



# Trans-Pacific Partnership (TPP) Countries: Comparative Trade and Economic Analysis

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## Summary

The Trans-Pacific Partnership (TPP) is a proposed regional free trade agreement (FTA) currently under negotiation between Australia, Brunei, Chile, Malaysia, New Zealand, Peru, Singapore, the United States, and Vietnam. The negotiating partners have expressed an interest in allowing this proposed “living agreement” to cover new trade topics and to include new members that are willing to adopt the proposed agreement’s high standards. To that end, Canada, Japan, and Mexico recently stated that they would seek consultations with the partner countries about the possibility of joining the negotiations.

The TPP negotiations are of significant interest to Congress. Congressional involvement includes consultations with U.S. negotiators on and oversight of the details of the negotiations, and eventual consideration of legislation to implement the final trade agreement. In assessing the TPP negotiations, Members may be interested in understanding the potential economic impact and significance of TPP and the economic characteristics of the other TPP countries as they evaluate the potential impact of the proposed TPP on the U.S. economy and the commercial opportunities for expansion into TPP markets.

This report provides a comparative economic analysis of the TPP countries and their economic relations with the United States. It suggests that the TPP negotiating partners encompass great diversity in population, economic development, and trade and investment patterns with the United States. This economic diversity and inclusion of fast-growing emerging markets presents both opportunities and challenges for the United States in achieving a comprehensive and high standard regional FTA among TPP countries.

The proposed TPP and its potential expansion are important due to the economic significance of the Asia-Pacific region for both the United States and the world. The region is home to 40% of the world’s population, produces over 50% of global GDP, and includes some of the fastest growing economies in the world. While current TPP negotiating partners made up about 5% of U.S. trade in 2010, Asia-Pacific economies as a whole, made up over 60%.

The United States is the largest TPP market in terms of both GDP and population. In 2010, non-U.S. TPP partners collectively had a GDP of \$2.3 trillion, 16% of the U.S. level, and a population of 195 million, 63% of the U.S. level. Entry of Canada, Japan, and/or Mexico would increase the economic significance of the agreement on both these metrics. Among the TPP partners, the majority of overall U.S. trade and investment flows are with Australia and Singapore. In merchandise trade, however, the United States imports more from Malaysia than any other TPP country. Considering the TPP region collectively, over 25% of all U.S.-TPP imports and exports are in computers/electronic components. At the bilateral level, top U.S. exports are largely in the same major product categories, but top U.S. imports vary considerably by country.

There are four U.S. bilateral FTAs in place with current TPP partners: Australia, Chile, Peru, and Singapore. All other TPP partners except Peru, have agreements in place with five or more of the other TPP partners. The Association of Southeast Asian Nations (ASEAN), of which Brunei, Malaysia, Singapore, and Vietnam are members, accounts for much of this existing interconnectedness. Moreover, ASEAN agreements with larger regional economies (e.g., China, Japan, and Korea), present a second possible avenue for Asia-Pacific economic integration, albeit one that currently excludes the United States.

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## Introduction<sup>1</sup>

The Trans-Pacific Partnership (TPP) is a proposed regional free trade agreement (FTA) under negotiation between the United States and eight other countries. Current negotiating partners include Australia, Brunei, Chile, Malaysia, New Zealand, Peru, Singapore, the United States, and Vietnam. Several FTAs already exist between the negotiating countries, some of these are bilateral and others, like the TPP, are regional.<sup>2</sup> Canada, Japan, and Mexico have expressed interest in possibly joining the negotiations. The proposed agreement's ability to attract and incorporate new members may impact the ultimate global significance of its regional platform and the new trade rules it embodies.

Congress has a major role in the negotiation and implementation of FTAs. Throughout the negotiating process, Congress may conduct oversight hearings and consultations with U.S. trade negotiators, providing Members an opportunity to oversee and influence the development of the final TPP. Any final FTA must also be implemented by Congress before it can enter into force.

The United States has a number of objectives in the proposed TPP agreement.<sup>3</sup> These include:

- achieving a comprehensive and high standard regional FTA that eliminates and reduces trade barriers and increases opportunities for U.S. trade and investment;
- allowing the United States to play a role in developing a broader platform for trade liberalization, particularly throughout the Asia-Pacific region;<sup>4</sup> and
- providing the United States with an opportunity to establish new rules on emerging trade issues, such as regulatory coherence, supply chain management, state-owned enterprises, and increasing trade opportunities for small- and medium-sized businesses.<sup>5</sup>

This report focuses primarily on U.S. economic interests in the TPP agreement. It provides a comparative economic analysis of the countries currently negotiating the TPP and describes the U.S. trade flows with these countries at the bilateral level and in relation to the countries' economic linkages with the rest of the world. It also provides information on the existing trade agreements of TPP countries. As such, this report aims to serve as an introduction to the economic relationship these countries have, both individually and collectively, with the United States.

