

Testimony of Daniel J. Ikenson
Associate Director, Center for Trade Policy Studies, Cato Institute
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Hearing before the
U.S. Senate Committee on Banking, Housing, and Urban Affairs
Subcommittee on Economic Policy
“China’s Exchange Rate Policy and Trade Imbalances”

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Chairman Brown, Ranking Member DeMint and members of the subcommittee, I am Daniel Ikenson, associate director of the Center for Trade Policy Studies at the Cato Institute. I appreciate the invitation to share my thoughts about the Chinese currency, its relationship to the bilateral trade deficit, the impact on U.S. jobs, and what, if anything, Congress should consider doing. The views I express are my own and should not be construed as representing any official positions of the Cato Institute.

Introduction

Many economists believe that the Renminbi is undervalued, but there is disagreement about the magnitude. Disagreement is to be expected. After all, nobody can know the true value of the RMB unless, and until, it is allowed to float freely and restrictions on China’s capital account are removed.¹ Short of that, economists produce estimates of undervaluation—and those estimates vary widely. So that begs a practical question: How will we know when we are there?

That question is important because Congress is once again considering legislation to compel the Chinese government to allow RMB appreciation under the threat of sanction. Regardless of whether sanctions take the form of an across-the-board surcharge or are the product of a countervailing duty investigation or are manifest in exchange rate conversions in antidumping calculations, a precise estimate of the market value of the Renminbi would have to serve as the benchmark. But respected economists from reputable institutions have produced a range of undervaluation of approximately 10 to 40 percent. So what should be the benchmark?

Of course the sanctions approach is fraught with dangers. Not only would it amount to a tax on U.S. producers and consumers—felt particularly acutely by lower-

and middle-income families—but it could spark retaliation from China and run afoul of U.S. World Trade Organization obligations at a time when the Obama administration is planning to hold our trade partners more accountable to their own WTO commitments, as part of its National Export Initiative.

Many in Washington blame the undervalued Renminbi for the trade deficit with China, and blame the deficit for U.S. job losses. But those relationships are weak. Before doing something unnecessary or counterproductive, Congress should consider whether, and to what extent, RMB appreciation would even lead to more balanced bilateral trade. Recent evidence casts plenty of doubt.

Laser-like Focus on the Trade Deficit

For many in Washington, it seems the issue is not that the Chinese currency is undervalued per se, but that the United States has a large bilateral trade deficit with China, which is popularly attributed to the undervalued RMB.² Currency revaluation for many policymakers is just a proxy for reducing the trade deficit to zero—or better still, turning it into a surplus. There should be little doubt that many will take the position that the RMB is undervalued as long as U.S. imports from China exceed U.S. exports to China.

Leaving aside the question of whether bilateral deficit reduction should even be an explicit objective of policymaking in the first place, there is reason to be skeptical that currency revaluation would have the “desired” effect. It is assumed that Americans will reduce their purchases of Chinese products and that the Chinese will increase their purchases of American products if the value of the RMB increases against the dollar. But whether those trends would work to reduce the U.S. deficit with China depends on the extent to which consumers in both countries are responsive to the relative price changes.

What matters for the trade account is *how much* Americans reduce their purchases of Chinese goods and *how much* the Chinese increase their purchases of U.S. goods. Import value equals price times quantity, so if the percent increase in price (appreciation of the RMB) exceeds the percent reduction in quantity of imports consumed (in absolute value), then import value will *increase*. For example, if the RMB appreciates by 25 percent and U.S. consumers reduce consumption of Chinese imports by only 10 percent,

then the value of U.S. imports from China will be greater than before (*adding* to the trade deficit). The same 25 percent increase in RMB value, however, should lead to an unequivocal increase in U.S. exports to China because the dollar price charged (the price used to measure U.S. exports) remains the same, while the quantity sold to China increases because Chinese consumers, by virtue of RMB appreciation, face lower relative prices, and demand more goods. Thus, RMB appreciation should unambiguously increase U.S. export value, reducing the trade deficit. But its effect on U.S. import value *is* ambiguous.

