



October 2015

SOUTHEAST ASIA

Trends in U.S. and Chinese Economic Engagement in Indonesia and Vietnam

Accessible Version

Why GAO Did This Study

The United States and China have each sought to increase their economic engagement in Southeast Asia. U.S. agencies have identified Indonesia and Vietnam as important emerging U.S. partners that contribute to regional stability and prosperity. Indonesia has the world's 10th largest economy in terms of purchasing power, and Vietnam is one of the most dynamic economies in East Asia. Both the United States and China have established comprehensive partnerships with each country that are designed to enhance their bilateral cooperation in key areas.

GAO was asked to examine the United States' and China's economic engagement in Southeast Asia. GAO issued a report on 10 Southeast Asian countries in August 2015. In this report, GAO presents case studies for two of these countries, Indonesia and Vietnam, providing greater detail about the United States' and China's trade and investment, competition, and actions to further economic engagement in the two countries. GAO analyzed publicly available economic data and documentation from 10 U.S. agencies and the Chinese government. The data that GAO reports have varying time periods because of the data sets' limited availability and differing contexts. GAO interviewed U.S., Indonesian, and Vietnamese officials and private sector representatives.

This is the public version of a sensitive but unclassified report that is being issued concurrently. GAO is not making any recommendations in this report.

View [GAO-16-186](#). For more information, contact David B. Gootnick at (202) 512-3149 or gootnickd@gao.gov.

SOUTHEAST ASIA

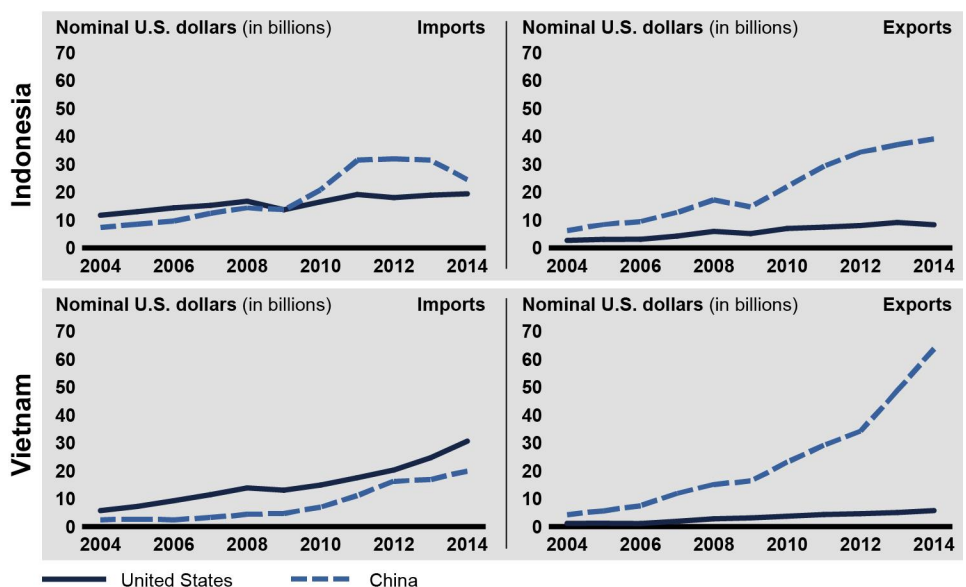
Trends in U.S. and Chinese Economic Engagement in Indonesia and Vietnam

What GAO Found

Indonesia. In 2014, China's imports from, and exports to, Indonesia exceeded the United States' (see figure). The United States and China compete more often with other countries than with each other in goods exported to Indonesia and win contracts in different sectors. In contrast to the United States, which is not involved in a free trade agreement (FTA) with Indonesia, China is a party to a regional FTA that includes Indonesia and is negotiating the Regional Comprehensive Economic Partnership (RCEP) with Indonesia and 14 other countries. In fiscal years 2009 through 2014, U.S. agencies' financing for exports to, and investment in, Indonesia totaled about \$2.5 billion, compared with at least \$34 billion in Chinese financing, according to the Department of State. In 2007 through 2012, U.S. foreign direct investment (FDI) of \$9.6 billion exceeded China's reported \$2.7 billion, according to available data.

Vietnam. In 2014, U.S. imports from Vietnam exceeded China's, while Chinese exports to Vietnam exceeded U.S. exports (see figure). As in Indonesia, the United States and China compete more often with other countries than with each other in goods exported to Vietnam and win contracts in different sectors. The United States and Vietnam are both participants in the proposed regional Trans-Pacific Partnership, while China and Vietnam are both parties to a regional FTA and the RCEP negotiations. In fiscal years 2009 through 2014, U.S. agencies' financing for exports to, and investment in, Vietnam totaled about \$205 million, compared with at least \$4.5 billion in Chinese financing, according to the Department of State. In 2007 through 2012, China's reported FDI of \$1.2 billion was more than twice the United States' reported FDI of \$472 million, according to available data.

U.S. and Chinese Goods Imports from, and Exports to, Indonesia and Vietnam, 2004-2014



Source: GAO analysis of U.S. and Chinese data from the United Nations Commodity Trade database. | GAO-16-186

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Abbreviations

ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
BEA	U.S. Bureau of Economic Analysis
BTA	Bilateral Trade Agreement
Commerce	U.S. Department of Commerce
EU	European Union
Ex-Im	Export-Import Bank of the United States
FDI	foreign direct investment
FTA	free trade agreement
GDP	gross domestic product
GMS	Greater Mekong Subregion
GSP	Generalized System of Preferences
IMF	International Monetary Fund
Labor	U.S. Department of Labor
MCC	Millennium Challenge Corporation
OECD	Organisation for Economic Co-operation and Development
OPIC	Overseas Private Investment Corporation
RCEP	Regional Comprehensive Economic Partnership
State	U.S. Department of State
TIFA	Trade and Investment Framework Agreement
TPP	Trans-Pacific Partnership
Treasury	U.S. Department of the Treasury
UN	United Nations
USAID	U.S. Agency for International Development
USDA	U.S. Department of Agriculture
USTDA	U.S. Trade and Development Agency
USTR	Office of the United States Trade Representative
WTO	World Trade Organization

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October 29, 2015

The Honorable Steve Chabot
Chairman
Committee on Small Business
House of Representatives

The Honorable Matt Salmon
Chairman
The Honorable Brad Sherman
Ranking Member
Subcommittee on Asia and the Pacific
Committee on Foreign Affairs
House of Representatives

U.S. agencies have identified Indonesia and Vietnam as important emerging Southeast Asian economic powers that contribute to regional stability and prosperity. According to the World Bank, Indonesia is the 10th-largest economy in the world in terms of purchasing power, and Vietnam is one of the most dynamic economies in East Asia. The United States and China have sought to increase their economic engagement with both countries. For example, U.S. agencies have outlined specific goals to facilitate U.S. trade and investment in Indonesia and Vietnam, while China has fostered trade and investment opportunities for its firms operating in each country. The United States and China have also established comprehensive bilateral partnerships with Indonesia and Vietnam, designed to enhance key aspects of their respective cooperation with the two countries.

You asked us to review the nature of the United States' and China's economic engagement in Southeast Asia. In August 2015, we issued a report examining U.S. and Chinese economic engagement with the 10

members of the Association of Southeast Asian Nations (ASEAN).¹ In this report, we present case studies of U.S. and Chinese trade and investment, competition, and actions to further economic engagement in two of these countries, Indonesia and Vietnam.

This report is a public version of a non-public sensitive but unclassified report that we are issuing concurrently. This report does not contain certain information, related to U.S. agency goals and characterization of other countries' economic activities, that the U.S. Department of State (State) and the U.S. Department of Agriculture (USDA) regarded as sensitive but unclassified.

To examine U.S. and Chinese trade and investment with Indonesia and Vietnam, we analyzed available data on U.S. and Chinese trade in goods, trade in services, and foreign direct investment (FDI). To determine the extent to which U.S. and Chinese firms compete in Indonesia and Vietnam, we analyzed data from the U.S. Department of Commerce (Commerce), the World Bank, and the Asian Development Bank (ADB). To identify actions that the U.S. and Chinese governments have taken to further economic engagement in Indonesia and Vietnam, we reviewed U.S., Chinese, and other countries' trade agreements, reports, and statements. We conducted fieldwork in both Indonesia and Vietnam and interviewed officials from U.S. and other countries' government agencies and private sector representatives. We requested meetings with Chinese government officials in Indonesia, Vietnam, and Washington, D.C.; however, they were unable to accommodate our requests. To assess the reliability of data, where possible, we cross-checked the data with other sources, evaluated the data for internal consistency, and consulted with U.S. officials and experts. Because of the limited availability of data and the differing contexts for the sets of data we report, these data sets have varying time periods. We consider the data we present to be reliable for our purposes and have noted caveats as appropriate regarding limitations

¹The 10 members of ASEAN are Brunei Darussalam (Brunei), Burma (Myanmar), Cambodia, Indonesia, Laos, Malaysia, the Philippines, Singapore, Thailand, and Vietnam. In August 2015, we reported that China had surpassed the United States in goods trade, and traded a similar amount of services, with the 10 ASEAN countries but that U.S. investment had exceeded reported Chinese investment. We also found that the United States and China were furthering economic engagement in these countries through trade agreements, support for firms, and support for regional integration. See GAO, *Southeast Asia: Trends in U.S. and Chinese Economic Engagement*, [GAO-15-724](#) (Washington, D.C.: Aug. 13, 2015).

of some of these data. See appendix I for additional information about our scope and methodology.

We conducted this performance audit from April 2014 to October 2015 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

As Southeast Asian countries, Indonesia and Vietnam are in a region of growing economic power. ASEAN, to which both countries belong, is seeking to form an economic community by the end of 2015 that would deepen economic integration among the 10 ASEAN member states (see fig. 1). World Bank data show that from 2000 through 2014, the collective real gross domestic product (GDP) of ASEAN countries increased by approximately 98 percent.² According to International Monetary Fund (IMF) data, if the ASEAN countries were a single nation, their collective GDP in 2014 would represent the seventh-largest economy in the world. ASEAN countries are also important strategically, in part because they are located astride key sea lanes between the Persian Gulf and the economic centers of East Asia. On the basis of a 2011 United Nations (UN) Conference on Trade and Development Review Maritime Transport, the U.S. Department of Energy estimated that more than half of the world's annual merchant fleet tonnage passed through the South China Sea, which is bordered by Indonesia and Vietnam.

²The World Bank's World Development Indicators does not include data on Burma's (Myanmar) GDP in constant 2005 U.S. dollars.

Figure 1: Members of the Association of Southeast Asian Nations (ASEAN)



Source: Map Resources (maps). | GAO-16-186

Indonesia's Economy and Relations with the United States and China

According to data from the World Bank, Indonesia's real GDP increased by around 108 percent from 2000 to 2014. However, the World Bank estimated that in 2011, 16 percent of Indonesians lived below the poverty line of \$1.25 per day.³ Indonesia is the world's fourth-largest country by population.

The United States established diplomatic relations with Indonesia in 1949, after Indonesia gained independence from the Netherlands. According to State, Indonesia's democratization and reform process since 1998 has increased its stability and security and resulted in strengthened U.S.-

³The \$1.25 per day is in terms of purchasing power parity. According to the World Bank, for the purpose of comparing levels of poverty across countries, the World Bank uses estimates of consumption converted to U.S. dollars using purchasing power parity rates.

Indonesia relations. In 2010, the United States and Indonesia officially launched the United States–Indonesia Comprehensive Partnership to broaden, deepen, and elevate bilateral relations between the two countries on a variety of issues, including economic and development cooperation. However, according to U.S. agencies, the U.S.-Indonesia bilateral relationship continues to face significant challenges because of Indonesia’s implementation of protectionist laws, limited infrastructure, and unevenly applied legal structure. U.S. agencies’ stated goals for Indonesia include supporting the facilitation of U.S. trade and investment between the two countries.⁴ The U.S. Embassy in Indonesia is located in Jakarta, with U.S. consulates in Surabaya and Medan and a U.S. consular agency in Bali.

China and Indonesia have a long-standing history of trade and interchange. The two countries established diplomatic relations in 1950, 5 years after Indonesia gained independence from the Netherlands. Relations between China and Indonesia were suspended in 1967, after the Indonesian government suspected China of complicity in planning a 1965 coup, but were restored in 1990. Since then, trade and economic relations between the two countries have grown rapidly and in 2013, both countries agreed to elevate bilateral relations to a comprehensive strategic partnership. The partnership seeks to strengthen cooperation in several key areas, including trade, investment, and economic development. In 2015, the countries reaffirmed their support of the partnership and agreed, among other things, to expand market access and two-way investment for firms and to deepen their infrastructure and industrial cooperation. In April 2015, the Presidents of China and Indonesia released a statement setting a bilateral trade target of \$150 billion by 2020—an increase of \$70 billion from the 2015 target of \$80 billion. The two Presidents stated that they will work toward the reduction of tariff and nontariff trade barriers and increase the frequency of trade missions between the two countries. China maintains an embassy in Jakarta and consulates in Medan, Surabaya, and Denpasar.

⁴See [GAO-15-724](#), app. II, for information about the roles and responsibilities of U.S. and Chinese entities in Southeast Asian countries.

Vietnam's Economy and Relations with the United States and China

Vietnam has experienced rapid economic growth in the past 15 years, primarily because of economic reforms it began implementing in the late 1980s that transformed it from a centrally planned economy to a type of socialist market economy. Data from the World Bank show that Vietnam's real GDP increased by around 137 percent from 2000 to 2014. Vietnam has also made great progress in reducing poverty since the 1990s, according to the World Bank. In 2012, the World Bank reported that about 2 percent of Vietnamese lived below the poverty line of \$1.25 per day.

The United States established diplomatic relations with Vietnam in 1950, after Vietnam achieved limited independence from France. The United States and Vietnam suspended diplomatic relations at the end of the Vietnam War in 1975 but restored them in 1995. Since then, common strategic and economic interests have led Vietnam and the United States to improve relations across a wide range of issues. In 2006, Congress passed a comprehensive trade and tax bill that granted Vietnam permanent normal trade relations. In July 2013, the United States and Vietnam established the United States–Vietnam Comprehensive Partnership, an overarching framework for advancing the bilateral relationship in areas such as economic engagement. In October 2014, the United States relaxed an arms embargo, which it had imposed on Vietnam in 1984, to permit Vietnamese acquisition of maritime military materiel. However, the United States continues to express concerns about Vietnam's human rights record and designates Vietnam as a nonmarket economy in antidumping procedures.⁵ Vietnam has expressed opposition to aspects of U.S. trade policy, including U.S. restrictions on its export of catfish into the U.S. market. U.S. agencies' stated goals for Vietnam include supporting Vietnam's economic governance. The U.S. Embassy in Vietnam is located in Hanoi, and the U.S. Consulate General is in Ho Chi Minh City.

For centuries, China and Vietnam have had a turbulent relationship that continues to be affected by long-standing territorial disputes in the South China Sea. China has claimed sovereignty over the South China Sea, illustrating its claims by marking its maps with a "nine dash line" that overlaps with Vietnamese claims and encircles most of the South China

⁵U.S. law authorizes the imposition of antidumping duties on products exported to the United States at unfairly low prices (i.e., dumped). The designation "nonmarket economy" allows for the use of an alternative dumping calculation methodology to that which is used for market economies for the purpose of antidumping enforcement.

Sea, including the Paracels and Spratlys. During the Vietnam War, China served as a close ally of the North Vietnamese. In 1974, shortly before the war ended, China seized control of the Paracel Islands from the South Vietnamese. After the war, underlying tensions between the two countries surfaced and China-Vietnam relations deteriorated. China opposed Vietnam's invasion of Cambodia in 1978, and following a series of disputes, the Chinese army crossed the Vietnamese border in February 1979 and fought a 2-week battle before the Chinese withdrew.

In 1991, China and Vietnam renormalized relations. Since then, China and Vietnam have established close economic relations. In 2008, the two countries agreed to establish a comprehensive strategic partnership that enhanced cooperation in multiple areas, such as trade and investment. However, in May 2014, tensions were reawakened when China placed an oil rig near the disputed Paracel Islands, sparking widespread protests in Vietnam; some of these protests turned violent and included attacks on Chinese and Taiwanese individuals and firms. Despite continuing tensions, in April 2015, the leaders of both countries pledged to strengthen their partnership, for example, by increasing cooperation on infrastructure development. China maintains an embassy in Hanoi and a consulate in Ho Chi Minh City.

U.S. and Chinese Trade and Investment, Competition, and Actions to Further Economic Engagement in Indonesia

China Has Surpassed the United States in Trade in Goods with Indonesia, but U.S. Investment Has Exceeded Chinese Investment

The value of China's total trade in goods with Indonesia surpassed the United States' in 2005 and was more than double the United States' in 2014, when Chinese imports and exports both exceeded U.S. imports and exports.⁶ The United States and China are Indonesia's fifth and second-largest trading partners, respectively, while other ASEAN countries collectively represent Indonesia's largest trading partner. Available data on U.S. and Chinese FDI, although limited, indicate that U.S. FDI greatly exceeded Chinese FDI in Indonesia from 2007 through 2012.⁷ However, Chinese FDI has significantly increased since 2010 and nearly reached U.S. levels of FDI in 2012.

China's Total Trade in Goods with Indonesia Has Surpassed U.S. Trade in Goods, Both Imports and Exports

The value of China's total trade in goods with Indonesia surpassed the United States' in 2005 and was more than double the United States' total trade in goods—\$64 billion versus \$28 billion, respectively—in 2014 (see fig. 2). China's total goods trade in Indonesia increased in nominal terms every year after 2001 except 2008 and 2009, when the global economic

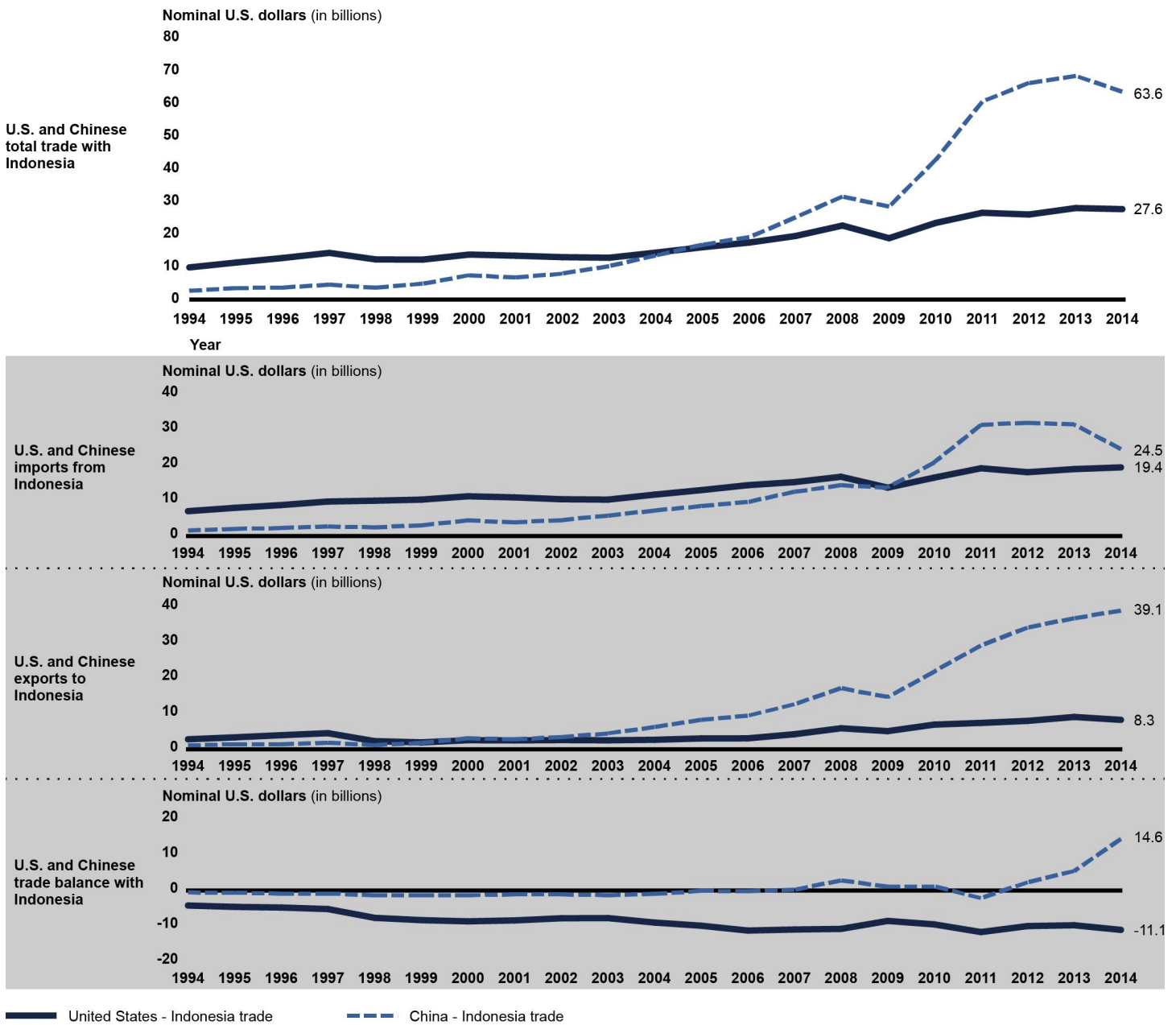
⁶U.S. dollar amounts cited in this report are in nominal terms unless otherwise specified.

⁷According to the Organisation for Economic Co-operation and Development (OECD), FDI is the ownership by a foreign person or business of 10 percent or more of the voting equity of a firm located in the host country. Data on FDI flows provide information about FDI activity in a given period of time, while data on FDI stock indicate the level of FDI at a given point in time. FDI flows represent outflows (e.g., when a U.S. or Chinese parent company establishes an affiliate in Indonesia) minus inflows (e.g., when a U.S. or Chinese parent company sells or reduces its stake in its affiliate in Indonesia). We used data on FDI flows to Indonesia instead of data on FDI stock in Indonesia, which, according to the U.S. Bureau of Economic Analysis, are available only by historical cost and do not reflect changes in the FDI's market value.

crisis occurred, and 2013 and 2014, when Chinese imports of minerals from Indonesia declined.⁸ From 1994 through 2014, China's total trade in goods in Indonesia grew much more rapidly than U.S. total trade in goods, with a slight decline in 2014.

⁸After joining the World Trade Organization in 2001, China's total trade in goods increased worldwide.

Figure 2: U.S. and Chinese Trade in Goods with Indonesia, 1994-2014



Source: GAO analysis of U.S. and Chinese data from the United Nations Commodity Trade database. | GAO-16-186

Note: The trade values shown are nominal—that is, not adjusted for inflation. Changes in values over time are due in part to changes in the prices of traded goods.

As figure 2 illustrates, from 1994 through 2014, China's imports from, and exports to, Indonesia grew to exceed the United States'. Moreover, while the United States had a nearly continuous annual trade deficit with Indonesia during this period, China had an increasing trade surplus almost every year after 2007.

- Chinese imports from Indonesia surpassed U.S. imports from Indonesia in 2009 and increased significantly in 2010 and 2011. However, in 2013 and 2014, Chinese imports declined sharply, primarily because of a significant decrease in Chinese imports of minerals and slowing economic growth in China, according to an IMF report.⁹ The IMF report stated that in 2014, Indonesia implemented a ban of Indonesia's raw mineral ore exports, requiring all raw mineral ores to be processed in Indonesia to increase domestic value added.¹⁰
- Chinese exports to Indonesia surpassed U.S. exports in 2000 and continued to grow through 2014.
- The United States had a trade deficit with Indonesia every year from 1994 through 2014, with the deficit growing from \$4.2 billion in 1994 to \$11.1 billion in 2014. China had a trade deficit with Indonesia every year from 1994 through 2006 but, with the exception of 2011, had a trade surplus every year from 2007 through 2014. China's trade surplus increased dramatically from 2012 through 2014, from \$2.3 billion to \$14.6 billion.

From 2000 through 2014, the composition of U.S. and Chinese trade in goods with Indonesia remained relatively stable, except for a significant overall increase in China's mineral imports that peaked in 2013. In 2014, textiles represented the largest share of U.S. imports (26 percent) while minerals represented the largest share of Chinese imports (42 percent).

⁹See International Monetary Fund, "2014 Article IV Consultation—Staff Report; Press Release; and Statement by the Executive Director for Indonesia," *IMF Country Report*, No. 15/74 (March 2015).

¹⁰When Indonesia implemented the ban on mineral ore exports in early 2014, it levied taxes of 20 to 25 percent on exports from mining companies seeking a temporary waiver from the ban. The ban's biggest impact was on exports of copper concentrate. According to the Office of the U.S. Trade Representative, the taxes applied only to a subset of 7 mineral ores and not to the more than 200 other banned mineral ores. In addition, the tax increases every 6 months until January 1, 2017, when the ban is scheduled to extend to the subset of 7 mineral ores. In mid-2014, the Indonesian government agreed to allow copper exports to resume while it granted tax concessions until new process plants are built in Indonesia.

China and the United States
Are Significant Trading
Partners of Indonesia, but
Other ASEAN Countries Are Its
Largest Partner

Animals, plants, and food represented the largest share of U.S. exports in 2014 (32 percent), and machinery represented the largest share of Chinese exports (33 percent). Most of China's, and almost half of the United States', trade in goods with Indonesia in 2014 consisted of goods for industrial use (i.e., goods, such as rubber and coal, used in the production of other goods). See appendix II for more information about the composition and use of U.S. and Chinese trade in goods with Indonesia.

