Coming to Terms with the “WTO Effect” on U.S.-China Trade and China’s Economic Growth

Mark W. Frazier

In the heated political debate over how China’s accession to the World Trade Organization might impact the U.S. economy, neither side recognizes the importance of continued economic growth in China for U.S. exporters and their employees. A number of studies have tried to predict the effect that China’s WTO accession will have on U.S. exports to China and the U.S. economy more generally. These studies, basing their estimates of export growth and other measures on proposed tariff cuts and the gradual removal of non-tariff barriers, generally overlook one important fact: the continued expansion of U.S. exports to China depends on the continued growth of the Chinese economy. For the most part, U.S. exporters have already benefited from cuts in tariffs, which on average have declined substantially over the past two decades. The real significance of WTO accession, therefore, lies not in the short-term benefits that might accrue to corporations in specific sectors but in the restructuring of China’s economy over the next decade. It is in the long-term interests of the United States and China’s other trading partners to encourage the growth of the Chinese economy, while not undermining the stability of this tenuous restructuring process.

The political debate in the United States over China’s prospective entry into the World Trade Organization (WTO)—a debate that is sure to heat up whenever U.S. and Chinese negotiators reach an agreement over the terms of China’s accession—predictably includes both rosy and gloomy assessments of what would happen to the U.S. economy and U.S. exports with China as a WTO member. Opponents of China’s joining the WTO warn that further U.S. investment in production facilities in China would result in a substantial loss of U.S. manufacturing jobs (to workers with no labor rights, critics note) and would worsen the already untenable bilateral trade deficit. Supporters of China’s joining the 134-member trading body assert just the opposite—that China’s inclusion in WTO ranks would set off a surge in U.S. exports, create new jobs within the United States, and actually bring down the bilateral trade deficit. These and other claims might make effective selling points to important political constituencies and to Congress, but both sides in this debate overlook an important fact: for American firms to export more goods to China, China’s domestic economy must expand at fairly high rates of annual growth. More
generally, as this study demonstrates, China’s annual rate of economic growth strongly impacts the rate of growth in China’s imports of American and other foreign goods. As we know, China’s economic growth rate has been extraordinary over the past two decades of economic reforms. Economists have identified a number of important sources of economic growth in China since 1979, but the critical question now for China, its trading partners, and the global economy is what factors will sustain the future growth of the Chinese economy and, indirectly, China’s foreign trade?

Policymakers and their advisors in Beijing, confronted with a slowing and in many ways fragile domestic economy, are themselves preoccupied with this question. China’s trading partners would do well to consider how the terms for China’s entry into the WTO can achieve the desired goal of liberalizing trade relations without jeopardizing China’s uncertain economic transition and creating an anti-trade, conservative political backlash within China. The real significance of China’s participation in the WTO, notwithstanding the claims being made in Washington, DC, lies not in trade statistics but in the changes that WTO membership could bring to China’s economy over the next decade.

This article will review some of the estimates that various organizations and scholars have made of the likely “WTO effect” on U.S.-China trade and on China’s overall growth in imports over the next decade. These estimates of future trade if China were to join the WTO will be compared with a “status quo” scenario in which China remains out of the WTO and past rates of growth in U.S.-China trade decline substantially. The article will also demonstrate the close relationship between China’s economic growth rates and the growth rates in foreign trade, especially with the United States. Regardless of whether China joins the WTO, the growth of the Chinese economy will remain the critical factor in the expansion of China’s foreign trade.

