

# A Shrinking Market: Projections for U.S. Imports

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# **Executive Summary**

Since 1994, annual imports into the United States have increased by more than \$1.3 trillion (measured in 2006 dollars.)<sup>1</sup> This has provided a growing market for the exports of a number of developing countries. However, the U.S. current account deficit is running at an annual rate of \$835 billion a year (6.4 percent of GDP), a deficit that can be sustained only as long as the United States can sell this amount of financial assets to foreigners.

It is widely recognized by economists that the U.S. trade and current account deficits are not sustainable, and that an adjustment will have to take place.<sup>2</sup> This adjustment will dramatically reduce the growth of U.S. imports from its past rate of growth.

In fact, the projections in this paper show that in contrast to their extraordinary growth over the last decade, the annual value of U.S. imports can actually be expected to contract over the next decade, when measured in non-dollar currencies.

Table 2 (below) shows the projected change in U.S. imports over the next decade as seen by its trading partners (i.e. measured in non-dollar currencies), under a range of economic assumptions.<sup>3</sup> The first column shows the current dollar value of U.S. imports (\$2179 billion). The second column shows projected imports in 2016. The fourth column shows the value of these imports to the exporting countries. Since the dollar is projected to decline over the decade, the purchasing power of these dollar-valued export earnings will decline. The last column shows the difference between the value of 2016 imports (in non-dollar currencies) and 2006 imports.

TABLE 2
Projections of U.S. Imports in 2016 (billions of 2006 dollars)

	2006 Imports	2016 Projected Imports	Decline in Dollar	Non-dollar value	Change (2006-2016)
Low	\$2,179	\$2,157	19.50%	1,736	-\$443
Middle	2,179	2,368	21.20%	1,867	-312
High	2,179	2,648	25.60%	1,971	-208

Source: BLS, BEA, and authors' calculations

In the most optimistic scenario, the U.S. market for foreign goods and services will shrink by \$208 billion, or 9.5 percent over the next decade.

In the middle and low import scenarios, the value of imports is projected to shrink much more over the next decade. In the middle-import scenario it shrinks by \$312 billion or 14.3 percent; in the low import scenario it shrinks by \$443 billion or 20.3 percent. This means, for example, in the low

<sup>&</sup>lt;sup>1</sup> Bureau of Economic Analysis, National Income and Product Accounts, tables 1.1.6 and 1.1.9. http://www.bea.gov/bea/dn/nipaweb/SelectTable.asp?Selected=N

<sup>&</sup>lt;sup>2</sup> See, for example, William Cline, *The United States as a Debtor Nation*, 2005 and the International Monetary Fund, World Economic Outlook, April 2006, pp. 28-30. http://www.imf.org/external/pubs/ft/weo/2006/01/pdf/c1.pdf#box1.4

<sup>&</sup>lt;sup>3</sup> These assumptions, concerning price elasticities for traded goods, pass-through (what portion of an exchange rate change is passed through to the price of the good), and baseline projections for the growth of exports and imports, are explained in the paper and summarized in Table 1.

import scenario, that if these countries converted their dollar earnings from exports to the U.S. in 2016 to other currencies, the purchasing power of these export earnings would be \$443 billion less (in 2006 dollars) than what they could buy based on their 2006 exports.

If developing countries want to increase their exports to the United States over this period, they will generally have to beat out other exporters, like Mexico and China. On net, there will be little or no opportunity to gain market share in the United States at the expense of domestic production, as has happened in past years.

This has important implications for a number of issues, including current trade negotiations between the United States and developing countries. The United States is currently seeking bilateral commercial agreements with a number of countries, including Peru, Colombia, Panama, Ecuador, the United Arab Emirates, Oman, South Korea, Malaysia, Thailand, and the South African Customs Union. In addition, Washington continues to pursue a hemisphere-wide "Free Trade Area of the Americas," and is pressing forward to complete the Doha round of WTO negotiations. The most important thing that the United States has to offer in these proposed commercial agreements is increased access to the U.S. import market. If governments enter into trade agreements with the United States under the assumption that the import growth of the last dozen years will continue, then they will be seriously disappointed.

