

## **Opportunities for U.S. Exports of Business Services**

Statement by

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The United States has a significant opportunity for increased growth through exports of business services that is going unrealized because of trade barriers in large, fast-growing countries like India, China, and Brazil.<sup>1</sup>

1. The U.S. business service sector is large (accounting for 25 percent of the labor force), growing rapidly (employment in business services increased roughly 30 percent in the decade prior to the financial crisis), and pays relatively high wages (on average more than 20 percent higher wages than the manufacturing sector).
2. Many business services are traded within the United States and thus could be traded internationally. Many service activities—software, architectural services, engineering and

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<sup>1</sup> The material in this statement is taken from my recent book *Global Trade in Services: Fear, Facts, and Offshoring* (2011) and my recent Peterson Institute for International Economics *Policy Brief* “Framework for the International Services Agreement” with Gary Hufbauer and Sherry Stephenson.

project management services, and insurance as examples—appear to be traded within the United States and thus are at least potentially tradable internationally. Approximately 14 percent of the workforce is in business service industries I judge to be tradable. In comparison, only about 10 percent of the workforce is in the manufacturing sector.

3. The United States has comparative advantage in business services. The U.S. consistently runs a trade surplus in services. Service exports now account for almost 30 percent of U.S. exports, and about 16 percent of U.S. imports are service imports. The United States has consistently maintained a positive trade balance in services, with service exports exceeding service imports. The trade surplus in services was \$172 billion in 2011 (triple the surplus in 1992).
4. In spite of having comparative advantage in business services and globally competitive business service firms, U.S. service firm participation in exporting lags significantly behind export participation in the manufacturing sector. About 25 percent of manufacturing plants export; in business services, only 1 in 20 establishments export. Looking at exports-to-sales ratios in manufacturing, about 20 percent of manufacturing sales are exported; in tradable business services, less than 5 percent of sales are exported.
5. An important source of the lagging export performance is likely to be the high barriers to services trade imposed by the large, fast-growing emerging markets. India, China, and Brazil (countries where U.S. comparative advantage is most pronounced) all have relatively high barriers to services trade, much higher than the U.S. or other developed countries.
6. The United States should be working aggressively to open the large, fast-growing economies to services trade. The International Services Agreement offers an excellent opportunity to initiate the process of liberalization in the service sector. The U.S. should seek to exploit this opportunity and create additional venues to engage the large, fast-growing economies in services liberalization negotiations.

## **BUSINESS SERVICES ARE IMPORTANT**

Most observers know that the United States and many developed economies are now “service economies,” correctly grasping that, depending on which industries are included, services account for 50-80 percent of U.S. employment and close to these levels in most developed economies. But few observers know how important is the rapidly growing business service sector, which I define to include the industry groups in the North American Industrial Classification System (NAICS) 50s. This group includes the information, finance and insurance, real estate, professional, scientific, and technical industries; management, administrative support, and waste remediation industry groups; and industries such as software, engineering services, architectural services, and satellite-imaging services.

This selection may sound like a set of niche industries, but the notion that business services are a niche is incorrect. The business service sector accounts for about 25 percent of the U.S. labor force – two and a half times the size of the manufacturing sector. Moreover, the business service sector is growing. Over the past decade or so, manufacturing sector employment has decreased by about 20 percent, while business services have increased by about 30 percent. And business service jobs are good jobs: average wages in business services are more than 20 percent higher than average wages in manufacturing.

Many people hold an outdated view of the U.S. economy. Just as an example, consider the relative size of one service industry, engineering services, relative to two important manufacturing industries: the automotive industry (including assembly and parts) and the aerospace industry. It might surprise you to learn that engineering services is the largest in terms of employment. Engineering services (NAICS 541330) employed 980,000 people in 2007 – more than the automotive industry (910,000) and more than twice as many as aerospace (440,000), according to the most recent Economic Census. Average earnings in engineering services (\$73,000) are significantly higher than in auto production (\$52,000) or even in aerospace (\$68,000).