In 2013, other ASEAN countries collectively represented Indonesia's largest trading partner in total trade in goods, followed by China, Japan, the European Union (EU), and the United States.¹¹

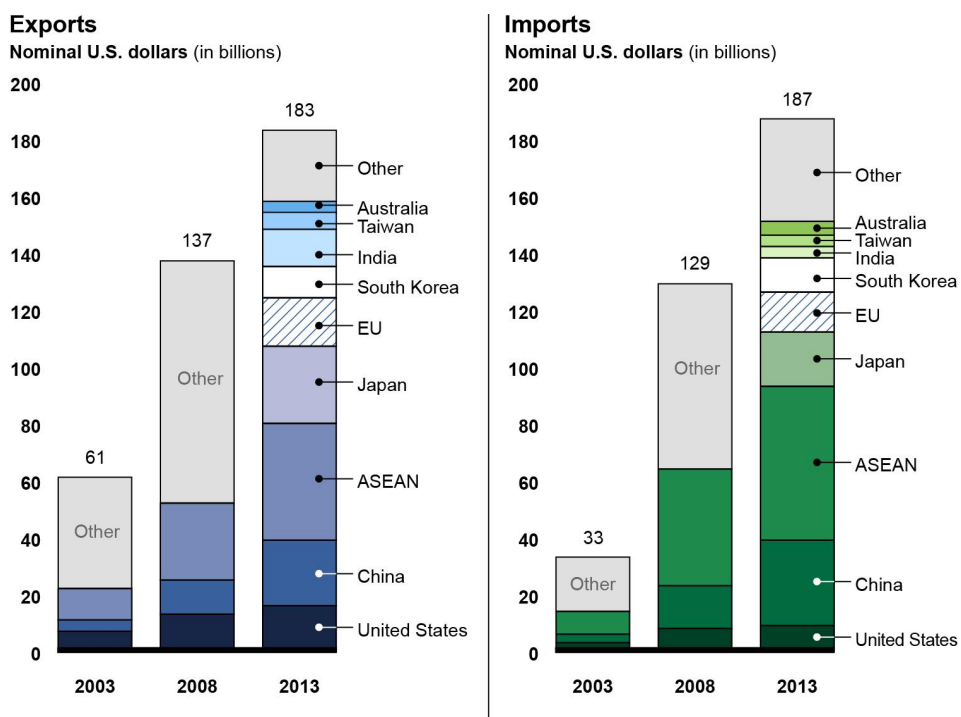
- **Exports.** Indonesia exported \$16 billion in goods to the United States, its fifth-largest export market, and \$23 billion in goods to China, its third-largest export market, in 2013. Other ASEAN countries, Japan, and the EU represented Indonesia's first, second, and fourth-largest goods export markets, respectively. The United States' share of total Indonesian goods exports decreased from 12.1 percent in 2003 to 8.6 percent in 2013, while China's share of total Indonesian goods exports increased from 6.2 percent to 12.4 percent during the same period.
- **Imports.** Indonesia imported \$9 billion in goods from the United States, its sixth-largest import market, and \$30 billion in goods from China, its second-largest import market, in 2013. Other ASEAN countries, Japan, the EU, and South Korea represented Indonesia's first-, third-, fourth-, and fifth-largest goods import markets, respectively. The United States' share of total Indonesian goods

¹¹To calculate the value of Indonesian trade in goods by trading partner, we used data from the ASEANstats database, which vary from data on Indonesian trade in goods that the United States and China report to the United Nations (UN) Commodity Trade database. Because some of ASEAN's trading partners do not report data to the UN Commodity Trade database, we used data from the ASEANstats database as a comprehensive set of data on trade in goods for all of ASEAN's trading partners. Reasons for the variation in trade values between the ASEANstats database and the UN Commodity Trade Database include differences in the valuation of goods, differences in data quality, and the omission of some ASEAN trading partners' data from the UN Commodity Trade Database. The most recent goods trade data available from the ASEANstats database are for 2013, while the most recent data available from the UN Commodity Trade Database are for 2014. According to the OECD, intermediate goods, such as electronic components used in the manufacture of computers, are inputs to the production process that have themselves been produced and used up or transformed in production.

imports decreased from 8.3 percent in 2003 to 4.9 percent in 2013. China's share of total Indonesian goods exports increased from 9.1 percent in 2003 to 16 percent in 2013.

Figure 3 shows Indonesia's exports and imports in 2003, 2008, and 2013, by trading partner.

Figure 3: Value of Indonesian Exports and Imports of Goods in 2003, 2008, and 2013, by Trading Partner



ASEAN Association of Southeast Asian Nations

EU European Union

Source: GAO analysis of data from ASEANstats database. | GAO-16-186

Notes: The trade values shown are nominal—that is, not adjusted for inflation. Changes in values over time are due in part to changes in the prices of traded goods.

Although the United States does not have diplomatic relations with Taiwan, we have listed Taiwan as a separate country, because whenever the laws of the United States refer or relate to foreign countries, nations, states, governments, or similar entities, such terms shall include and shall apply to Taiwan.

Indonesia ranks higher as an export and import partner of China than of the United States.

- Indonesia is China's 15th-largest export market and the United States' 34th-largest by value. In 2014, China exported \$39.1 billion in goods

to Indonesia, or 1.7 percent of global Chinese goods exports. In the same year, the United States exported \$8.3 billion in goods to Indonesia—0.5 percent of global U.S. goods exports.

- Indonesia is China's 20th-largest source of imported goods and the United States' 24th-largest by value. In 2014, China imported \$24.5 billion in goods from Indonesia, or 1 percent of global Chinese goods imports. In the same year, the United States imported \$19.4 billion in goods from Indonesia—0.8 percent of global U.S. goods imports.

The United States' role relative to China's in Indonesia's trade of goods as well as services may be greater when the amount of intermediate U.S. inputs to the traded goods and services is taken into account. Because of the nature of global supply chains, for example, a consumer phone from a U.S. company might be assembled in China but includes components manufactured by Germany, Japan, South Korea, and other countries.¹² Data from the UN Commodity Trade database, which counts the full value of the export only for the exporting country, showed that in 2011, China exported \$29.2 billion in goods to Indonesia, almost four times the \$7.4 billion in goods that the United States exported to Indonesia.¹³ However, data from the Organisation of Economic Co-operation and Development (OECD) and the World Trade Organization (WTO), which attempt to account for value added to a finished export by each contributing country, show that China's exports of value-added goods and services to Indonesia were around 1.8 times those of the United States. The OECD-WTO data suggest that Chinese exports to Indonesia contained a higher portion of components produced elsewhere than U.S. exports contained.

¹²See Organisation for Economic Co-operation and Development and World Trade Organization, *Trade in Value-Added: Concepts, Methodologies and Challenges*, Joint OECD-WTO Note (2012).

¹³We do not compare the United States' and China's exports of services in 2011, because data on China's trade in services with Indonesia are unavailable. However, data from the U.S. Bureau of Economic Analysis show that the United States exported around \$1.9 billion in services to Indonesia in 2011.

Total U.S. Trade in Services with Indonesia Was Almost \$3 Billion in 2013, While Data on China's Trade in Services Are Unavailable

Available data from the U.S. Bureau of Economic Analysis (BEA)¹⁴ indicate that U.S. trade in services with Indonesia totaled approximately \$2.9 billion in 2013.¹⁵ The United States

- exported \$2.2 billion in services to Indonesia in 2013, with travel and business services, respectively, as the largest and second-largest categories by value,¹⁶ and
- imported \$692 million in services from Indonesia in 2013, with travel and business services, respectively, as the largest and second-largest categories by value.

In 2013, total U.S.-Indonesian services trade represented 10 percent of the value of U.S.-Indonesian goods trade.

China does not publish data on its trade in services with Indonesia.

U.S. Investment Flows to Indonesia Exceeded Chinese Investment Flows in 2007-2012, but Available Data Have Limitations

Data on FDI in Indonesia from the United States and China have limitations, in that these data may not accurately reflect the countries to which U.S. and Chinese FDI ultimately flows. For example, U.S. and Chinese data on FDI in Indonesia do not reflect investments by subsidiaries that U.S. and Chinese firms may set up in other countries and use to make investments in Indonesia. Conversely, U.S. and Chinese firms may set up subsidiaries in Indonesia that can be used to make investments in other countries. Given these limitations, available data

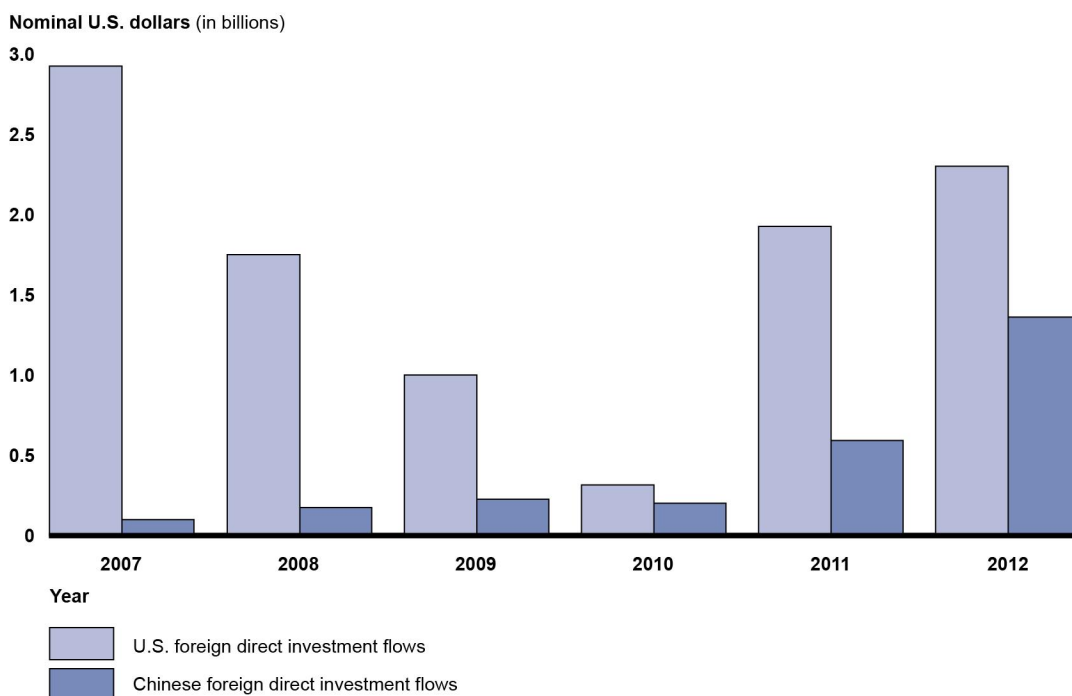
¹⁴In 2005, we found that BEA had experienced challenges in identifying all U.S. services importers and obtaining high-quality survey data from importers. However, since 2005, BEA has implemented methods to better identify all U.S. services importers. In addition, BEA's data on trade in services may differ from other countries' data, including China's, because of differences in definitions, coverage, and methods used to measure services. For example, we found that BEA's data on trade in services differed from data collected by India because of differences in the methodologies used to define and collect the data. See GAO, *International Trade: U.S. and India Data on Offshoring Show Significant Differences*, GAO-06-116 (Washington, D.C.: Oct. 27, 2005). According to BEA, its survey data are from mandatory surveys of U.S. businesses with services trade that exceeds certain thresholds. BEA does not survey a random sample of U.S. businesses and therefore does not report the data with margins of error.

¹⁵"Trade in services" refers to the buying and selling of intangible products and activities; examples of services include tourism, financial services, and telecommunications. Contracted activities, such as construction and consulting services, are also examples of services.

¹⁶Business services include professional and management consulting, architectural and engineering, and research and development services.

show that U.S. FDI flows to Indonesia in 2007 through 2012 totaled about \$10.2 billion, exceeding China's reported FDI flows of about \$2.7 billion. However, annual Chinese FDI flows increased significantly during this time, from \$100 million in 2007 to \$1.4 billion in 2012 in nominal terms (see fig. 4). According to BEA, over 90 percent of total U.S. FDI flows to Indonesia in 2007 through 2012 were concentrated in holding companies and mining.¹⁷

Figure 4: U.S. and Chinese Foreign Direct Investment Flows to Indonesia, 2007-2012



Source: GAO analysis of data from the U.S. Bureau of Economic Analysis and Chinese data from the United Nations Conference on Trade and Development. | GAO-16-186

Notes: Foreign direct investment (FDI) flows represent FDI activities in a given period of time.

Although China has reported investment data since 2003, China began including financial investment in its total investment data in 2007. Chinese FDI data do not include Hong Kong's investments in Indonesia.

The investment data shown are nominal values—that is, not adjusted for inflation. When using a U.S. gross domestic product deflator, we calculated cumulative U.S. and Chinese FDI flows in 2007 through 2012 at \$10.1 billion and \$2.6 billion, respectively, in 2009 dollars.

¹⁷A holding company typically does not itself produce goods or services but exists to own assets of other companies, which may be located in countries other than that of the holding company.

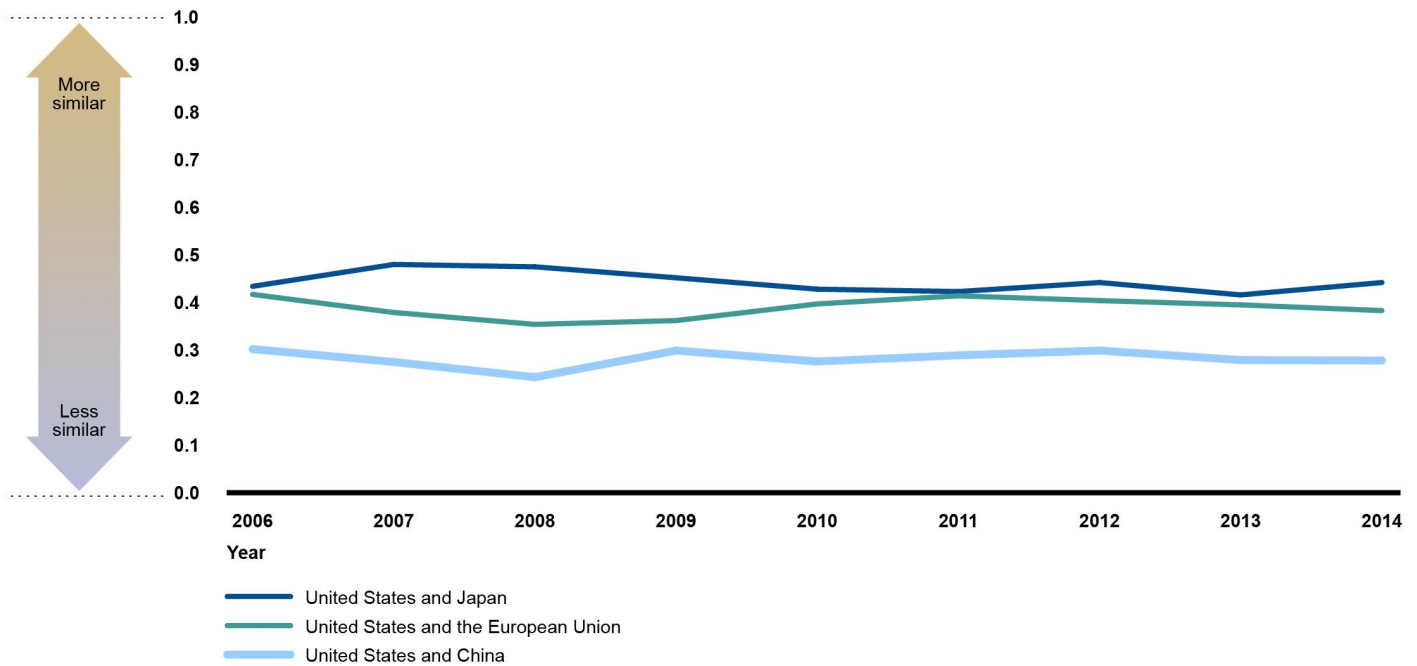
United States and China Compete Most Often with Other Countries in Goods Exports and Win Government Contracts in Different Sectors

Data on U.S. and Chinese goods exports to Indonesia indicate that from 2006 through 2014, U.S. exports of goods to Indonesia were more similar to Japanese and EU exports than to Chinese exports, suggesting that the United States is more likely to compete directly with Japan and EU countries than with China.¹⁸ Figure 5 presents a commonly used index for assessing the similarity of the United States' goods exports to Indonesia to those of China and other countries.¹⁹

¹⁸According to the IMF, the United States' highest export similarity index with a selected group of 28 countries in 2008 was 0.587, with Germany, and its lowest was 0.312, with Hong Kong. The IMF calculated the export similarity index using six-digit product categories, whereas we calculated the export similarity index using four-digit product categories. Higher-digit product categories tend to result in lower export similarity index values. See International Monetary Fund, *Changing Patterns of Global Trade* (June 15, 2011).

¹⁹The creation of an export similarity index is described in J. M. Finger and M. E. Kreinin, "A Measure of 'Export Similarity' and Its Possible Uses," *The Economic Journal*, vol. 89, no. 356 (1979), 905-912. The World Bank includes the export similarity index as an indicator to describe export trends. The IMF has stated that the index is a common indicator for gauging export competitiveness; see International Monetary Fund, *Changing Patterns of Global Trade*. Other academic studies have also used the index to compare the similarity between exports. For example, see Marcus Noland, "Has Asian Export Performance Been Unique?," *Journal of International Economics*, vol. 43 (1997), 79-101, and Peter K. Schott, "The Relative Similarity of China's Exports to the United States *vis a vis* Other U.S. Trading Partners" (July 2004). See app. I for a brief description of our methodology in calculating the export similarity index.

Figure 5: Export Similarity Index of U.S. Goods Exports to Indonesia Relative to Chinese, European Union, and Japanese Exports to Indonesia, 2006-2014



Source: GAO analysis of U.S., Chinese, European Union countries', and Japanese data from the United Nations Commodity Trade database. | GAO-16-186

Notes: An index value of 1 would indicate that each good exported to Indonesia represented the same percentage of total exports to Indonesia for both of the paired countries. A zero value would indicate no overlap—that is, the two countries exported entirely different goods. We excluded exports of special transactions and commodities not classified by kind, because those exports include many different types of goods.

Data from Commerce’s Advocacy Center, the World Bank, and ADB provide some information about Indonesian government contracts that U.S. and Chinese firms competed for or won. Although these data represent a small share of U.S. and Chinese economic activity in Indonesia, they offer insights into the degree of competition between U.S. and Chinese firms for the projects represented. These data indicate that U.S. firms in Indonesia have competed more often with firms from other countries than with Chinese firms and have tended to win contracts in different sectors.

- **Commerce Advocacy Center.** Data from Commerce’s Advocacy Center show that U.S. firms that the center supported in fiscal years 2009 through 2014 competed for Indonesian government contracts most often, and for highest total contract value, with French firms, followed by Chinese firms and firms from other countries (see table

1).²⁰ According to the center’s data, Chinese firms competed with the U.S. firms for 8 of 32 contracts covering a range of sectors, including energy and power; defense; transportation; telecommunications; and computers, information technology, and security. The 8 contracts for which Chinese firms competed had a total value of \$3.6 billion—34 percent of the \$10.4 billion in total contract value for which the U.S. firms competed. In contrast, French firms competed against U.S. firms for 11 contracts with a total value of about \$8.3 million.

Table 1: Nationalities of Firms That Competed with U.S. Firms Supported by the Department of Commerce’s Advocacy Center for Indonesian Government Contracts, Fiscal Years 2009-2014

Nationalities of firms competing with U.S. firms [Note A]	Contracts competed	
	Total value (millions)	Number
France	\$8,301	11
China	3,565	8
South Korea	3,290	5
Germany	2,392	6
Italy	2,071	7
Japan	2,000	1
Spain	1,080	5
All contracts for which U.S. firms competed	10,395	32

Source: U.S. Department of Commerce Advocacy Center. | GAO-16-186

Note: The value and number of contracts do not sum to the totals shown for “all contracts for which U.S. firms competed” because firms from multiple countries competed for some contracts. The number and value of these contracts are included in each bidding country’s total.

Note A: Firms from at least 17 additional countries competed against U.S. firms for contracts, but none of those countries’ firms competed for more than \$1 billion in total contract value.

- **World Bank.** From 2000 through 2014, U.S. and Chinese firms won a relatively small share of World Bank-financed contracts in Indonesia

²⁰The Advocacy Center is responsible for coordinating the U.S. government’s advocacy efforts on behalf of U.S. exporters bidding on public sector contracts overseas. Advocacy Center data reflect public sector contracts for which the center received applications by U.S. firms for commercial advocacy.

and tended to win contracts in different sectors.²¹ U.S. and Chinese firms won a combined \$33 million (1.1 percent) of the \$2.94 billion in total contract dollars that the World Bank awarded in Indonesia.²² Of the \$26 million that U.S. firms won, \$24 million (94 percent) was for consultant services and the remainder was for goods. In contrast, of the \$7 million contract dollars that Chinese firms won, \$6.9 million (96 percent) was for goods. Indonesian firms won \$2.54 billion (86 percent) of the World Bank's total contract dollars, while Japanese, French, Korean, and Australian firms won a combined \$267 million (9 percent).

- **ADB.** U.S. firms won a small share of ADB contracts in Indonesia in 2013 and 2014, while Chinese firms won no ADB contracts. During this period, U.S. firms won three ADB contracts for a combined \$10 million of the \$410 million in total contract dollars that ADB awarded in Indonesia. One of the three contracts was for a geothermal power project, and the other two were consulting contracts worth less than \$0.5 million each.

U.S. Firms Face a Challenging Business Environment in Indonesia

U.S. agencies and private sector representatives have cited multiple challenges to trading and investing in Indonesia.

- **Restrictive regulatory environment.** According to officials from the Office of the U.S. Trade Representative (USTR), Indonesia's regulatory environment constitutes the biggest market access barrier for U.S. firms. In 2014 and 2015, USTR reported that Indonesia's trade and investment climate was characterized by, among other things, growing protectionism toward local business interests.²³ According to the USTR reports, in recent years, Indonesia has enacted numerous regulations on imports, such as those relating to

²¹According to the World Bank, the data include only major contract awards reviewed by World Bank staff prior to award—approximately one-fifth of all contracts. The data show the nationality of a firm as the country where the firm is registered, although the firm's parent may be headquartered in another country. In addition, though subcontractors may perform a majority of the awarded contract, the data reflect the nationality of only the prime contractor.

²²U.S. firms won 46 World Bank contracts in Indonesia, exceeding the number of contracts won by firms from other countries outside Indonesia during this period.

²³Office of the U.S. Trade Representative, *2014 National Trade Estimate Report on Foreign Trade Barriers* (March 2014); *2015 National Trade Estimate Report on Foreign Trade Barriers* (March 2015).

local content and domestic manufacturing requirements, which have increased the burden for U.S. exporters. In 2013, the United States initiated a WTO dispute settlement process with Indonesia because of Indonesia's import licensing restrictions on horticulture and meat products.²⁴ A representative of one U.S. firm whom we spoke with in Indonesia said that the firm had stopped importing soybeans into Indonesia for about a year because of Indonesian quotas, rising import taxes, and local origination requirements. Moreover, according to an official representing an American regional trade association, regulations may appear without advance notice or consultations with affected industries and may not be uniformly enforced. In addition, USDA's 2014 Country Strategy Statement for Indonesia states that market access challenges for U.S. exports to Indonesia, such as Indonesia's import licensing requirements, have dominated the U.S.-Indonesia bilateral relationship. The World Bank's 2015 ease of doing business ranking of 189 economies, where a ranking of 1 indicates the most business-friendly regulations relative to other countries in the rankings, ranked Indonesia at 114.²⁵ Indonesia ranked least favorably in *enforcing contracts* (172) and most favorably in *ensuring protections for minority investors* (43). In assigning the ranking, the World Bank said that Indonesia implemented reforms that reduced the tax burden on companies and made it easier for them to start a business and obtain access to electricity.

- **Corruption.** Although the Indonesian government investigates and prosecutes high-profile corruption cases, many investors consider corruption a significant barrier to doing business in Indonesia, according to USTR's 2015 report on foreign trade barriers.²⁶ A representative of one U.S. firm told us that after paying taxes to the Indonesian government, the firm may be asked to pay additional fines.

²⁴According to the U.S. Department of Agriculture, in response to the WTO case, Indonesia has made some revisions to its import licensing requirements; however, the United States believes the requirements continue to breach WTO rules and restrict U.S. agriculture exports. In May 2015, the WTO established a panel to adjudicate this dispute.

²⁵World Bank, *Doing Business 2015: Going Beyond Efficiency* (Washington, D.C.: 2014). The report uses 10 indicators to track and measure the ease of doing business, trade, or exchange in each country. These indicators measure the ease of starting a business, dealing with construction permits, getting electricity, registering property, getting credit, paying taxes, trading across borders, enforcing contracts, and resolving insolvency. The last indicator measures the strength of protections for minority investors.

²⁶Office of the U.S. Trade Representative, *2015 National Trade Estimate Report on Foreign Trade Barriers*.

U.S. firms and representatives of American regional trade associations also noted that while U.S. firms are bound by U.S. law not to engage in corrupt practices, some of the firms' competitors do not face similar restrictions.²⁷ Transparency International's 2014 Corruption Perceptions Index ranked Indonesia at 107 of 175 countries and territories, where a ranking of 1 indicates the lowest perceived level of public sector corruption relative to other countries in the index.²⁸

- **Weak infrastructure.** Indonesia has weak and underdeveloped public infrastructure, such as ports, rail, and land transport, which increases transaction costs and inefficiencies and hampers exporters and investors, according to a report by Commerce and State.²⁹ A representative of a private sector consulting firm operating in Indonesia said that Indonesia has poor infrastructure for transporting goods from factories to port. According to a State official, Indonesia's economic growth is not likely to increase without significant investment in infrastructure.
- **Violations of intellectual property rights.** In 2015, USTR reported that Indonesia was one of 13 countries designated as a Priority Watch List country because of particular problems with respect to intellectual property rights protection, enforcement, or market access for persons relying on such rights.³⁰ According to the report, the United States is concerned that, among other things, Indonesia's efforts to enforce intellectual property rights have not been effective in addressing rampant piracy and counterfeiting.

²⁷U.S. companies are subject to the Foreign Corrupt Practices Act of 1977, which outlaws payments to foreign government officials to assist in securing business opportunities (Pub. L. No. 95-213, as amended (codified at 15 U.S.C. §§78dd-1 et seq.)). Further, as a member of the OECD, the United States is bound by its Convention on Combating Bribery of Foreign Public Officials in International Business Transactions.

²⁸Transparency International, *Corruption Perceptions Index 2014* (Berlin: 2014). Transparency International is a global organization that publishes a corruption perceptions index based on expert opinion from around the world.

²⁹U.S. Department of Commerce and U.S. Department of State, *Doing Business in Indonesia: 2014 Country Commercial Guide for U.S. Companies*.

³⁰Office of the U.S. Trade Representative, *2015 Special 301 Report* (April 2015). Each year, USTR reports to the President regarding the state of intellectual property rights protection and enforcement for U.S. trading partners around the world. Indonesia has been included on USTR's Priority Watch List every year since the report's inception more than 25 years ago. USTR assembles the Priority Watch List with substantial input from interested persons and in consultation with U.S. agencies.

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- **Limited access to land.** An absence of clear Indonesian laws regarding the acquisition and use of land by investors has slowed infrastructure development projects, according to a State document. For example, the document stated that construction on a hydroelectric dam in West Java, although nearly complete as of January 2015, had been delayed because of land use disputes. A new regulation on land use is scheduled to go into effect in 2015, but a State document noted that this law is untested and that implementation may be erratic, especially in its initial years.

United States and China Are Both Engaging Economically with Indonesia, but China Has Free Trade Agreements with Indonesia and Has Provided More Financing

Although the United States is engaging economically with Indonesia, the two countries have no free trade agreement (FTA), while China has both trade and investment agreements with Indonesia through its agreements with ASEAN countries. Also, the United States is not negotiating any existing or proposed regional trade agreements with Indonesia, whereas China is engaging Indonesia through a proposed regional trade agreement. Both the United States and China support their domestic firms in Indonesia through financing and other means, although U.S. agencies estimate that Chinese financing has greatly exceeded U.S. financing. The United States and China also have provided support for economic development, with U.S. efforts focused on capacity building and Chinese efforts focused on physical infrastructure development.