<sup>&</sup>lt;sup>4</sup> At this writing, the negotiations with Ecuador, Thailand, and the SACU are currently suspended.

### Introduction

The United States is currently seeking bilateral commercial agreements with a number of countries, including Peru, Colombia, Panama, Ecuador, the United Arab Emirates, Oman, South Korea, Malaysia, Thailand, and the South African Customs Union. In addition, Washington continues to pursue a hemisphere-wide "Free Trade Area of the Americas," although the future of this agreement is currently in doubt. The most important thing that the United States has to offer in these proposed commercial agreements is increased access to the U.S. import market. The expansion in this market certainly has provided a path for growth for some developing countries in recent years. Since 1994, annual imports into the United States have increased by more than \$1.3 trillion (measured in 2006 dollars.) Since the real value of the dollar has appreciated against other currencies over this period, the increase in the value of U.S. imports measured in other currencies would be even larger. Measured against a weighted basket of other currencies, the increase in annual imports to the United States between 1994 and 2006 would be the equivalent of more than \$1.4 trillion 2006 dollars.

However, it is questionable whether access to the United States import market will turn out to be of much value in the coming decade. The extraordinary growth in U.S. imports over the last twelve years cannot possibly be repeated. This run-up in imports has already led the United States to become the world's largest debtor nation, with a negative net asset position of \$2.5 trillion, or 20 percent of GDP at the end of 2005. Barring a fall in the dollar, the net asset position will almost certainly exceed \$3.5 trillion at the end of 2006. At present, the U.S. current account deficit is running at an annual rate of \$835 billion a year (6.4 percent of GDP), a deficit that can be sustained only as long as the United States can sell this amount of financial assets to foreigners.

It is widely recognized by economists that these trade and current account deficits are not sustainable, and that an adjustment will have to take place. The projections in this paper show that, in contrast to their extraordinary growth over the last decade, the annual value of U.S. imports will grow very slowly or actually contract over the next decade, when measured in non-dollar currencies. If developing countries want to increase their exports to the United States over this period, they will generally have to beat out other exporters, like Mexico and China. On net, there will be little or no opportunity to gain market share in the United States at the expense of domestic production, as has happened in past years.

If governments enter into trade agreements with the United States under the assumption that the import growth of the last dozen years will continue, then they will be seriously disappointed.

<sup>&</sup>lt;sup>5</sup> At this writing, the negotiations with Ecuador, Thailand, and the SACU are currently suspended.

<sup>&</sup>lt;sup>6</sup> Bureau of Economic Analysis, National Income and Product Accounts, tables 1.1.6 and 1.1.9. http://www.bea.gov/bea/dn/nipaweb/SelectTable.asp?Selected=N

<sup>&</sup>lt;sup>7</sup> See, for example, William Cline, *The United States as a Debtor Nation*, 2005 and the International Monetary Fund, World Economic Outlook, April 2006, pp. 28-30. http://www.imf.org/external/pubs/ft/weo/2006/01/pdf/c1.pdf#box1.4

### **Construction of the Projections**

It is necessary to make a series of assumptions on the path of key economic variables in order to construct projections for imports. These variables include the growth of foreign indebtedness, the growth of U.S. exports, the responsiveness of the demand for imports and exports to changes in prices, and the price response of imports and exports to changes in the value of the dollar. These assumptions are discussed in turn below.

#### The Current Account

The basic assumption here for the growth path of net foreign indebtedness is that it will stabilize at 50 percent of GDP in 2016. This implies an increase of approximately 24 percentage points from the 26 percent foreign debt-to-GDP ratio that the United States is likely to have at the end of 2006. Since the current account deficit is presently about 6.5 percent of GDP (which implies that the U.S. is borrowing an amount equal to 6.5 percent of GDP each year), the assumption that the debt-to-GDP ratio stabilizes at 50 percent in 2016 implies a fairly rapid pace of adjustment. While the debt-to-GDP ratio could stabilize at a lower level, this would almost certainly require a sharp downturn in the U.S. economy, which would lower imports and bring the trade deficit closer to balance. In the absence of a sharp downturn, it is difficult to imagine a scenario in which the debt-to-GDP ratio does not rise close to 50 percent by 2016.