Whether the aggregate change in U.S. import and export value results in a lower trade deficit depends on the relative responsiveness (price elasticity) of American and Chinese consumers to the price changes they face. If U.S. consumers are responsive (they reduce the quantity of their purchases *by a percentage greater than the price increase*), then the trade deficit will decline, regardless of the degree of Chinese responsiveness. If U.S. consumers are not responsive (they reduce the quantity of their purchases by a smaller percentage than the price increase), then import value will rise and Chinese consumers would have to increase their purchases of American goods by a large enough percentage to offset the increased U.S. import value, if the U.S. trade deficit is to be reduced.³

Weak Link between Currency Values and Trade Flows

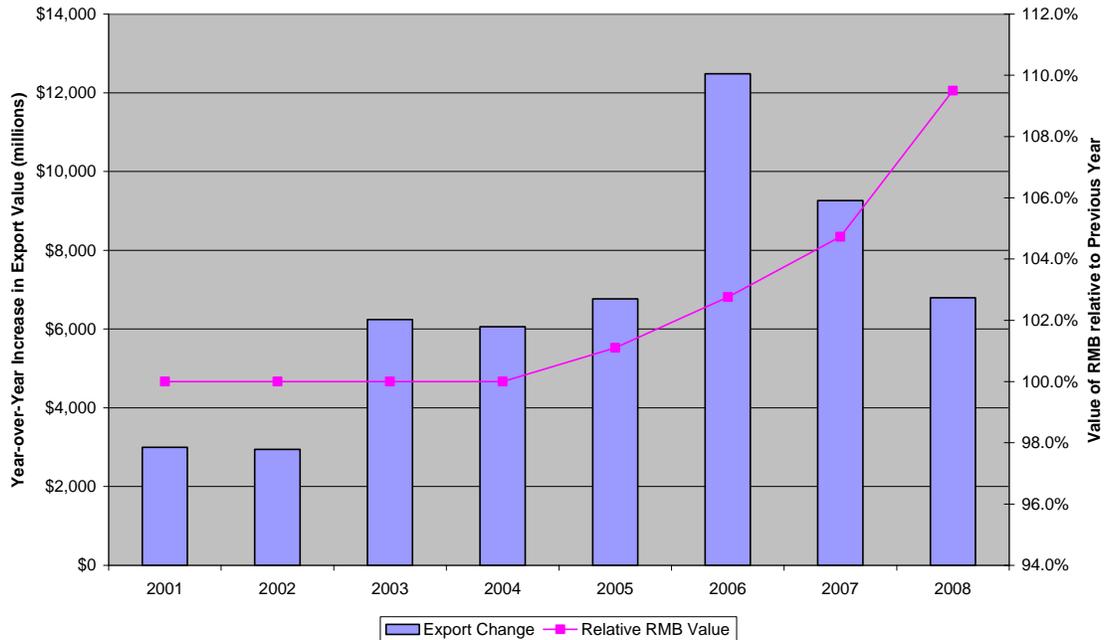
Recent evidence suggests that RMB appreciation will not reduce the U.S. trade deficit and undermines the common political argument for compelling China to revalue. Between July 2005 and July 2008, the RMB appreciated by 21 percent against the dollar—from a value of \$.1208 to \$.1464.⁴ During that same period (between the full year 2005 and the full year 2008), the U.S. trade deficit with China increased from \$202 to \$268 billion.

U.S. exports to China increased by \$28.4 billion, or 69.3 percent. But how much of that increase had to do with RMB appreciation is very much debatable. The nearby chart shows that U.S. exports to China were already on an upward trajectory, increasing by \$3 billion in 2001, \$3 billion in 2002, \$6.2 billion in 2003, and \$6.1 billion in 2004, when the exchange rate was consistently at 8.28 RMB per dollar. Natural sales growth

from the confluence of market penetration and cultivation of Chinese demand was already evident.