United States Has No FTA with Indonesia, while China Has Free Trade and Investment Agreements with Indonesia

The United States has not established an FTA with Indonesia, although the two countries have a limited trade framework agreement to facilitate trade relations. The United States–Indonesia Trade and Investment Framework Agreement (TIFA) is intended to facilitate discussions of trade and investment issues. In contrast to FTAs, TIFAs are short agreements that provide strategic frameworks and structure for dialogue on trade and investment issues and prepare countries for eventual accession to high-standard trade agreements. The United States–Indonesia TIFA was signed in 1996 by USTR and Indonesia’s Ministry of Trade. According to USTR, U.S. officials meet regularly with Indonesian officials in both formal TIFA meetings and informal meetings to address bilateral trade and investment issues. The last two formal meetings that U.S. and Indonesian officials held under the TIFA occurred in September 2015 and June 2013, according to USTR. In the September 2015 meeting, officials discussed a range of issues, such as policies related to the information and

communications technology sector and Indonesia's Economic Policy Package.³¹

In addition, in June 2015, Congress reauthorized the Generalized System of Preferences (GSP), which provides duty-free treatment for 3,500 tariff lines from many developing countries, including Indonesia, through the end of 2017. According to a report by the Congressional Research Service, in 2012—the last full year of GSP implementation—Indonesia ranked fourth of 127 beneficiary countries in the value of U.S. imports that entered duty free through GSP.³² According to data in the report, of the \$18 billion in U.S. imports from Indonesia in 2012, about 12 percent, or \$2.2 billion, entered the United States duty free through GSP.

In contrast, China has trade and investment agreements with Indonesia through the China-ASEAN Framework Agreement on Comprehensive Economic Cooperation. The China-ASEAN Framework Agreement on Comprehensive Economic Cooperation comprises a series of agreements on trade and investment to expand access to each other's markets.³³

- The China-ASEAN Trade in Goods Agreement, which entered into force in 2005, is intended to give China and Indonesia, as well as other ASEAN countries, tariff-free access to each other's market for many goods and reduced most duties for Indonesia's trade in goods with China to zero by 2012. According to a study by the ADB, in 2010, the average tariff on exports from six ASEAN countries, including Indonesia, to China was 0.1 percent, while the average tariff on Chinese exports to Indonesia was 0.6 percent.³⁴
- The China-ASEAN Trade in Services Agreement, which entered into force in 2007, is intended to provide market access in agreed-on sectors of China and Indonesia, as well as other ASEAN countries, to

³¹According to USTR, Indonesia's Economic Policy Package focuses on deregulation as a means of improving Indonesia's business climate and competitiveness.

³²See Congressional Research Service, *Generalized System of Preferences: Background and Renewal Debate* (Jan. 8, 2015).

³³See [GAO-15-724](#) for more information about these agreements.

³⁴See Yu Sheng, Hsiao Chink Tang, and Xinpeng Xu, "The Impact of ACFTA on People's Republic of China-ASEAN Trade: Estimates Based on an Extended Gravity Model for Component Trade," *Asian Development Bank Working Paper Series on Regional Integration*, No. 99 (July 2012), 1-38.

foreign companies and firms that is equivalent to domestic service providers' market access in their own countries.

- The China-ASEAN Investment Agreement, which entered into force in 2010, committed China and Indonesia, as well as other ASEAN countries, to treat each other's investors as equal to their domestic investors.

Selected studies have projected that the China-ASEAN Trade in Goods Agreement generally increases trade for China and Indonesia and improves Indonesia's economy.³⁵ All but one of these studies also estimated that the agreement improves China's economy.³⁶ In addition, one study estimated that the agreement increases investment in China and Indonesia.³⁷ In August 2014, China and Indonesia, as well as the other ASEAN countries, announced discussions to upgrade these agreements. In August 2015, China's Commerce Minister announced that China and ASEAN had agreed to the goal of finalizing negotiations to upgrade these agreements by the end of 2015.

Unlike the United States, China Is Engaging Indonesia through a Proposed Regional Free Trade Agreement

Although the United States has concluded negotiations for a regional trade agreement known as the Trans-Pacific Partnership (TPP), Indonesia was not a party to these negotiations.³⁸ In contrast, China and Indonesia are both parties to ongoing negotiations for the Regional Comprehensive Economic Partnership Agreement (RCEP), which

³⁵We identified 12 studies assessing the effect of the China-ASEAN trade and investment agreements on China's and Indonesia's economies. See app. I for a list of the studies as well as information about our methodology for identifying them. A 2011 study did not show an increase in trade for Indonesia. See Tavi Supriana, "Indonesia Trade Under China Free Trade Area," *Economic Journal of Emerging Markets*, Vol. 3, No. 2 (August 2011), 139-151.

³⁶A 2008 study projected that the China-ASEAN Trade in Goods Agreement will fail to benefit China's economy; see Donghyun Park, Innwon Park, and Gemma Esther B. Estrada, "Prospects of an ASEAN-People's Republic of China Free Trade Area: A Qualitative and Quantitative Analysis," *Asian Development Bank Economic Working Paper Series*, No. 130 (October 2008), 1-17.

³⁷See Csilla Lakatos and Terrie Walmsley, "Investment Creation and Diversion Effects of the ASEAN-China Free Trade Agreement," *Economic Modelling*, vol. 29 (2012), 766-779.

³⁸On October 26, 2015, Indonesia's President announced that Indonesia intends to join the TPP. As of August 2015, Indonesia had expressed no formal interest in joining the TPP negotiations, according to USTR officials. These officials said that the direction of Indonesia's trade and investment policies made it unlikely that Indonesia would be able to undertake the reforms needed to join the TPP.

U.S. Agencies Have Provided Less Financing for Investment Projects in Indonesia Than Chinese Agencies

negotiating parties have said they hope to complete in 2015.³⁹ Indonesia's trade with China and with the 14 other countries negotiating RCEP represented 66 percent of its total trade in goods in 2013.⁴⁰ RCEP negotiating parties seek to expand access to trade and investment among the parties by combining their existing FTAs into a single comprehensive agreement. The United States is not a party to the RCEP negotiations.

Our analysis of U.S. agency data showed that in fiscal years 2009 through 2014, the Export-Import Bank of the United States (Ex-Im) and the Overseas Private Investment Corporation (OPIC) provided about \$2.5 billion in financing to support U.S. exports to, and investment in, Indonesia (see table 2). Although China does not publish data on its financing in Indonesia, our analysis of State data found that China has financed at least \$36.4 billion in investment projects in Indonesia since 2009.

³⁹Although the potential impacts of TPP and RCEP are uncertain, U.S. officials cited a recent study that estimated that in 2025, TPP could cause U.S. GDP to increase by 0.4 percent and could cause Indonesia's and China's GDP to decrease by 0.1 percent and 0.2 percent, respectively, compared with each country's GDP without TPP. The study also estimated that in 2025, RCEP would cause no change in U.S. GDP and could cause Indonesia's and China's GDP to increase by 1.1 percent and 1.4 percent, respectively, compared with their GDP without RCEP. The study was based on a projection of TPP's and RCEP's impacts on current trade flows. See Peter A. Petri and Ali Abdul-Raheem, "Can RCEP and the TPP Be Pathways to FTAAP?," *State of the Region, 2014-2015* (Singapore: Pacific Economic Cooperation Council, 2014), 31-43.

⁴⁰The RCEP negotiating parties are China, Indonesia and the nine other ASEAN members, Australia, India, Japan, South Korea, and New Zealand.

Table 2: Ex-Im Authorizations and OPIC Commitments in Indonesia, Fiscal Years 2009-2014

Nominal U.S. dollars in millions

Fiscal year	Ex-Im authorizations [Note A]	OPIC commitments	Total
2009	\$279.5	\$0	\$279.5
2010	328.3	0.4	\$328.7
2011	550.7	14	\$564.7
2012	19.9	21.5	\$41.4
2013	1,220.2	50.0	\$1,270.2
2014	0.5	0	\$0.5
Total [Note B]	\$2,399	\$86.0	\$2,485.1

Legend: Ex-Im = Export-Import Bank of the United States; OPIC = Overseas Private Investment Corporation

Source: GAO analysis of Ex-Im annual reports and data and OPIC data. | GAO-16-186

Note A: Ex-Im generally provides financing to businesses when private financing is unavailable; therefore, fluctuations in its financing activity may reflect changes in the business and banking environment rather than Ex-Im's initiative.

Note B: These data do not include Ex-Im multibuyer insurance, which may include multiple countries, or OPIC funds recorded as provided to the Asia and the Pacific Region, some of which may be used in Indonesia.

Our analysis of Ex-Im and OPIC information for fiscal years 2009 through 2014 found the following.

- Ex-Im authorized about \$2.4 billion in loans, loan guarantees, and insurance to support U.S. exports to Indonesia during this period.⁴¹ Ex-Im's authorizations in Indonesia consisted mostly of loan guarantees. Ex-Im authorized its two largest loan guarantees in fiscal years 2011 and 2013, when it authorized more than \$1.6 billion in guarantees for the purchase of commercial aircraft.

⁴¹Ex-Im is the United States' official export credit agency. Ex-Im makes fixed-rate loans directly to international buyers of goods and services and also guarantees loans by private lenders to international buyers of goods or services, promising to pay the lenders if the buyers default. Export credit insurance products protect the exporter from the risk of nonpayment by foreign buyers for commercial and political reasons.

United States and China
Provide a Variety Services to
U.S. and Chinese Firms in
Indonesia

- OPIC committed about \$86 million in financing to U.S. investment projects in Indonesia during this period.⁴² OPIC's largest commitment in Indonesia consisted of a \$50 million investment guarantee in fiscal year 2013 for a facility to help expand lending to small and medium-sized enterprises investing in Indonesia.

China does not publish data on its financing for exports, imports, and investment in Indonesia by private and state-owned enterprises, but State reported that China has made available at least \$36.4 billion in financing for investment projects in Indonesia since 2009.⁴³ According to State, Chinese financing is generally offered in the form of soft loans by China's Development Bank and Export-Import Bank.⁴⁴ For example, State reported that in 2013, China's Export-Import Bank financed a \$6 billion coal mining infrastructure and transportation project in Papua and Central Kalimantan. In April 2015, China's President reiterated China's commitment to provide financing in support of Indonesia's infrastructure and connectivity development.

State, Commerce, and USDA maintain staff in Indonesia to provide export promotion services and to advocate for policies favorable to U.S. firms operating in Indonesia.⁴⁵

- **State.** State maintains an Economic and Environment Section at the U.S. Embassy in Jakarta that is organized into three focus areas: environment, science, technology, and health; trade and investment;

⁴²OPIC is the United States' development financing institution. OPIC supports U.S. investment projects in overseas countries by providing direct loans, loan guarantees, political risk insurance, and support for private equity investment funds to U.S. private sector investors.

⁴³According to State and Indonesian government officials, China's planned investments are often not realized. For example, Indonesian officials representing an Indonesian agency responsible for promoting and approving domestic and foreign direct investment in Indonesia stated that China has provided only a small percentage of funds for planned Chinese investments in Indonesia that the agency has approved.

⁴⁴China's Development Bank and Export-Import Bank generally offer this financing as extended joint ventures, sometimes referred to as cooperation pacts, between a Chinese state-owned enterprise and an Indonesian government body or a state-owned enterprise. For more information about the roles and responsibilities of China's Development and Export Banks, see [GAO-15-724](#), app. II.

⁴⁵In addition, other federal entities, such as USTR, support U.S. business and investment in Indonesia through the development of U.S. trade and investment policy.

and macroeconomics and finance. According to State officials, improving economic relations with Indonesia to facilitate greater U.S. trade and investment is a key priority of the section.

- **Commerce.** According to a senior Commerce official in Indonesia, Commerce personnel based in Indonesia work to help U.S. firms find local partners, obtain the appropriate licenses and registrations for conducting business in Indonesia, and interpret existing or new laws and regulations, among other duties.⁴⁶ The officials said that they also advocate for U.S. firms and lead or support trade missions.⁴⁷ For example, Commerce officials led a trade mission focused on clean energy business practices in 2010 and led a trade mission focused on education in 2011.
- **USDA.** USDA personnel in Indonesia offer U.S. firms assistance with market access and market development issues, according to a USDA official. For example, according to the official, when Indonesia restricted imports on all U.S. live and processed poultry in response to an avian flu outbreak in Washington and Oregon in late 2014, USDA personnel worked with Indonesia to lift the restriction for U.S. poultry not affected by the outbreak. USDA also cooperates with industry commodity groups and provides market intelligence reports to U.S. firms, according to the official.

The Chinese government has pursued agreements with Indonesia to support Chinese firms that do business there. For example:

- **Special economic zones.** China's Ministry of Commerce has worked with Indonesia to establish at least one special economic zone to facilitate cross-border trade and investment, according to Chinese embassy websites.⁴⁸ According to the Chinese Ministry of Commerce,

⁴⁶Some of these services are fee-based services and can include finding and arranging appointments with potential business partners; providing logistical and administrative support while U.S. company representatives are on international travel; helping to organize promotional events in Jakarta, such as seminars; and providing market intelligence.

⁴⁷Trade missions may include one-to-one meetings with foreign industry executives and government officials, networking events with local industry representatives, briefings and roundtables on local business practices and opportunities, and site visits to local facilities where U.S. firms' technologies or services may be applied. Commerce officials in Indonesia said they have also supported trade missions that are organized by states and private sector organizations, such as the U.S.-ASEAN Business Council or the American Chamber of Commerce.

⁴⁸China had established one economic cooperation zone in Bitung, North Sulawesi, and announced the establishment of another in Bekasi, near Jakarta.

United States and China
Generally Foster Economic
Development in Different Areas

the government of China supports Chinese firms that establish and invest in a zone by offering financing and facilitating movement of materials, equipment, labor, and foreign exchange between China and the zone. In establishing these zones, China negotiates with Indonesia and other host governments in the areas of tax, land, and labor policies to support firms that choose to invest in the zones.

- **Currency swaps.** China has facilitated cross-border trade in local currencies in Indonesia through the establishment and renewal of a bilateral currency swap arrangement totaling 100 billion Chinese yuan, according to the Central Bank of Indonesia's website.⁴⁹ The bank's website states that the arrangement promotes bilateral trade and direct investment for economic development between the two countries and helps guarantee stabilized financial markets by ensuring the availability of short-term liquidity.⁵⁰ The People's Bank of China and the Central Bank of Indonesia established the arrangement in March 2009 and renewed it in October 2013 for 3 more years.⁵¹

The United States has fostered economic development in Indonesia through assistance to strengthen governance and energy development. In fiscal years 2009 through 2013, U.S. agencies provided about \$373 million in trade capacity building assistance—that is, development assistance intended to improve a country's ability to benefit from international trade—to Indonesia.⁵² U.S. trade capacity building

⁴⁹At the June 1, 2015 exchange rate of 6,199 Chinese yuan per U.S. dollar, China's currency swap arrangement with Indonesia totaled \$16.1 billion.

⁵⁰The exchange of currencies by the central banks of two countries is known as a currency swap. Currency swap agreements allow countries to exchange local currency for foreign currency through another country's central bank or monetary authority's currency reserves. Currency swap agreements are generally designed for short-term support, with the exchange to be reversed at a future date. The United States does not have a currency swap agreement with Indonesia.

⁵¹China and Indonesia are also each party to a \$240 billion multilateral currency swap agreement, the Chiang Mai Initiative Multilateralisation, with the nine other ASEAN countries, Japan, and South Korea. The Chiang Mai initiative provides for liquidity among participant economies experiencing short-term liquidity difficulties.

⁵²Since at least 2001, the United States has committed to providing trade capacity building assistance to developing countries to help them participate in, and benefit from, global trade. The U.S. Agency for International Development (USAID) maintains a database to track this assistance. For more information about U.S. trade capacity building assistance, see GAO, *Foreign Assistance: USAID Should Update Its Trade Capacity Building Strategy*, GAO-14-602 (Washington, D.C.: Aug. 11, 2014). Our analysis of trade capacity building assistance does not include support provided by multilateral institutions to which the United States contributes funds, such as the World Bank.

assistance to Indonesia has supported initiatives aimed at, among other things, providing economic policy advisory services to the Indonesian government; strengthening key trade and investment institutions; improving Indonesia's competitiveness in global supply chains; and strengthening the capacity of the government Indonesia to analyze, negotiate, and implement bilateral and multilateral trade agreements. The majority of U.S. trade capacity assistance provided to Indonesia during this period—about 90 percent—was committed as part of a 5-year, \$600 million Millennium Challenge Corporation (MCC) compact with Indonesia for a project that is designed to help the government of Indonesia to, among other things, increase productivity and reduce reliance on fossil fuels.⁵³ (For more information about U.S. trade capacity building assistance to Indonesia, see app. IV.) The United States has also sought to ensure affordable, secure, and cleaner energy supplies in Indonesia and across the Asia-Pacific region through the U.S.-Asia Pacific Comprehensive Energy Partnership with Indonesia, which, according to State, was launched in 2012.⁵⁴

China has assisted economic development in Indonesia by supporting Indonesia's connectivity and infrastructure development as well as its role in regional initiatives. According to a joint statement issued by Chinese President Xi Jinping and Indonesia's President Widodo in April 2015, China plans to support Indonesia's infrastructure and connectivity development by providing financing for railways, highways, ports, docks, dams, airports, and bridges, among other things. According to a speech by a senior Chinese official posted on a Chinese embassy website, the power plants built by Chinese firms make up one-quarter of Indonesia's power supply, and Chinese firms have built Indonesia's longest cross-sea bridge to facilitate the transport and flow of commerce between the Java and Madura Islands. State reported that between 2006 and 2015, China undertook six power plants, including two coal-fired power plants and a \$17 billion, 7,000-megawatt hydropower plant; three rail projects; and a coal mining infrastructure and transportation project.

⁵³MCC is a U.S. government corporation that seeks to reduce global poverty through economic growth.

⁵⁴Through the 2012 U.S.-Asia Pacific Comprehensive Energy Partnership, State and the U.S. Trade and Development Agency have supported renewable power in Indonesia. For example, according to State, the agency has supported three feasibility studies to develop an estimated \$2 billion worth of 600-megawatt geothermal projects.

China's Foreign Minister has publicly stated that Indonesia is the most important partner in its 21st Century Maritime Silk Road Initiative, which, according to a document released by the Chinese government in March 2015, aims to improve maritime cooperation and regional connectivity. In November 2014, China announced the creation of a \$40 billion Silk Road Fund to help implement this initiative. In addition, Indonesia is one of 57 prospective founding members of China's proposed Asian Infrastructure Investment Bank, an international institution to finance infrastructure projects throughout the Asia-Pacific region.⁵⁵ Under the bank's initial agreement, the bank's authorized capital is \$100 billion, of which China has pledged \$29.8 billion and Indonesia has pledged \$3.4 billion.⁵⁶ Bank documents indicate that the bank anticipates beginning operations before the end of 2015.

U.S. and Chinese Trade and Investment, Competition, and Actions to Further Economic Engagement in Vietnam

⁵⁵Chinese officials have said that all countries are welcome to join the Asian Infrastructure Investment Bank. However, as of August 2015, the United States and Japan had declined to join the bank. U.S. Department of the Treasury officials have stated that the United States welcomes the creation of new development institutions but have also expressed concerns about the new bank's governance and standards.

⁵⁶The Chinese government stated that it was willing to subscribe up to 50 percent of the Asian Infrastructure Investment Bank's capital, but prospective members have since agreed to determine share allocation primarily by GDP.

China's Total Trade in Goods with, and Investments in, Vietnam Have Exceeded the United States'

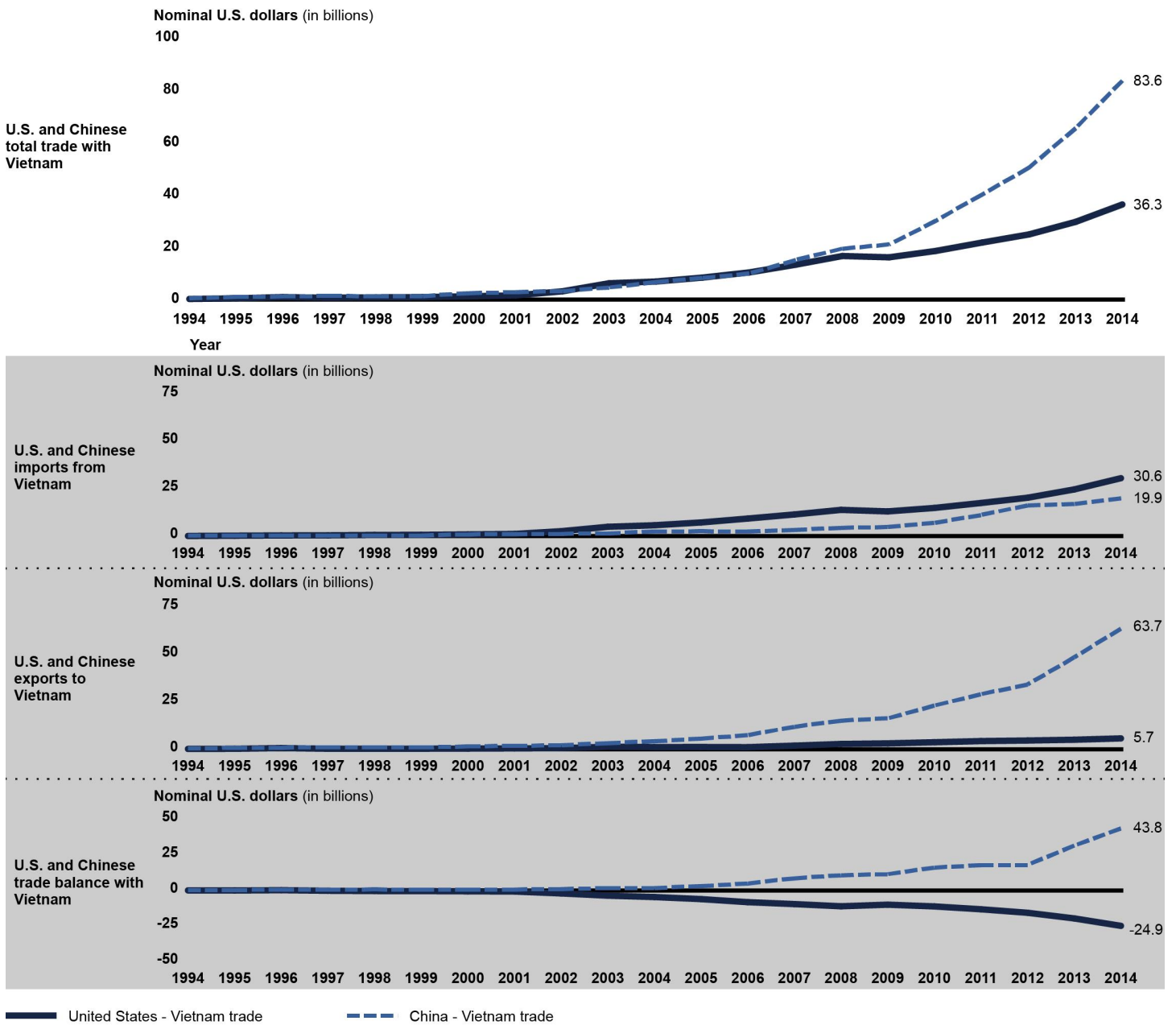
The value of China's total trade in goods with Vietnam surpassed that of the United States in 2007 and was more than double the value of the United States' total trade in goods with Vietnam in 2014.⁵⁷ However, U.S. imports from Vietnam exceed Chinese imports, while China's exports to Vietnam exceed the United States'. The United States is Vietnam's fourth largest trading partner, and China is Vietnam's largest trading partner. Available data on U.S. and Chinese FDI, although limited, indicate that Chinese FDI in Vietnam from 2007 through 2012 was more than double U.S. FDI in Vietnam during this time.

China's Total Goods Trade with Vietnam Has Surpassed the United States', but U.S. Imports Exceed Chinese Imports

The value of China's total trade in goods with Vietnam surpassed the United States' in 2007, and the gap has continued to grow. In 2014, China's total goods trade with Vietnam was \$83.6 billion, while the United States' was \$36.3 billion (see fig. 6). According to Vietnamese and U.S. government officials, an unknown amount of Chinese-Vietnamese trade occurs across the countries' porous border and outside official channels.

⁵⁷U.S. dollar amounts in this report are in nominal terms unless otherwise specified.

Figure 6: U.S. and Chinese Total Trade in Goods with Vietnam, 1994-2014



Source: GAO analysis of U.S. and Chinese data from the United Nations Commodity Trade database. | GAO-16-186

Note: The trade values shown are nominal—that is, not adjusted for inflation. Changes in values over time are due in part to changes in the prices of traded goods.

Figure 6 illustrates the following:

-
- From 1994 through 2014, the United States' imports from Vietnam exceeded China's every year except 1994, 1995, and 2000.
 - Chinese exports grew faster than U.S. exports from 1994 through 2014.
 - The United States had an annual trade deficit with Vietnam from 1997 through 2014, while China had an annual trade surplus with Vietnam from 1994 through 2014. Both the U.S. deficit and Chinese surplus have accelerated in recent years.

From 2000 through 2014, the composition of U.S. and Chinese total trade in goods with Vietnam shifted from predominantly raw commodities to manufactured goods. In 2014, textiles represented the largest share of U.S. imports from Vietnam (31 percent) and machinery represented the largest share of Chinese imports from Vietnam (47 percent). Animals, plants, and food represented the largest share of U.S. exports to Vietnam (36 percent) in 2014,⁵⁸ while machinery represented the largest share of Chinese exports to Vietnam (31 percent). In 2014, the majority of U.S. imports from Vietnam consisted of goods for consumer use, such as wooden bedroom furniture. The majority of U.S. exports to Vietnam and of Chinese imports from, and exports to, Vietnam in 2014 consisted of goods for industrial use, which are used in the production of other goods, such as microchips. See appendix III for more information about the composition and use of the United States' and China's trade in goods with Vietnam.

⁵⁸According to USDA, some U.S. food and agricultural exports to Vietnam may be destined for neighboring countries. For example, USDA reports that some U.S. exports of beef and tree nuts are transshipped through Vietnam into China under preferential trade agreements and border trade provisions.

China Is Vietnam's Largest Trading Partner, While the United States Ranks Fourth

China and the United States are Vietnam's largest and fourth-largest trading partners, respectively, in terms of their combined exports and imports of goods.⁵⁹ Other ASEAN countries and the EU are Vietnam's second and third-largest trading partners.