By any measure, the average annual growth rates of U.S. exports to China during the 1990s have been substantial. At the current pace, exports would double every seven to eight years. However, determining a precise figure for the trade of goods and services between the United States and China is difficult, primarily because the two countries use different accounting methods for trade through Hong Kong, and they do not use the same method for enumerating such items as shipping and insurance costs. Nonetheless, a recent study by Professors K.C. Fung and Lawrence J. Lau has produced adjusted figures for U.S.-China trade that serve as a useful baseline for assessing various projections of the effects that China’s entrance into the WTO might have on trade with the United States.\footnote{K.C. Fung and Lawrence J. Lau, “New Estimates of the United States-China Bilateral Trade Balances,” Institute for International Studies, Stanford University, April 1999.} Based on that data, American firms exported $18.9 billion in goods to China in 1998 and $3.7 billion in services in 1997 (the most recent year for which figures on services trade are available).\footnote{Fung and Lau, p. 25.} Using the adjusted numbers from the Fung and Lau study, growth rates of U.S. exports of goods to China have averaged 16.1 percent per year from 1990 to 1998. Using official U.S. data, the average annual growth rate for the same period is about one percentage point lower, or 15 percent. Service exports, based on U.S. official data, have grown by an average of 18.5 percent per year since 1993, the first year that U.S. trade
figures separated services from merchandise trade. The point is that despite the complaints of some U.S. policymakers and firms about China’s failure to purchase U.S. goods relative to what Americans import from China, American companies have exported goods (and services) at a healthy growth rate during the 1990s.

What if, to the dismay of U.S. policymakers and exporters, growth rates of U.S. exports to China were to decline to an average of 8.0 percent per year, or roughly half the rate of expansion that took place during the 1990s? Even under this inauspicious scenario, the export of U.S. goods to China would reach $32.4 billion by 2005 and $44.1 billion by 2009. (See Figure 1) This projection does not include services, which, if their annual rate of growth were to slow down from a recent average of 18.5 percent to 9 percent in the next five to ten years, would nevertheless reach $7.4 billion by 2005 and $10.4 billion by 2009 (based on official U.S. data).

It is of course hazardous to project future growth rates based on past rates of growth, even when allowing for a substantial decline in past rates of growth. Any number of external events could alter the trajectory of growth in U.S. exports to China for the first decade of the next century. Nonetheless, by lowering expectations to merely half the rate of growth in the 1990s, the projected figure of $39.8 billion in exports in 2005 ($32.4 billion in goods and $7.4 billion in services) is almost double the level of exports in 1998. How does this scenario, in which China remains outside the WTO and the rate of growth of U.S. exports to China declines to half the rate enjoyed in the 1990s, compare with recent estimates of the “WTO effect” on U.S. exports to China?

The United States International Trade Commission (ITC), at the request of the U.S. Trade Representative (USTR), conducted a confidential study that computed the effects on the U.S. economy should China join the WTO under the terms that Zhu Rongji offered in April 1999. The ITC study remained classified as of early September 1999, but the USTR declassified the Executive Summary of the report on September 2 and requested that the ITC release this portion publicly. Using what the authors of the study call a “global computable general equilibrium model,” the ITC estimated that China’s membership in the WTO would result in an increase of 9.0 to 10.1 percent (or $2.4 to $2.7 billion) in U.S. exports to China. These estimates use a base year of 1998, although the ITC’s Executive Summary does not specify when these increases would take place or what the average annual rate of growth in U.S. exports to China might be over the next several years. The authors of the study do not discuss in the Executive Summary how their estimates for the growth of exports to China square with the prevailing average annual growth rates of 16 percent in the 1990s.

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3 According to an ITC press release issued on September 2, “The USTR indicated that it is reviewing the body of the ITC report and ‘intend[s] to complete this review expeditiously and will provide further guidance to the Commission on those portions of the report which are to be declassified.’”

Another recent study, published by Goldman Sachs, analyzes the effects that China’s joining the WTO would have on China’s total imports.5 The author of that study, economist Fred Hu, estimated that China’s total trade (imports plus exports) would double to $600 billion by 2005 from $324 billion in 1998 if China were to accede to the WTO under the terms of the offer made during Zhu Rongji’s visit to the United States in April. That offer was widely considered by the American business community and many others to be satisfactory, even surprisingly full of concessions to U.S. demands.6 The Goldman Sachs study estimates that by 2005 China’s accession to the WTO would boost China’s total annual imports by $105 to $115 billion, with $65 billion coming from the lowering of tariffs, $20 to $30 billion from the removal of non-tariff barriers, and a final $20 billion from the expansion of foreign investment in China. Hu’s study does not project exact figures for China’s imports of U.S. goods under this scenario, but obviously the United States would have some share of this $105 to $115 billion increase in China’s imports arising from its accession to the WTO.