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<sup>1</sup> For more information on the negotiations and subjects of negotiation, see CRS Report R40502, *The Trans-Pacific Partnership Agreement*, by Ian F. Fergusson and Bruce Vaughn.

<sup>2</sup> For basic information on the various structures of trade agreements, see CRS Report RL31356, *Free Trade Agreements: Impact on U.S. Trade and Implications for U.S. Trade Policy*, by William H. Cooper.

<sup>3</sup> This report covers economic aspects of TPP countries and does not address U.S. foreign policy interests. These are covered in the previously mentioned CRS Report R40502, *The Trans-Pacific Partnership Agreement*.

<sup>4</sup> Potential TPP membership has not been expressly defined, but some see members of the Asia-Pacific Economic Cooperation (APEC) forum as the most likely candidates. For a complete list of APEC members see **Table 1**.

<sup>5</sup> Letter from Ambassador Ronald Kirk, USTR, to The Honorable Nancy Pelosi, Speaker of the United States House of Representatives, December 14, 2009.

## Economic Overview

### Asia-Pacific Region

The Asia-Pacific region, defined for the purposes of this report as the current members of the Asia-Pacific Economic Cooperation (APEC) forum, has substantial global economic significance. Among its 21 member economies, APEC includes all nine of the current TPP participants. It is home to 40% of the world's population and more than half of global GDP.<sup>6</sup> Moreover, the region's economies are growing quickly. In 2010, over three-quarters of the economies in the Asia-Pacific had GDP growth above the 3% level reached in the United States, and two-thirds enjoyed growth above the world average of 5.1% (see **Table 1**).<sup>7</sup> The region is significant not just as a burgeoning market, but also as an integral part of international supply chains. The East Asian members, in particular, are highly connected through intermediate goods trade and involve the United States in complex production networks spanning the Pacific. In 2009, for example, 64% of Asian non-fuel imports were in intermediate goods and over \$600 billion in intermediate goods moved between Asia and North America.<sup>8</sup>

The Asia-Pacific region represents an important source and destination for U.S. trade and investment. Together, these economies represent over 60% of overall U.S. trade and about one-quarter of the stock of both U.S. direct investment abroad and foreign direct investment (FDI) in the United States.<sup>9</sup> Yet, there remains great potential for further U.S. economic engagement with the region. Some U.S. policy observers argue that the United States has fallen behind in its focus on market access abroad, particularly in emerging Asia and Latin America.<sup>10</sup> However, the proposed TPP, recent congressional approval of the U.S. FTAs with Colombia, Panama, and South Korea, and the Administration's National Export Initiative (NEI) goal of doubling exports by 2015, suggest a continued U.S. interest in expanding U.S. economic engagement abroad.<sup>11</sup>

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<sup>6</sup> Analysis by CRS. Data from the World Bank *World Development Indicators* and International Monetary Fund (IMF) *World Economic Outlook*, September 2011.

<sup>7</sup> Analysis by CRS. Data from the IMF *World Economic Outlook*, September 2011.

<sup>8</sup> World Trade Organization and Institute of Developing Economies, *Trade Patterns and Global Value Chains in East Asia: From Trade in Goods to Trade in Tasks*, 2011, p. 83.

<sup>9</sup> Analysis by CRS. Data from the U.S. International Trade Commission (ITC) and the Bureau of Economic Analysis (BEA).

<sup>10</sup> Council on Foreign Relations, *U.S. Trade and Investment Policy*, Independent Task Force Report No. 67, 2011, p. 3.

<sup>11</sup> Executive Order 13534, "National Export Initiative," March 11, 2010.