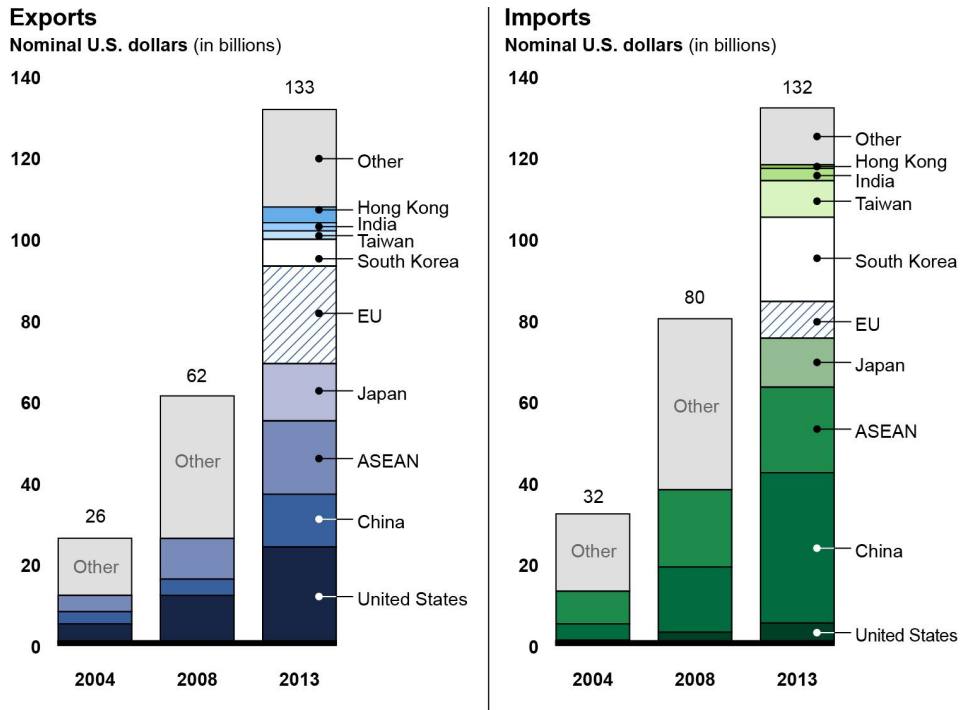
- **Exports.** In 2013, Vietnam exported \$24 billion in goods to the United States and \$13 billion in goods to China. After the EU, the United States was the second-largest market for Vietnamese goods exports, while China was the fifth-largest market for Vietnamese goods exports in 2013. In both 2004 and 2013, the United States' share of Vietnam's exports was around 18 to 19 percent. China's share of Vietnam's exports was around 10 percent in both 2004 and 2013.
- **Imports.** Vietnam imported \$5 billion in goods from the United States, its seventh-largest import market, and \$37 billion in goods from China, its largest import market, in 2013. Other ASEAN countries, South Korea, Japan, Taiwan, and the EU represented Vietnam's second-, third-, fourth-, fifth-, and sixth-largest goods import markets, respectively, in 2013.⁶⁰ In both 2004 and 2013, the United States' share of Vietnam's imports was around 3 to 4 percent. China's share of Vietnam's imports increased significantly during the same period, from 14 percent in 2004 to 28 percent in 2013.

Figure 7 shows Vietnam's exports and imports by trading partner in 2004, 2008, and 2013.

⁵⁹To calculate the value of Vietnamese trade in goods by trading partner, we used data from the ASEANstats database, which vary from the data on Vietnamese trade in goods that the United States and China report to the UN Commodity Trade database. Because some of ASEAN's trading partners do not report data to the UN Commodity Trade database, we used data from the ASEANstats database as a comprehensive set of data on trade in goods for all of ASEAN's trading partners. Reasons for the variation in trade values between the ASEANstats database and the UN Commodity Trade Database include differences in the valuation of goods, differences in data quality, and the omission of some ASEAN trading partners' data from the UN Commodity Trade Database. The most recent goods trade data available from the ASEANstats database are for 2013, while the most recent data available from the UN Commodity Trade Database are for 2014. According to the OECD, intermediate goods, such as electronic components used in the manufacture of computers and textiles, are inputs to the production process that have themselves been produced and used up or transformed in production.

⁶⁰Although the United States does not have diplomatic relations with Taiwan, we have listed Taiwan as a separate country, because whenever the laws of the United States refer or relate to foreign countries, nations, states, governments, or similar entities, such terms shall include and shall apply to Taiwan.

Figure 7: Value of Vietnamese Exports and Imports in 2004, 2008, and 2013, by Trading Partner



ASEAN Association of Southeast Asian Nations
EU European Union

Source: GAO analysis of data from ASEANstats database. | GAO-16-186

Notes: The trade values shown are nominal—that is, not adjusted for inflation. Changes in values over time are due in part to changes in the prices of traded goods.

Hong Kong is a special administrative region of China, but we have included it in this report as a separate country because it is an economic entity separate from the rest of China and is able to enter into international agreements on its own behalf in commercial and economic matters.

Although the United States does not have diplomatic relations with Taiwan, we have listed Taiwan as a separate country, because whenever the laws of the United States refer or relate to foreign countries, nations, states, governments, or similar entities, such terms shall include and shall apply to Taiwan.

Vietnam is a larger export market for China than the United States, but is a larger source of imported goods for the United States than it is for China.

- Vietnam was China’s seventh-largest export market by value in 2014 but the United States’ 44th-largest. In 2014, China exported \$63.7 billion in goods to Vietnam, which accounted for 2.7 percent of China’s global goods exports. In the same year, the United States

exported \$5.7 billion in goods to Vietnam, which accounted for 0.4 percent of total U.S. global goods exports.

- Vietnam was China's 26th-largest source of imported goods by value in 2014 and was the United States' 15th-largest. In 2014, China imported \$19.9 billion in goods from Vietnam, which accounted for 1.0 percent of China's global goods imports. In the same year, the United States imported \$30.6 billion in goods from Vietnam, which accounted for 1.3 percent of total U.S. goods imports from the world.

The United States' role relative to China's in Vietnam's trade of goods as well as services may be greater when the amount of intermediate U.S. inputs to the traded goods and services is taken into account. Because of the nature of global supply chains, for example, a consumer phone from a U.S. company might be assembled in China but include components manufactured by Germany, Japan, South Korea, and other countries.⁶¹ Data from the UN Commodity Trade database, which counts the full value of an export for only the exporting country, showed that China exported \$29.1 billion in goods to Vietnam in 2011, almost seven times the \$4.3 billion in goods that the United States exported to Vietnam that year.⁶² However, data from the OECD and the WTO, which attempt to account for the value added to a finished export by each contributing country, show that China exported only about 2.5 times more in value-added goods and services to Vietnam than the United States did. The OECD-WTO data suggest that Chinese exports to Vietnam contained a higher portion of components produced elsewhere than did U.S. exports.

⁶¹ See Organisation for Economic Co-operation and Development and World Trade Organization, *Trade in Value-Added: Concepts, Methodologies and Challenges*.

⁶² We do not compare the United States' and China's exports of services in 2011, because data on China's trade in services with Vietnam are unavailable. However, our analysis of data on U.S. trade in services with Vietnam, based on data from BEA and other sources, shows that in 2011 the United States exported \$1.3 billion in services to Vietnam.

Total U.S. Trade in Services with Vietnam Was Approximately \$3 Billion in 2012, but Data on China's Trade in Services Are Unavailable

Our analysis of data from BEA⁶³ and other sources on U.S. trade in services in Vietnam⁶⁴ provides broad estimates rather than precise values. However, our calculations indicate that U.S. total trade in services with Vietnam totaled approximately \$3.1 billion in 2012.⁶⁵ Our analysis shows that the United States

- exported approximately \$1.7 billion in services to Vietnam in 2012, with (1) business, professional, and technical services and (2) education as the largest and second-largest service categories by value, and
- imported approximately \$1.4 billion in services from Vietnam in 2012, with (1) travel and passenger fares and (2) transportation services as the largest and second-largest service categories by value.

In 2012, the value of U.S.-Vietnamese services trade was about 12 percent of the value of U.S.-Vietnamese goods trade.

China does not publish data on its trade in services with Vietnam.

⁶³In 2005, we found that BEA had experienced challenges in identifying all U.S. service importers and in obtaining high-quality survey data from importers. However, since 2005, BEA has implemented methods to better identify all U.S. service importers. In addition, BEA's data on trade in services may differ from other countries' data, including China's, because of differences in definitions, coverage, and methods used to measure services. For example, we found that BEA's data on trade in services differed from data collected by India because of differences in the methodologies used to define and collect the data. See GAO, *International Trade: U.S. and India Data on Offshoring Show Significant Differences*, GAO-06-116 (Washington, D.C.: Oct. 27, 2005). According to BEA, its survey data are from mandatory surveys of U.S. businesses with services trade that exceeds certain thresholds. BEA does not survey a random sample of U.S. businesses and therefore does not report the data with margins of error.

⁶⁴"Trade in services" refers to the buying and selling of intangible products and activities, such as tourism, financial services, and telecommunications, and of contracted activities, such as construction and consulting services.

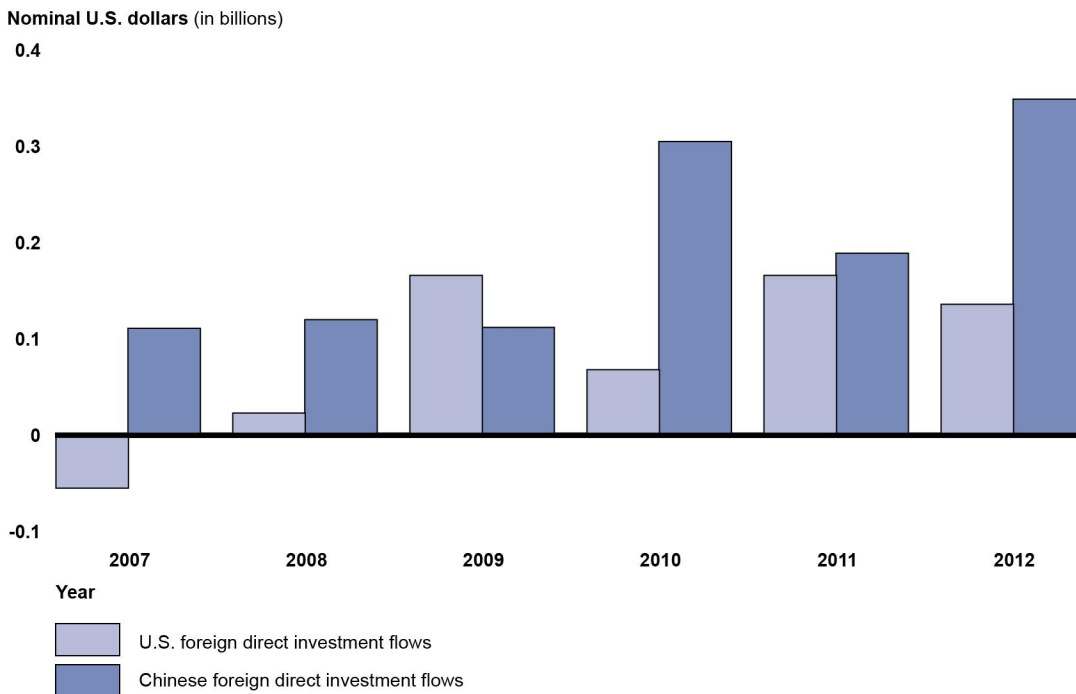
⁶⁵BEA has not released data on U.S. trade in services for Vietnam because of confidentiality concerns and data limitations. BEA identified ways to estimate the value of U.S. trade in services with Vietnam that required us to make various assumptions. Data for 2013 were not available. See app. I for details of our methodology.

Chinese Investment Flows to Vietnam Were More Than Double U.S. Investment Flows in 2007-2012, but Available Data Have Limitations

Data on FDI in Vietnam from the United States and China have limitations, in that these data may not accurately reflect the countries to which U.S. and Chinese FDI ultimately flows.⁶⁶ For example, U.S. and Chinese firms may set up subsidiaries in other countries, which are then used to make investments in Vietnam. Such investments would not be captured by U.S. and Chinese data on FDI in Vietnam. Conversely, U.S. and Chinese firms can set up subsidiaries in Vietnam, which can be used to make investments in other countries. Given these limitations, available data show that from 2007 through 2012, China's reported FDI flows to Vietnam totaled approximately \$1.2 billion, more than twice the U.S. FDI flows of approximately \$500 million. During this period, China's reported annual FDI flows to Vietnam fluctuated but continued to exceed U.S. FDI flows every year except 2009 (see fig. 8).

⁶⁶According to the OECD, FDI is the ownership by a foreign person or business of 10 percent or more of the voting equity of a firm located in the host country. Data on FDI flows provide information about FDI activity in a given period of time, while data on FDI stock indicate the level of foreign direct investment at a given point in time. FDI flows are outflows (e.g., when the U.S. or Chinese parent company establishes an affiliate in Vietnam) minus inflows (e.g., when the U.S. or Chinese parent company sells or reduces its stake in its affiliate in Vietnam). According to BEA, data on FDI stock in Vietnam are available only by historical cost and do not reflect changes in the market value of FDI. When using a U.S. GDP deflator to deflate the nominal data, we calculated that cumulative U.S. and Chinese FDI flows for 2007 through 2012 were \$460 million and \$1.2 billion 2009 dollars.

Figure 8: U.S. and Chinese Foreign Direct Investment Flows to Vietnam, 2007-2012



Source: GAO analysis of data from the U.S. Bureau of Economic Analysis and Chinese data from the United Nations Conference on Trade and Development. | GAO-16-186

Notes: Foreign direct investment (FDI) flows represent FDI activities within a given period of time.

In 2007, U.S. FDI flows to Vietnam were negative—that is, flows from U.S. affiliates in Vietnam to the U.S. parent companies were larger than flows from the U.S. parent companies to U.S. affiliates in Vietnam.

Although China has reported investment data since 2003, China began including financial investment in its total investment data in 2007. Chinese FDI data do not include Hong Kong.

The investment data shown are nominal values—that is, not adjusted for inflation. When using a U.S. GDP deflator, we calculated cumulative U.S. and Chinese FDI flows for 2007 through 2012 at \$490 million and \$1.2 billion, respectively, in 2009 dollars.

Although BEA does not publicly report data on U.S. FDI flows to Vietnam by type of investment, information that BEA provided to us indicates that from 2003 through 2013, on average, one-third of total U.S. FDI stock in Vietnam was in mining and manufacturing. Mining increased from 22 percent of U.S. FDI stock in Vietnam in 2003 to more than 50 percent in 2013, while manufacturing's share of total U.S. FDI stock in Vietnam fell from a high of 60 percent in 2006 to 28 percent in 2013. According to officials from Vietnam's Ministry of Agriculture and Rural Development, Chinese investment projects are mostly in the industrial, manufacturing, and construction sectors.

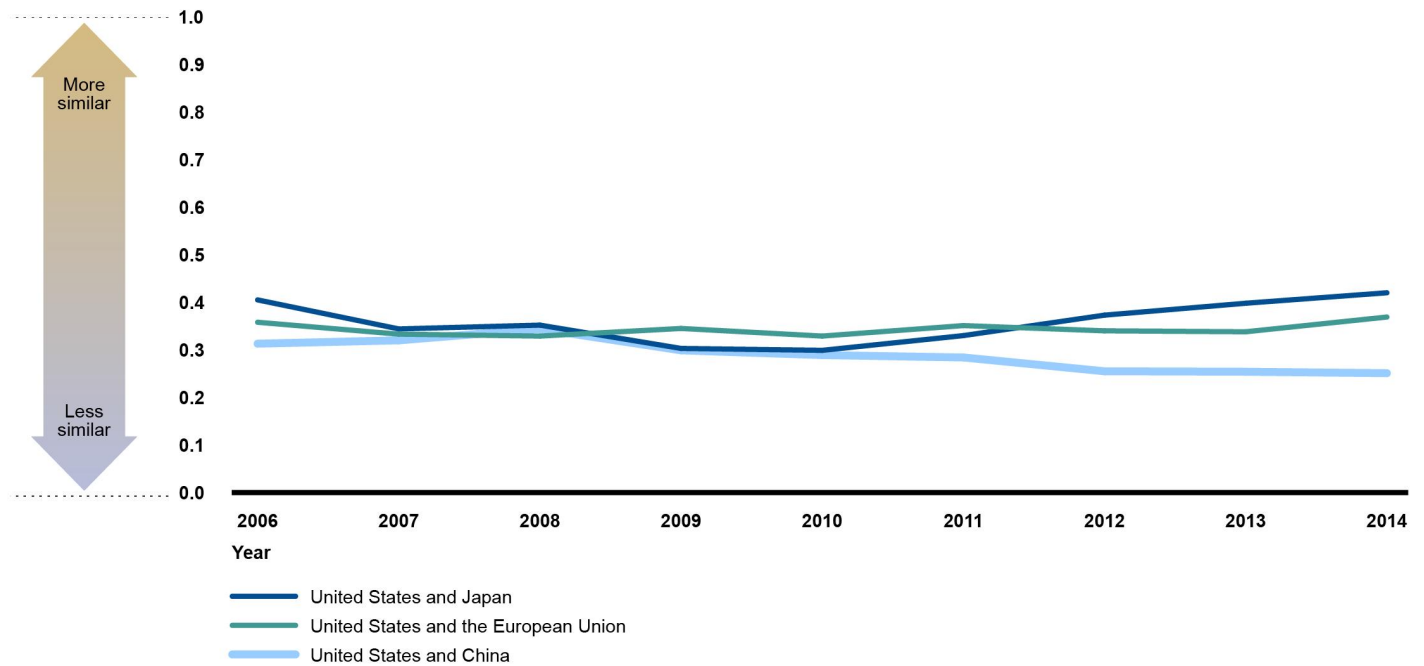
United States and China
Compete More Often with
Other Countries in Goods
Exports to Vietnam and
Win Government
Contracts in Different
Sectors

Data on U.S. and Chinese goods exports to Vietnam indicate that since 2008, U.S. exports of goods to Vietnam have been more similar to Japanese and EU exports than to Chinese exports, suggesting that the United States is more likely to compete directly with Japan and EU countries than with China.⁶⁷ Figure 9 presents a commonly used index for assessing the similarity of the United States' goods exports to Vietnam to those of China and other countries.⁶⁸

⁶⁷According to the IMF, among a selected group of countries, the United States' highest export similarity index in 2008 was 0.587, with Germany, and its lowest was 0.312, with Hong Kong. The authors calculated the export similarity index using six-digit product categories, whereas we calculated the export similarity index using four-digit product categories. Higher digit product categories tend to result in lower export similarity index values. See International Monetary Fund, *Changing Patterns of Global Trade*.

⁶⁸The creation of an export similarity index is described in Finger and Kreinin, "A Measure of 'Export Similarity' and Its Possible Uses." The World Bank includes the export similarity index as an indicator to describe export trends. The IMF has stated that the index is a common indicator for gauging export competitiveness; see International Monetary Fund, *Changing Patterns of Global Trade*. Other academic studies have also used the index to compare the similarity between exports. For example, see Noland, "Has Asian Export Performance Been Unique?," and Schott, "The Relative Similarity of China's Exports to the United States *vis a vis* Other U.S. Trading Partners." For a brief description of our methodology for calculating the export similarity index, see app. I.

Figure 9: Export Similarity Index of U.S. Goods Exports to Vietnam Relative to Chinese, European Union, and Japanese Exports to Vietnam, 2006-2014



Source: GAO analysis of U.S., Chinese, European Union countries', and Japanese data from the United Nations Commodity Trade database. | GAO-16-186

Notes: An index value of 1 would indicate that each good exported to Vietnam represented the same percentage of total exports to Vietnam for both of the paired countries. A value of 0 would indicate no overlap—that is, each country exported entirely different goods. We excluded exports of special transactions and commodities not classified by kind, because those exports include many different types of goods.

Data from Commerce’s Advocacy Center, the World Bank, and the ADB provide some information about Vietnamese government contracts that U.S. and Chinese firms competed for or won. Although these data represent a small share of U.S. and Chinese economic activity in Vietnam, they offer insights into the degree of competition between U.S. and Chinese firms for the projects represented. These data indicate that U.S. firms in Vietnam have competed more often with firms from other countries than with Chinese firms and have tended to win contracts in different sectors.

- **Commerce’s Advocacy Center.** Data from Commerce’s Advocacy Center show that U.S. firms that the center supported in fiscal years 2009 through 2014 competed for Vietnamese government contracts more often, and for higher total contract value, with firms from Japan, South Korea, and several other countries than with Chinese firms (see

table 3).⁶⁹ According to the center’s data, Chinese firms competed with U.S. firms for 3 of 29 contracts, in the areas of energy and power, infrastructure, and services. These 3 contracts’ total value was \$92 million—3 percent of the \$28.8 billion in total contract value for which the U.S. firms competed. In contrast, Japanese and South Korean firms competed against U.S. firms for 10 and 6 contracts, respectively, with a combined value of more than \$11 billion for each country.

Table 3: Nationalities of Firms That Competed with U.S. Firms Supported by the Department of Commerce’s Advocacy Center for Vietnamese Government Contracts, Fiscal Years 2009-2014

Nationalities of firms competing with U.S. firms	Contracts completed	
	Total value (millions)	Number
Japan	\$11,753	10
South Korea	11,032	6
Russia	10,736	2
Switzerland	10,289	6
Sweden	8,663	5
Bulgaria	8,610	1
France	5,754	11
U.K.	2,116	3
Germany	1,942	7
China [Note A]	92	3
All contracts for which U.S. firms competed	28,751	29

Source: U.S. Department of Commerce Advocacy Center. | GAO-16-186

Note: The value and number of contracts do not sum to the total for “all contracts for which U.S. firms competed” because multiple countries’ firms competed for some contracts. The number and value of these contracts are included in each bidding country’s total.

Note A: Firms from five additional countries competed against U.S. companies for more contract dollars than did Chinese firms.

- **World Bank.** From 2000 through 2014, U.S. and Chinese firms generally won World Bank-financed contracts in Vietnam in different

⁶⁹The Advocacy Center is responsible for coordinating the U.S. government’s advocacy efforts on behalf of U.S. exporters bidding on public sector contracts overseas. Advocacy Center data reflect public sector contracts for which the center received applications from U.S. firms for commercial advocacy.

sectors.⁷⁰ Vietnamese firms received about \$4.3 billion (70 percent) of the \$6.1 billion in total contract value. Among firms from other countries, Chinese firms won the highest total contract value—\$531 million—almost 9 percent of the total World Bank-financed contract value. The United States won \$133 million, about 2 percent of the total World Bank-financed contract value. Most of the contract dollars won by Chinese firms were for civil works (71 percent) and goods (28 percent). In contrast, most of the contract dollars won by U.S. firms—\$118 million (89 percent)—were for consultant services. Electrical equipment was the only category of procurement in which both U.S. and Chinese firms won more than \$2 million in contract value. Chinese firms won \$140 million, and U.S. firms won \$14 million, in contract value for electrical equipment for World Bank projects in Vietnam.

- **ADB.** U.S. firms won one ADB contract in Vietnam in 2013 and 2014—a \$130,000 contract for consulting services related to water conservation. During this period, Chinese firms won 15 contracts valued at more than \$250 million. The Chinese firms’ contracts included about \$207 million for the construction of roads and a hydropower plant, with the remainder for goods for electricity transmission, distribution, and renewable energy.

U.S. Firms Face a Challenging Business Environment in Vietnam

U.S. agencies and private sector representatives have articulated multiple challenges to trading and investing in Vietnam.

- **Restrictive regulatory environment.** A lack of transparency in the Vietnamese government’s policies and decisions and slowness of government action are creating challenges for U.S. firms, according to State and Commerce. In addition, one U.S. business owner we spoke with in Vietnam described the regulatory environment he dealt with as “arcane, corrupt, and labyrinthine.” According to a State and Commerce report, Vietnam has established regulations that limit the operations of foreign companies in the Vietnamese market.⁷¹ For

⁷⁰According to the World Bank, the data include only major contract awards reviewed by World Bank staff prior to award—approximately one-fifth of all contracts. The data show the nationality of a firm as the country where it is registered, although the firm’s parent may be headquartered in another country. In addition, though subcontractors may perform a majority of the awarded contract, the data reflect the nationality of only the prime contractor.

⁷¹U.S. Department of Commerce and U.S. Department of State, *Doing Business in Vietnam: 2014 Country Commercial Guide for U.S. Companies* (2014).

example, unless a foreign company has an investment license permitting it to directly distribute goods in Vietnam, the company must appoint a local authorized agent or distributor. USTR also reports that Vietnamese government restrictions on certain types of imports, such as used consumer goods, machinery and parts, and some agricultural commodities, affect U.S. firms' ability to operate in Vietnam.⁷² The World Bank's 2015 Ease of Doing Business Index ranked Vietnam at 78 of 189 economies, where a ranking of 1 indicates the most business-friendly regulations relative to those of other countries in the index.⁷³ The 2015 index ranked Vietnam most favorably on *dealing with construction permits* (22) and least favorably on *paying taxes* (173). In 2015, according to the World Bank, Vietnam implemented reforms that made paying taxes less costly for companies and improved its credit information system.

- **Corruption.** Reports by USTR, Commerce, and State cite corruption as a significant barrier faced by U.S. and other foreign firms in Vietnam.⁷⁴ In addition, the owner of one small U.S. enterprise whom we spoke with in Vietnam said that onerous audit requirements and paperwork, such as the thick dossier required for obtaining an investment license, created barriers to trading and investing in Vietnam as well as opportunities for corruption. Transparency International's 2014 Corruption Perceptions Index ranked Vietnam at 119 of 175 countries and territories, where a ranking of 1 indicates the

⁷²According to a U.S. health care provider operating in Vietnam, Vietnam's restriction on imports of used equipment has limited the ability of health care providers in Vietnam to import serviceable medical equipment. According to U.S. officials, Vietnam has blocked the import of used electronic goods, but the United States exports reconditioned electronics, such as magnetic resonance imagers, that are still usable and are less expensive than new equipment.

⁷³World Bank, *Doing Business 2015: Going Beyond Efficiency*. The report uses 10 indicators to track and measure the ease of doing business, trade, or exchange in each country. These indicators include the ease of starting a business, dealing with construction permits, getting electricity, registering property, getting credit, paying taxes, trading across borders, enforcing contracts, and resolving insolvency. The last indicator measures the strength of protections for minority investors.

⁷⁴U.S. Department of State, *2015 Investment Climate Statement for Vietnam* (May 2015); U.S. Department of Commerce and U.S. Department of State, *Doing Business in Vietnam: 2014 Country Commercial Guide for U.S. Companies* (2014); and Office of the U.S. Trade Representative, *National Trade Estimates Report on Foreign Trade Barriers*.

lowest perceived level of public sector corruption relative to other countries in the index.⁷⁵

- **Weak infrastructure.** State and Commerce reports cite poorly developed infrastructure, such as electrical and Internet infrastructure, as a challenge for U.S. firms doing business in Vietnam.⁷⁶ In 2015, State reported that Vietnam needs an estimated \$170 billion in additional infrastructure development in areas such as power generation, roads, railways, and water treatment to meet growing economic demand. According to a representative of one U.S. firm whom we spoke with in Vietnam, the capacity of Haiphong Harbor, a port near Hanoi, was so poor that the firm chose to ship goods to other Vietnamese ports and reload them onto smaller coastal vessels at an increased cost to avoid Haiphong. In addition, a representative of a U.S. clothing manufacturer in Vietnam noted that the capacity of Vietnam's electrical grid is weak. As a result, the Vietnamese government occasionally institutes controlled brownouts—generally on days when the garment manufacturing plants are not operating—to try to alleviate strain on the electrical grid. According to the clothing manufacturer's representative, any expansion of the garment industry could be limited without additional electrical capacity.
- **Violations of intellectual property rights.** In 2015, USTR reported that Vietnam remained designated as a Watch List country because of concerns about intellectual property rights violations and theft.⁷⁷ According to USTR, online piracy and sales of counterfeit goods are common; in addition, Vietnamese firms manufacture counterfeit goods. Moreover, Vietnam's capacity to enforce criminal penalties against counterfeiters is limited. Commerce similarly cited ineffective protection of intellectual property as a significant challenge. In addition, a representative of a technology company whom we spoke

⁷⁵Transparency International, *Corruption Perceptions Index 2014*. Transparency International is a global organization that publishes a corruption perceptions index based on expert opinion from around the world.