The authors of a study by the Congressional Research Service (CRS) take the Goldman Sachs projections and note that if American firms were to maintain their current 12.1 percent share of the China market, the $105 to $115 billion increase in China’s total annual imports would translate into an increase of $12.7 to $13.9 billion in Chinese imports from the U.S. by 2005.7 However, neither the Goldman Sachs nor the CRS study offers a baseline to which these WTO-induced export boosts would be added. If one adds the WTO effect predicted by CRS to the $22.6 billion in exports of goods (1998) and services (1997) from the Fung and Lau study, the result would be $35.3 to $36.5 billion in U.S. exports to China by 2005. Alternatively, assuming as the authors of the CRS study do that the U.S. share would remain at 12.1 percent of China’s imports by 2005, the projection of U.S. exports to China would be $27.8 to $31.5 billion (12.1 percent of $230 to $260 billion). A recent study by the Institute of International Economics (IIE) estimates that China’s joining the WTO under the terms of Zhu’s offer would result in an immediate $3.1 billion increase in U.S. exports of goods and services to China. This represents a 13 percent increase over 1998 levels of U.S. exports of goods and services to China as estimated by the IIE study on the basis of Fung and Lau’s data.8

All of these estimates of the WTO effect on U.S. exports to China are comparable and in some cases perhaps less favorable than the projected 2005 figure of $39.8 billion in goods and services in the first scenario. Recall that in this first scenario it was assumed that the annual growth rates of U.S. exports decline to eight percent for goods and nine percent for services. The ITC, Goldman Sachs, CRS, and IIE studies either assume static baselines that do not factor in existing rates of growth, or they assume that existing growth rates

6 For a more detailed analysis of the American business community’s candid assessment of the April 8 offer, see Mark W. Frazier and Peter Hansen, “China’s Accession to the WTO: A Candid Appraisal from U.S. Industry,” NBR Briefing, no. 8 (September 1999).
would fall well below eight to nine percent if China remains out of the WTO. Regardless of one’s assumptions, the larger point is that the claims that American exports to China will surge after China joins the WTO must be considered in light of the already substantial pace of growth in U.S. exports to China.

Why would China’s entrance into a liberal trading regime that requires reduced tariffs and the removal of significant non-tariff barriers amount to a modest difference in overall trade? There are two answers to this apparent puzzle. First, it is likely that U.S. exports to China will no longer be driven by tariff reductions. Since 1996, China has reduced tariffs from an average rate of 42 percent to the current average of 17 percent. Moreover, China proposes to reduce the average tariff rate to 10 percent by 2005, which amounts to a reduction of a little over one percentage point a year from 2000. Future growth in exports to China will arise from sources other than simple tariff rate reductions.

However, the optimism of U.S. exporters from a few specific sectors is well-founded. China’s accession to the WTO would bring substantially reduced tariffs for specific items such as automobiles (from 80-100 percent down to 25 percent by 2005) and agricultural goods (from 20-40 percent to 10-12 percent). Liberalized rules controlling what foreign-invested enterprises in China may import—a Ford plant in Shanghai importing engine parts for example—would also generate new exports to China. However, this intra-firm and intra-industry trade from foreign investment generally measures less than one-fifth of new imports. Regardless of these important sectoral tariff reductions, for most goods and services that the U.S. exports to China, tariffs are already low. Information technology imports, for example, already enjoy 13 percent tariffs, though they would be eased down to tariff-free status by 2005.

