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How Offshoring and Global Supply Chains Enhance the US Economy

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The 2016 US presidential election campaign has rekindled the debate over offshoring—locating business operations and jobs overseas—by US-based multinational corporations (MNCs). President Barack Obama has also reinforced the issue with proposed tax changes that would penalize companies that offshore their operations.[1] But in addition, some presidential candidates running for the White House have generally assailed investments abroad by US-based companies as damaging to economic growth and jobs at home, if not outright unpatriotic. Trade agreements, particularly the Trans-Pacific Partnership (TPP), have drawn fire as contributing to the problem. A leading Republican candidate, Donald Trump, has called for a 35 percent tariff on American MNCs aimed at stopping outsourcing to China and elsewhere.[2] Senator Bernie Sanders has also proposed taxing foreign profits earned by US companies[3] and has pledged to renegotiate past trade agreements and block new ones, including the TPP.[4]

Offshoring or outsourcing is controversial because of the well-documented association between increasing imports and plant closures and job loss in the US manufacturing sector (Autor, Dorn, and Hanson 2016; Acemoglu et al. 2016; Pierce and Schott 2012). Policymakers should take this consequence of offshoring seriously, but the proposals by US presidential candidates to impose a higher tax on US companies that engage in offshoring and outsourcing would not bring back the lost jobs and plants. Instead they would disrupt global supply chains that link the US economy to the rest of the world and are crucial for US exports and US employment, ultimately harming US competitiveness worldwide and threatening existing jobs. Eighty percent of world trade is now conducted via global supply chains,[5] and firms and industries with the highest-paying jobs in the United States depend on offshoring. In addition, protectionist efforts to impede such trade will likely trigger a backlash from trading partners. Such retaliation would not only

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1. Barack Obama, "A Plan for Jobs and Middle-Class Security," 2012.

2. Lauren Windsor, "Donald Trump Will End Outsourcing If President," *Huffington Post,* May 18, 2015, www.huffingtonpost.com/lauren-windsor/donald-trump-will-end-outsourcing-if-president_b_7307426.html.

3. Linda Qiu, "PolitiFact's guide to the 2016 presidential candidate tax plans," PolitiFact, April 7, 2016, www.politifact.com/truth-o-meter/article/2016/apr/07/politifacts-guide-2016-candidates-tax-plans.

4. Bernie Sanders, Agenda for America: 12 Steps Forward, www.sanders.senate.gov/agenda.

5. United Nations Conference on Trade and Development (UNCTAD), Global Value Chains and Development: Investment and Value Added Trade in the Global Economy, 2013.

restrict export opportunities for US firms but also reduce investment by foreign firms in the United States, which is an important source of job creation and growth. Overall, these proposals would lead to less job creation at home, not more, and to fewer high-paying jobs at home, not more.

Instead of proposing to penalize companies and restrict trade and investment, policymakers should devise appropriate policy responses to ease the genuine burden of job loss and displacement and help displaced workers take advantage of opportunities in areas of the economy that are growing. The United States needs a stronger, more generous, and easily accessible adjustment assistance program, which includes expanded wage-loss insurance and worker training in fast-growing sectors. Shutting down the benefits of globalization is not the solution.

Failure to ratify the TPP could impede the further growth of global supply chains, hurting US competitiveness and provoking a protectionist backlash....

This Policy Brief first reviews evidence that restrictions on trade and investment would disrupt the competitiveness of the industries that provide the highest-paying jobs for Americans. It then examines the potential consequences of imposing higher taxes on US companies that engage in outsourcing and offshoring. The Policy Brief concludes that failure to ratify the TPP agreement could impede the further growth of global supply chains, hurting US competitiveness and provoking a protectionist backlash, which could reduce both US exports and investment coming into the United States. Ratification of the TPP and other steps to liberalize trade and investment rules would help ensure that the US economy remains the most attractive place for firms of all nationalities—American and foreign—to base their high-value-added activities, leading to greater innovation and growth and to the creation of more high-paying jobs in the United States.