**Annual RMB Appreciation and Changes in U.S. Export Value to China
2001-2008**

Source: U.S. Department of Commerce; U.S. Federal Reserve Bank



In 2005—the first year in which there was a slight RMB appreciation—the value of exports increased by \$6.8 billion. Exports jumped another \$12.5 billion in 2006, a year in which the RMB appreciated by 2.8 percent. But in 2007, despite an even stronger 4.7 percent RMB appreciation, the increase in exports was only \$9.3 billion. And in 2008, the RMB appreciated by a substantial 9.5 percent, but the increase in exports fell to \$6.8 billion. If currency value were a strong determinant, then export growth should have been much more robust than it was in 2007 and, especially, in 2008. Other factors, such as Chinese incomes and Chinese savings propensities, must have mitigated the lower relative price effects.

On the import side, recent experience is even more troubling for those who seek deficit reduction through currency revaluation. The evidence that an appreciating RMB deters the U.S. consumption of Chinese goods is not very compelling. During the period of a strengthening RMB from 2005 to 2008, U.S. imports from China increased by \$94.3 billion, or 38.7 percent. Not only did Americans demonstrate strong price inelasticity, but

they actually *increased* their purchases of Chinese imports. One reason for continued U.S. consumption of Chinese goods despite the relative price increase is that there may be a shortage of substitutes in the U.S. market for Chinese-made goods. In some cases, there are no domestically produced alternatives.⁵ Accordingly, U.S. consumers are faced with the choice of purchasing higher-priced items from China or foregoing consumption of the item altogether.

It is doubtful that members of Congress, who support action to compel Chinese currency appreciation, would proudly announce to their constituents that they intentionally reduced their real incomes. But that is the effect of relative dollar depreciation.

Globalization Mutes the Effect of Currency Changes

Something else is evident about the relationship from those 2005 to 2008 data. The fact that a 21 percent increase in the value of the RMB was met with a 38.7 percent increase in import value means that the quantity of Chinese imports demanded after the price change increased by nearly 15 percent.⁶ Higher prices being met with greater demand would seem to defy the law of demand.

Chinese exporters must have lowered their RMB-denominated prices to keep their export prices steady. That would have been a completely rational response, enabled by the fact that RMB appreciation reduces the cost of production for Chinese exporters—particularly those who rely on imported raw materials and components. According to a growing body of research, somewhere between one-third and one-half of the value of U.S. imports from China is actually Chinese value-added.⁷ The other half to two-thirds reflects costs of material, labor, and overhead from other countries. China's value-added operations still tend to be low-value manufacturing and assembly operations, thus most of the final value of Chinese exports was first imported into China.

RMB appreciation not only bolsters the buying power of Chinese consumers, but it makes China-based producers and assemblers even more competitive because the relative prices of their imported inputs fall, reducing their costs of production. That reduction in cost can be passed on to foreign consumers in the form of lower export prices, which could mitigate entirely the effect desired by Congress, which is to reduce

U.S. imports from China. That process might very well explain what happened between 2005 and 2008, and is probably a reasonable indication of what to expect going forward.

A 2006 Cato paper on the topic of exchange rates and trade flows found that despite considerable dollar depreciation between 2002 and 2005 against the Canadian dollar, the Euro, the Japanese yen, the Korean won, and the Brazilian real, the U.S. trade deficit expanded during that period with Canada, Europe, Japan, Korea, and Brazil.⁸ Factors other than currency movements, such as income and the availability of substitutes, influence trade flows, particularly when exporters are willing to absorb the costs of those currency changes.

In a recently published paper from the U.S. International Trade Commission, economist Cathy L. Jabara observes a weak relationship between exchange rates and U.S. import prices, particularly with respect to imports from Asia. Exchange rate pass-through is quite low because exporters often “price to market” to absorb costs and maintain market share. She notes that the economic literature supports her findings of low exchange rate pass-through, particularly for consumer goods. Ironically, she also notes that economist Paul Krugman, who is among the most outspoken advocates of U.S. intervention on the currency issue, was one of the first to explore and describe the potential for exchange-rate pass-through to mitigate the impacts on trade flows.⁹