⁷⁶U.S. State Department, *2015 Investment Climate Statement for Vietnam* (May 2015); and U.S. Department of Commerce and U.S. Department of State, *Doing Business in Vietnam: 2014 Country Commercial Guide for U.S. Companies*.

⁷⁷Office of the U.S. Trade Representative, *2015 Special 301 Report* (April 2015). According to the report, designating a country as a Watch List or a Priority Watch List country means that particular problems exist in that country with respect to intellectual property rights protection, enforcement, or market access for persons relying on these rights. USTR identifies these countries with substantial input from interested persons and in consultation with U.S. agencies.

with in Vietnam stated that only 1 in 20 users of the company's software were paying for its use and that Vietnamese consumers knowingly purchase counterfeits.

- **Predominance of state-owned enterprises.** According to a Commerce and State report about Vietnam's business environment, state-owned enterprises dominate some sectors of the Vietnamese economy and receive some trade advantages over foreign firms.⁷⁸ For example, according to the report, state-owned enterprises dominate the oil and gas, electricity, mining, and banking sectors, among others. The top three telecommunications companies in Vietnam are also state-owned enterprises and control nearly 95 percent of the Vietnam telecommunications market. Similarly, a private sector representative we spoke with in Vietnam stated that the Vietnamese government controls approximately 80 percent of Vietnam's insurance market. Moreover, according to a 2015 USTR *National Trade Estimates Report on Foreign Trade Barriers*, Vietnam's state-owned trading enterprises have been given the exclusive right to import certain products, including tobacco products; crude oil; newspapers, journals, and periodicals; and recorded media.⁷⁹ In addition, since U.S. and other foreign firms are restricted from majority ownership in some sectors, including telecommunications and banking, they must partner with a domestic firm—generally a state-owned enterprise—to conduct business in these sectors. However, Commerce and State have reported that few Vietnamese firms, including state-owned enterprises, are audited against international standards and, as a result, U.S. firms have difficulty verifying the financial information of prospective partners.⁸⁰
- **Shortages of skilled labor.** Commerce and State reporting cited shortages of skilled labor as constraints to U.S. firms. In addition, a representative of one firm whom we interviewed in Vietnam noted that a lack of skilled labor in engineering limited the firm's ability to support the modernization of factory equipment.

⁷⁸U.S. Department of Commerce and U.S. Department of State, *Doing Business in Vietnam: 2014 Country Commercial Guide for U.S. Companies*.

⁷⁹Office of the U.S. Trade Representative, *National Trade Estimates Report on Foreign Trade Barriers*.

⁸⁰U.S. Department of Commerce and U.S. Department of State, *Doing Business in Vietnam: 2014 Country Commercial Guide for U.S. Companies*.

U.S. and China Are Engaging Economically with Vietnam in Similar Ways, but Chinese Financing Has Exceeded U.S. Financing

The United States has no FTA with Vietnam but both are participants in the proposed regional TPP agreement, along with other countries. In contrast, China has free trade and investment agreements with Vietnam through its agreements with ASEAN countries and is negotiating the proposed RCEP agreement with Vietnam and other countries. Both countries support their domestic firms in Vietnam through financing and other means, but U.S. agencies estimate that China has provided a larger amount of financing than the United States. In addition, the United States and China have each supported economic development in Vietnam, with U.S. efforts focused on capacity building to improve Vietnam's economic governance and Chinese efforts focused on improving physical infrastructure and connectivity.

Unlike the United States, China Has Free Trade and Investment Agreements with Vietnam

While the United States does not have an FTA with Vietnam, the two countries have a bilateral trade agreement (BTA) to facilitate their trade relations. The United States–Vietnam BTA, which the United States signed in 2000, enabled the establishment of normal trade relations with Vietnam—significantly reducing tariffs for many Vietnamese exports—and incorporated elements modeled on WTO agreements.⁸¹ As a result of the BTA, according to a 2014 study,⁸² the average U.S. tariff for Vietnamese manufacturing exports, such as textiles, fell from 33.8 percent to 3.4 percent. According to the U.S.-Vietnam Trade Council, under the BTA, Vietnam agreed to reduce tariffs, typically by one-third to one-half, on a broad range of products of interest to U.S. businesses, including toiletries, film, mobile phones, tomatoes, and grapes. USTR officials stated that the BTA remains in effect and contains some provisions beyond those required by the WTO. Since Vietnam joined the WTO, the majority of U.S. exports of manufactured and agricultural goods have faced Vietnamese tariffs of 15 percent or less, according to a USTR Trade Fact Sheet. However, according to a report by Commerce and State, U.S. businesses have noted that eliminating high tariffs on certain agricultural and

⁸¹The United States also signed a TIFA with Vietnam in 2007. TIFAs, in contrast to FTAs, are short agreements that provide principles and structure for dialogue on trade and investment issues. According to USTR officials, efforts under the United States–Vietnam TIFA have largely been subsumed by TPP negotiations. Therefore, according to the officials, the United States and Vietnam have not held any formal meetings under the TIFA since 2011.

⁸²Brian McCaig and Nina Pavcnik. "Export Markets and Labor Allocation in a Low-Income Country," *NBER Working Paper Series* (September 2014).

manufactured goods, including fresh food, fresh and frozen meats, and materials and machinery, would create significant new opportunities.⁸³

In contrast, China has free trade and investment agreements with Vietnam through the ASEAN-China Comprehensive Economic Cooperation Agreement. The China-ASEAN Framework Agreement on Comprehensive Economic Cooperation comprises a series of agreements, on trade in goods, trade in services, and investment, to expand China's and ASEAN countries' access to each other's markets.⁸⁴

- The China-ASEAN Trade in Goods Agreement, which entered into force in 2005, is intended to give China and Vietnam, as well as other ASEAN countries, tariff-free access to each other's markets for many goods and will reduce most duties for Vietnam's trade in goods with China to zero by 2018. According to a study by the ADB, the average tariff on ASEAN countries' exports to China was 0.1 percent in 2010, and 90 percent of Chinese exports are expected to face no tariffs in Vietnam by 2015.⁸⁵ In January 2015, Vietnam's Ministry of Finance stated that it had implemented the commitments it had made in the agreement to reduce tariffs.
- The China-ASEAN Trade in Services Agreement, which entered into force in 2007, is intended to provide market access in agreed-on sectors of China and Vietnam, as well as other ASEAN countries, to foreign companies and firms located in participant countries that is equivalent to domestic service providers' market access in their own countries.
- The China-ASEAN Investment Agreement, which entered into force in 2010, is intended to commit China and Vietnam, as well as other ASEAN countries, to treat each other's investors as equal to domestic investors.

⁸³U.S. Department of Commerce and U.S. Department of State, *Doing Business in Vietnam: 2014 Country Commercial Guide for U.S. Companies*.

⁸⁴See [GAO-15-724](#) for more information about these agreements.

⁸⁵See Yu Sheng, Hsiao Chink Tang, and Xinpeng Xu, "The Impact of the ACFTA on People's Republic of China-ASEAN Trade: Estimates Based on an Extended Gravity Model for Component Trade," *Asian Development Bank Working Paper Series on Regional Economic Integration*, No. 99 (July 2012).

United States and China Are Engaging Vietnam through Separate Regional Trade Agreement Negotiations

Selected studies have projected that the China-ASEAN Trade in Goods Agreement generally increases trade for China and Vietnam.⁸⁶ All but two of these studies also estimated that the agreement improves the economies of both China and Vietnam.⁸⁷ In addition, one study estimated that the agreement increases investment in China and Vietnam.⁸⁸ In August 2014, China and Vietnam, as well as the other ASEAN countries, announced discussions to upgrade these agreements. The second round of discussions, held in February 2015, focused on investment, economic cooperation, and other areas. In August 2015, China's Commerce Minister announced that China and ASEAN had agreed to the goal of finalizing negotiations on the upgrade by the end of 2015.

The United States and Vietnam are participants in the proposed TPP, while China and Vietnam are participants in the ongoing RCEP negotiations.

- **TPP.** The United States, Vietnam, and 10 other countries have negotiated the TPP, with an agreement announced in October 2015.⁸⁹ TPP negotiating parties agreed in 2011 that the TPP would address ensuring a competitive business environment and protecting the

⁸⁶We identified 9 studies assessing the effect of the China-ASEAN trade and investment agreements on China's and Vietnam's economies. See app. I for a list of the studies and information on our methodology for identifying them. A 2004 study showed the China-ASEAN Trade in Goods Agreement increased total exports but decreased total imports for Vietnam. See Chia Siow Yue, "ASEAN-China Free Trade Area," Paper for presentation at the AEP Conference (April 12-13, 2004).

⁸⁷A 2008 study projected that the China-ASEAN Trade in Goods Agreement will fail to benefit China's economy; see Park, Park, and Estrada, "Prospects of an ASEAN-People's Republic of China Free Trade Area: A Qualitative and Quantitative Analysis." In addition, a 2012 study showed that the agreements will harm Vietnam's economy; see Lakatos and Walmsley, "Investment Creation and Diversion Effects of the ASEAN-China Free Trade Agreement," *Economic Modelling*, vol. 29 (2012), 766-779. A 2004 study showed the China-ASEAN Trade in Goods Agreement decreased total exports for Vietnam; see Chia Siow Yue, "ASEAN-China Free Trade Area."

⁸⁸See Lakatos and Walmsley, "Investment Creation and Diversion Effects of the ASEAN-China Free Trade Agreement." 766-779.

⁸⁹The 10 other participants of TPP are Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, and Singapore.

environment, labor rights, and intellectual property rights, among other issues. China is not a party to the TPP negotiations.⁹⁰

- **RCEP.** China, Vietnam, and 14 other countries are parties to the RCEP negotiations, which negotiating partners have said they hope to complete in 2015.⁹¹ Vietnam's trade with the other countries negotiating RCEP, including China, represented 58 percent of its total trade in goods for 2013. RCEP negotiating parties seek to expand access to trade and investment among the parties by combining their existing FTAs into a single comprehensive agreement. The United States is not a party to the RCEP negotiations.

Vietnam has embraced TPP as part of its overall efforts to increase trade and access to foreign markets, particularly in the United States, according to State officials. State officials noted that Vietnam will need to overcome several challenges to meeting TPP requirements. In addition, according to State officials, TPP's labor and alternative dispute resolution requirements may be challenging for Vietnam to implement. However, State officials noted that Vietnam has shown a commitment to improving its economic governance.

According to U.S. officials, the dispute between Vietnam and China over China's placement of an oil rig near the disputed Paracel Islands in May through July 2014 briefly disrupted Chinese and Vietnamese trade. The officials noted that the incident also highlighted for Vietnamese officials the importance of their economic relationship with China and the need to diversify Vietnam's trade. According to State officials, China responded to Vietnamese riots and attacks on Chinese firms and individuals by slowing customs procedures and tightening controls at the typically porous China-Vietnam border.

⁹⁰Although the potential impacts of TPP and RCEP are uncertain, U.S. officials have cited a recent study that estimated that in 2025, TPP could cause U.S. and Vietnam GDP to increase by 0.4 percent and 10.5 percent, respectively, and China's GDP to decrease by 0.2 percent compared with each country's GDP without TPP. The study also estimated that in 2025, RCEP would cause no change in U.S. GDP and could cause Vietnam's and China's GDP to increase by 5.1 percent and 1.4 percent, respectively, compared with their GDP without RCEP. The study was based on a projection of TPP's and RCEP's impacts on current trade flows. See Peter A. Petri and Ali Abdul-Raheem, "Can RCEP and the TPP Be Pathways to FTAAP?," *State of the Region, 2014-2015*, eds. Pacific Economic Cooperation Council (Singapore: Pacific Economic Cooperation Council, 2014), 31-43.

⁹¹The RCEP negotiating parties are China, Vietnam, the nine other ASEAN members, Australia, India, Japan, South Korea, and New Zealand.

U.S. Agencies Have Provided Less Financing in Vietnam Than Chinese Agencies

According to U.S. officials, after the riots, Vietnam reviewed its economic relationship with China but found that it could not afford to reduce its reliance on China. For example, according to the U.S. officials, Vietnamese officials had not known exactly how intertwined Vietnam’s economy was with China’s because of the amount of undocumented cross-border trade. According to testimony before the U.S.-China Economic and Security Review Commission in May 2015, Vietnam relies on China for a number of intermediate goods as inputs for its exports; therefore, any disruptions to trade flows could spread throughout the Vietnamese economy.⁹²

Our analysis of U.S. agency data showed that in fiscal years 2009 through 2014, Ex-Im and OPIC provided approximately \$205 million in financing for exports to, and investment in, Vietnam (see table 4). Although China does not publish data on its financing in Vietnam, our analysis of State-reported data found that China has financed at least \$4.5 billion in investment projects in Vietnam since 2008.

Table 4: Ex-Im Authorizations and OPIC Commitments in Vietnam, Fiscal Years 2009-2014

Nominal U.S. dollars in millions

Fiscal year	Ex-Im authorizations [Note A]	OPIC commitments	Total
2009	\$1.9	\$5.6	\$7.5
2010	0.7	0	\$0.7
2011	1.1	0	\$1.1
2012	127.8	0	\$127.8
2013	17.1	0	\$17.1
2014	0.5	50.0	\$50.5
Total [Note B]	\$148.9	\$55.6	\$204.5

Legend: Ex-Im = Export-Import Bank of the United States; OPIC = Overseas Private Investment Corporation

Source: GAO analysis of Ex-Im annual reports and data and OPIC data. | GAO-16-186

Note A: Ex-Im generally provides financing to businesses when private financing is unavailable; therefore, fluctuations in its financing activity may reflect changes in the business and banking

⁹²U.S.-China Economic and Security Review Commission hearing, “China’s Relations with Southeast Asia,” May 13, 2015. The commission was created by Congress to report on the national security implications of the bilateral trade and economic relationship between the United States and the People’s Republic of China.

environment rather than Ex-Im's initiative. Ex-Im authorizations shown do not sum to the total because of rounding.

Note B: These data do not include Ex-Im multibuyer insurance, which may include multiple countries, or OPIC funds recorded as provided to the Asia and the Pacific Region, some of which may be used in Vietnam.

Our analysis of Ex-Im and OPIC information for fiscal years 2009 through 2014 found the following.

- Ex-Im authorized about \$148.9 million in loans, loan guarantees, and insurance to support U.S. exports in Vietnam.⁹³ In fiscal year 2012, Ex-Im's largest authorization in Vietnam consisted of a \$118 million direct loan to the government of Vietnam to purchase a telecommunications satellite. In fiscal year 2013, Ex-Im authorized \$16.7 million for a long-term loan to Vietnam's National Power Transmission Corporation to purchase electricity transmission equipment.
- OPIC committed about \$55.6 million in financing to U.S. investment projects in Vietnam.⁹⁴ In 2014, OPIC committed to provide an investment guarantee of up to \$50 million for the Mekong Renewable Resources Fund, which will invest in the environmental services and infrastructure sector, the renewable energy sector, and the energy efficiency sector in Vietnam, Cambodia, and Laos.

China does not publish data on its financing for exports, imports, and investment in Vietnam by private and state-owned enterprises. However, according to information provided by the U.S. Embassy in Hanoi, China made available approximately \$4.5 billion in financing from 2008 to 2013 for coal-fired power plants and for part of the Hanoi rail transit system, all constructed by Chinese firms. China's Export-Import Bank has also published brief summaries of major projects for some countries, such as Vietnam. One such summary indicates that the bank provided a concessional loan in 2013 to support the construction of a chemical plant in Vietnam to manufacture fertilizer.

⁹³Ex-Im is the United States' official export credit agency. Ex-Im makes fixed-rate loans directly to international buyers of goods and services and also guarantees loans made by private lenders to international buyers of goods or services, promising to pay the lenders if the buyers default. Export credit insurance products protect the exporter from the risk of nonpayment by foreign buyers for commercial and political reasons.

⁹⁴OPIC is the United States' development financing institution. OPIC supports U.S. investment projects in overseas countries by providing U.S. private sector investors with direct loans, loan guarantees, political risk insurance, and support for private equity investment funds.

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In addition, China provides financing and labor in support of projects in Vietnam. According to State officials, Vietnam's importation of Chinese labor for technical positions enhances China's role in the Vietnam economy because the Vietnamese labor market lacks the capacity to fill midlevel technical positions. However, according to testimony before the U.S.-China Security Review Commission in May 2015, local Vietnamese have sometimes resented the importation of Chinese labor.⁹⁵ According to State officials, such resentment contributed to the riots and violence in Vietnam after China placed the oil rig in the disputed Parcel waters.

State, Commerce, and USDA maintain staff in Vietnam to provide export promotion services and policy advocacy for U.S. firms operating in Vietnam.⁹⁶ For example:

- **State.** State's Economic Section at the U.S. Embassy in Hanoi advocates for U.S. investors and for trade and investment policies favored by the United States, according to a senior State official. The official said that the section also supports the negotiation of U.S. trade agreements, such as TPP, and other types of economic agreements, including a United States–Vietnam agreement related to taxation.
- **Commerce.** According to Commerce officials in Vietnam, Commerce personnel based in the country assist U.S. firms by, among other things, matching them with local partners, organizing trade missions, and providing advocacy.⁹⁷ For example, the Commerce officials said that they organized a trade mission and provided advocacy for U.S. civil nuclear firms. Another Commerce official told us that Commerce officials had worked with the Vietnamese government to remove an illegal duty on goods that a U.S. company was importing into Vietnam.
- **USDA.** USDA personnel help address market access and development issues in Vietnam for U.S. agricultural products, according to a USDA official in Vietnam. For example, according to the official, USDA personnel track Vietnamese government regulations that would affect U.S. agricultural products and provide

⁹⁵U.S.-China Economic and Security Review Commission hearing, "China's Relations with Southeast Asia," May 13, 2015.

⁹⁶In addition, other federal entities, such as USTR, support U.S. business and investment in Vietnam through the development of U.S. trade and investment policy.

⁹⁷Some of these services are fee-based services and can include arranging appointments with potential business partners; providing logistical and administrative support while U.S. company representatives are visiting Vietnam; and providing market intelligence.

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comments to the Vietnamese government as needed. The official noted that USDA personnel also work directly with the Vietnamese government to help U.S. firms retrieve stranded cargo, particularly perishable goods, from Vietnamese customs. For instance, one firm’s product was delayed in customs because it lacked a plant quarantine certificate that is not required in the United States.

The Chinese government has also acted to support Chinese firms that do business in Vietnam. For example, according to China’s Ministry of Foreign Affairs, China and Vietnam have established two economic cooperation zones in Vietnam, near Ho Chi Minh City and in Haiphong City, to facilitate trade and investment by offering tax and other advantages for Chinese firms that invest in the zone.

U.S. agencies have assisted Vietnam in increasing economic openness and integration and improving economic governance. In fiscal years 2009 through 2013, the U.S. agencies provided a total of \$32 million in trade capacity building assistance—that is, development assistance intended to improve a country’s ability to benefit from international trade—to Vietnam.⁹⁸ U.S. trade capacity building assistance to Vietnam has supported initiatives aimed at, among other things, modernizing Vietnam’s commercial laws and legal system, providing assistance to Vietnam relevant to its trade agreement commitments, improving the country’s customs and border control, and supporting potential U.S. investment opportunities. The majority of U.S. trade capacity building assistance to Vietnam during this period—about 64 percent—was provided by the U.S. Agency for International Development (USAID) to, for example, improve Vietnam’s regulatory environment to support economic growth and a better business and trade environment. For more information about U.S. trade capacity building assistance to Vietnam, see appendix IV.

China has assisted Vietnam’s economic development through infrastructure construction as well as efforts to develop connectivity between China and Southeast Asian countries. According to the U.S.

⁹⁸Since at least 2001, the United States has committed to providing trade capacity building assistance to developing countries to help them participate in, and benefit from, global trade. USAID maintains a database to track this assistance. For more information about U.S. trade capacity building assistance, see [GAO-14-602](#). Our analysis of trade capacity building assistance does not include any support provided by multilateral institutions to which the United States contributes funds, such as the World Bank.

Embassy in Hanoi, China provided about \$4.5 billion of approximately \$10.8 billion in large infrastructure construction projects awarded to Chinese firms in Vietnam from 2008 to 2014. These infrastructure projects included power plants, processing plants, and a railway (see fig. 10). The report noted that the remaining funding for infrastructure construction was provided by Australia, ADB, and the World Bank and through joint ventures. In addition, according to the U.S. Embassy in Hanoi, as of 2014, Chinese firms had won contracts to build 15 of 24 new thermal power plants in Vietnam. In late 2013, China and Vietnam agreed to the implementation of the Shenzhen-Haiphong trade corridor to link the Vietnamese port city of Haiphong to Shenzhen in China. According to testimony before the U.S.-China Security Review Commission in May 2015, China has also announced that it will help upgrade the Haiphong port to accommodate large container ships.

Figure 10: Chinese-Financed Infrastructure for the Hanoi Rail Transit System



Source: GAO. | GAO-16-186

In addition, through the ADB-supported Greater Mekong Subregion (GMS) Economic Cooperation program, Vietnam and China are

participating in a plan to connect Vietnam and other mainland Southeast Asian countries with each other and with China through a series of economic corridors that include improving transportation infrastructure. ADB's GMS Strategic Framework identifies corridors, including an eastern corridor running north-to-south and connecting China and Vietnam; an east-west corridor connecting Burma, Thailand, Laos, and central Vietnam; and a southern corridor connecting Burma, Thailand, Cambodia, and southern Vietnam.⁹⁹ For example, according to Chinese government reporting, the \$952 million Hanoi to Lao Cai freeway, which a Chinese contractor is building, is part of the GMS strategic framework.

Similarly, the Master Plan on ASEAN Connectivity envisions a rail link through Vietnam connecting the interior of China with Singapore and connecting the capital cities in Vietnam, Cambodia, and Thailand with a spur line to the capital of Laos. This rail link would complement the various transport corridors under the GMS and other existing transport networks, with the aim of creating an integrated transport network throughout Southeast Asia and Asia as a whole. The railway running from China to Ho Chi Minh City in the south of Vietnam is already complete. The Master Plan on ASEAN Connectivity also calls for a network of highways meeting certain quality standards and connecting Vietnam with all of its neighbors, including China. Vietnam has constructed its portions of the highway network.

Vietnam is one of 57 prospective founding members of China's proposed Asian Infrastructure Investment Bank, an international institution to finance infrastructure projects throughout the Asia-Pacific region.¹⁰⁰ Under the bank's initial agreement, the bank's authorized capital is \$100 billion, of which China has pledged \$29.8 billion and Vietnam has pledged

⁹⁹Asian Development Bank, *The Greater Mekong Subregion Economic Cooperation Program Strategic Framework 2012-2022* (Mandaluyong City, Philippines: 2011).

¹⁰⁰Chinese officials have said that all countries are welcome to join the Asian Infrastructure Investment Bank. However, as of August 2015, the United States and Japan had declined to join the bank. U.S. Treasury officials have stated that the United States welcomes the creation of new development institutions but have also expressed concerns about the governance and standards of the new bank.

\$663 million.¹⁰¹ Bank documents indicate that the bank anticipates beginning operations before the end of 2015.

Agency Comments

We provided a draft of this report for review and comment to the Departments of Agriculture, Commerce, State, and the Treasury and to MCC, OPIC, USAID, Ex-Im, the U.S. Trade and Development Agency, and USTR. We received technical comments from Commerce, State, Treasury, MCC, OPIC, Ex-Im, USTR, which we incorporated as appropriate.

We are sending copies of this report to the Secretaries of Agriculture, Commerce, State, and the Treasury; the Chairman of Ex-Im; the Administrator of USAID; the U.S. Trade Representative; the Director of the U.S. Trade and Development Agency; the Chief Executive Officers of OPIC and MCC; and other interested parties. In addition, the report is available at no charge on the GAO website at www.gao.gov.

If you or your staff members have any questions about this report, please contact me at (202) 512-3149 or gootnickd@gao.gov. Contact points for our Offices of Public Affairs and Congressional Relations may be found on the last page of this report. GAO staff members who made key contributions to this report are listed in appendix V.



David B. Gootnick
Director
International Affairs and Trade

¹⁰¹The Chinese government stated that it was willing to subscribe up to 50 percent of the Asian Infrastructure Investment Bank's capital. Prospective members subsequently agreed to determine share allocation primarily by GDP.

Appendix I: Objectives, Scope, and Methodology

We examined available information about U.S. and Chinese trade and investment, competition, and actions to further economic engagement in Indonesia and Vietnam. This report is a public version of a sensitive but unclassified report that we are issuing concurrently. This report addresses the same objectives, and employs the same methodology, as the sensitive report.

We conducted fieldwork in Jakarta, Indonesia, and in Hanoi and Ho Chi Minh City, Vietnam. We based our selection of these two countries, among the 10 members of the Association of Southeast Asian Nations (ASEAN),¹ on the amounts of U.S. and Chinese exports to, and imports from, each country; foreign direct investment (FDI) in each country; and development assistance in each country. We also considered whether (1) a country participated in U.S. and Chinese trade agreements or was a negotiating partner in the Trans-Pacific Partnership, (2) any regional institutions were located in the country, (3) the country was an emerging partner based on gross domestic product, and (4) the country was a South China Sea claimant.²

U.S. and Chinese Trade and Investment in Indonesia and Vietnam

To describe U.S. and Chinese trade and investment in Indonesia and Vietnam, we analyzed data on U.S. and Chinese trade in goods, trade in services, and FDI. To assess the reliability of these data, we cross-checked the data on trade in goods and FDI for internal consistency, and consulted with U.S. officials on the data on trade in goods and the U.S. data on trade in services and FDI. Because of the limited availability of data and the differing contexts for the data sets we report, the time period for each of these data sets varied. We determined that the data were sufficiently reliable for the purposes of our report and have noted caveats, where appropriate, to indicate limitations in the data.

To obtain data on U.S. and Chinese trade in goods from 1994 through 2014, we accessed the United Nations' Commodity Trade Statistics (UN Comtrade) database through the U.S. Department of Commerce's (Commerce) Trade Policy Information System. The UN Comtrade

¹The 10 countries of ASEAN are Brunei Darussalam (Brunei), Burma (Myanmar), Cambodia, Indonesia, Laos, Malaysia, the Philippines, Singapore, Thailand, and Vietnam.