RESTRICTING TRADE WOULD DISRUPT SUPPLY CHAINS

Proposals to increase tariffs are often based on a zero-sum view of trade, using arguments like "they export their products and we import their products, thereby costing jobs. If we make it harder for them to export into our market, we can produce more here, thereby creating more jobs at home." But today 80 percent of all trade—exports as well as imports—takes place either within MNC networks or through supply chains organized by MNCs. So it is important to understand the impact of trade measures on today's world in which trade and investment are intertwined and in which the "us versus them" mentality is fundamentally misguided. Adopting a relentless zero-sum approach to globalization would not just be harmful to the US economy but also have real and significant negative consequences for US workers.

The biggest exporters from the United States are US MNCs and foreign MNC affiliates located in the United States. They offer the highest wages and benefits to US workers. US employees of US multinationals earned an average of $78,081 in wages and benefits in 2013.[6] This is more than 10 percent higher than the average wages and benefits paid by all firms in the United States. The US-based employees of foreign-owned multinationals outearned both of these groups, with an average income of $79,979. Taken together, MNC-generated jobs in the United States total 29.8 million workers, or 22 percent of all jobs in the United States. Keeping this high-performing segment of the US economy competitive and growing should be an important goal of American policymakers.

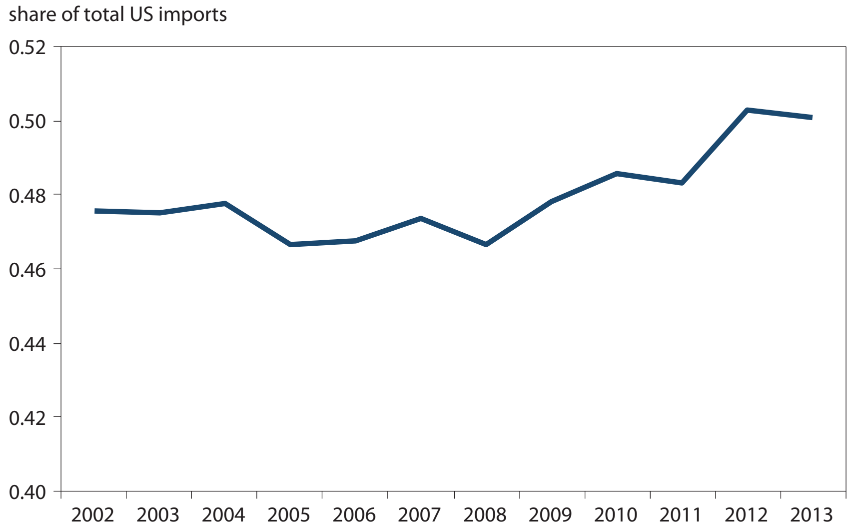
Policy measures to block imports would penalize not only final consumers but also the MNC base that constitutes America's most powerful bloc of exporters. These multinationals rely on their international supply chains to keep their US operations competitive in international markets. Figure 1 shows that in recent years, more than half of all US imports were within the boundaries of multinational firms, both US-headquartered firms importing from their foreign affiliates and affiliates of foreign firms located in the United States importing from their parent companies. Access to these imports allows MNCs to grow and thrive, producing less expensive goods for US consumers and gaining a competitive edge in export markets. A tariff on imported goods would undermine the strongest companies with operations in the United States and hinder their ability to continue to pay the highest wages to US workers.

Sixty percent or more of US imports in many industries are "intermediates"—that is, components and inputs destined to MNCs and other firms based in the United States. Allowing these components to enter the United States freely benefits American-based firms and their US workers. Imposing new tariffs would have the reverse effect, reducing the productivity and competitiveness of US firms.

US imports of intermediate goods fell during the 2009 recession; however, their general trend has been increasing over time. The United States is also a large exporter of intermediate inputs. While the United States has an overall trade deficit, trade in intermediate inputs is much more balanced between imports and exports (figure 2).