## **BUSINESS SERVICES ARE TRADABLE**

When we think of trade, most of us envision wheat, copper, crude oil, and manufactured goods such as clothing, furniture, consumer electronics, cars, and jet aircraft. We need only visit a port, border crossing, or big-box superstore to find an abundance of such goods from virtually every country in the world.

By contrast, many believe the service sector is largely insulated from the international economy. Because many services require face-to-face interaction between buyer and seller, the prevailing assumption is that most services are not tradable.

This belief has always been a misconception, and in today's economy, it is an increasingly inappropriate one. The falling costs of travel and increased ease of communications, thanks to the Internet, have vastly expanded opportunities for services to be traded across long distances, including across borders.

But this misconception is all too easy to understand. Official data on services trade is woefully inadequate to reveal the true potential of U.S. business services. Further, because services are intangible, trade in services can be somewhat harder to conceptualize than manufacturing. As a helpful guide, the General Agreement on Trade in Services' (GATS) definition of trade in services embodies four "modes":<sup>2</sup>

- Mode 1: cross-border provision, such as software produced in one country and shipped via the Internet to another.
- Mode 2: consumption abroad, as when a vacationer travels to a resort in another country and purchases hotel accommodations, meals, and other services there.
- Mode 3: commercial presence in a foreign country, such as a restaurant chain opening a branch outside its home country.
- Mode 4: temporary movement of natural persons across borders, such as a business consultant visiting a foreign client.

I will refer to modes 1, 2, and 4 as "cross-border" trade and include them in my definition of tradable services. While Mode 3, also called foreign direct investment or commercial presence,

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<sup>2</sup> The General Agreement on Trade in Services can be downloaded in its entirety at [http://www.wto.org/english/tratop\\_e/serv\\_e/gatsintr\\_e.htm](http://www.wto.org/english/tratop_e/serv_e/gatsintr_e.htm)

undoubtedly benefits the U.S. and global economy, because most employment associated with Mode 3 trade is in the “local” (meaning foreign) market, I will not refer to this as a tradable service. It is true that the parent company and its overseas affiliates exchange headquarters services, but these types of flows (and the employment associated with them) would be very difficult to identify with existing data. As a result, I will leave Mode 3 trade to the side and focus on cross-border trade.

Cross-border trade in services (both exports and imports) more than doubled from 1997 to 2011. Service exports now account for almost 30 percent of U.S. exports, and about 16 percent of U.S. imports are service imports. The United States has consistently maintained a positive trade balance in services, with service exports exceeding service imports. The trade surplus in services was \$172 billion in 2011 (triple the surplus in 1992). This suggests that the United States has comparative advantage in tradable services, as we will discuss.

The Bureau of Economic Analysis divides “private services” into five main groups: travel, passenger fares, other transportation, royalties and license fees, and “other private services,” a catchall category that includes education, financial services, insurance services, telecommunications, and business, professional, and technical services. Other private services roughly encompass what I refer to as business services. Although all of the categories grew from 1992 to 2007, other private services grew the fastest: both imports and exports more than doubled. Other private services also contributed the most to overall service growth, accounting for more than half of the increase in service exports and about half of the increase in service imports. Business services trade is growing rapidly and is increasingly important.

It would be desirable to use detailed trade-in-services data from official statistics agencies to better understand where the growth in other-private-services trade (both which industries and which countries) is coming from. Unfortunately, currently available data fall far short of what is needed to adequately analyze the sources of services trade growth, let alone to understand the domestic impact of trade in services. Consider that for merchandise trade (i.e., goods), data on exports and imports of over 8,000 product categories are published monthly for most countries in the world. In contrast, only about 30 categories of service trade have only recently become available for a far more limited set of countries. Prior to 2006, even fewer categories are available. Going back to the mid-1990s, only about a dozen categories of services trade are available.