**Table I.APEC Member Economic Statistics, 2010**

	<b>Member</b>	<b>GDP (in billions of U.S. dollars)</b>	<b>Population (in millions)</b>	<b>GDP/Capita<sup>a</sup> (PPP)</b>	<b>Real GDP Growth (in %)</b>
TPP Countries	Australia	\$1,237	22.2	\$39,764	2.68
	Brunei	\$12	0.4	\$48,333	2.60
	Chile	\$203	17.2	\$15,040	5.19
	Malaysia	\$238	28.3	\$14,744	7.19
	New Zealand	\$141	4.4	\$27,130	1.66
	Peru	\$154	29.6	\$9,358	8.79
	Singapore	\$223	5.2	\$56,694	14.47
	Vietnam	\$104	88.3	\$3,143	6.78
	Non-U.S. TPP Total	\$2,312	195.6		
	United States	\$14,527	310.0	\$46,860	3.03
	<b>Total</b>	<b>\$16,839</b>	<b>505.6</b>		
Near-Term Potential TPP Countries	Canada	\$1,577	34.1	\$39,171	3.22
	Japan	\$5,459	127.6	\$33,885	3.96
	Mexico	\$1,034	108.6	\$14,406	5.42
	<b>Total</b>	<b>\$8,070</b>	<b>270.3</b>		
Other APEC	China	\$5,878	1,341.4	\$7,544	10.33
	Hong Kong	\$224	7.1	\$45,944	6.97
	Indonesia	\$707	237.6	\$4,347	6.11
	South Korea	\$1,014	48.9	\$29,997	6.16
	Papua New Guinea	\$10	6.5	\$2,307	7.03
	Philippines	\$200	94.0	\$3,920	7.63
	Russia	\$1,480	142.9	\$15,612	4.00
	Taiwan	\$430	23.2	\$35,604	10.88
	Thailand	\$319	63.9	\$9,221	7.78
	<b>Total</b>	<b>\$10,262</b>	<b>1,965.5</b>		
<b>APEC Total</b>		<b>\$35,171</b>	<b>2,741.4</b>		

**Source:** International Monetary Fund *World Economic Outlook*, September 2011.

**Notes:**

- a. GDP/Capita figures are in terms of purchasing power parity (PPP). This adjusts international GDP figures to reflect differences in cost of living among countries. Hence, GDP figures for developing countries are typically higher in PPP terms (see footnote 12).

## TPP Countries

The nine countries that constitute the current group of TPP participants is economically and demographically diverse. As shown in **Figure 1**, the United States is much larger than the other members in terms of its economy and population. Compared to the next closest TPP member in each category, the United States has nearly four times as many people as Vietnam and almost 12 times the GDP of Australia. GDP per capita at purchasing power parity (PPP), a rough measure of a country's level of economic development, ranges from just over \$3,000 in Vietnam to over \$56,000 in Singapore, nearly \$10,000 higher than that of the United States.<sup>12</sup> These countries vary greatly in their geography as well. They range from Australia, a large and resource-rich continent, to Singapore, a small, trade-dependent city-state. As discussed in the final section of this report, some of this economic and demographic diversity is reflected in both the type and intensity of trade and investment flows between the United States and the other eight TPP countries.

A potential TPP FTA may present an opportunity for the United States to expand its trade and investment with a large and fast-growing regional market. Excluding the United States, TPP countries collectively represent a potential market with a population nearly two-thirds that of the United States. Although the collective GDP of TPP countries is only a fraction of that of all APEC economies, they have been growing rapidly relative to the United States over the past 10 years. **Figure 2** shows that during 2008-2009, at the height of the financial crisis, the average GDP growth rate of non-U.S. TPP economies was more than 3 percentage points higher than that in the United States. Additionally, over the past decade, U.S. exports to and investment in these countries have increased significantly (**Figure 3**). U.S. exports to TPP countries nearly doubled during this period, approaching \$90 billion in goods and \$30 billion in services in 2010. The volume of U.S. direct investment flows abroad to TPP countries have varied more than exports over the past decade, but have increased more than five-fold, surging from \$8 billion in 2001 to \$45 billion in 2010.