It is entirely possible that the debt-to-GDP ratio will have not yet stabilized by 2016. This would mean that imports could be higher than in the projections constructed in this paper, but will have to be lower at some date beyond 2016. The rising debt-to-GDP ratio implies larger future interest and dividend payments to people living abroad. U.S. export earnings will have to be used to make these payments rather than paying for imports.

The projections assume that the average real return on foreign holdings of U.S. assets is 3.5 percent. This assumption is considerably higher than the return that these assets are receiving at present. There are several reasons for assuming a higher return in the future. First, large portions of foreign assets are currently held as official reserves by central banks. These are short-term deposits that offer very low interest rates. While it is likely that a substantial amount of dollars will continue to be held as short-term reserves, it is reasonable to believe that the amount held for this purpose will be reduced in the future. In any case, the portion of U.S. assets held as reserves is almost certain to fall as the absolute size of foreign holdings increase. Second, the current interest rate structure in the United States is extremely low. The interest rate on 10-year U.S. Treasury bonds is about 0.8 percent above inflation; historically the difference has averaged more than 3 percent. If the return on equity remains near its historic average of 7.0 percent, then a conservative mix of assets should easily provide a real return of 3.5 percent.

Using the 50 percent ratio of foreign debt-to-GDP, and the assumption of a 3.5 percent real return on assets, by adding in a growth rate assumption it is possible to calculate the trade balance consistent with a stable debt-to-GDP ratio. This analysis assumes that annual GDP growth averages

<sup>&</sup>lt;sup>8</sup> If the trade deficit stays constant as a share of GDP over the next decade, and the average real return on foreign held assets in the United States is 3.5 percent, the ratio of foreign indebtedness to GDP would exceed 80 percent by the end of 2016.

<sup>&</sup>lt;sup>9</sup> One reason for believing that amount of dollar reserve holdings will decline is that countries like China are unlikely to want to hold vast amounts of dollars indefinitely in order to depress the value of their currency.

2.9 percent, as projected for the next decade by the Congressional Budget Office (CBO). <sup>10</sup> The 2.9 percent growth rate implies a trade surplus of 0.42 percent of GDP, given the necessary interest and dividend payments on the debt. <sup>11</sup>

It is worth noting that the results in these projections are not very sensitive to the assumption regarding the level of GDP at which the U.S. foreign debt ultimately stabilizes. We have assumed here that the debt stabilizes at 50 percent of GDP; but it could stabilize at a considerably lower or higher level without much change in projections for the import market over the next decade. <sup>12</sup>

#### **Trade Volumes**

It is also necessary to specify an adjustment process that will allow the current account balance to adjust to a sustainable level. This requires assumptions about both the sensitivity of imports and exports to changes in price, and assumptions about the extent to which changes in the value of the dollar are reflected in the prices of imports and exports. In the case of both imports and exports, the central assumption is that the elasticity of both imports and exports with respect to price changes is 2, which implies that a 10 percent increase in the price of imports will lead to a 20 percent decline in quantity demanded. The elasticities assumed in the high and low scenarios are 1.5 and 2.5 respectively.

The next step is to project a baseline path for real imports – that is, how much imports would grow in the absence of the adjustment process that we are trying to project. If we look to prior years, imports grew by an average of 7.5 percent per year from the first quarter of 1981 to the first quarter of 2006. However, import prices grew very slowly with respect to prices generally, falling by more than half with respect to the CPI. Had the relative price of imports been as low in 1981 as it was in 2006, import volume to the United States would have been four times higher. Consequently, growth in imports would have been only 1.5 percent per year.

To project a baseline path for exports, we also have to take into account the change in the price of our exports as compared to the change in domestic price levels of the countries that imported them. While the U.S. CPI grew by an average of 3.4 percent per year from 1981-2006, U.S. trading partners saw consumer prices grow by 7.6 percent. Most, but not all, of this difference in inflation experiences is reflected in changes in nominal exchange rates. In real, non-dollar terms, relative export prices fell 45 percent over the twenty-five year period. Thus, while U.S. exports actually grew by 5.5 percent per year, they would have grown only 0.6 percent per year if not for the fall in the relative price of these exports.