Lacking detailed official data, I pioneered a novel approach of using the geographic concentration of production within the United States – specifically, where production is concentrated and demand is not – to identify industries and occupations that appear to be “traded” within the United States. The logic for this approach is simple: If the supply of a service in one location is greater than consumers in that location are likely to want to consume, then the excess services must be being consumed elsewhere. The key advantage of this approach is that fairly detailed data for domestic production is available.

The notion of using geographic concentration to identify tradable activities is related to a long tradition among geographers and regional economists of using the geographic concentration of economic activity to identify a region's export or manufacturing base. The idea was that if a region specializes in a manufacturing activity – think airplanes in Seattle or automobiles in Detroit – it is likely to export the product in which it specializes.

When trade costs are low and there are reasons to concentrate production in one location (such as capitalizing on increasing returns to scale or accessing natural resources or workers with specific skills), we will observe concentrations of production that exceed local demand (Detroit and cars; Seattle and airplanes). Instead, if trade costs are large, we will observe production distributed ubiquitously with demand (think barber shops and grocery stores).

Geographic concentration of production allows us to identify service activities that are tradable at a very detailed level – far more detailed than official services trade data allow – and add up the amount of employment in these tradable activities.

The results are striking. In contrast to traditional characterizations of services as predominantly nontradable, a significant share of total employment is in tradable service industries. In the business service sector alone, more workers are in tradable industries (14 percent of the labor force) than in tradable manufacturing industries (10 percent of the labor force). Although it is true that some large service subsectors (such as education, health care, personal services, and public administration) have low shares of employment in tradable industries, because the service sector is much larger than the manufacturing sector, the number of workers potentially engaged in international trade in services exceeds the number of workers engaged in manufacturing.

Even more surprising than the size and scope of tradable services is how different workers in these tradable business service activities are from those in either non-tradable

business service activities or the manufacturing sector. In the manufacturing industry, about 24 percent of workers have a B.A., and about 7 percent have an advanced degree. Similarly, in non-tradable business services, about 29 percent have a B.A., and 7 percent have an advanced degree. By contrast, looking at the approximately 18 million workers in tradable business services, about 50 percent have a B.A and almost 20 percent have an advanced degree. Moreover, earnings are much higher than in manufacturing and non-tradable business services. Even controlling for worker characteristics such as age, gender, race, education, industry, sector, and occupational category, occupations in tradable industries pay about 20 percent more than non-tradable work in the same sector and the same occupation.

To recap: many business service activities are tradable. In fact, more Americans work in the tradable business service sector than in the entire manufacturing sector. The average wages earned in tradable business services are significantly higher than average wages in the manufacturing sector and in other services sectors. The source of this earnings differential is the level of education and skill required to work in the tradable business service sector, as they encompass very skill-intensive activities.

## **THE UNITED STATES HAS A COMPARATIVE ADVANTAGE IN BUSINESS SERVICES**

Comparative advantage tells us that a country will have a comparative advantage in activities that are intensive in the use of factors or inputs abundant in that country. For example, the production of aluminum, which is sometimes referred to as solid electricity, is very energy intensive. Thus, regions where energy costs are low – because of hydroelectric producing dams or other sources of inexpensive electricity – have a comparative advantage in producing aluminum. Indeed, aluminum production tends to be concentrated in areas where electricity is cheap.

One important factor on which countries differ is skilled labor: some countries have many highly skilled workers, while others have mostly unskilled workers. Although skill is very difficult to measure, more educated workers generally possess greater skills. Educational attainment can thus be used as a proxy for skill. Data on educational attainment show that even compared with other developed economies, the United States has been and remains relatively

skill abundant. The United States' skill abundance relative to China and India, two very populous countries where average educational attainment has been historically low, though rising, is even greater. Because the United States is a relatively skill-abundant country, the theory of comparative advantage suggests that the United States should produce and export skill-intensive goods and activities, and should import goods and activities intensive in low-skilled labor.