Economic Benefits

Although it may be fashionable to think of China as the country to which the U.S. manufacturing sector was offshored in exchange for tainted products and a mountain of mortgage debt, the fact is that the bilateral relationship has produced enormous benefits for people in both countries, including most Americans. China is America’s third-largest export market, and has been our fastest-growing market for a decade, providing 20.2 percent annual sales growth for U.S. businesses between 2000 and 2008, when overall annual export growth to all countries stood at just 6.8 percent.¹⁰

American businesses, portfolio investors, and 401(k) participants also have benefited handsomely from China’s high rate of sustained economic growth. Likewise, American consumers have benefited from their access to Chinese goods. Imports from

China have helped keep prices in check, raising real incomes and easing the strain on family budgets.

What is perhaps less well known—because they are often portrayed as victims—is that large numbers of American producers and workers benefit from the bilateral relationship, as well. This is the case because the U.S. economy and the Chinese economy are highly complementary. U.S. factories and workers are more likely to be collaborating with Chinese factories and workers in production of the same goods than they are to be competing directly. The proliferation of vertical integration (whereby the production process is carved up and each function performed where it is most efficient to perform that function) and transnational supply chains has joined higher-value-added U.S. manufacturing, design, and R&D activities with lower-value manufacturing and assembly operations in China. The old factory floor has broken through its walls and now spans oceans and borders.

Though the focus is typically on American workers who are displaced by competition from China, legions of American workers and their factories, offices, and laboratories would be idled without access to complementary Chinese workers in Chinese factories. Without access to lower-cost labor in places like Shenzhen, countless ideas hatched in U.S. laboratories—which became viable commercial products that support hundreds of thousands of jobs in engineering, design, marketing, logistics, retailing, finance, accounting, and manufacturing—might never have made it beyond conception because the costs of production would have been deemed prohibitive for mass consumption. Just imagine if all of the components in the Apple iPod had to be manufactured and assembled in the United States. Instead of \$150 per unit, the cost of production might be multiple times that amount.¹¹

Consider how many fewer iPods Apple would have sold; how many fewer jobs iPod production, distribution, and sales would have supported; how much lower Apple's profits (and those of the entities in its supply chains) would have been; how much lower Apple's research and development expenditures would have been; how much smaller the markets for music and video downloads, car accessories, jogging accessories, and docking stations would be; how many fewer jobs those industries would support; and the lower profits those industries would generate. Now multiply that process by the hundreds

of other similarly ubiquitous devices and gadgets: computers, Blu-Ray devices, and every other product that is designed in the United States and assembled in China from components made in the United States and elsewhere.

The *Atlantic*'s James Fallows characterizes the complementarity of U.S. and Chinese production sharing as following the shape of a “Smiley Curve” plotted on a chart where the production process from start to finish is measured along the horizontal axis and the value of each stage of production is measured on the vertical axis. U.S. value-added comes at the early stages—in branding, product conception, engineering, and design. Chinese value-added operations occupy the middle stages—some engineering, some manufacturing and assembly, primarily. And more U.S. value-added occurs at the end stages in logistics, retailing, and after-market servicing.¹² Under this typical production arrangement, collaboration, not competition, is what links U.S. and Chinese workers.

Economic Frictions

Despite the enormous benefits of the bilateral relationship, Americans are more likely to be familiar with the sources of friction. Americans have heard that underhanded Chinese policies have had a deleterious impact on U.S. manufacturing. They have been told that China manipulates its currency to secure an unfair trade advantage; “illegally” dumps and sells government-subsidized products in U.S. markets; maintains policies that discriminate against imports and favor domestic industries; steals American intellectual property; treats its workers poorly; degrades the environment; sells us tainted products; and even caused the U.S. financial crisis by lending America too much money.¹³ There is some truth in some of those claims. But there is also a good deal of exaggeration, misinformation, and hypocrisy in them. Some ring hollow because the U.S. government—usually at the behest of the same interests clamoring for action against China—commits the same sins.

