



The Case for Strategic Export Promotion

Addressing a Persistent U.S. High-Tech Trade Deficit

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Introduction and summary

The United States faces enormous economic obstacles in the immediate future as it recovers from the worst economic downturn since the Great Depression. The private-sector recovery is under way, with industrial production growing by 9.2 percent from June 2009 to July 2010, and with business investment up by an inflation-adjusted 5.2 percent from June 2009 to June 2010. Private-sector employment is also on the rise with more than 1.1 million jobs created in 2010.¹

This is good news, but large challenges still loom that could derail the fledgling private-sector momentum contributing to our economic recovery. An important challenge is the trade deficit. The U.S. trade deficit is widening again, reaching 3.7 percent of gross domestic product (the total amount of goods and services produced in our economy) in the third quarter of 2010, up from 2.4 percent of GDP in the second quarter of 2009. This widening gap poses a drag on economic growth since the country has to borrow money overseas to pay for the extra imports—a debt that ultimately will have to be repaid.

A country can only import more than it exports if overseas investors lend it money. For the United States this means a persistent trade deficit requires taking on ever more foreign debt to pay for the excess of imports over exports. That's why maintaining U.S. international economic competitiveness and strengthening our exports must be a key component of any serious strategy to produce sustained and long-term economic growth.

One key measure of U.S. competitiveness is the strength of our high-technology manufacturing industries. High-tech products are high value-added products from industries that produce goods such as aircraft, telecommunications equipment, and pharmaceutical products—all of which depend both on skilled labor, modern machinery, and continual investments in research and development to remain on the cutting edge. The United States in the 1990s maintained a competitive edge in these industries, exporting more of these products than it imported while the rest

of U.S. trade showed a growing deficit. That U.S. high-tech trade surplus illustrated the strength of U.S. trade in these industries at the time, but that competitive edge began to slip as we entered the 21st century.

The United States has been running a consistent and increasing deficit in high-tech goods since 1999. This is an alarming development. A widening U.S. high-tech trade deficit raises doubts about the strength of long-term U.S. economic growth. In contrast, a shrinking high-tech trade deficit or a return to a surplus may bode well for higher living standards in the future. Why? Because the production and export of high-tech goods shows how competitive and innovative the U.S. economy is right now.

Innovation is key to U.S. competitiveness because it leads to the development of new products, services, and processes in a market. Innovation is thus at least in part associated with high-technology industries such as telecommunications, biotechnology, advanced materials, and life sciences. The impact of more innovation can ripple throughout the economy as productivity rises, wages and living standards increase, and economic growth strengthens. The effect of competitive high-tech industries thus goes beyond helping to lower the overall U.S. trade deficit. A thriving high-tech manufacturing industry can boost U.S. growth well into the future.

The United States needs to remain as competitive as possible to address many of the looming challenges of the 21st century. A more competitive country with faster growing innovation will have an easier time reducing structural budget deficits and helping families rebuild lost family incomes and wealth, among other benefits. But the overall impact of newly developed products goes far beyond the products themselves as new industries develop and spur productivity.

The Department of Commerce estimates that technological innovation is linked to three-quarters of the United States's post-World War II growth rate. An innovative economy also brings along with it good jobs. Innovative businesses can use new technology to develop products more rapidly, boosting profits and wages. The average compensation per employee in innovation-intensive sectors increased 50 percent between 1990 and 2007, almost 2.5 times the national average.²

Pursuing policies that could boost innovation is thus not only about addressing the current threat to the fledgling recovery, but also about ensuring that the recovery will be strong and durable. But neither will happen if U.S. policymakers don't

get serious about the high-tech trade deficit. And one of the first steps toward doing so is to understand how our high-tech products fare in world markets compared to our top competitors among industrialized nations.

This report analyzes the U.S. high-tech trade balance and compares it to other large, industrialized economies—specifically the seven largest industrialized economies that comprise the Group of Seven industrialized democracies: the United States, Japan, Germany, Great Britain, France, Italy, and Canada—from 1990 through 2008 to show a number of important high-tech trade trends that can inform policy discussions over the future of U.S. high-tech trade. In the pages that follow we will detail the trends summarized here, among them:

- The United States still remains the largest exporter of high-technology manufactured goods among major industrialized economies. In 2008, 32.5 percent of high-tech exports of all G-7 nations came from the United States. The United States has a solid foundation from which to grow its export base in these high-innovation goods.
- U.S. high-tech imports have exceeded U.S. exports consistently since 1999. The U.S. high-tech trade deficit subsequently widened to 0.6 percent of gross domestic product in 2004 and the following years. Between 2000 and 2008 U.S. imports grew by 4.2 percent a year, while U.S. high-tech exports grew by just an average 3 percent during that period, leading to an ever-wider trade deficit.
- The growth of U.S. high-tech exports and imports slowed after 1999. U.S. high-tech imports had grown at an average rate of 11.8 percent a year during the business cycle of the 1990s, from 1990 to 1999—7.6 percentage points faster than between 2000 and 2008.³ U.S. high-tech exports slowed from an annual growth rate of 9.6 percent from 1990 to 2000 to 3 percent between 2000 and 2008.⁴ The slowdown in U.S. import growth was thus more pronounced than the slowdown in U.S. export growth. A further slowdown in U.S. imports below the growth rate of exports will hence be hard to accomplish, making an acceleration of U.S. high-tech export growth the primary policy goal.
- A number of other large industrialized economies have high-tech trade surpluses. France, Germany, and Japan exported more high-tech goods than they imported in 2008.

- All G-7 countries have large bilateral high-tech trade deficits with China. France, Germany, and Japan are able to overcome these deficits with surpluses with other countries to generate an overall positive high-tech trade balance. This is particularly relevant for the United States, which shows its largest bilateral trade deficit with China, about four times the size of the high-tech trade deficit with any other nation in 2008.
- The G-7 industrialized economies that have strong high-tech trading ties to just a few other countries tend to see overall high-tech surpluses. The United States, in contrast, has much more diffuse high-tech trade relationships, which seem to be associated with an overall high-tech trade deficit.
- The G-7 countries with high-tech trade surpluses—France, Germany, and Japan—have more than one highly competitive industry with a substantial high-tech trade surplus. The United States has only one highly competitive broad industry category—the manufacturing of aircraft.⁵

These trends show two important things that should inform policy. First, U.S. high-tech exports still remain strong but are overshadowed by more rapidly growing imports. The policy goals are consequently to build on the existing strengths of U.S. high-tech exports, while finding ways to diminish U.S. high-tech imports. Second, the experiences of France, Germany, and Japan may point the way of how to accomplish this. All three of these large industrialized economies have bilateral high-tech deficits with China, as the United States does, but they manage to generate high-tech trade surpluses with the rest of the world to arrive at an overall high-tech trade surplus.

The loss of global high-tech competitiveness is thus not a foregone conclusion for the United States. The need for policy action to strengthen the country's global competitiveness is further highlighted by signs that productivity growth—the rate at which existing industries innovate—may slow in the next decade or so. Business investment has been comparatively low since the end of the previous business cycle in early 2001. Productivity growth follows business investment trends with some time lag. The slowdown in investment, notwithstanding the current economic recovery, could thus translate into slower productivity growth in the future.⁶ This could make it harder for the United States to turn the corner in its trade balance, particularly in high-tech trade. And this is why our analysis and our recommendations are important for policymakers to consider in the coming months.

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