To understand how comparative advantage shapes the location of production and trade flows, let's begin by examining the manufacturing sector, where the data are much better. The manufacturing data show that there is considerable variation in skill intensity across industries within the sector. Some industries have very low average educational attainment: for example, only 7 percent of workers in animal slaughtering and processing have a college degree, and only 1 percent have an advanced degree. At the other extreme, 56 percent of workers in the aerospace products industry have a college degree, and 22 percent have an advanced degree.

The data also show that average earnings tend to be higher in industries with higher educational attainment. Indeed, the relationship is quite strong statistically. This relationship is useful for our purposes because some data sources lack information on educational attainment, requiring us to use average wages as a proxy for skill.

When we examine import data, we see that imports from low-wage, labor-abundant countries (like China) are concentrated in low-wage, labor-intensive industries such as apparel, leather goods, and furniture. These are the industries in which U.S. firms and workers face stiff competition from low-wage imports. By contrast, high-wage, high-skill manufacturing industries like transportation equipment, chemicals, and petroleum, and coal products (i.e., refining) face very little competition from low-wage imports.

Comparative advantage also shapes which products the United States exports. Manufacturing industries that pay relatively high wages (which, again, we interpret as being highly skill intensive) tend to export more than lower-paying industries, consistent with comparative advantage. Indeed, there are strong positive correlations between export participation, whether measured in terms of the exports-to-sales ratio or in terms of the share of plants that export, and average wages in an industry. These correlations are consistent with the notion that the United States has comparative advantage in activities that are skilled-labor intensive.

Trade in general, and specifically trade with low-wage, labor-abundant countries such as China, has shaped the allocation of economic activity within the U.S. manufacturing sector, and even within manufacturing industries, in ways that are consistent with U.S. comparative advantage. The United States tends to import low-wage, labor-intensive products from low-wage, labor-abundant countries and to export products that are relatively skill intensive.

So, how will services fare in a globalizing world? The United States today has a large *positive* trade balance in services, and many tradable services seem consistent with U.S. comparative advantage. This suggests that the U.S. service sector is likely to benefit, rather than suffer, from increased trade in services.

Let's examine how comparative advantage should play out in services. In terms of skills and earnings, services exhibit similar patterns as the manufacturing sector. There is significant variation across service industries in the share of workers with a college degree. For example, only 5 percent of workers in barber shops have a college degree, and only 1 percent have an advanced degree. In contrast, 76 percent of workers in software publishing have a college degree, and 27 percent have an advanced degree. Again, the relationship between educational attainment and wages is also quite strong: industries that use higher shares of college-educated workers have higher average earnings.

Unfortunately, detailed official information on exports is available for only a subset of service industries. In these industries, though, just as in manufacturing, service industries that pay higher wages tend to have higher export participation in terms of higher exports-to-sales ratios, higher exports per workers, and higher shares of exporting establishments. The U.S. seems to have comparative advantage in high-skill, high-wage business service activities.

Data on the import side is even more lacking. One might assume from reading the business press that most business, professional, and technical service U.S. imports come from India. Yet official statistics show that two-thirds of service imports come from Canada, Western Europe, Japan, Australia, and South Korea – developed countries similar to the United States – rather than from low-wage, labor-abundant countries. These countries have comparative advantage in high-skill activities; less developed nations do not.

The United States runs a persistent trade surplus in services (in marked contrast to its large and persistent trade deficit in goods) and is the world leader in service exports. Many service activities require high levels of skill, and the United States has an abundance of skilled

workers. When the United States does import services, it tends to import them from other high-wage, high-skill countries. These facts indicate that the United States and other developed economies have comparative advantage in tradable services and would likely benefit from increased services trade with the rest of the world.