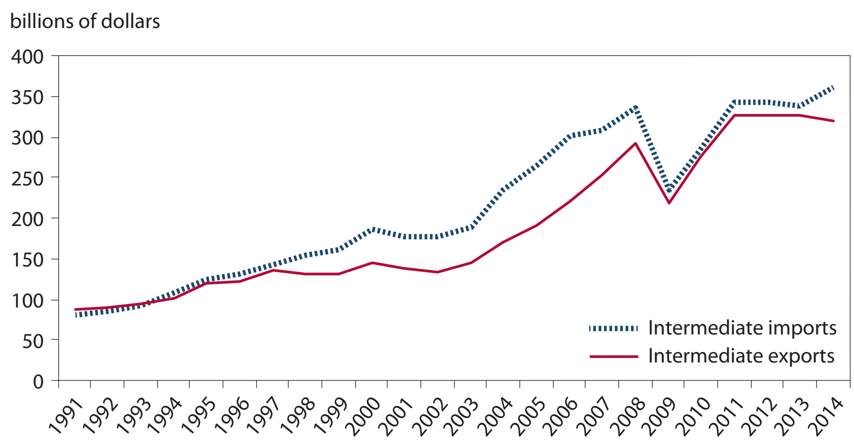
6. Latest available data from the US Bureau of Economic Analysis.

Figure 1 Related-party imports as a share of total US imports, 2002–13



Source: US Census Bureau.

Figure 2 US imports and exports of intermediate goods, 1991–2014



Source: UN Comtrade database.

Apple provides a good example of how these global value chains function. Assembly of iPhones and iPads is offshored to China, yet the total amount paid for Chinese labor and inputs is only about 5 percent of the total value of the finished products (Kraemer, Linden, and Dedrick 2010). About 6 percent of the profits accrue to component suppliers in Japan, South Korea, Taiwan, and the European Union. But the overwhelming majority of the value goes to Apple itself and other firms in the United States.

Moreover, many products produced by Apple and other US MNCs are sold to consumers outside the United States, contributing to the growth of US exports. The Organization for Economic Cooperation and Development (OECD 2014) has developed a new database to track various measures of value-added shares in exports. Using this database, table 1 reports the share of intermediate imports in various US industries that are then reexported to other countries. Without access to low-cost imported intermediates, the competitiveness of the US export sector would suffer. If Apple were forced to incorporate more US-made components, prices would rise for US consumers, Apple's exports would fall, and market share in the United States and elsewhere would shift to Samsung and other non-US producers.

Table 1 Share of intermediate imports that are reexported, by selected industries, 2014

Industry	Percent
Basic metals and fabricated metal products	27.5
Transportation equipment	19.5
Machinery and equipment	18.8
Chemicals and nonmetallic mineral products	18.2
Agriculture, hunting, forestry and fishing	15
Textiles, textile products, leather and footwear	14.2
Wood paper, paper products, printing and publishing	12.4
Transportation and storage, post and telecommunication	10.7
Food products, beverages and tobacco	9.6
Business services	9.6

Source: Organization for Economic Cooperation and Development.

Most trade statistics focus on imports and exports of goods. Yet much of the US value added is in the services that are crucial to the research, design, production, distribution, and marketing of those goods. The OECD also breaks down the share of services that are embodied in each country's exports and indicates the extent to which those services are provided by domestic or foreign firms. Figure 3 shows that about 50 percent of the value of US goods exports are due to associated services. This share is roughly comparable to other high-income countries and is much higher than that of emerging-market countries such as China and Mexico. Of the services embodied in exports, the United States has one of the highest levels of domestic content in the world. Only 3.5 percent of the services embodied in US exports come from foreign sources, compared with 6.7 percent for Canada, 13.7 percent for the Netherlands, 12 percent for Germany, 10 percent for France, and 15.8 percent for Sweden. China's foreign services share is 11.4 percent and that of Mexico is 9.4 percent.

Keeping the world trading system open benefits the US comparative advantage in high-end services, which enhances both the number and the kind of jobs available to American workers. The average business-service job in the United States pays about $56,000 a year—more than 20 percent better than the average US manufacturing job (Jensen 2013). Over the past 10 years, US business-service employment grew by more than 20 percent, while US manufacturing employment decreased by more than 20 percent. Similar patterns of growth and compensation are found for US engineering services and legal services.