Manufacturing the Myth of Decline¹⁴

Nefarious Chinese trade practices are often blamed for the decline of U.S. manufacturing. But the first problem with that presumption of causation is that U.S.

manufacturing is simply not in decline. Until the onset of the recent recession (when virtually every sector in the economy contracted), U.S. manufacturing was setting new performance records year after year in all relevant statistical categories: profits, revenues, investment returns, output, value-added, exports, imports, and others. In absolute terms, the value of U.S. manufacturing has been growing continuously, with brief hiccups experienced during recessions over the past several decades. As a percentage of our total economy, the value of manufacturing peaked in 1953 and has been declining since, but that is the product of rapid growth in the services sectors and not—as evidenced by its absolute growth—an indication of manufacturing decline.

The preponderance of Chinese and other imported goods on retail store shelves may give the impression that America does not make anything anymore. But the fact is that American factories make lots of things—in particular, high-value products that are less likely to be found in retail stores—like airplanes, advanced medical devices, sophisticated machinery, chemicals, pharmaceuticals, and biotechnology products. American factories are, in fact, the world’s most prolific, accounting for 21.4 percent of global manufacturing value-added in 2008, while China accounted for 13.4 percent.¹⁵ The main reason for continued American industrial preeminence is that the U.S. manufacturing sector has continued its transition away from labor-intensive industries toward higher value-added production.

Regardless of manufacturing’s operating performance, the metric that matters most politically is the number of jobs in the sector. That figure reached a zenith of 19.4 million jobs in 1979 and has been trending downward along roughly the same trajectory ever since. China’s entry into the WTO and the subsequent increase in bilateral trade did nothing to accelerate the decline. Manufacturing job loss has very little to do with trade and a lot to do with changes in technology that lead to productivity gains and changes in consumer tastes. China has also experienced a decline in manufacturing jobs. In fact, many more jobs have been lost in Chinese manufacturing and for the same reasons—productivity gains. According to a 2004 study published by the Conference Board, China lost 15 million manufacturing jobs between 1995 and 2002, a period during which 2 million U.S. manufacturing jobs were lost.¹⁶

Policymakers in Washington have been citing a figure from the Economic Policy Institute that attributes 2.4 million manufacturing job losses between 2001 and 2008 to the bilateral trade deficit with China. But that figure approximates job gains from export value and job losses from import value, as though there were a straight line correlation between the figures. And it assumes that imports do not create or support U.S. jobs. But U.S. producers — purchasing raw materials, components and capital equipment — account for more than half of the value of U.S. imports annually, according to the U.S. Bureau of Economic Analysis. Those imports support U.S. jobs in a wide range of industries.

Furthermore, according to the results from a growing field of research, only a fraction of the value of U.S. imports from China represents the cost of Chinese labor, materials and overhead. Most of the value of those imports comes from components and raw materials produced in other countries, including the U.S.

In a 2006 paper, Stanford University economist Lawrence Lau found that Chinese value-added accounted for about 37% of the total value of U.S. imports from China.¹⁷ In 2008, using a different methodology, U.S. International Trade Commission economist Robert Koopman, along with economists Zhi Wang and Shang-jin Wei, found the figure to be closer to 50%.¹⁸ In other words, despite all the hand-wringing about the value of imports from China, one-half to nearly two thirds of that value is not even Chinese. Instead, it reflects the efforts of workers and capital in other countries, including the U.S. In overstating Chinese value by 100% to 200%, the official U.S. import statistics are a poor proxy for job loss.

The fact that China surpassed Germany to become the world's largest exporter last year—a milestone that prompted a string of “end-of-Western-civilization” newspaper commentaries—says less about Chinese economic might than it does about the extent of global economic integration. The global division of labor enabled by intricate transnational production and supply chains still assigns to China primarily lower-value production and assembly operations.¹⁹ That alone speaks to the complementary nature of the U.S. and Chinese economies, underscores the meaninglessness of bilateral trade

accounting, and magnifies the absurdity of predicating policy on the goal of reducing a bilateral trade deficit.

Despite occasional fireworks, both governments have mutual interest in harmonious economic relations. Our economies are extremely interdependent. U.S. economic performance will continue to be a determinant of Chinese economic performance—and vice versa—and barring destructive policies, the pie should continue to grow larger. Much more can be done to cultivate our areas of agreement using carrots before seriously considering the use of sticks.