## **CAPITALIZING ON OPPORTUNITIES**

The data suggest that great opportunities are available for U.S. service providers. Yet despite having comparative advantage in services, the U.S. service sector is nowhere near as globally engaged as the manufacturing sector. Looking at plant-level or establishment-level data, about 25 percent of manufacturing plants export. In services, only 1 in 20 establishments export. Looking at exports-to-sales ratios in manufacturing, about 20 percent of manufacturing sales are exported; in services, less than 5 percent of sales are exported.

In a sector where the United States seems to have a comparative advantage, why does it export so little? Research by the World Bank suggests that the United States is already relatively open to trade in services. In contrast, a number of large and fast-growing countries, notably China, India, Indonesia, and Russia, have relatively high barriers to imports of services. Other increasingly important economies, notably Brazil and Korea, maintain lower but still high barriers to service imports.

These impediments are not in the form of tariffs. Instead, a thicket of domestic regulations, policies, and industrial practices abroad make it difficult to provide business services in these countries. For example, many countries place requirements for and restrictions on “commercial presence.” That is, if you’re an architect who wants to work abroad, you need to establish an office; however, you can’t establish an office until you demonstrate that a need exists for your service. This type of Catch-22 – along with economic-needs tests, requirements for local joint ventures, licensing accreditation, differential tax treatments, and government procurement practices – makes the export of U.S. services difficult, if not impossible.

The United States should be pushing aggressively to reduce barriers to services trade. Service trade liberalization in the fast-growing emerging markets would allow U.S. firms with comparative advantage in business service provision to start exporting, or to increase their exports, to these countries. The U.S. economy would benefit from increased national

productivity as services production becomes increasingly specialized in high-performing business services. So would the economies of other developed countries, like Canada, Japan, and many EU countries, all of which are similar in comparative advantage to the United States and would likely see their business service exports grow as well. The countries that liberalize also would benefit from the increased productivity that comes from being able to import business services, as inputs to their own production, the world's best quality at the best price. They might also then be able to expand their exports of middle-skilled standardized services, like back-office operations and call centers.

As an example of the win-win nature of increased trade in services, consider that the world, led by a number of fast-growing developing countries, is about to undertake an infrastructure boom of historic proportions. It is estimated that over \$40 trillion could be spent on infrastructure of all types worldwide over the next 25 years, more than 80 percent of it outside the United States. China and India alone have infrastructure needs valued at \$10 trillion over that period, and even many developed countries are facing huge expenditures to replace and refurbish their decaying infrastructure systems. All this represents a potential bonanza for construction and engineering firms and for international banks and financial service providers.

Many U.S. service firms are competitive in the types of business services that will be needed for these projects and some are already helping to build state-of-the-art infrastructure in emerging markets like India and more developed economies like South Korea.

Much of the spending for infrastructure in the coming boom is likely to be controlled or financed, at least in part, by governments – national, regional, and local. Those governments are sure to be subject to domestic political pressure to favor domestic producers in granting contracts for this work. This makes guaranteeing equal treatment in government procurement a crucial issue for foreign service providers. The WTO's Agreement on Government Procurement was negotiated during the Tokyo Round of GATT negotiations in the early 1980s with the intention of reducing preferences to domestic firms in public procurement and opening public works spending to international trade. Its coverage was extended tenfold in the subsequent Uruguay Round and now extends to government purchases totaling several hundred billion dollars annually. However, this large sum obscures the fact that, to date, only a relative handful of countries have signed the agreement, virtually all of them in the developed world. In particular, none of the large developing countries expected to account for the bulk of infrastructure

spending in coming decades – Brazil, China, India, and Russia – are participants in the agreement.

The United States should pursue services liberalization through any and all means available. Two current opportunities are the Trans-Pacific Partnership negotiation and the International Services Agreement negotiation. Both of these venues provide opportunities to strengthen commitments in the services area. While both negotiations have the short-coming that none of the large, fast-growing emerging markets are currently participating, both offer opportunities for the large, fast-growing economies to join in the future.