²The information we provide about foreign law is not a product of our original analysis but is derived from interviews and secondary sources.

database provides data for comparable categories of exports and imports of goods for the United States and China. Because, according to a Commerce official, the goods exports data that China reports to the UN Comtrade database do not distinguish total exports from re-exports (i.e., goods that are first imported and then exported in substantially the same condition), we used data on total goods exports, which include re-exports, to ensure the comparability of U.S. and Chinese data on goods exports. The data on goods exports from the UN Comtrade database show the free-on-board prices of the goods, which exclude transportation and insurance charges. For imports, we used data on general imports, which include goods that clear customs as well as goods that enter bonded warehouses or foreign trade zones. The data on goods imports show the prices paid for the goods, including the cost of freight and insurance. We determined that the UN Comtrade data on trade in goods for the United States and China were generally reliable for comparing trends over time and the composition of trade.

To categorize the goods traded by the United States and China, we assigned each good recorded in the UN Comtrade database to one of the UN's three Broad Economic Categories—capital, intermediate, or consumer. For goods that the UN does not classify as capital, intermediate, or consumer, we created an unclassified category. For example, the UN does not classify passenger motorcars as capital or consumer goods.

To examine each country's trade in goods with its trading partners over time, we analyzed data from the ASEANstats database for 2003, 2008, and 2013 for Indonesia and 2004, 2008, and 2013 for Vietnam.³ Because some of Indonesia's and Vietnam's trading partners do not report data to the UN Comtrade database, we used data from the ASEANstats database as a comprehensive set of data on trade in goods for all of Indonesia's and Vietnam's trading partners. We compared trade data from the ASEANstats and the UN Comtrade databases and found some differences in values of bilateral trade between Indonesia and Vietnam and their trading partners. Reasons for the differences include differences in the valuation of goods, differences in data quality, and the omission of some Indonesia and Vietnam trading partners from UN Comtrade data.

³Data from the ASEANstats database on Vietnam's trade in goods were not available for 2003.

We determined that the data from the ASEANstats database for Indonesia and Vietnam were generally reliable for comparing each country's trade in goods with its trading partners over time. We determined that the data from the ASEANstats database for Indonesia and Vietnam were generally reliable for comparing each country's trade in goods with its trading partners over time.

To illustrate the importance of accounting of a country's exports that originate in other countries, we analyzed data from the Organisation for Economic Co-operation and Development (OECD) and the World Trade Organization (WTO) on trade in value-added goods and services.

For U.S. trade in services with Indonesia, we used publicly available data from Commerce's Bureau of Economic Analysis (BEA). BEA's data on trade in services with Vietnam for several categories—travel and passenger fares, transportation, education, and “other” private services—are based on data from various sources. According to BEA, its survey data are from mandatory surveys of primarily U.S. businesses with services trade that exceeds certain thresholds. BEA does not survey a random sample of U.S. businesses and therefore does not report the data with margins of error. We calculated the value of U.S. trade in services with Vietnam for 2012 based on tabulations prepared for us by BEA and other sources, including the U.S. Census Bureau. Our estimates of U.S. trade in services with Vietnam represent broad estimates rather than precise values. We extrapolated values for certain services at the country level from broader data (e.g., we calculated values for travel services by multiplying the number of travelers for Vietnam by the average traveler expenditure for the region). We calculated values for other services (e.g., business, professional, and technical services) from a range of estimates based on survey data. When the volume of trade for a service was presented as a range, we used the midpoint value to estimate the volume of trade for that service. When the volume of trade for a service was presented as a range and described by BEA as trending upward, we used the lowest value for the earlier years and the highest value for the later years.

For data on U.S. firms' investments in Indonesia and Vietnam from 2007 through 2012, we used data that we obtained directly from BEA. For Chinese firms' investments, we used data from the UN Conference on Trade and Development as reported by China's Ministry of Commerce. To identify patterns in, and to compare, U.S. and Chinese FDI, we used U.S. and Chinese data on FDI and noted in our report the following limitations.

- As we have previously reported, both U.S. and Chinese FDI may be underreported, and experts have expressed particular concern regarding China's data.⁴ U.S. and Chinese firms set up subsidiaries in places such as the Netherlands and the British Virgin Islands, which can be used to make investments that are not captured by U.S. and Chinese data on FDI. Experts state that this could be a significant source of underreporting of China's FDI. According to BEA, data on U.S. FDI are based on quarterly, annual, and benchmark surveys. BEA's benchmark survey is the most comprehensive survey of such investment and covers the universe of U.S. FDI. BEA notes that its quarterly and annual surveys cover samples of businesses with FDI that exceed certain thresholds. Because BEA does not survey a random sample of businesses, and therefore does not report the data with margins of error, our report does not include margins of error for BEA data.
- China does not provide a definition of FDI when reporting FDI data. However, the types of data included in Chinese FDI data (e.g., equity investment data and reinvested earnings data) appear similar to data reported for U.S. FDI, for which the United States uses OECD's definition.

Despite the limitations of China's FDI data, various reports, including those published by international organizations such as the International Monetary Fund (IMF), government agencies, academic experts, and other research institutions, use China's reported investment data to describe China's FDI activities. In addition, despite some potential underreporting of FDI data, we determined that the FDI data were reliable for reporting general patterns when limitations are noted.

Because of challenges in determining appropriate deflators for some data, we used nominal rather than inflation-adjusted values for U.S. and Chinese trade and investments in Indonesia and Vietnam. However, we first tested the impact of deflating these values and found a limited impact for descriptions of the overall trends. For example, using the U.S. gross domestic product deflator to remove inflation in the goods trade values included in this report would cause total Chinese trade in goods with Indonesia to surpass total U.S. trade in goods in 2005, similar to trends shown for nominal trade values. U.S. total trade in goods in Indonesia increased by a factor of 2.8 from 1994 through 2014 if not adjusted for

⁴GAO, *Sub-Saharan Africa: Trends in U.S. and Chinese Economic Engagement*, GAO-13-199 (Washington, D.C.: Feb. 7, 2013).

inflation and by a factor of 1.9 if adjusted for inflation. Over the same period, Chinese total trade in goods increased by a factor of 24.1 in Indonesia if not adjusted for inflation and by a factor of 16.3 if adjusted for inflation.

U.S. and Chinese Competition in Indonesia and Vietnam

To assess the extent of competition between exporters from the United States, China, and other countries, we calculated an export similarity index to compare U.S., Chinese, and other countries' exports to Indonesia and Vietnam in 2006 through 2014.⁵ The export similarity index is a measure of the similarity of exports from two countries to a third country. For example, to calculate the index for U.S. and Chinese exports to Indonesia and Vietnam, we first calculated, for each type of good that the United States and China exports, the share of that good in the United States' and China's total exports to Indonesia and Vietnam. We then took the minimum of the United States' and China's shares. The index is the sum of the minimum shares for all types of goods that the United States and China export to Indonesia and Vietnam. We used data on goods exports from the UN Commodity Trade database at the four-digit level and calculated each country's export of a particular good as a share of that country's total exports to Indonesia and Vietnam.

We also analyzed data from Commerce's Advocacy Center on host-government contracts and data for contracts funded by the Asian Development Bank (ADB) and World Bank. Although these data represent a small share of activity in Indonesia and Vietnam, they provide insights into the degree of competition between U.S. and Chinese firms for the projects represented.

- Commerce's Advocacy Center data comprised cases where U.S. firms requested the agency's assistance in bidding for host-

⁵The export similarity index is described in J. M. Finger and M. E. Kreinin, "A Measure of 'Export Similarity' and Its Possible Uses," *The Economic Journal*, vol. 89, no. 356 (1979): 905-912. The World Bank includes the export similarity index as an indicator to describe export trends. An IMF study stated that the index is a common indicator for gauging export competitiveness. See International Monetary Fund, *Changing Patterns of Global Trade* (June 15, 2011). Other academic studies have also used the index to compare the similarity of exports. For example, see Marcus Noland, "Has Asian Export Performance Been Unique?," *Journal of International Economics*, 43 (1997), 79-101, and Peter K. Schott, "The Relative Similarity of China's Exports to the United States vis a vis Other U.S. Trading Partners," (July 2004).

government contracts in either Indonesia or Vietnam from 2009 through 2014. Because these data included the nationality of other firms bidding on a host-government contract, we used this information to determine the extent to which Chinese firms or firms of other nations were competing with U.S. firms for these contracts. We counted the numbers of contracts and summed the value of contracts for which each foreign country's firms competed against U.S. firms. For Vietnam, we excluded five contracts for which the nationalities of competitors were not identified. In cases where foreign competitors comprised a consortium of firms from different countries, we counted the whole value of the contract in each competing nationality's total. We also used the Advocacy Center's classification of contracts by sector to determine the sectors in which Chinese firms competed for the highest proportion of contracts. To determine the reliability of these data, we manually checked the data for missing values and also reviewed information about the data's collection. In addition, we interviewed Advocacy Center staff about the data. Advocacy Center staff told us that data from before 2010, when the center began using a new database, may be incomplete because data for some contracts that were closed before 2010 may not have been transferred to the new database. Overall, we found the Advocacy Center data to be reliable for reporting on competition between U.S. and other firms, including Chinese firms, in Indonesia and Vietnam.

- The World Bank publishes data on the value, sector, and suppliers of its contracts in Indonesia and Vietnam. We used the World Bank's classification of contracts into procurement categories (goods, civil works, consultant services, and nonconsultant services) to compare the value and types of contracts that U.S. and Chinese firms won from 2001 through 2014. However, we combined the consultant services and nonconsultant services categories into one category, "consultant and other services." The World Bank data include contracts that were reviewed by World Bank staff before they were awarded. To determine the reliability of these data, we electronically checked the data for missing values and possible errors. We also contacted World Bank personnel to learn how the data were collected and identify any limitations of the data. We found that the data for contracts funded by the World Bank were generally reliable for the purpose of demonstrating U.S. and Chinese competition in Indonesia and Vietnam over time.
- We used ADB's published data on the value, sector, and recipient of its contracts for consulting services, goods, and civil works provided as technical assistance or funded by loans and grants to Indonesia and Vietnam in 2013 and 2014 to compare the value and types of contracts won by U.S. and Chinese firms. ADB only publishes data for

consulting contracts over \$0.1 million in value and other contracts over \$1.0 million, so our analysis of ADB contracts does not include some smaller ADB contracts. In addition, a portion of the ADB data did not have the contracts classified according to the nature of the contract (construction, consulting services, goods, turnkey, and others). Therefore, we classified contracts won by U.S. and Chinese firms that were missing these categories according to those used in the rest of the data. To determine the reliability of these data, we checked the data for missing values and other types of discrepancies. We found that the ADB data were generally reliable for our purpose of reporting on U.S. and Chinese competition in Indonesia and Vietnam in 2013 and 2014.

To identify the challenges that U.S. firms face when conducting business in Indonesia and Vietnam, we reviewed the Office of the United States Trade Representative's (USTR) 2014 and 2015 *National Trade Estimate Reports on Foreign Trade Barriers* and its 2015 *Special 301 Report* on intellectual property rights protections. We reviewed the U.S. Department of Agriculture's (USDA) country strategies for Indonesia and Vietnam, Department of State (State) cables, and Commerce and State's 2014 reports on doing business in Indonesia and Vietnam. We also interviewed representatives of 12 U.S. firms in Indonesia and Vietnam, in sectors such as agriculture and manufacturing, as well as representatives of five private sector and research organizations, such as the American Chamber of Commerce-Vietnam and the Center for Strategic and International Studies. The views expressed in these interviews are not generalizable.

U.S. and Chinese Actions to Further Economic Engagement in Indonesia and Vietnam

To examine the actions that the U.S. and Chinese governments have taken to further economic engagement in Indonesia and Vietnam, we reviewed regional and country studies and U.S. and Chinese agency documents and interviewed U.S. and third-country officials, officials from private sector business associations, and experts from research institutes. We tried to arrange visits with Chinese government officials in Indonesia and Vietnam and in Washington, D.C.; however, they were unable to accommodate our requests for a meeting. U.S. agencies included in the scope of our study were USDA, Commerce, State, the Department of the Treasury, USTR, the Millennium Challenge Corporation, the U.S. Agency for International Development (USAID), the Export-Import Bank of the United States (Ex-Im), the Overseas Private Investment Corporation (OPIC), and the U.S. Trade and Development Agency.

- To obtain information about U.S. and Chinese trade agreements with Indonesia and Vietnam, we reviewed the trade agreements; U.S. and Chinese government documents; studies from research institutions; prior GAO reports; and documents from multilateral organizations, such as WTO. We identified studies assessing the effect of the China-ASEAN free trade agreement on China's, Indonesia's, and Vietnam's economies by searching the ProQuest database (which includes the EconLit database) and the studies of international organizations such as ADB, and we selected and reviewed studies that estimated the impact of the agreement on these three economies.⁶ We also interviewed U.S. officials in Indonesia and Vietnam, officials from private sector business associations, and experts from research institutes.
- To calculate the percentage of Indonesia's and Vietnam's total goods trade represented by their trade with the participants in the Regional Comprehensive Economic Partnership Agreement, we used data on

⁶See Danupon Ariyasajakorn, James P. Gander, Somchai Ratanakomut, and Stephen Reynolds, "ASEAN FTA, Distribution of Income, and Globalization," *Journal of Asian Economics*, vol. 20 (2009), 327-335; Suthiphand Chirathivat, "ASEAN-China Free Trade Area: Background, Implications and Future Development," *Journal of Asian Economics*, No. 13 (2002), 671-686; Toh Mun Heng and Vasudevan Gayathri, "Impact of Regional Trade Liberalization on Emerging Economies: The Case of Vietnam," *ASEAN Economic Bulletin* vol. 21, no.2 (August 2004), 167-182; Ibrahim, Meily Ika Permata, and Wahyu Ari Wibowo, "The Impact of ACFTA Implementation on International Trade of Indonesia," *Bank of Indonesia Bulletin of Monetary Economics and Banking* vol. 13, no. 1 (July 2010), 23-74; Csilla Lakatos and Terrie Walmsley, "Investment Creation and Diversion Effects of the ASEAN-China Free Trade Agreement," *Economic Modelling*, No. 29 (2012), 766-779; Donghyun Park, Innwon Park, and Gemma Esther B. Estrada, "Prospects of an ASEAN-People's Republic of China Free Trade Area: A Qualitative and Quantitative Analysis," *Asian Development Bank Economic Working Paper Series*, No. 130 (October 2008), 1-17; Yu Sheng, Hsiao Chink Tang, and Xinpeng Xu, "The Impact of the ACFTA on People's Republic of China-ASEAN Trade: Estimates Based on an Extended Gravity Model for Component Trade," *Asian Development Bank Working Paper Series on Regional Integration*, No. 99 (July 2012), 1-38; Sasatra Sudsawasd and Prasopchoke Mongsawad, "Go with the Gang, ASEAN!," *ASEAN Economic Bulletin* vol. 24, no. 3 (December 2007), 339-56; Tavi Supriana, "Indonesia Trade Under China Free Trade Area," *Economic Journal of Emerging Markets*, vol. 3, no. 2 (August 2011), 139-151; Marinos Tsigas and Zhi Wang, "A General Equilibrium Analysis of the China-ASEAN Free Trade Agreement," submitted for presentation at the 13th Annual Conference on Global Economic Analysis (June 2010), 1-12; Jun Yang and Chunlai Chen, "The Economic Impact of the ASEAN-China Free Trade Area: A Computational Analysis with Special Emphasis on Agriculture," from *Agriculture and Food Security in China: What Effect WTO Accession and Regional Trade Agreements?* (Canberra: 2008), 372-407; Chia Siow Yue, "ASEAN-China Free Trade Area," Paper for presentation at the AEP Conference (April 12-13, 2004); Longyue Zhao, Mariem Malouche, and Richard Newfarmer, "China's Emerging Regional Trade Policy," *Journal of Chinese Economic and Foreign Trade Studies* vol. 1, no. 1 (2008), 21-35.

trade in goods from the ASEANstats database. To determine the reliability of these data, we compared trade data from the ASEANstats and the UN Comtrade databases and found some differences in values of bilateral trade between ASEAN countries and their trading partners. Reasons for the differences include differences in the valuation of goods, differences in data quality, and the omission of some ASEAN trading partners from UN Comtrade data. We determined that the data from the ASEANstats database for Indonesia and Vietnam were generally reliable for comparing each country's trade in goods with its trading partners.

- To obtain information about U.S. financing in Indonesia and Vietnam, we compiled Ex-Im and OPIC data from these agencies' annual reports and congressional budget justifications and interviewed agency officials to provide additional context and to clarify elements of the data. Where relevant, we note that additional Ex-Im insurance may include Indonesia and Vietnam but do not include these data in our totals. To determine the reliability of these data, we interviewed agency officials and checked their published annual reports against agency-provided summary data to determine any limitations or discrepancies in the data. We determined that data from Ex-Im and OPIC were generally reliable for presenting trends and aggregate amounts by year.
- To document U.S. efforts to provide export promotion services in Indonesia and Vietnam, we reviewed information on State's Economic Sections at the U.S. Embassy in Indonesia and Vietnam and interviewed State, Commerce, and USDA officials in Washington, D.C., and in Vietnam and Indonesia.
- To describe Chinese financing in Indonesia and Vietnam, we used information reported by State and China's Export-Import Bank. We also interviewed private sector and research institute representatives. To document Chinese support for firms in Indonesia and Vietnam, we used publicly available information from a variety of sources, including Chinese embassy websites; the Bank of Indonesia's website; China's Ministry of Commerce; and Xinhua, China's state press agency.
- To document U.S. support for economic development and integration in Indonesia and Vietnam, we used the USAID trade capacity building database to capture U.S. development assistance efforts related to trade in Indonesia and Vietnam. USAID collects data to identify and quantify the U.S. government's trade capacity building activities in developing countries through an annual survey of agencies on behalf of USTR. We also reviewed agency project summaries and interviewed agency officials in Washington, D.C., and in Indonesia and Vietnam. To determine the reliability of these data, we interviewed agency officials regarding their methods for compiling and

reviewing the data. We determined that data from USAID's trade capacity building database were sufficiently reliable for our purposes.

- To describe China's support for regional integration in Indonesia, we assessed public statements from Chinese and Indonesian officials and information reported by U.S. agencies, including State, and we interviewed U.S. and Indonesian officials. To describe China's support for regional integration in Vietnam, we assessed information reported by U.S. agencies, including State and USAID, and interviewed U.S. and Vietnamese officials. We also reviewed publicly available information on the Asian Infrastructure Investment Bank's website.

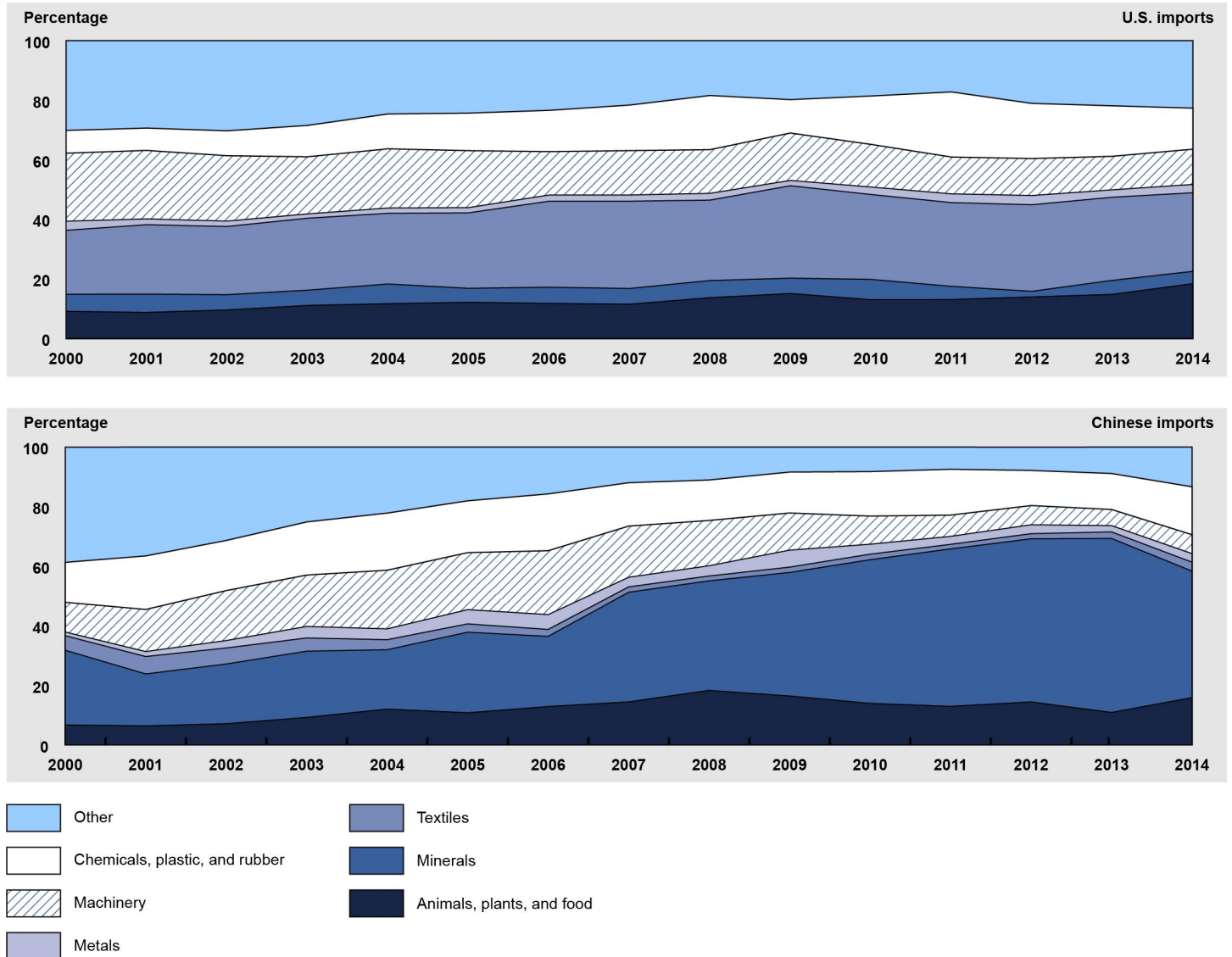
We conducted this performance audit from April 2014 to October 2015 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix II: Composition and Use of U.S. and Chinese Trade in Goods with Indonesia

From 2000 through 2014, the composition of U.S. and Chinese trade in goods with Indonesia, in terms of value, remained relatively stable except for a significant increase in China's mineral imports (see figs. 11 and 12). Textiles represented the largest share of U.S. imports from Indonesia since 2005. China's mineral imports increased from 25 percent of its total imports from Indonesia in 2000 to a peak of 58 percent in 2013 before declining to 42 percent in 2014. Animals, plants, and food generally represented the largest share of U.S. exports to Indonesia from 2005 through 2014, and machinery represented the largest share of Chinese exports to Indonesia from 2000 through 2014.

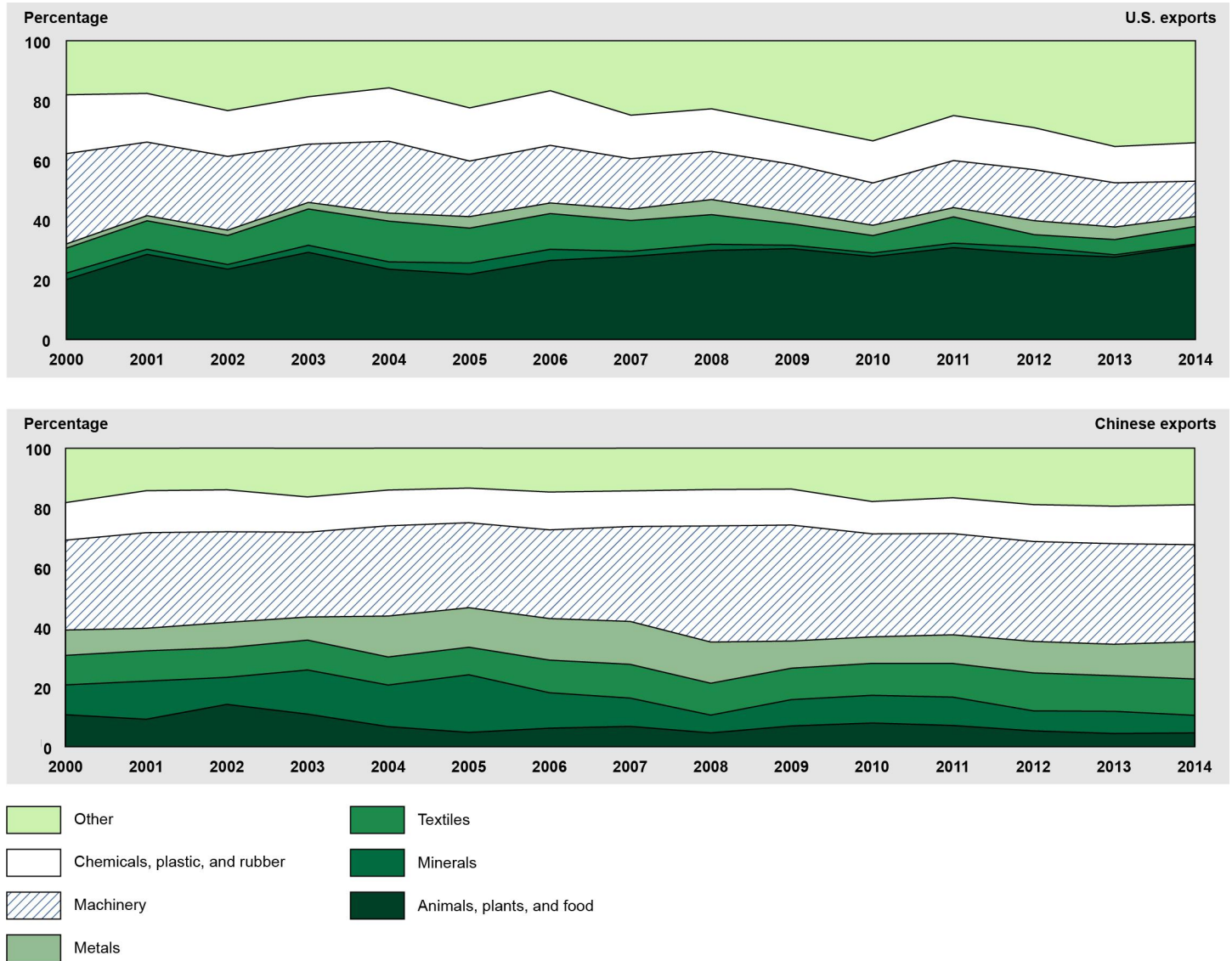
Appendix II: Composition and Use of U.S. and Chinese Trade in Goods with Indonesia

Figure 11: U.S. and Chinese Imports of Goods from Indonesia in 2000-2014, by Type



Source: GAO analysis of U.S. and Chinese data from the United Nations Commodity Trade database. | GAO-16-186