Second, all of these projections for trade growth depend on the maintenance of current dollar-yuan exchange rates and especially the ability of China’s economy to grow at past rates of expansion. And changes in rates of economic growth, despite the relatively large portion of the Chinese economy that is accounted for through external trade, is largely independent of trade. It is almost assured that China’s economy will not expand faster than the 8 to 10 percent annual rate that it has averaged since 1978—even official PRC figures for 1998 economic growth were 7.8 percent. Slower economic growth means slower growth in trade. While it is true that expanded trade might stimulate growth in certain areas, WTO membership on the whole would have a limited impact on China’s economic growth. The Goldman Sachs study estimates that the trade component of China’s economy, currently 33 percent of GDP (14 percent for imports and 19 percent for exports) would reach 36 percent by 2005 if China joins the WTO. If this “trade openness” ratio and the projection of China’s total trade as $600 billion in 2005 are accurate, the size of the Chinese economy that year would have to reach $1.66 trillion. For this to occur, China’s economy would have to continue to expand at an average annual growth rate of 8.1 percent between 1999 and 2005. The Goldman Sachs study estimates that China’s WTO accession would add about 0.5 percentage points to its economic growth rates by 2005.

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9 The official PRC figure for 1998 GDP, measured in current yuan, is 7.95 trillion. Measured in U.S. dollars, using the IMF’s average exchange rate for 1998 (8.28 yuan=$1), China’s 1998 GDP was $961 billion.
This is a significant addition but still means the PRC economy would have to grow at the unlikely rate of well over seven percent per year to reach $1.66 trillion by 2005.

Thus, with the exception of a few sectors, the general picture of future U.S.-China trade is very likely to be one in which the leveling off of China’s annual economic growth rate, if not its decline from past levels, drags down the annual growth rate of imports, including those from the United States. Figures 2 and 3 show the relationship between China’s economic growth rate and the growth rate of imports from the United States (Fig. 2), from some of China’s other trading partners, and from the world as a whole (Fig. 3). The data points start from 1984, the year that China committed to joining the international trade regime and gained observer status in the General Agreement on Tariffs and Trade (GATT, the predecessor to the WTO). The annual growth rates of U.S. exports to China have fluctuated, but the figures reveal a statistically significant relationship between China’s economic growth and U.S. exports to China. In fact, as the slope of the line in Figure 3 demonstrates, for every one percentage point change in China’s GDP growth there has been a 2.94 percentage point change in China’s imports of U.S. goods. This ratio, which economists call the elasticity of demand for imports, is important to consider when asking whether China’s entering the WTO would cause a surge in U.S. exports to China. If China’s economic growth rates are slowing down, then it is reasonable to expect slower rates of growth in U.S. exports to China. Figure 3 also shows the elasticity for China’s imports from Japan (6.92), the European Union (3.69), and the world as a whole (3.42). While these lines are drawn from a limited number of observations (based on annual data from 1984 to 1997), they demonstrate the plausible relationship between the annual growth rates of the Chinese economy and of China’s imports from its trading partners. Note also from Figure 3 what would happen if the Chinese economy were to slow to a still impressive annual growth rate of four to six percent: the annual rate of expansion of exports to China would level off (e.g., zero growth), or exports would actually decline from the previous year.

The analysis to this point has shown how China’s economic growth rates affect the expansion of trade, particularly imports of foreign goods and services. Of course, as several trade economists have demonstrated, a more liberalized trade regime that increases imports can also have a positive effect on the rates of domestic economic growth. In other words, the causation might work the other way: growth in China’s imports might influence China’s economic expansion. Reversing the causal relationship using simple regression analysis reveals that during 1984-1997 every one percentage point increase in China’s imports resulted in a corresponding rise of 0.17 percentage points in China’s annual economic growth. An expansion in imports might add to China’s economic growth rate, but because of the size of the Chinese economy, its mixed market-and-plan structure, and the large portions of the economy that are relatively unaffected by international trade, it is highly unlikely that imports alone are the driving force behind China’s GDP growth rate. On the other hand, as noted in Figures 2 and 3, China’s GDP growth rate does have a decisive impact on growth in China’s imports.