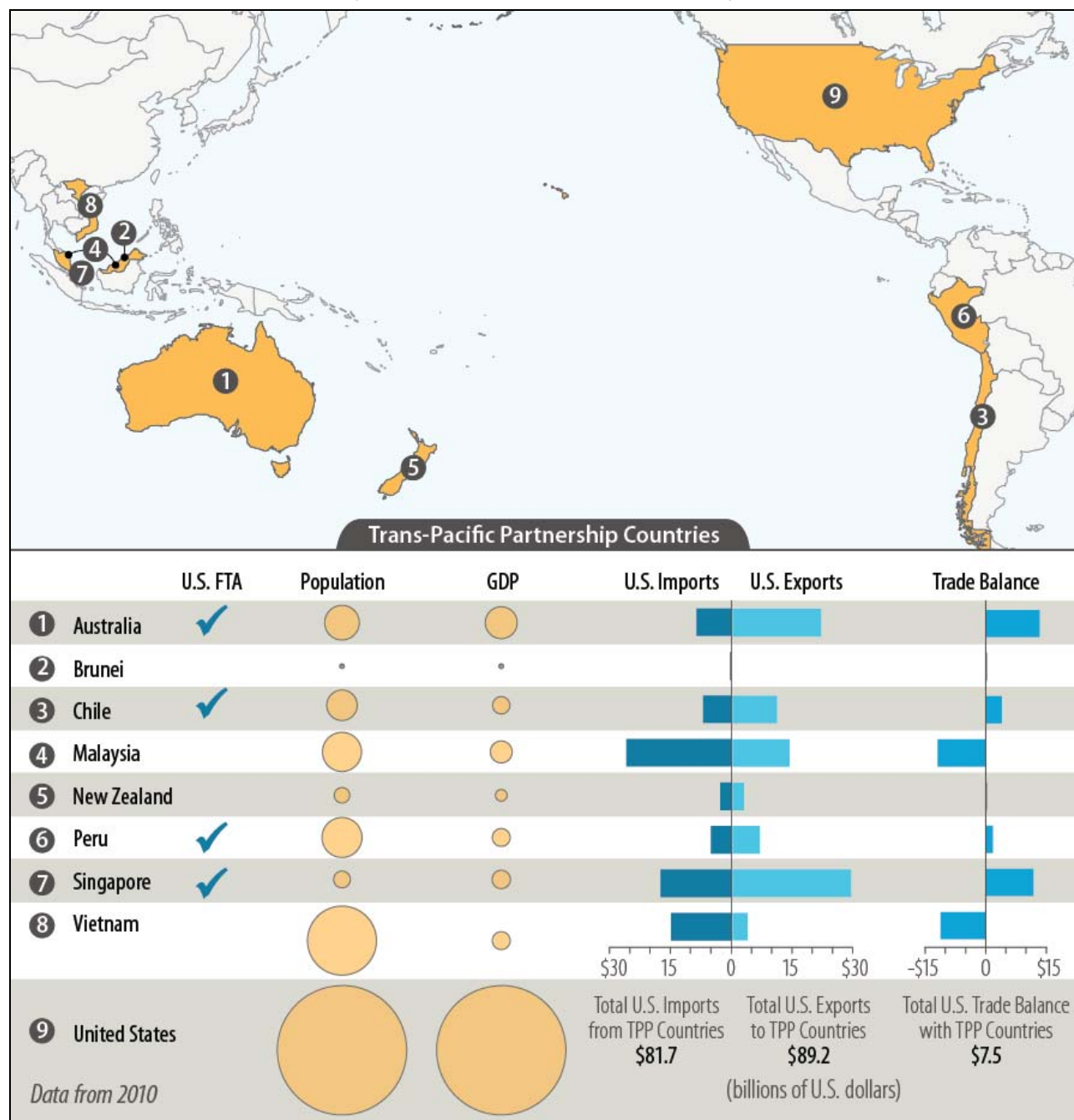
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<sup>12</sup> GDP data at purchasing power parity (PPP) attempts to reflect differences in the cost of living among countries. This requires comparison of the prices of goods and services in each of the countries concerned. For example, consider Vietnam and the United States. In less developed countries, goods and services typically cost less than they do in more highly developed countries (*i.e.*, one U.S. dollar converted to local Vietnamese currency would buy more goods and services there than it would in the United States). Nominal GDP figures converted into U.S. dollars do not take account of these price differences across countries. In order to account for the lower prices, Vietnam's GDP/capita at purchasing power parity (\$3,143) is more than twice its nominal GDP/capita in U.S. dollars (\$1,174), according to the September 2011 edition of the IMF's *World Economic Outlook*.



**Figure 1. Trans-Pacific Partnership Countries**

(trade data in billions of U.S. dollars, 2010)



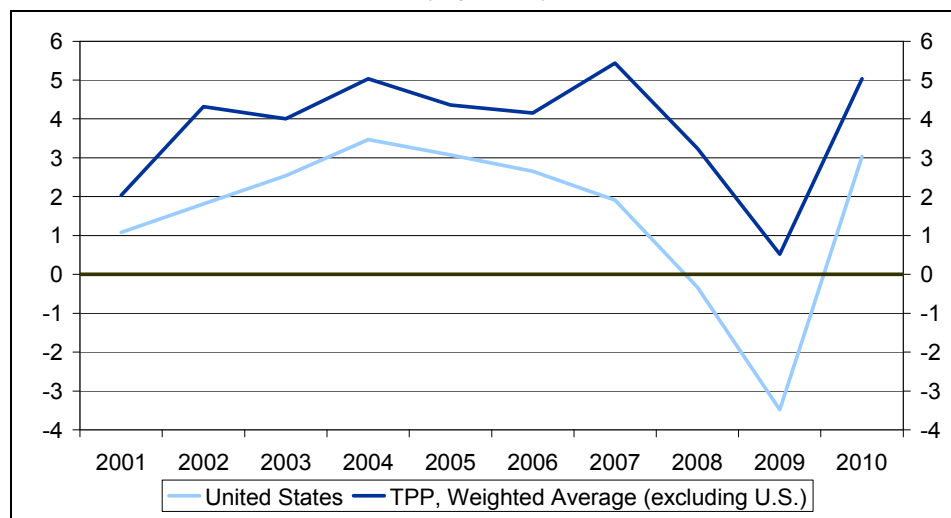
**Source:** Analysis by CRS. FTA data from the United States Trade Representative (USTR). Population and GDP data from IMF, World Economic Outlook, September 2011. Trade data from the U.S. International Trade Commission (ITC).