Figure 12: U.S. and Chinese Exports of Goods to Indonesia in 2000-2014, by Type



Source: GAO analysis of U.S. and Chinese data from the United Nations Commodity Trade database. | GAO-16-186

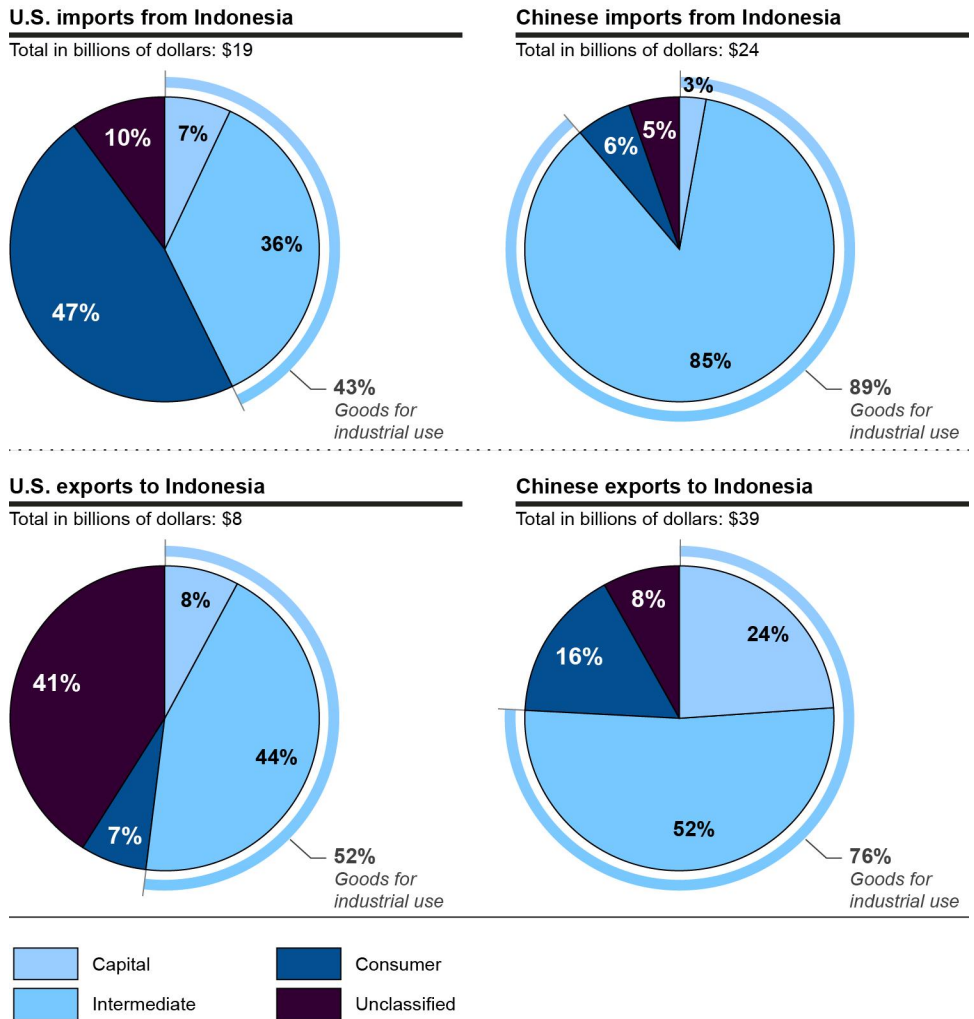
In 2014, almost half of the United States' and most of China's goods trade with Indonesia consisted of goods for industrial use, most of which are

intermediate goods (see fig. 13).¹ Among the industrial goods that the United States traded with Indonesia, rubber was the top U.S. industrial import and cotton was the top U.S. industrial export in 2014. Among the industrial goods that China traded with Indonesia in 2014, coal was the top Chinese industrial import and phones for cellular and other networks were the top Chinese industrial export. In 2014, the United States exported \$1.9 billion of civilian aircraft, aircraft engines, and aircraft parts—the overall top U.S. export to Indonesia, which represents 23 percent of U.S. exports to Indonesia and includes capital, intermediate, and consumer goods.²

¹In this report, “goods for industrial use” refers to goods used in producing other goods and includes capital and intermediate goods. We used the United Nations Statistics Division’s Broad Economic Categories to classify U.S. and Chinese total trade in goods as “capital,” “intermediate,” “consumer,” or “unclassified.” According to the Organisation for Economic Co-operation and Development (OECD), an intermediate good is an input to the production process that has itself been produced and, unlike capital, is used up in production. According to the OECD, an intermediate good is an input to the production process that has itself been produced and, unlike capital, is used up or transformed in production. Examples of intermediate goods include electronic components used in manufacturing computers. Capital goods include, for example, construction or mining equipment. Consumer goods are goods used without further transformation for the satisfaction of needs or wants. Some goods, such as passenger motorcars, may be used for production or as consumer goods, and we have therefore categorized them as “unclassified.”

²The U.S. Census Bureau suppresses data that further disaggregate this export.

Figure 13: U.S. and Chinese Imports and Exports of Goods to Indonesia in 2014, by Use



Source: GAO analysis of U.S. and Chinese data from the United Nations Commodity Trade database. | GAO-16-186

Notes: We used the United Nations Statistics Division's Broad Economic Categories to classify U.S. and Chinese total trade in goods into these categories. We defined goods for industrial use as including both capital and intermediate goods. According to the Organisation for Economic Co-operation and Development, an intermediate good is an input to the production process that has itself been produced and, unlike capital, is used up in production. Unclassified goods are those that are not classified as capital, intermediate, or consumer goods.

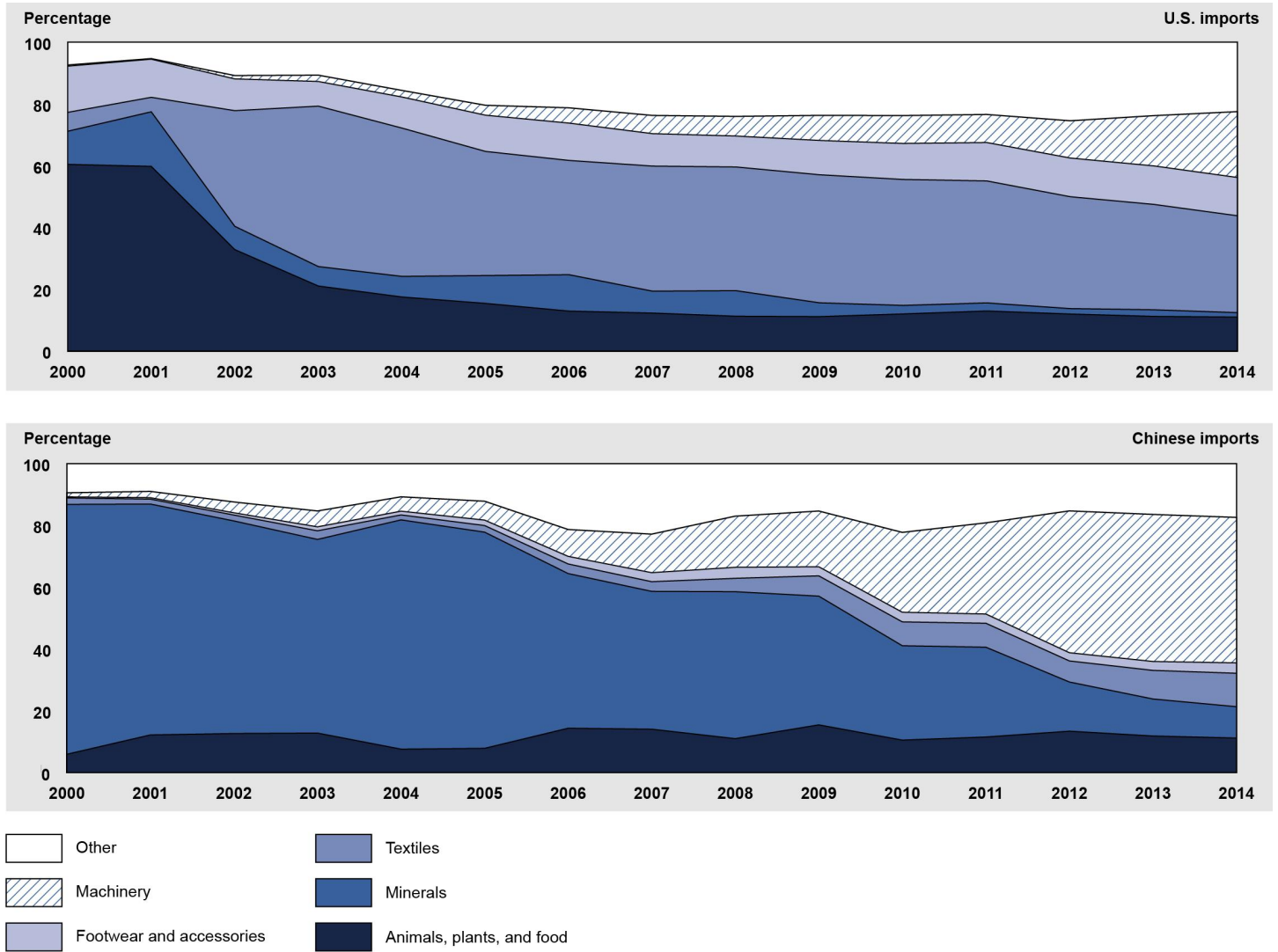
In 2014, the top overall U.S. export to Indonesia was civilian aircraft, aircraft engines, and aircraft parts, which represents 23 percent of U.S. exports to Indonesia and includes capital, intermediate, and consumer goods. The U.S. Census Bureau suppresses data that further disaggregate this export. Percentages shown may not sum to 100 percent for each chart because of rounding.

Appendix III: Composition and Use of U.S. and Chinese Trade in Goods with Vietnam

From 2000 through 2014, the composition of U.S. and Chinese trade in goods with Vietnam generally shifted, in terms of value, from predominantly raw commodities to manufactured goods (see figs. 14 and 15). In 2000, the largest share of U.S. imports from Vietnam consisted of animals, plants, and food, while the largest share of Chinese imports from Vietnam consisted of minerals. However, by 2014, the largest share of U.S. imports from Vietnam consisted of textiles, which rose from 6 percent of U.S. imports in 2000 to 31 percent in 2014, while the largest share of Chinese imports consisted of machinery, which rose from 1 percent in 2000 to 47 percent in 2014. From 2000 through 2014, animals, plants, and food grew to represent the largest share of U.S. exports to Vietnam, while machinery grew to represent the largest share of Chinese exports to Vietnam.¹

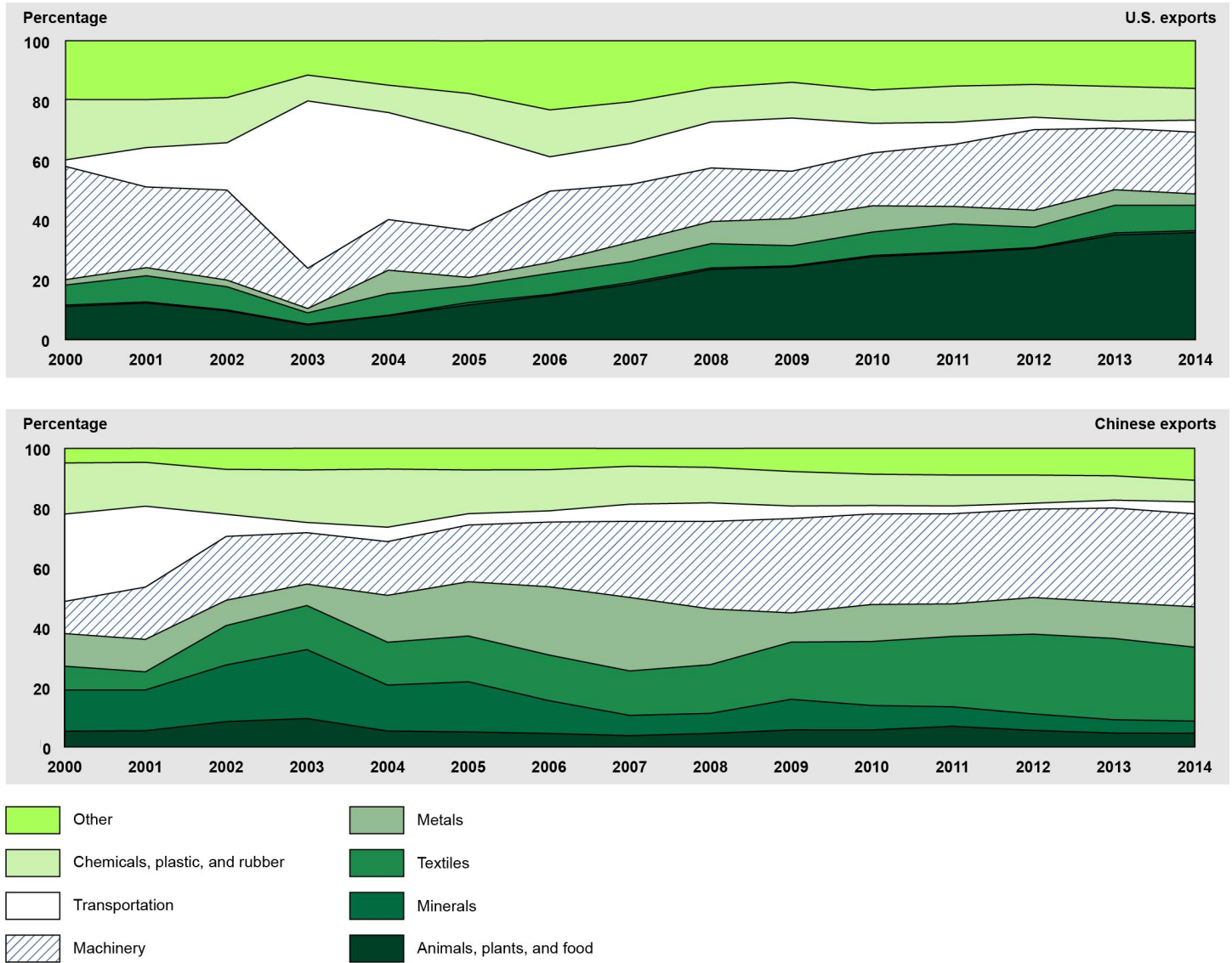
¹From 2003 through 2005, transportation became the largest share of U.S. exports to Vietnam mostly because of exports related to the sale of aircraft.

Figure 14: U.S. and Chinese Imports of Goods from Vietnam in 2000-2014, by Type



Source: GAO analysis of U.S. and Chinese data from the United Nations Commodity Trade database. | GAO-16-186

Figure 15: U.S. and Chinese Exports of Goods to Vietnam in 2000-2014, by Type

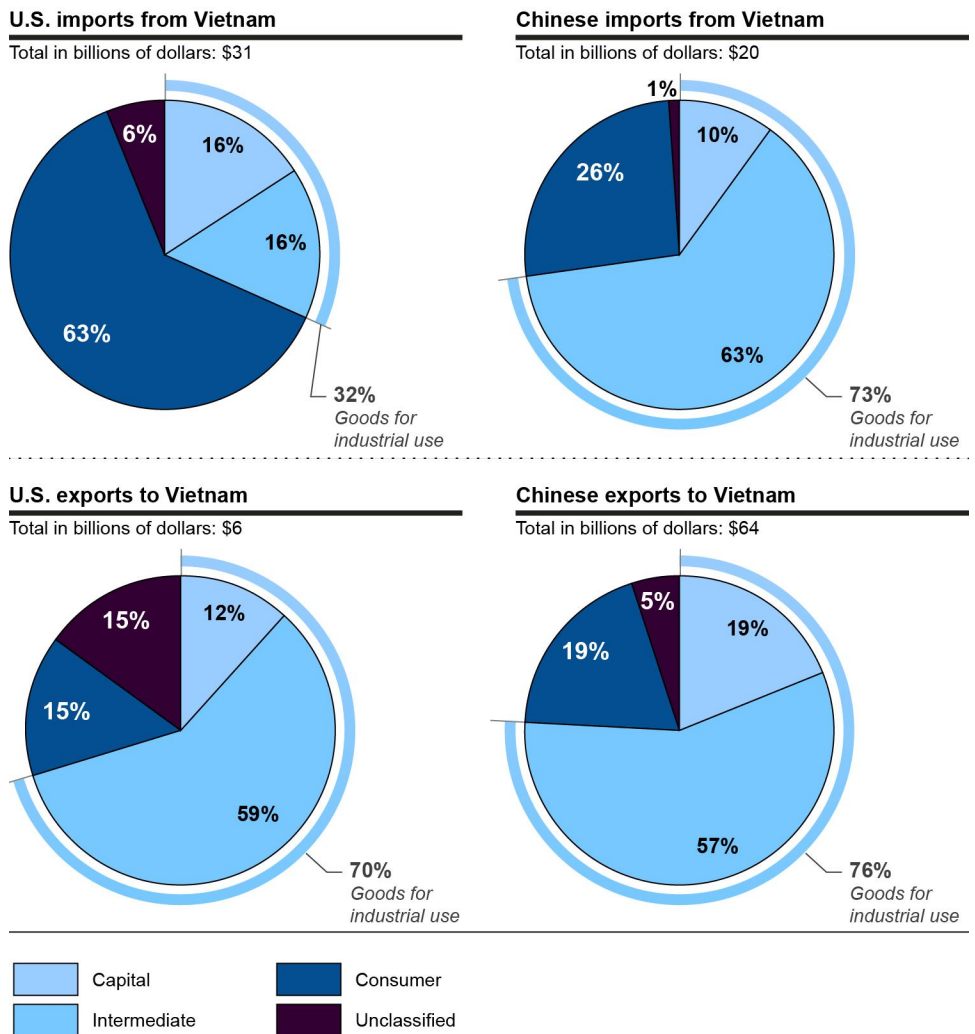


Source: GAO analysis of U.S. and Chinese data from the United Nations Commodity Trade database. | GAO-16-186

In 2014, the majority of U.S. imports from Vietnam consisted of goods for consumer use, while the majority of U.S. exports to Vietnam—as well as Chinese imports from, and exports to, Vietnam—consisted of goods for industrial use (see fig. 16). Among the consumer goods that the United States and China traded with Vietnam, wooden bedroom furniture was the top U.S. import and nuts were the top U.S. export, while cameras

were the top Chinese import and women’s and girl’s cotton jackets and blazers were the top Chinese export. Among the industrial goods that the United States and China traded with Vietnam, portable digital automatic data processing machines were the top U.S. import and cotton was the top U.S. export, while microchips were the top Chinese import and phone-set parts were the top Chinese export.

Figure 16: U.S. and Chinese Imports and Exports of Goods to Vietnam in 2014, by Use



Source: GAO analysis of U.S. and Chinese data from the United Nations Commodity Trade database. | GAO-16-186

Notes: We used the United Nations Statistics Division’s Broad Economic Categories to classify U.S. and Chinese total trade in goods into the four categories shown. We defined goods for industrial use as including both capital and intermediate goods. According to the Organisation for Economic Co-

Appendix III: Composition and Use of U.S. and Chinese Trade in Goods with Vietnam

operation and Development, an intermediate good is an input to the production process that has itself been produced and, unlike capital, is used up in production. Unclassified goods are goods that are not classified as capital, intermediate, or consumer goods. Percentages shown may not sum to 100 percent for each chart because of rounding.

Appendix IV: U.S. Trade Capacity Building Assistance to Indonesia and Vietnam

U.S. agencies have identified certain official development assistance to Indonesia and Vietnam as trade capacity building assistance. This assistance addresses, for example, the countries' regulatory environment for business, trade, and investment; constraints such as low capacity for production and entrepreneurship; and inadequate physical infrastructure, such as poor transport and storage facilities.

Indonesia

In fiscal years 2009 through 2013, U.S. agencies provided about \$373 million in trade capacity building assistance to Indonesia (see table 5).

Table 5: Funding Provided by U.S. Agencies for Trade Capacity Building to Indonesia, Fiscal Years 2009-2013

U.S. dollars in millions

U.S. agency	Funding
Millennium Challenge Corporation	\$332.5 [Note B]
U.S. Agency for International Development	19.1
Department of Labor	11.4
Department of State	4.0
Department of the Treasury	3.4
Other agencies [Note A]	2.7
Total	\$373.1

Source: U.S. Agency for International Development Trade Capacity Building Database. | GAO-16-186.

Note A: Other agencies include the Departments of Agriculture, Commerce, Health and Human Services, and the Interior; the Federal Trade Commission; and the U.S. Trade and Development Agency.

Note B: In technical comments on a draft of this report, MCC stated that it revised its reported trade capacity building amount to Indonesia from \$332.5 million to \$378.2 million as of September 2014.

As table 5 shows, three agencies—the Millennium Challenge Corporation (MCC), the U.S. Agency for International Development (USAID), and the Department of Labor (Labor)—provided the largest amounts of U.S. trade capacity building assistance to Indonesia in fiscal years 2009 through 2013.

- **MCC** provided about \$333 million—about 90 percent of U.S. trade capacity building assistance to Indonesia during this period—as part of a 5-year, \$600 million compact with Indonesia.¹ One of the

¹MCC is a U.S. government corporation that seeks to reduce global poverty through economic growth. MCC's compact with Indonesia entered into force in April 2013.

compact's three projects, the Green Prosperity Project, provides technical and financial assistance for projects in renewable energy and natural resource management to help raise rural household incomes. A second project, the Procurement Modernization Project, is designed to help the government of Indonesia develop a more efficient and effective process for the procurement of goods and services.² MCC obligates compact funds when a compact enters into force, disbursing the funds over the 5 years of the compact. As of March 2015, MCC had expended \$2.3 million of its \$333 million commitment for the Green Prosperity Project and \$6 million of its \$50 million commitment for the Procurement Modernization Project.

- **USAID** provided about \$19 million in trade capacity building assistance, among other things, to provide economic policy advisory services to the Indonesian government; strengthen key trade and investment institutions by contributing to a World Bank Fund; and strengthen the Indonesian Ministry of Trade's capacity to analyze, negotiate, and implement bilateral and multilateral trade agreements. In addition, USAID officials told us that they are working to build and sustain a culture of accountability in Indonesia at the national and subnational levels by, for example, working with the U.S. Department of Justice to train investigators to support Indonesia's Corruption Eradication Commission. However, according to agency officials, after consultations with Indonesian officials and others knowledgeable about the Indonesian economy, USAID stopped providing direct support for economic and trade policy issues. USAID officials also said that the Indonesian government did not view the support as a priority.
- **Labor** provided about \$11 million in trade capacity building assistance to improve Indonesia's compliance with labor standards and its competitiveness in global supply chains, to combat child labor, and to build the capacity of domestic labor organizations.

Vietnam

In fiscal years 2009 through 2013, U.S. agencies provided about \$32 million in trade capacity building assistance to Vietnam (see table 6).

²Specifically, the project is intended to help the government of Indonesia achieve significant government expenditure savings on procured goods and services, while assuring their quality satisfies the public need, and to achieve the delivery of public services as planned. The compact's third project, the Community-Based Health and Nutrition to Reduce Stunting Project, is designed to, among other things, reduce and prevent low birth weight, childhood stunting and malnourishment, and increase household income through cost savings, productivity growth, and higher lifetime earnings.

Table 6: Funding Provided by U.S. Agencies for Trade Capacity Building to Vietnam, Fiscal Years 2009-2013

Nominal U.S. dollars in millions

Agency	Funding
U.S. Agency for International Development	\$20.4
Department of the Treasury	5.9
Department of State	2.6
U.S. Trade and Development Agency	2.1
Other agencies [Note A]	0.9
Total	\$31.9

Source: U.S. Agency for International Development Trade Capacity Building Database. | GAO-16-186.

Note A: Other agencies include the Departments of Commerce, Health and Human Services, Labor, and the Interior and the Federal Trade Commission.

As table 6 shows, four agencies—USAID, the Departments of the Treasury (Treasury) and State (State), and the U.S. Trade and Development Agency (USTDA)—provided the majority of U.S. trade capacity building assistance to Vietnam in fiscal year 2009 through 2013.

- USAID** provided approximately \$20.4 million—about 64 percent of U.S. trade capacity building assistance to Vietnam during this period—to enhance the country’s economic governance. From 2001 through 2010, USAID’s Support for Trade Acceleration projects sought to modernize Vietnam’s commercial laws and legal system to help the country meet its bilateral trade agreement commitments and prepare it to join the World Trade Organization. In addition, the Vietnam Competitiveness Initiative, which began in 2003 and ended in 2013, sought to strengthen Vietnam’s regulatory system and regulatory framework and models for infrastructure development. The Provincial Competitiveness Index, which began in 2013 and is scheduled to end in 2016, assesses and reports on barriers to economic development and doing business in Vietnam. Moreover, USAID’s Governance for Inclusive Growth project—which began in 2013 and is scheduled to end in 2018—seeks to provide assistance relevant to Vietnam’s Trans-Pacific Partnership commitments, among other things. Finally, the Lower Mekong Initiative, encompassing Thailand, Cambodia, Laos, Burma, and Vietnam, supports, among many development efforts, reduction of the development gap between the more economically developed Association of Southeast Asian Nations countries and less developed countries, such as Vietnam, and also supports regional efforts toward economic integration.
- Treasury** provided, through its Office of Technical Assistance, about \$5.9 million in trade capacity assistance for several projects to

improve Vietnam's government operations. For example, OTA is currently assisting Vietnam with implementation of International Public Sector Accounting Standards. Previously, OTA provided assistance in the areas of banking supervision, strengthening of tax administration, and debt management.³

- **State** provided about \$2.6 million in trade capacity assistance, primarily for improving Vietnam's customs and border control. State's Export and Border Security Assistance program promotes border security and customs operations by providing training, equipment, vehicles, spare parts, infrastructure, travel to workshops and conferences, translations of key documents such as control lists, and other exchanges. State has provided equipment and training to Vietnamese officials in support of these efforts.
- **USTDA** provided about \$2 million in U.S. trade capacity building assistance for projects to support potential U.S. investment opportunities. In 2014, USTDA provided \$900,000 for a feasibility study—the largest USTDA-funded project in Vietnam that year—for an integrated telecommunications control center for the Ho Chi Minh City urban rail system. In August 2014, Vietnam became the second country to sign a memorandum of understanding with USTDA, under which USTDA will provide training and technical assistance to public procurement officials to implement Vietnam's revised procurement law. In July 2015, USTDA signed two additional grant agreements with Vietnam for (1) technical assistance and training in support of Vietnam's efforts to meet civil aviation safety standards and (2) a feasibility study to support the efforts of a Vietnamese private firm to develop an offshore wind power project.

³The Secretaries of Treasury, State, and Education also serve, along with four members of Congress and presidential appointees, on the board of the Vietnam Education Foundation. The Foundation is an independent agency created by the Congress with an annual budget of \$5 million until 2018. The Foundation provides opportunities for Vietnamese nationals to pursue graduate and post-graduate studies in science, technology, engineering, mathematics, and medicine in the United States, and for American citizens to teach in the same fields of study in Vietnam.