<sup>11</sup> The 3.5 percent return on a foreign debt that is equal to 50 percent of GDP implies that an amount equal to 1.9 percent of GDP will be paid out as dividends or interest each year. In order to bring the current account deficit down to 1.5 percent of GDP, the trade surplus will have to be more than 0.4 percent of GDP. The slower growth rates assumed by the Social Security trustees report would imply even larger trade surpluses -- 0.6 percent of GDP.

<sup>&</sup>lt;sup>10</sup> CBO, *The Budget and Economic Outlook: Fiscal Years 2007 to 2016.* http://cbo.gov/showdoc.cfm?index=7027&sequence=0

<sup>&</sup>lt;sup>12</sup> Even under an extremely optimistic scenario of a 25 percent debt-to-GDP ratio, a trade surplus of 0.21 percent of GDP would be required for stability. While this is only half the surplus under the 50 percent debt-to-GDP scenario, it is half of a very low level. The U.S. trade deficit currently stands at 6.2 percent of GDP. Ultimately, whether the balance of trade improves by 6.7 percentage points, or merely 6.5 percentage points can make almost no difference in the projections.

<sup>&</sup>lt;sup>13</sup> In order to compute the relative price of U.S. exports in other countries, we require an estimate of the inflation experienced by our trading partners over the last few decades. Thus, we construct a foreign price series by multiplying the U.S. CPI by the ratio of nominal to real exchange rates as determined by the Federal Reserve's Broad Dollar Indices.

Taking the average of the 1.5 percent import volume growth and the 0.6 percent export volume growth, we get 1.0 percent annual growth in trade volume for our central baseline assumption. However, the above estimates for imports and exports assume an elasticity of 2.0. Performing the same calculations using elasticities of 1.5 and 2.5 results in baseline trade growth of 2.4 percent and negative 0.3 percent per year, respectively, in the high and low scenarios.<sup>14</sup>

#### **Prices**

Relative to local consumer prices, the price of traded goods has fallen by roughly 2.6 percent per year from 1981-2006, but it is unclear that this trend will continue. Trade prices were unusually high in the decade 1973-83, so part of the decline of the last 25 years may be due to a return to historical levels. Transfer pricing within firms may also account for much of the slow increase in trade prices. Thus, the assumption will be that absent a change in the real dollar exchange rate, trade prices will fall 1.0 percent per year relative to the CPI, a continuation of the long-term 1956-2006 trend.

The central assumption on the sensitivity of import and export prices to changes in currency values (the "pass through") is 0.5, which means that the change in the price of the product is half of what would be implied by the change in the currency value. For example, this means that if the dollar falls by 10 percent, then import prices rise by an average of approximately 5 percent. The implication is that suppliers absorb the other half of the increase in costs in the form of lower profits. <sup>15</sup> In the high and low projections, the pass-through is assumed to be 0.6 and 0.4 respectively.

<sup>&</sup>lt;sup>14</sup> Note that negative growth in the baseline does not imply a projected decrease in trade. As long as the price of tradable goods continues to fall sufficiently with respect to consumer goods, the actual projection of growth in volume will be positive.

<sup>&</sup>lt;sup>15</sup> With the given pass-through assumption and the projected decline in traded-goods prices relative to consumer prices, a given depreciation in the dollar will result in a calculable change in the price of imports or exports. The assumed elasticity of demand allows us to compute the additional volume of trade induced by the change in prices. We can thus calculate the amount of depreciations in the dollar that results in a trade surplus equal to 0.5 percent of GDP, which is required for stabilizing the growth of the foreign debt.

## **Projections**

Table 1 shows the varying assumptions in each scenario. In all scenarios the CPI is projected to grow at 2.2 percent per year, and the GDP deflator at 1.8 percent per year— as projected by the CBO.