If anything, the concern in China is that accession to the WTO, especially under the terms of the controversial April 1999 offer, would dampen China’s already declining
economic growth rate and threaten far larger social consequences. Quite a number of Chinese officials in industrial ministries and local governments have voiced concerns that the concessions required for China’s accession to the WTO will bring turbulence to a fragile arrangement in which banks prop up money-losing firms and local officials subsidize restive urban workers and retirees. Any economic meltdown or crisis in China that follows its joining the WTO will give opponents of the United States and liberalized economic relations with the outside world a valuable political weapon. Those seeking China’s rapid accession to the WTO, including Zhu Rongji and Jiang Zemin, perhaps have calculated that the WTO effects on the Chinese economy could bring no more harm to an already difficult economic situation, or that WTO accession could be the stimulus that turns around the PRC economy by, among other things, promoting a surge in China’s exports.

The Executive Summary of the ITC study noted above estimates that China’s joining the WTO on the terms of Zhu Rongji’s April 1999 offer would induce a 4.1 percent expansion of the Chinese economy, from the base year of 1998. Presumably this conclusion arises from the estimate that China’s overall exports will rise 10.1 to 12.2 percent and that imports will rise 11.9 to 14.3 percent following China’s accession to the WTO. The ITC’s Executive Summary does not state explicitly whether its models employ import and export elasticities of demand. It is also difficult to discern, without the full report, if the authors mean that WTO membership would induce 4.1 percent growth on top of a “natural” growth rate of the Chinese economy. However, it is clear that the ITC has concluded from its analysis that liberalized trade would bring significant growth to the Chinese economy. While some trade-induced growth of the Chinese economy would take place following China’s accession to the WTO, one should be cautious about assuming that WTO membership would have a positive effect on growth, especially growth of the magnitude apparently projected from the ITC study.

When considering possible changes in China’s overall exports and exports to the U.S. following WTO accession, it is useful to return to the adjusted trade figures generated by Fung and Lau. They calculate $55.8 billion in Chinese merchandise exports to the United States in 1998, in contrast to the $71.2 billion using official U.S. data. This difference is largely due to the substantial mark-up by Hong Kong middlemen on Chinese goods exported to the United States. Nevertheless, even using Fung and Lau’s data, the growth rate of Chinese exports to the United States during the 1990s has been substantial, averaging over 22 percent. Taking only half of that growth rate for the next six to seven years, as was used for Figure 1 in projecting U.S. exports to China, the result would be that the U.S. would import $115.8 billion from China by 2005. It is reasonable to infer that, in the case of exports to the U.S. market, lifting quotas on textile imports would initially set off a rapid acceleration in the growth of Chinese exports to the United States. The ITC study estimates that China’s WTO accession would result in a 10 percent increase in U.S. exports to China and a 7 percent increase in Chinese exports to the United States. Nevertheless, barring a major readjustment of the dollar-yuan exchange rate, the bilateral trade deficit with China will remain a political problem in U.S.-China relations whether

11 ITC, “Assessment,” p. xii.
China joins the WTO or not. Depending on the level of U.S. goods and services exported to China, the bilateral deficit likely will remain at roughly $50 to $60 billion for the foreseeable future, if it does not expand.

Some might contend that the estimates of future U.S. exports to China presented in this study do not take into account the most important concessions that China has offered as part of its WTO accession package. The most commonly cited of these are agricultural goods, financial services, and telecommunications. The agreement on agricultural goods reached in April 1999, however, is supposed to be implemented regardless of whether China’s joins the WTO. Agriculture is one of the last sectors of the U.S. economy to enjoy lower tariffs and the easing of restrictions on goods exported to China. As a result of the April agreement, American agricultural producers expect to see a surge in exports to China, especially of Northwest wheat, citrus, and beef products. The Citrus Growers Association expects that U.S. exports of citrus to China and Hong Kong will rise from $500 million currently to $1.2 billion next year. The predicted surge in agricultural goods going to China represents rapid export growth due to tariff reductions.