Appendix V: GAO Contact and Staff Acknowledgments

GAO Contact

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Staff Acknowledgments

In addition to the contact named above, Emil Friberg (Assistant Director), Charles Culverwell, Fang He, Kira Self, Michael Simon, and Eddie W. Uyekawa made key contributions to this report. Benjamin A. Bolitzer, Lynn A. Cothorn, Mark B. Dowling, Justin Fisher, Michael E. Hoffman, Reid Lowe, and Oziel A. Trevino provided technical assistance.

Appendix VI: Accessible Data

Data Tables

Data Table for Highlights Figure: U.S. and Chinese Goods Imports from, and Exports to, Indonesia and Vietnam, 2004-2014

Nominal U.S. dollars (in billions)

Year	Imports from Indonesia		Exports to Indonesia		Imports from Vietnam		Exports to Vietnam	
	China	U.S.	China	U.S.	China	U.S.	China	U.S.
2004	7.22	11.68	6.26	2.67	2.48	5.73	4.26	1.16
2005	8.44	12.95	8.35	3.05	2.55	7.21	5.64	1.19
2006	9.61	14.34	9.45	3.08	2.49	9.27	7.46	1.1
2007	12.46	15.21	12.7	4.23	3.23	11.43	11.89	1.9
2008	14.32	16.71	17.19	5.91	4.34	13.85	15.12	2.79
2009	13.66	13.65	14.72	5.11	4.75	13.04	16.3	3.11
2010	20.8	16.48	21.95	6.95	6.98	14.87	23.1	4.32
2011	31.34	19.11	29.22	7.42	11.12	17.49	29.09	4.32
2012	31.94	18	34.29	8	16.23	20.27	34.21	4.62
2013	31.42	18.87	36.93	9.1	16.89	24.65	48.59	5.04
2014	24.49	19.36	39.06	8.28	19.9	30.59	63.73	5.73

Source: GAO analysis of U.S. and Chinese data from the United Nations Commodity Trade database. | GAO-16-186

Data Table for Figure 2: U.S. and Chinese Trade in Goods with Indonesia, 1994-2014

Nominal U.S. dollars (in billions)

Year	U.S. and Chinese total trade with Indonesia		U.S. and Chinese imports from Indonesia		U.S. and Chinese exports to Indonesia		U.S. and Chinese trade balance with Indonesia	
	China	U.S.	China	U.S.	China	U.S.	China	U.S.
1994	2.641	9.831	1.589	7.02	1.052	2.811	-0.537	-4.209
1995	3.49	11.311	2.052	7.955	1.438	3.356	-0.614	-4.599
1996	3.708	12.708	2.28	8.743	1.428	3.965	-0.853	-4.778
1997	4.515	14.268	2.674	9.737	1.841	4.532	-0.833	-5.205
1998	3.631	12.264	2.461	9.973	1.17	2.291	-1.291	-7.682
1999	4.83	12.211	3.051	10.272	1.779	1.939	-1.272	-8.333
2000	7.464	13.762	4.402	11.215	3.062	2.547	-1.34	-8.668
2001	6.724	13.406	3.888	10.907	2.836	2.499	-1.052	-8.408
2002	7.935	12.966	4.508	10.385	3.426	2.581	-1.082	-7.805
2003	10.229	12.790	5.747	10.271	4.482	2.52	-1.265	-7.751
2004	13.472	14.349	7.216	11.680	6.256	2.669	-0.959	-9.011
2005	16.787	15.992	8.437	12.947	8.35	3.045	-0.087	-9.901
2006	19.055	17.42	9.606	14.342	9.45	3.078	-0.156	-11.264

Appendix VI: Accessible Data

Year	U.S. and Chinese total trade with Indonesia		U.S. and Chinese imports from Indonesia		U.S. and Chinese exports to Indonesia		U.S. and Chinese trade balance with Indonesia	
	China	U.S.	China	U.S.	China	U.S.	China	U.S.
2007	25.160	19.443	12.464	15.208	12.696	4.235	0.231	-10.974
2008	31.516	22.626	14.323	16.713	17.193	5.913	2.87	-10.8
2009	28.384	18.757	13.664	13.651	14.721	5.106	1.057	-8.545
2010	42.749	23.426	20.795	16.478	21.954	6.948	1.158	-9.53
2011	60.558	26.532	31.337	19.111	29.221	7.421	-2.116	-11.689
2012	66.221	26	31.936	18.002	34.285	7.998	2.349	-10.004
2013	68.355	27.97	31.424	18.874	36.93	9.097	5.506	-9.777
2014	63.555	27.645	24.495	19.361	39.06	8.284	14.565	-11.077

Source: GAO analysis of U.S. and Chinese data from the United Nations Commodity Trade database. | GAO-16-186

Note: The trade values shown are nominal—that is, not adjusted for inflation. Changes in values over time are due in part to changes in the prices of traded goods.

Data Table for Figure 3: Value of Indonesian Exports and Imports of Goods in 2003, 2008, and 2013, by Trading Partner

Nominal U.S. dollars (in billions)

Trading partner	Exports			Imports		
	2003	2008	2013	2003	2008	2013
U.S.	7	13	16	3	8	9
China	4	12	23	3	15	30
ASEAN	11	27	41	8	41	54
Japan	N/A	N/A	27	N/A	N/A	19
EU	N/A	N/A	17	N/A	N/A	14
South Korea	N/A	N/A	11	N/A	N/A	12
India	N/A	N/A	13	N/A	N/A	4
Taiwan	N/A	N/A	6	N/A	N/A	4
Australia	N/A	N/A	4	N/A	N/A	5
Other	39	85	25	19	65	36

Source: GAO analysis of data from ASEANstats database. | GAO-16-186

Notes: The trade values shown are nominal—that is, not adjusted for inflation. Changes in values over time are due in part to changes in the prices of traded goods.

Although the United States does not have diplomatic relations with Taiwan, we have listed Taiwan as a separate country, because whenever the laws of the United States refer or relate to foreign countries, nations, states, governments, or similar entities, such terms shall include and shall apply to Taiwan.

Data Table for Figure 4: U.S. and Chinese Foreign Direct Investment Flows to Indonesia, 2007-2012

Nominal U.S. dollars (in billions)

Year	U.S. foreign direct investment flows	Chinese foreign direct investment flows
2007	2.925	0.099
2008	1.75	0.174
2009	1	0.226
2010	0.315	0.201
2011	1.926	0.592
2012	2.301	1.361

Source: GAO analysis of data from the U.S. Bureau of Economic Analysis and Chinese data from the United Nations Conference on Trade and Development. | GAO-16-186

Notes: Foreign direct investment (FDI) flows represent FDI activities in a given period of time.

Although China has reported investment data since 2003, China began including financial investment in its total investment data in 2007. Chinese FDI data do not include Hong Kong’s investments in Indonesia.

The investment data shown are nominal values—that is, not adjusted for inflation. When using a U.S. gross domestic product deflator, we calculated cumulative U.S. and Chinese FDI flows in 2007 through 2012 at \$10.1 billion and \$2.6 billion, respectively, in 2009 dollars.

Data Table for Figure 5: Export Similarity Index of U.S. Goods Exports to Indonesia Relative to Chinese, European Union, and Japanese Exports to Indonesia, 2006-2014

Year	United States and the European Union	United States and Japan	United States and China
2006	0.417	0.434	0.302
2007	0.379	0.48	0.275
2008	0.354	0.475	0.243
2009	0.362	0.452	0.299
2010	0.397	0.428	0.276
2011	0.414	0.423	0.289
2012	0.404	0.442	0.299
2013	0.395	0.416	0.279
2014	0.383	0.442	0.278

Source: GAO analysis of U.S., Chinese, European Union countries', and Japanese data from United Nations Commodity Trade database. | GAO-16-186

Notes: An index value of 1 would indicate that each good exported to Indonesia represented the same percentage of total exports to Indonesia for both of the paired countries. A zero value would indicate no overlap—that is, the two countries exported entirely different goods. We excluded exports of special transactions and commodities not classified by kind, because those exports include many different types of goods.

Data Table for Figure 6: U.S. and Chinese Total Trade in Goods with Vietnam, 1994-2014

Nominal U.S. dollars (in billions)

Year	U.S. and Chinese total trade with Vietnam		U.S. and Chinese imports from Vietnam		U.S. and Chinese exports to Vietnam		U.S. and Chinese trade balance with Vietnam	
	China	U.S.	China	U.S.	China	U.S.	China	U.S.
1994	0.533	0.227	0.191	0.055	0.342	0.172	0.15	0.118
1995	1.052	0.463	0.332	0.21	0.72	0.253	0.388	0.043
1996	1.151	0.958	0.309	0.342	0.842	0.616	0.533	0.274
1997	1.437	0.69	0.357	0.413	1.080	0.278	0.723	-0.135
1998	1.246	0.87	0.217	0.596	1.028	0.274	0.811	-0.322
1999	1.318	0.945	0.354	0.655	0.964	0.291	0.61	-0.364
2000	2.466	1.253	0.929	0.885	1.537	0.368	0.608	-0.518
2001	2.809	1.599	1.011	1.138	1.798	0.461	0.787	-0.678
2002	3.264	3.165	1.116	2.585	2.148	0.58	1.032	-2.005
2003	4.639	6.234	1.457	4.909	3.183	1.324	1.726	-3.585
2004	6.742	6.89	2.482	5.727	4.26	1.163	1.778	-4.563
2005	8.197	8.398	2.553	7.206	5.644	1.192	3.091	-6.014
2006	9.949	10.365	2.486	9.265	7.463	1.1	4.977	-8.165
2007	15.121	13.328	3.226	11.425	11.895	1.903	8.669	-9.523
2008	19.458	16.644	4.336	13.854	15.122	2.79	10.786	-11.064
2009	21.048	16.146	4.747	13.038	16.301	3.108	11.554	-9.931
2010	30.086	18.573	6.984	14.868	23.102	3.706	16.117	-11.162
2011	40.208	21.803	11.117	17.488	29.092	4.315	17.975	-13.173
2012	50.442	24.891	16.229	20.268	34.213	4.623	17.983	-15.645
2013	65.478	29.69	16.892	24.654	48.586	5.036	31.694	-19.618
2014	83.632	36.323	19.9	30.589	63.731	5.734	43.831	-24.854

Source: GAO analysis of U.S. and Chinese data from the United Nations Commodity Trade database. | GAO-16-186

Note: The trade values shown are nominal—that is, not adjusted for inflation. Changes in values over time are due in part to changes in the prices of traded goods.

Data Table for Figure 7: Value of Vietnamese Exports and Imports in 2004, 2008, and 2013, by Trading Partner

Nominal U.S. dollars (in billions)

Trading partner	Exports			Imports		
	2004	2008	2013	2004	2008	2013
U.S.	5	12	23.9	1	3	5.2
China	3	4	13	4	16	37
ASEAN	4	10	18	8	19	21

Trading partner	Exports			Imports		
	2004	2008	2013	2004	2008	2013
Japan	N/A	N/A	14	N/A	N/A	12
EU	N/A	N/A	24	N/A	N/A	9
South Korea	N/A	N/A	6.6	N/A	N/A	20.7
Taiwan	N/A	N/A	2	N/A	N/A	9
India	N/A	N/A	2	N/A	N/A	3
Hong Kong	N/A	N/A	4	N/A	N/A	1
Other	14	35	24	19	42	14

Source: GAO analysis of data from ASEANstats database. | GAO-16-186

Notes: The trade values shown are nominal—that is, not adjusted for inflation. Changes in values over time are due in part to changes in the prices of traded goods.

Hong Kong is a special administrative region of China, but we have included it in this report as a separate country because it is an economic entity separate from the rest of China and is able to enter into international agreements on its own behalf in commercial and economic matters.

Although the United States does not have diplomatic relations with Taiwan, we have listed Taiwan as a separate country, because whenever the laws of the United States refer or relate to foreign countries, nations, states, governments, or similar entities, such terms shall include and shall apply to Taiwan.

Data Table for Figure 8: U.S. and Chinese Foreign Direct Investment Flows to Vietnam, 2007-2012

Nominal U.S. dollars (in billions)

Year	U.S. foreign direct investment flows	Chinese foreign direct investment flows
2007	-0.055	0.111
2008	0.023	0.12
2009	0.166	0.112
2010	0.068	0.305
2011	0.166	0.189
2012	0.136	0.349

Source: GAO analysis of data from the U.S. Bureau of Economic Analysis and Chinese data from the United Nations Conference on Trade and Development. | GAO-16-186

Notes: Foreign direct investment (FDI) flows represent FDI activities within a given period of time.

In 2007, U.S. FDI flows to Vietnam were negative—that is, flows from U.S. affiliates in Vietnam to the U.S. parent companies were larger than flows from the U.S. parent companies to U.S. affiliates in Vietnam.

Although China has reported investment data since 2003, China began including financial investment in its total investment data in 2007. Chinese FDI data do not include Hong Kong.

The investment data shown are nominal values—that is, not adjusted for inflation. When using a U.S. GDP deflator, we calculated cumulative U.S. and Chinese FDI flows for 2007 through 2012 at \$490 million and \$1.2 billion, respectively, in 2009 dollars.

Data Table for Figure 9: Export Similarity Index of U.S. Goods Exports to Vietnam Relative to Chinese, European Union, and Japanese Exports to Vietnam, 2006-2014

Year	United States and the European Union	United States and Japan	United States and China
2006	0.358	0.405	0.313
2007	0.333	0.344	0.32
2008	0.329	0.352	0.344
2009	0.345	0.303	0.299
2010	0.329	0.299	0.289
2011	0.351	0.33	0.284
2012	0.34	0.373	0.255
2013	0.338	0.398	0.254
2014	0.369	0.42	0.251

Source: GAO analysis of U.S., Chinese, European Union countries', and Japanese data from United Nations Commodity Trade database. | GAO-16-186

Notes: An index value of 1 would indicate that each good exported to Vietnam represented the same percentage of total exports to Vietnam for both of the paired countries. A value of 0 would indicate no overlap—that is, each country exported entirely different goods. We excluded exports of special transactions and commodities not classified by kind, because those exports include many different types of goods.

Data Tables for Figure 11: U.S. and Chinese Imports of Goods from Indonesia in 2000-2014, by Type

U.S. imports (Percentage)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Animals, plants, and food	9.11	8.75	9.58	11.09	11.68	12.15	11.78	11.51	13.69	15.1	13.02	13.07	13.94	14.81	18.4
Minerals	5.73	6.15	5.13	5.12	6.61	4.69	5.43	5.27	5.76	5.15	6.82	4.43	1.89	4.7	4.13
Textiles	21.47	23.3	22.89	24.17	23.73	25.34	28.88	29.32	27	31.03	28.51	28.12	29.07	27.91	26.4
Metals	3.06	1.95	1.8	1.45	1.79	1.76	2.08	2.07	2.28	1.78	2.5	2.94	3.1	2.49	2.79
Machinery	22.84	22.99	21.96	19.17	19.87	19.12	14.57	14.9	14.67	15.92	14.32	12.36	12.42	11.25	11.84
Chemicals, plastic, and rubber	7.65	7.5	8.36	10.54	11.7	12.61	13.85	15.29	18.18	11.21	16.24	21.86	18.51	16.96	13.78
Other	30.15	29.37	30.28	28.47	24.63	24.32	23.41	21.64	18.41	19.8	18.59	17.23	21.06	21.89	22.67

Appendix VI: Accessible Data

Chinese imports (Percentage)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Animals, plants, and food	6.7	6.4	7.13	9.23	12.03	10.79	12.89	14.45	18.31	16.43	13.94	12.95	14.44	10.91	15.87
Minerals	25.08	17.44	20.04	22.25	19.94	27.06	23.56	36.81	36.79	41.47	48.25	52.87	54.78	58.42	42.49
Textiles	4.89	5.84	5.39	4.43	3.36	2.8	2.33	1.8	1.62	1.8	1.86	1.53	1.71	2.2	3
Metals	1.24	1.67	2.49	3.87	3.64	4.78	4.98	3.23	3.44	5.7	3.34	2.68	2.99	2.12	2.88
Machinery	9.98	14.14	16.77	17.26	19.7	19.13	21.45	17.18	15.21	12.48	9.44	7.14	6.45	5.41	6.36
Chemicals, plastic, and rubber	13.41	17.97	16.83	17.83	19.17	17.4	19.07	14.56	13.59	13.73	14.94	15.39	11.79	12.08	16.07
Other	38.69	36.54	31.36	25.13	22.17	18.05	15.73	11.98	11.04	8.4	8.23	7.44	7.83	8.86	13.34

Source: GAO analysis of U.S. and Chinese data from the United Nations Commodity Trade database. | GAO-16-186

Data Tables for Figure 12: U.S. and Chinese Exports of Goods to Indonesia in 2000-2014, by Type

U.S. exports (Percentage)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Animals, plants, and food	20.01	28.44	23.49	29.13	23.47	21.79	26.42	27.76	29.78	30.34	27.71	30.71	28.69	27.56	31.4
Minerals	2.16	1.71	1.55	2.36	2.46	3.75	3.72	1.72	2.06	1.15	1.19	1.49	2.13	0.74	0.47
Textiles	8.35	9.55	9.74	12.16	13.64	11.7	11.97	10.3	9.91	7.16	5.84	8.8	4.22	5.1	5.92
Metals	1.42	1.71	1.77	2.2	2.7	3.86	3.55	3.81	5.07	3.9	3.45	3.11	4.69	4.21	3.34
Machinery	30.24	24.64	24.71	19.51	24.06	18.6	19.3	16.88	16.12	16.05	14.18	15.75	17.09	14.8	11.83
Chemicals, plastic, and rubber	19.71	16.31	15.33	15.87	17.9	17.81	18.31	14.59	14.26	13.32	14.09	15.08	14.06	12.16	12.88
Other	18.13	17.64	23.4	18.76	15.77	22.49	16.73	24.94	22.81	28.08	33.53	25.07	29.11	35.42	34.17

Chinese exports (Percentage)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Animals, plants, and food	10.72	9.2	14.19	10.92	6.73	4.8	6.21	6.82	4.63	6.96	7.94	7.12	5.31	4.43	4.63
Minerals	9.99	12.77	9.04	14.79	13.93	19.31	11.86	9.47	5.96	8.82	9.28	9.5	6.7	7.43	5.89
Textiles	9.89	10.16	9.93	10	9.4	9.22	10.94	11.31	10.67	10.52	10.7	11.27	12.73	11.93	12.18
Metals	8.49	7.55	8.49	7.74	13.71	13.24	13.93	14.37	13.8	9.11	8.88	9.6	10.53	10.53	12.46
Machinery	30.1	32.03	30.35	28.42	30.23	28.46	29.7	31.79	38.89	38.85	34.51	33.91	33.47	33.69	32.53
Chemicals, plastic, and rubber	12.57	14.04	14.07	11.79	11.98	11.61	12.67	11.94	12.2	12.04	10.81	12.01	12.36	12.56	13.37
Other	18.23	14.24	13.94	16.33	14.02	13.36	14.68	14.3	13.85	13.71	17.89	16.6	18.9	19.43	18.94

Source: GAO analysis of U.S. and Chinese data from the United Nations Commodity Trade database. | GAO-16-186

Data Table for Figure 13: U.S. and Chinese Imports and Exports of Goods to Indonesia in 2014, by Use

	U.S. imports from Indonesia	Chinese imports from Indonesia	U.S. exports to Indonesia	Chinese exports to Indonesia
Capital	7%	3%	8%	24%
Intermediate	36%	85%	44%	52%
Consumer	47%	6%	7%	16%
Unclassified	10%	5%	41%	8%
Goods for industrial use (Capital and Intermediate)	43%	89%	52%	76%
Total in billions of dollars	\$19	\$24	\$8	\$39

Source: GAO analysis of U.S. and Chinese data from the United Nations Commodity Trade database. | GAO-16-186

Notes: We used the United Nations Statistics Division's Broad Economic Categories to classify U.S. and Chinese total trade in goods into these categories. We defined goods for industrial use as including both capital and intermediate goods. According to the Organisation for Economic Co-operation and Development, an intermediate good is an input to the production process that has itself been produced and, unlike capital, is used up in production. Unclassified goods are those that are not classified as capital, intermediate, or consumer goods.

In 2014, the top overall U.S. export to Indonesia was civilian aircraft, aircraft engines, and aircraft parts, which represents 23 percent of U.S. exports to Indonesia and includes capital, intermediate, and consumer goods. The U.S. Census Bureau suppresses data that further disaggregate this export.

Percentages shown may not sum to 100 percent for each chart because of rounding.

Data Tables for Figure 14: U.S. and Chinese Imports of Goods from Vietnam in 2000-2014, by Type

U.S. imports (Percentage)

	Animals, plants, and food	Minerals	Textiles	Footwear and accessories	Machinery	Other
2000	60.43	10.73	6.11	14.96	0.37	7.4
2001	59.79	17.66	4.69	12.35	0.19	5.32
2002	32.84	7.54	37.44	10.29	1.08	10.81
2003	21.05	6.3	51.94	7.98	2.05	10.68
2004	17.5	6.67	48.02	10.06	2.13	15.63
2005	15.43	9.01	40.19	11.73	3.21	20.43
2006	12.93	11.79	36.99	12.09	4.94	21.25
2007	12.29	7.09	40.5	10.5	5.9	23.73
2008	11.27	8.27	40.05	10.02	6.36	24.03
2009	11.15	4.46	41.46	11.11	8.12	23.71
2010	12.01	2.76	40.78	11.66	9.03	23.77
2011	12.97	2.61	39.5	12.43	9.08	23.4
2012	11.98	1.76	36.22	12.53	12.06	25.46
2013	11.22	2.14	34.12	12.46	16.27	23.79
2014	11	1.43	31.37	12.39	21.32	22.49

Chinese imports (Percentage)

	Animals, plants, and food	Minerals	Textiles	Footwear and accessories	Machinery	Other
2000	5.93169	80.9042	2.08886	0.3368	1.32967	9.40882
2001	12.1892	74.7508	1.59324	0.467588	2.03821	8.9609
2002	12.6477	68.8198	1.90713	0.735241	3.50034	12.3899
2003	12.7923	62.6965	2.78894	1.28573	5.13662	15.2999
2004	7.59403	74.2242	1.6052	1.2106	4.64679	10.7192
2005	7.84863	69.9968	2.14095	1.75898	6.11232	12.1423
2006	14.3633	50.0727	3.10836	2.46007	8.69749	21.2981
2007	14.0542	44.616	3.13259	2.92138	12.4769	22.799
2008	10.989	47.5696	4.33269	3.57477	16.5558	16.9781
2009	15.4493	41.6789	6.5725	2.9402	18.0409	15.3182
2010	10.5181	30.5439	7.73029	3.12216	25.8529	22.2326
2011	11.5236	29.0726	7.75847	2.98755	29.5149	19.1429
2012	13.4045	15.9207	6.81867	2.66463	45.9151	15.2764
2013	11.8483	11.9818	9.25811	2.88306	47.6084	16.4203
2014	11.181	10.1499	10.827	3.36356	47.0993	17.3792

Source: GAO analysis of U.S. and Chinese data from the United Nations Commodity Trade database. | GAO-16-186

Data Tables for Figure 15: U.S. and Chinese Exports of Goods to Vietnam in 2000-2014, by Type

U.S. exports (Percentage)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Animals, plants, and food	11.01	12.16	9.56	4.82	7.93	11.56	14.67	18.45	23.44	24.27	27.68	28.9	30.41	34.99	35.75
Minerals	0.49	0.4	0.31	0.29	0.16	0.84	0.4	0.65	0.52	0.34	0.43	0.39	0.35	0.69	0.65
Textiles	6.7	8.74	7.76	3.78	7.25	5.62	7.06	6.91	8.1	6.78	7.83	9.39	6.81	9.22	8.51
Metals	1.81	2.72	2.23	1.46	7.84	2.73	3.66	6.57	7.42	9.06	8.81	5.85	5.66	5.22	3.79
Machinery	37.9	27.02	30.14	13.46	16.93	15.72	23.83	19.28	17.92	15.87	17.69	20.7	26.99	20.62	20.69
Transportation	2.2	13.19	15.85	56.03	35.85	32.6	11.52	13.74	15.41	17.8	9.9	7.47	4.18	2.34	4.02
Chemicals, plastic, and rubber	20.22	16.07	15.13	8.67	9.17	13.27	15.71	13.96	11.48	11.97	11.18	12.12	10.97	11.62	10.63
Other	19.67	19.69	19.02	11.49	14.87	17.64	23.17	20.45	15.72	13.91	16.49	15.18	14.63	15.3	15.96

Chinese exports (Percentage)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Animals, plants, and food	5.28	5.44	8.49	9.53	5.34	5.03	4.52	3.79	4.54	5.7	5.69	6.94	5.54	4.66	4.58
Minerals	13.79	13.65	18.97	23.07	15.37	16.8	10.98	6.79	6.71	10.25	8.19	6.51	5.52	4.46	4.07
Textiles	7.96	6.07	13.18	14.77	14.35	15.32	15.3	14.87	16.31	19.15	21.44	23.58	26.71	27.22	24.75
Metals	10.93	10.86	8.48	7.17	15.71	18.18	22.84	24.61	18.67	9.8	12.39	10.88	12.27	12.09	13.54
Machinery	10.77	17.52	21.38	17.2	17.99	18.99	21.67	25.49	29.29	31.56	30.31	30.17	29.57	31.58	31.13
Transportation	29.25	27.08	7.4	3.43	4.83	3.79	3.75	5.74	6.23	4.23	2.82	2.62	2	2.64	3.99
Chemicals, plastic, and rubber	17.12	14.68	15.06	17.59	19.47	14.65	13.78	12.71	11.87	11.56	10.5	10.35	9.43	8.15	7.24
Other	4.89	4.7	7.03	7.24	6.94	7.24	7.17	5.99	6.37	7.76	8.68	8.95	8.97	9.2	10.7

Source: GAO analysis of U.S. and Chinese data from the United Nations Commodity Trade database. | GAO-16-186

Data Table for Figure 16: U.S. and Chinese Imports and Exports of Goods to Vietnam in 2014, by Use

	U.S. imports from Vietnam	Chinese imports from Vietnam	U.S. exports to Vietnam	Chinese exports to Vietnam
Capital	16%	10%	12%	19%
Intermediate	16%	63%	59%	57%
Consumer	63%	26%	15%	19%
Unclassified	6%	1%	15%	5%
Goods for industrial use (Capital and Intermediate)	32%	73%	70%	76%
Total in billions of dollars	\$31	\$20	\$6	\$64

Source: GAO analysis of U.S. and Chinese data from the United Nations Commodity Trade database. | GAO-16-186

Notes: We used the United Nations Statistics Division’s Broad Economic Categories to classify U.S. and Chinese total trade in goods into the four categories shown. We defined goods for industrial use as including both capital and intermediate goods. According to the Organisation for Economic Co-operation and Development, an intermediate good is an input to the production process that has itself been produced and, unlike capital, is used up in production. Unclassified goods are goods that are not classified as capital, intermediate, or consumer goods. Percentages shown may not sum to 100 percent for each chart because of rounding.

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