Less Provocative Alternatives

Another reason the Chinese government worries about RMB appreciation is that Chinese investors own about \$800 billion of U.S. debt. A 25 percent appreciation in the RMB would reduce the value of those holdings to approximately \$640 billion. That's a high price for China to pay, especially in light of the fact that U.S. inflation is expected to rise in the coming years, which will further deflate the value of those holdings (and ease the burden of repayment on U.S. taxpayers). Likewise, mass dumping of U.S. government debt by Chinese investors—the much ballyhooed “leverage” that China allegedly holds over U.S. policy—would precipitate a decline in the dollar as well, which also would depress the value of Chinese holdings. The assertion that China holds U.S. debt as a favor to America, and would withdraw that favor on a whim, is a bit far-fetched.

China, it seems, is guilty of a failure to heed the first law of investment: it failed to diversify its portfolio adequately. The overwhelming investment focus on U.S. public debt has left China exposed to heavy losses from dollar inflation and RMB appreciation. The fact that the inflation rate is in the hands of U.S. policymakers makes China even more reluctant to allow large-scale or, at least, precipitous, RMB appreciation.

As of the close of 2008, Chinese direct investment in the United States stood at just \$1.2 billion—a mere rounding error at about 0.05 percent of the \$2.3 trillion in total foreign direct investment in the United States. That figure comes nowhere close to the amount of U.S. direct investment held by foreigners in other big economies. U.S. direct investment in 2008 held in the United Kingdom was \$454 billion; \$260 billion in Japan;

\$259 billion in the Netherlands; \$221 billion in Canada; \$211 billion in Germany; \$64 billion in Australia; \$16 billion in South Korea; and even \$1.7 billion in Russia.²⁰

If it is desirable that China recycle some of its estimated \$2.4 trillion in accumulated foreign reserves, U.S. policy (and the policy of other governments) should be more welcoming of Chinese investment in the private sector. Indeed, some of China's past efforts to take equity positions or purchase U.S. companies or buy assets or land to build new production facilities have been viewed skeptically by U.S. policymakers—and scuttled—ostensibly over ill-defined security concerns.

A large inflow of investment from China would have a similar impact as a large increase in U.S. exports to China on the value of both countries' currencies, and on the level of China's foreign reserves. In light of China's large reserves and its need and desire to diversify, America's need for investment in the real economy, and the objective of creating jobs and achieving sustained economic growth, U.S. policy should be clarified so that the benchmarks and hurdles facing Chinese investors are better understood. Lowering those hurdles would encourage greater Chinese investment in the U.S. economy and a deepening of our mutual economic interests.

To reduce bilateral tensions and foster greater cooperation from China with respect to market access, intellectual property theft, and other legitimate U.S. concerns, the United States should offer to reform its punitive trade remedies practices toward China. Ending the practice of treating China as a non-market economy in antidumping cases would probably do more to improve bilateral economic relations than just about any other possible reform.

China has made no secret of its desire to be designated a market economy. In essence, China's NME status is an asset to U.S. policymakers—but a rapidly depreciating one. In accordance with the terms of its WTO accession, China's economy cannot be treated as an NME after 2016, so U.S. policy will have to change in six years anyway. If U.S. policymakers want anything of value from China in exchange for designating it a market economy, that designation has to come soon. The longer this inevitable reform is delayed, the less valuable it becomes.

Short of graduating China to market economy status, U.S. policymakers could reduce bilateral tensions by addressing another systemic, methodological problem that

results in Chinese exporters being penalized twice for the same alleged infraction. Since the Commerce Department resumed applying the countervailing duty law to non-market economies in 2007 (after a 22-year moratorium), it has failed to account for the problem of “double-counting” in cases where imports are subject to both the antidumping and countervailing duty laws.