TABLE 1 Summary of Assumptions

	Price elasticity	Pass-through	Annual growth in baseline trade
Low	2.5	0.4	-0.3
Middle	2	0.5	1.1
High	1.5	0.6	2.4

In the first quarter of 2006, the United States imported foreign goods and services at a rate of \$2,179 billion per year. Table 2 shows the projected change in U.S. imports over the next decade as seen by its trading partners (i.e. measured in non-dollar currencies). In the most optimistic scenario, the U.S. market for foreign goods and services will shrink by \$208 billion, or 9.5 percent over the next decade. By comparison, the U.S. import market grew 4.7 percent annually from 1981 to 2006.

TABLE 2
Projections of U.S. Imports in 2016 (billions of 2006 dollars)

	2006 Imports	2016 Projected Imports	Decline in Dollar	Non-dollar value	Change (2006-2016)
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Source: BLS, BEA, and authors' calculations

In the middle and low import scenarios, the value of imports is projected to shrink much more over the next decade. In the middle-import scenario it shrinks by \$312 billion or 14.3 percent; in the low import scenario it shrinks by \$443 billion or 20.3 percent. This means, for example, in the low import scenario, that if these countries converted their dollar earnings from exports to the U.S. in 2016 to other currencies, the purchasing power of these export earnings would be \$443 billion less (in 2006 dollars) than what they could buy based on their 2006 exports.

This illustrates the nature of the problem. The current level of the U.S. trade deficit is not sustainable. Measured in real terms, the extraordinary growth in U.S. imports over the last 25 years clearly will not be repeated. This has serious implications for our trading partners. Specifically, they cannot look to the U.S. as a growing market for their exports in the foreseeable future.

It is worth noting that the projections in Table 2 actually understate the negative trend in the U.S. import market from the standpoint of developing countries. One of the assumptions used in the construction of the table is that declines in the dollar are not passed through by 100 percent in the form of higher prices in the U.S. The central assumption in the scenarios in the table was that the pass through rate was 50 percent. This assumption implies that half of the impact of a lower dollar is felt in the form of lower profit margins. This means in the case of the middle scenario, where the implied reduction in the value of the dollar is 21 percent, the reduction in profit margins will be equal to approximately 11 percent of the price of the products. Of course, firms in the exporting country will not feel all of this reduction in margins; shippers, wholesalers, retailers, and other intermediaries will absorb much of the cost. However, the implied decline in the dollar means that in addition to the decline, or very slow growth, of exports to the United States over the next decade, the unit profits of these exports will almost certainly fall as well. In short, increased access to the U.S. import market is not likely to be of great value over the next decade.

In contrast, China's import market can be expected to grow enormously over the next decade. Despite concerns about undervaluation of China's currency, China's imports grew 118 percent from 2000 to 2004. Even in the absence of a revaluation, which would stimulate China's demand for imports, the Chinese import market can be expected to grow by more than 1 trillion dollars over the next decade. Even a 10 percent revaluation over this period could stimulate hundreds of billions of dollars more Chinese imports.

<sup>&</sup>lt;sup>16</sup> This simply assumes China's imports grow at the 1980-2005 rate of growth in real GDP (9.7%). China's imports have grown much faster than GDP in the period 1980-2005. According to the Penn World Tables, China's imports were only 6 percent of GDP in 1980, compared to 23.4 percent in 2000. The World Bank reports China's 2004 imports to be \$607 billion, or 31.4 percent of GDP.

### **Conclusion**

This paper constructs a set of projections of U.S. imports for 2016. It shows that under plausible assumptions the U.S. import market will decline over the next decade, when measured using the real value of non-dollar currencies, such as the Japanese yen or the euro. Furthermore, the projected declines in the value of the dollar are also likely to squeeze the profit margins of exporters, as they absorb some of the effect of a falling dollar instead of passing it all through in the form of higher import prices in the United States.

The United States current account deficit is clearly unsustainable. The unavoidable implication is that imports will shrink or their rate of growth will be reduced drastically over the next decade. This is in sharp contrast to the huge growth in the U.S. import market over the last decade. This means that efforts by most developing countries to gain access to the U.S. import market through trade negotiations – if they involve important concessions in other areas (e.g. on intellectual property rights, rules concerning investment or government procurement) – are likely to prove misguided. Except for the few that can increase their exports substantially to the United States by displacing other exporters, any significant concessions made in order to gain access to U.S. markets are likely to lead to a net loss for the countries that make them.