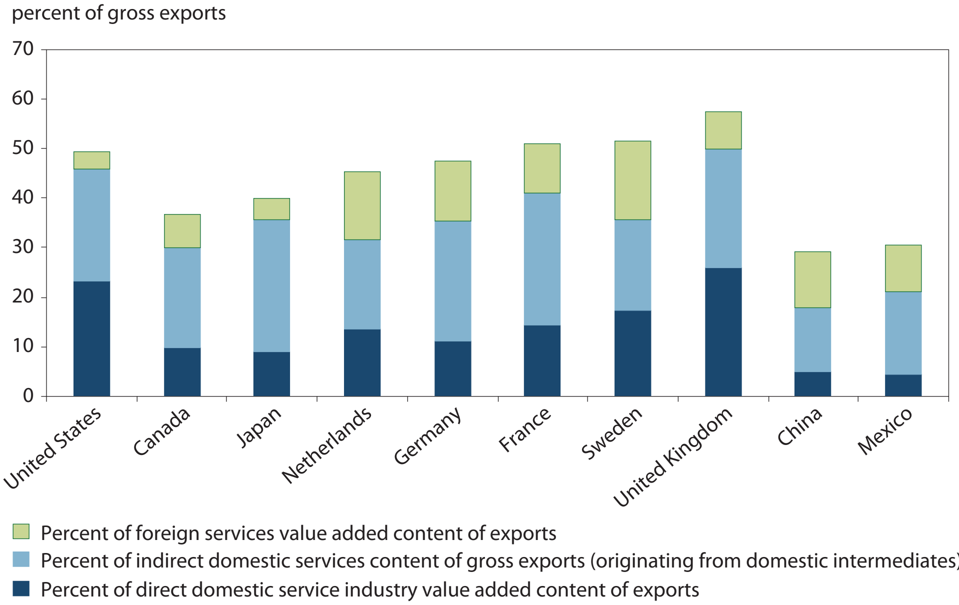
PENALIZING OFFSHORING COMPANIES IS NOT THE SOLUTION

Globalization happens not just through imports and exports of goods and services but also relies on foreign direct investment (FDI), in which US firms locate some of their production in other countries. The presidential candidates depict a world in which US firms that engage in this type of offshoring are draining capital and shifting jobs out of the US economy. Some US workers do lose their jobs as a result of offshoring, and, as stated in the introduction, aiding these displaced workers should be a policy priority. But the evidence shows that the job gains that result from offshoring are greater than the losses.

The expansion of US firms abroad raises productivity, lowers costs, and increases their global market share, allowing these firms to hire more workers not just in other countries but also at home. The data show that US firms that engage in offshoring complement their movement abroad with greater investment and more job creation at home. When a US firm increases the employment at its foreign affiliates by 10 percent, employment by that same firm in the United States goes up by an average of 4 percent. Capital expenditures and exports from the United States by that firm also increase by about 4 percent. R&D spending, which is associated with employment in highly skilled, highly paid jobs, increases by more than 5 percent (Hufbauer, Moran, and Oldenski 2013).

US firms that engage in offshoring use their access to inexpensive services abroad to create greater numbers of higher-paying as well as lower-paying jobs at home (Oldenski 2014, Grossman and Rossi-Hansberg 2008). Growth in US exports of services has outpaced import growth in recent years, leading to a $225 billion trade surplus in services. Services, especially

Figure 3 Total domestic services value added embodied in gross exports as a percent of gross exports



Source: Organization for Economic Cooperation and Development.

in high-skilled areas such as engineering, legal, consulting, research, management, and information technology, will certainly continue to drive US growth into the future.

Penalizing outward investment by US MNCs will almost surely provoke retaliation on the part of other governments. Today almost one in five Americans in the manufacturing sector—a total of 2.25 million workers—is employed in a foreign-owned firm in the United States. Recalling that US affiliates of non-US MNCs pay the highest of all companies in the United States—almost $80,000 per worker ($79,979)—great damage will be done to the United States if foreign governments started imposing excess taxes on their multinationals to force them to stay at home. It is not in the best interests of the United States to open the door for other nations to begin interrupting free flows of international investment.

FAILURE TO RATIFY THE TPP WOULD MEAN FEWER HIGH-PAYING JOBS, LOWER INVESTMENT, AND LESS R&D IN THE UNITED STATES

A failure to ratify the TPP is estimated to result in $128 billion less *inward* FDI stocks in the United States over the next decade and a half (Petri and Plummer 2016), meaning fewer high-paying jobs, less capital investment, and lower levels of R&D in the US economy. Foreign firms are attracted to the United States not for low wages but to take advantage of the skilled labor force, strong intellectual property protection, and culture of innovation. Thus, the jobs they create tend to be in well-paying, highly skilled occupations. Firms headquartered in TPP countries already pay their US workers average annual wages and benefits of more than $75,000 per worker, which is well above the US average. TPP firms inject capital at the rate of about $75 billion per year, an amount that will rise as barriers to FDI fall. Finally, TPP investors carry out substantial R&D in the United States. Inward investment from Japan (a large TPP member) is striking in its R&D intensity, amounting to $9,320 per worker per year. Greater levels of Japanese investment in the United States due to the TPP means more R&D in the United States; lower levels of Japanese investment in the United States due to failure to ratify the TPP means less R&D in the United States.