If China joins the WTO under terms that were offered during Zhu’s visit in April, foreign financial service and telecommunication companies would see a rapid expansion in their China operations, and many would establish a presence in China for the first time. Within two to five years, foreign banks would be allowed to offer services to Chinese firms and households, which currently save at an estimated 40 percent rate, and within five years foreign banks could offer such retail services without the current restrictions, which limit operations to a few select cities. In telecommunications, foreign companies would be allowed to own 49 percent of firms and majority shares in paging services. Foreign insurance firms are currently limited to operation in two cities—Shanghai and Guangzhou—and even then the line of services they are permitted to offer is limited. By early 2005, foreign insurance companies could offer life, group health, and pension services throughout China. Foreign ownership of joint ventures would be permitted to reach 51 percent for life insurers, and non-life insurers would be permitted to have full ownership. These provisions could transform China’s financial and telecommunications sectors, and could bring a substantial growth of revenue to U.S. firms. How these sector-by-sector agreements would alter the growth of overall U.S. exports to China, particularly of services, remains to be seen. Much will depend on how the sale of services are quantified in official export and import statistics in both countries.

China’s accession to the WTO would conclude more than 13 years of difficult negotiations, but it would represent only the beginning of even more arduous work of implementing the terms of whatever agreement is reached. Given the nearly open disagreement within China’s political leadership over the costs and benefits of China’s joining the WTO, it is assured that these divisions will replicate themselves in an even more complex fashion through the hierarchy of interested officials at provincial, city, and county levels. Government officials at each level are likely to protect favored sectors or firms and to trigger frequent and protracted disputes over the terms of China’s agreement to join the WTO. Moreover, intangible barriers to trade abound in China. For example, local governments can apply a range of fees and other charges to protect an automobile
manufacturer within their province or city. WTO accession would do little to prevent U.S. and foreign companies from having to negotiate with local governments on fee structures. Many in the foreign commercial community already understand this reality of doing business in China. Edward Song, a Shanghai-based manager for Expeditors International, expressed this sentiment well in a recent interview: “Most people expect that when [China] join[s] the WTO it will be like two sides of a coin. On the good side, we expect there will be sharp price cuts in consumer products, like computers and televisions, because of low import duties. On the other side, I think the government will come up with new regulations to protect the local companies. If [China] join[s] the WTO, there will be a lot of pressure on the local factories and the local department stores.”

China’s WTO accession should therefore not be “sold” to the American public as an event that would bring unprecedented increases in the total value of goods and services that American companies export to China. Nor should Americans be under any illusion that WTO accession would lower America’s bilateral trade deficit with China. Growth patterns in U.S.-China trade depend on a number of other factors, including political considerations. The crucial question regarding China’s accession to the WTO is whether WTO participation might influence the prospects for a stable restructuring of China’s economy. WTO membership could shape China’s domestic institutions, albeit gradually, in ways that would push China’s economy in the direction of a capitalist economy, with the necessary laws, regulations, and policies found in other market economies. But in the short term, it is in the interests of China, the United States, and the global economy to ensure that China’s economic growth continues without substantial disruptions of the kind that have wracked other Asian economies during the late 1990s.

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12 Gordon Forsyth, “Crack in China’s Wall,” American Shipper, June 1, 1999, p. 36.
During the 1990s, annual growth rates of U.S. merchandise exports to China averaged 16.1 percent. Even if annual growth rates in the next decade declined by half, U.S. merchandise exports would reach $32 billion by 2005. Recent studies project that exports of U.S. merchandise and services to China by 2005 would range from $27.8 to $36.5 billion if China joined the WTO in 2000.


Data points for each year (in U.S. billions):

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Figure 2: Linear Relationship between China’s Economic Growth Rate and the Growth Rate of U.S. Exports to China, 1984-1997


Figure 3: Linear Relationship between China’s Economic Growth Rate and the Growth Rate of Exports from China’s Principal Trading Partners and from the World, 1984-1997

Coefficient/elasticity of import demand (slope of each line):
  from Japan: 6.92
  from the European Union: 3.69
  from World: 3.42
  from the United States 2.94