Under NME methodology, a Chinese exporter’s U.S. prices are compared to a surrogate value based on costs in a third country, such as India. Any difference between the U.S. price and that surrogate accounts for both the dumping and subsidy margin because the surrogate represents a non-dumped, non-subsidized price. However, U.S. practice has been to treat that difference as reflecting only the margin of dumping, while calculating an additional margin to reflect the subsidy only. Both the dumping margin (which already reflects the amount of the subsidy) and the subsidy margin are applied as duties on Chinese imports, resulting in a double counting of the countervailing duty.

Some Hypocrisy in U.S. Allegations

Claims are numerous that China maintains discriminatory policies that impede imports and foreign companies. Indeed, some of those claims have been substantiated and remedied. Others have only been substantiated. And still many more have been merely alleged.

The United States maintains formal and informal channels of communication with the Chinese government through the Strategic and Economic Dialogue, the Joint Commission on Commerce and Trade, and other venues, through which sources of economic and trade friction are discussed and often defused. On eight occasions, the United States decided that bilateral process alone was insufficient, and lodged official complaints with the WTO Dispute Settlement Body about various Chinese practices. Outcomes in two of the cases are still pending, but six of the eight cases produced satisfactory outcomes from the perspective of the U.S. government: either China agreed during consultations to change its rules or practices, or a dispute panel affirmed most of the U.S. complaints and issued opinions requesting that China bring its practices into conformity with the relevant WTO agreements.

It is difficult to find merit in the suggestion that U.S. trade policy toward China should change tack and become more unilateralist or provocative, when the WTO dispute settlement system has worked well as a venue for resolving U.S. complaints. The United States has brought 19 cases against Europe in the WTO, but there is not much talk about adopting a more strident trade policy toward the EU.

The fact is that China has made substantial progress since beginning its reforms to join the WTO. Nevertheless, some trade barriers and subsidy programs still exist or have emerged that, if challenged, likely would be found to violate China's various WTO commitments. And China should be held accountable to its market liberalizing commitments. Still, it is up to the USTR, in conjunction with other stakeholders, to evaluate the evidence and weigh the costs and benefits before deciding whether and when to lodge official WTO complaints.

One of the costs of bringing cases against Chinese market barriers or policies that favor domestic firms would be the exposure of U.S. hypocrisy. The U.S. government subsidizes chosen companies and industries, too. The past 18 months is littered with examples, such as General Motors and Chrysler. Though the U.S. business community is concerned about the emergence of technical market barriers in China favoring local companies, the U.S. government maintains opaque technical barriers in a variety of industries, which hampers and precludes access to the U.S. market for foreign food products, in particular. Mexican trucks cannot even operate on U.S. highways. There is an element of the pot calling the kettle black in U.S. allegations.

By and large, though, the Office of the U.S. Trade Representative, in its December 2009 report to Congress about the implementation of China's WTO commitments, strikes the right tone and reassures that the economics can and should be shielded from the vicissitudes of politics:

China has taken many impressive steps over the last eight years to reform its economy, while implementing a set of sweeping WTO accession commitments that required it to reduce tariff rates, to eliminate non-tariff barriers, to provide national treatment and improved market access for goods and services imported from the United States and other WTO members, to protect intellectual property rights, and to improve transparency. Although it still does not appear to be complete in every respect, China's implementation of its WTO commitments has led to increases in U.S. exports to China, while deepening China's integrations

into the international trading system and facilitating and strengthening the rule of law and the economic reforms that China began 30 years ago.²¹

Conclusion

The world would be better off if the value of China's currency were truly market-determined, as it would lead to more optimal resource allocations. The impact on the bilateral trade account—meaningless as that statistic is in a globalized economy—would be impossible to predict. But compelling China to revalue under threat of sanction could produce adverse consequences—including reductions in Americans' real incomes and damaged relations with China—leaving us all worse off without even achieving the underlying policy objectives.

For now, it would be better to let the storm pass and allow China to appreciate its currency at its own pace.

¹. To float its currency and let markets determine the value, China would have to remove restrictions on its capital account, so that investment can flow in and out of the country freely. If China did this, it is not entirely clear that the value of the RMB would appreciate. It is possible that there would be more capital flight than inflow, as domestic savings are able to pursue investment options outside of China. This capital flight would have a depreciating effect on the value of the RMB.

