in the quantity of imports consumed and constant import prices (excluding tariffs) over the period.
- 3) The percent changes in domestic prices (the import price after the tariff has been applied) were calculated.
- 4) The impact of lower prices was transmitted to import quantities via the own-price elasticity of import demand. The new quantity is calculated by multiplying the price change and the elasticity, adding this product to 1, and multiplying this sum by the baseline import quantity for the first year of accession. The product, adjusted for endogenous growth, then becomes the baseline for the following year's calculation.
- 5) A new series of import values is calculated by multiplying the resulting quantities by the constant import price (excluding the tariff).
- 6) The difference between the results of 5) and 2) is calculated. This value represents the change in the value of imports due to liberalization.

Ideally, an additional set of equations would be used to incorporate the impact of lower import prices on the prices of domestic producers. Domestic producers would likely reduce their prices somewhat, thereby limiting the import gains below those estimated by the above system of equations. However, without data on domestic prices or cross-price elasticities, these calculations are not possible. Thus, the values calculated below should be viewed as maximums, under the given set of assumptions.

Results

In 1998, Taiwan's import bill was US\$ 106.4 billion. Among the six sectors covered in this study, there were US\$ 13.6 billion of imports slated for liberalization. (See exhibit.) The 42 imported products that were analyzed here accounted for US\$ 9.2, or 8.6 percent of Taiwan's 1998 imports.

The two columns furthest to the right in the exhibit below contain estimates of the potential increase in imports during the phase in period. Due to the different phase-in schedules among and within sectors, the numbers are not strictly comparable; however, they do indicate that a substantial increase in imports. The results suggest that when tariffs alone are considered, an additional US\$ 3.1 billion in imports will be realized while the tariff reductions are being phased in. If NTMs are reduced to the levels presented in this report, the import growth potential is an estimated US\$ 5.5 billion. Given the greater volume of Taiwan's total imports, the total import increases on an

economy wide basis are likely to approach a figure nearly ten times as high.⁴⁴ To do such a calculation accurately, however, would require a careful product-by-product examination as was done for the sectors examined.

The biggest gains are in autos and semiconductors. In the automobile sector, the reduction of prohibitive duties generates significant import gains. For semiconductors, it is the reduction of non-tariff barriers that generates large gains.

Estimated Impact of Liberalization on Taiwanese Imports

Millions of U.S. Dollars (unless otherwise indicated)

	Liberalized Imports, 1998 Data			Phase-in Period	Increase of Top-7 Imports during Phase-in Period	
	Total	Top-7	Top-7 Share		Top-7 Imports	Tariffs only
Fruits and Vegetables	311.7	200.8	64.4%	2 - 5 years	28 - 73	70 - 224
Meat Products	211.2	156.8	74.2%	4 years	29 - 90	61 - 195
Automobiles	1,097.6	1,077.2	98.1%	2 - 9 years	1,712 - 3,448	1,842 - 3,772
Auto Parts	1,380.0	1,053.3	76.3%	4 years	169 - 343	295 - 602
Semiconductors	8,873.1	6,277.3	70.7%	2 years	90 - 180	298-591
Textile and Apparel	1,730.1	449.1	26.0%	2 - 3 years	4 - 8	20 - 40
Total (mid-point value)	13,603.6	9,214.5	67.7%	N/A	3,086	5,508

⁴⁴ A simple linear extrapolation of these figures to the total quantity of imports would not provide an accurate estimate because the level of trade barriers and growth potential varies greatly from product to product.

CONCLUSION

Taiwan and the world trading system have a complex history. Even without formal membership in the trading system, Taiwan has developed into an important trading partner for many countries. Despite the lingering impact of the Asian Economic crisis, Taiwan's total trade with the world is likely to approach \$250 billion this year; which puts Taiwan in the top rank of trading powers.

More importantly, from the perspective of the WTO and its trading partners, Taiwan has proven itself a responsible trading power. In the last decade, Taiwan has greatly liberalized its trading system; tariffs and NTMs have come down and protection of intellectual property has improved to a level consistent with other developed countries. There are still areas in Taiwan's trading regime which could be improved, but Taiwan's economy is already more open than that of most of its Asian neighbors. Unlike the PRC and many current members of the WTO, Taiwan's trading regime is already in compliance with the provisions of the WTO.

Upon accession to the WTO, Taiwan has agreed to undertake a series of additional trade liberalizing measures that will open billions of dollars in new trade opportunities annually for its trading partners. Certainly, Taiwan's largest trading partners, such as the United States and Japan, will enjoy a substantial share of these new opportunities, but Taiwan is a diversified trader that maintains substantial trade relationships with many countries. All of these are likely to see some additional export

opportunities and some countries that do not currently trade with Taiwan may also enjoy some benefits.

In the end, Taiwan's membership in the WTO will strengthen the WTO as an institution. The trade liberalization that results will benefit Taiwan, Taiwan's trading partners, and the world trading system. Political maneuvering and point scoring has needlessly held up Taiwan's WTO application for too long to the detriment of Taiwan and the WTO. It is time to put political concerns aside and, on the merits, welcome Taiwan into the WTO.

GREG MASTEL

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