In addition to these direct effects, the presence of foreign investors generates positive spillovers for local US firms through opportunities to learn from technologies and production techniques introduced into the US economy, and through productivity improvements resulting from competitive pressures brought on by the presence of foreign rivals. These spillovers are not small: Previous analysis shows that roughly 12 percent of the total productivity growth in the United States from 1987 to 2007 can be attributed to productivity spillovers from inward FDI (Moran and Oldenski 2013). Firms from TPP countries have been, and will continue to be, an important part of these gains.

With regard to *outward* investment, US FDI stocks abroad are expected to increase by $149 billion by 2030 as a result of the agreement (Petri and Plummer 2016). Outward FDI by US MNCs creates opportunities for US firms to expand their global market share, which leads to growth both at home and abroad. The vast majority of FDI by US firms takes the form of enlarging market access, allowing these firms to serve new customers in other countries that they would not otherwise have reached. Some policymakers fear that outward FDI might substitute for US-based operations by US MNCs, but as noted earlier our investigations show that the work that US MNCs carry out abroad complements their US activities, so that the growth in the global footprint of US firms benefits US workers and the US economy.

Specific provisions within the TPP help level the playing field for US firms investing abroad. One of the most important aspects of the TPP agreement is that all member countries commit themselves to accept FDI on a "negative list" basis. This means that their markets are fully open to foreign investment in all sectors except those explicitly excluded. The "negative list" approach greatly increases the confidence of investors about where they can expect business-friendly treatment and provides that when new products and services are introduced they will automatically be open to FDI.

Moreover, the TPP assures international companies that they will not be required to meet "performance requirements" such as local content or technology-transfer/technology-localization mandates. In Malaysia, for example, the elimination of local content requirements because of the TPP allows US auto companies for the first time to export cars without limitation into the local market.

The TPP agreement imposes important new regulations upon state-owned enterprises (SOEs) to prevent them from exercising unfair advantages in comparison to other firms and investors. The restrictions on SOEs are beneficial for encouraging investment among the TPP member themselves, but they also set an important precedent for future agreements, especially those that might include China, which is not a TPP member.

More broadly, the TPP text includes provisions to improve intellectual property protection, remove barriers to investment in services, and increase consistency and transparency of regulatory regimes across partner countries. The strengthening of intellectual property protections in Vietnam, for example, is expected to give the Vietnamese economy a competitive edge for production of information technology hardware and software vis-à-vis China, allowing investors from the United States and Japan to expand their market share at the expense of rivals from Europe and South Korea.

CONCLUSIONS AND POLICY IMPLICATIONS

The messages from the campaign trail vastly oversimplify the nature of global production, painting a picture in which imports and offshoring are bad and domestic production is good. But trade and investment are not zero sum. Domestic production would not be as strong as it is without access to global supply chains, which reduce costs, raise productivity, expand the global market share of US firms, and allow the United States to focus on what it does best: innovating, researching, and designing the cutting edge goods and services of the future. The data show that when US firms expand abroad they end up hiring more workers in the United States relative to other firms, not fewer.

Moreover, US workers benefit from jobs created by foreign firms operating in the United States. Failure to ratify future trade agreements, such as the TPP, will cut back these benefits. The imposition of new tariffs and taxes on offshoring will not only hurt US productivity, and thus US job growth through the restriction of global supply chains, but also almost surely encourage painful retaliation by US trading partners. The forces of protectionism are always strong, and should the United States be the one to open the gates to retaliation and counterretaliation there is no telling where the damage might end. The better path is to avoid protectionism in all its forms, while ensuring that the US economy remains the most attractive place for firms of all nationalities—American and foreign—to base their high-value-added activities, leading to greater innovation and growth and more high-paying jobs in the United States.

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