². Of course, there are many other important determinants of the trade account besides relative currency values.

³. There is also an "income effect" from the change in currency values. When the dollar declines in value, U.S. consumers experience a decline in real income, which affects their consumption choices. Even though Chinese imports might be relatively more expensive than they were before the currency rise, they may still be less expensive than the alternatives. Accordingly, U.S. consumers with lower real incomes might be inclined to purchase more Chinese imports.

⁴. Federal Reserve Board, *Federal Reserve Statistical Release G5.A, Foreign Exchange Rates (Annual)*, release dates January 4, 2010 and January 2, 2009. Since July 2008, the value of the Yuan against the dollar has not changed measurably.

⁵ The dearth of substitutes is probably a function of retailers not wanting to incur the costs of having to reconfigure their supply chains. If the cost of reconfiguring and sourcing products from other countries is similar to the cost of maintaining Chinese suppliers with their exchange-induced higher prices, then retailers may be more likely to stick with the status quo and pass on their higher costs to consumers.

⁶. Assume that the price of imports is \$1 and the quantity demanded is one unit. The import value is then \$1. If a 15.2 percent increase in price leads to a 38.7 percent increase in value, then quantity must increase by 20.4 percent because $(1.152 \times \text{price}) * (1.204 \times \text{quantity}) = 138.7$.

⁷. Robert Koopman, Zhi Wang, and Shang-jin Wei, "How Much of Chinese Exports Is Really Made in China? Assessing Foreign and Domestic Value-Added in Gross Exports," U.S. International Trade Commission, Office of Economics, Working Paper no. 2008-03-B, March 2008.

⁸. Daniel J. Ikenson, "Currency Controversy: Surplus of Controversy, Deficit of Leadership," *Cato Free Trade Bulletin* no. 21, May 31, 2006.

⁹. Cathy L. Jabara, "How Do Exchange Rates Affect Import Prices? Recent Economic Literature and Data Analysis," U.S. International Trade Commission, Office of Industries Working Paper no. ID-21 (revised), October 2009.

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- ¹⁰. U.S. Department of Commerce, Bureau of the Census, Foreign Trade Statistics, <http://www.census.gov/foreign-trade/balance/c5700.html#2009>. China was the fastest-growing market among America's top 25 largest export markets between 2000 and 2008. In 2009, overall U.S. exports declined 12.9 percent, but exports to China held steady, declining by just 0.23 percent.
- ¹¹. Production of Apple iPod's is the quintessential example of the benefits of transnational production and supply chains. The degree of international collaboration embedded in the value of an iPod has been described in a few other Cato publications, including: Daniel Ikenson, "Made on Earth: How Global Economic Integration Renders Trade Policy Obsolete," Cato Trade Policy Analysis no. 42, December 2, 2009.
- ¹². James Fallows, "China Makes, the World Takes," *Atlantic*, July/August 2007, <http://www.theatlantic.com/doc/200707/shenzhen>.
- ¹³. It is particularly ironic to hear this last accusation from spendthrift members of Congress who overlook the fact that their own profligacy is what brought China to the U.S. debt markets in the first place.
- ¹⁴. For more comprehensive treatments refuting the myth of manufacturing decline in the United States, see: Daniel Ikenson, "Thriving in a Global Economy: The Truth about Manufacturing and Trade," Cato Trade Policy Analysis no. 35, August 28, 2007; Daniel Ikenson and Scott Lincicome, "Audaciously Hopeful: How President Obama Can Help Restore the Pro-Trade Consensus," Cato Trade Policy Analysis no. 39, April 28, 2009, pp. 12–16; and Daniel Griswold, "Trading Up: How Expanding Trade Has Delivered Better Jobs and Higher Living Standards for American Workers," Cato Trade Policy Analysis no. 36, October 25, 2007.
- ¹⁵. United Nations Industrial Development Organization, "National Accounts Main Aggregates Database, Value Added by Economic Activity," (2008 data are the most recent available), <http://unstats.un.org/unsd/snaama/resQuery.asp>.
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