**Notes:** Exports reflect “total exports” and imports reflect “general imports.” Data are also available based on “domestic exports” and “imports for consumption.” The differences between these data have to do with the treatment of goods that enter U.S. territory from abroad and are re-exported with minimal modification while in

the United States. These re-exports can be high in particular countries. For instance, they were above 10% of total exports to Singapore in 2010.

**Figure 2. U.S. and TPP Average GDP Growth Rates**

(in percent)

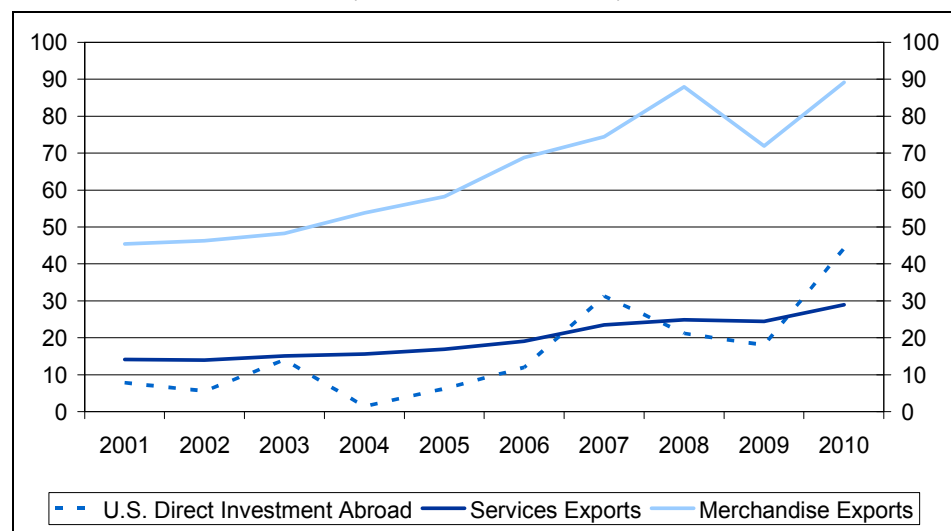


**Source:** Analysis by CRS. Data from IMF, *World Economic Outlook*, September 2011.

**Notes:** The value for non-U.S. TPP countries was computed by taking the average of each country's GDP growth rate, weighted by its GDP.

**Figure 3. U.S. -TPP Trade and Investment Flows**

(in billions of U.S. dollars)



**Source:** Analysis by CRS. Data from the ITC and the Bureau of Economic Analysis (BEA).

**Notes:** U.S. direct investment abroad represents the annual flow of investment from the United States to TPP countries.

## Potential New TPP Participants

One of the United States' expressed interests in the proposed TPP FTA is its potential expansion to include other Asia-Pacific economies. Currently, Canada, Japan, and Mexico have announced their intent to seek consultations with existing participants on the possibility of joining the negotiations. It is unclear if and at which point these additional countries may join the current negotiations. According to Deputy United States Trade Representative (USTR) Demetrios Marantis, the United States and the other TPP participants are exploring these options with the potential entrants bilaterally, while concurrently continuing with the ongoing nine-party TPP negotiations.<sup>13</sup> A consensus among all nine negotiating partners is required before any additional parties are added to the negotiations.<sup>14</sup>

Each of these potential new participants is a key U.S. trading partner. Current TPP countries represent about 5% of all U.S. trade. Canada, Japan, and Mexico would increase the TPP's share of U.S.-world trade from 5% to 40%. As **Figure 4** shows on the following page, expansion of the TPP negotiations to these additional economies would increase its economic significance.

### Japan

As the third largest economy in the world and the fourth largest trading partner of the United States, Japan's entry into the TPP negotiations would considerably increase the economic significance of the proposed agreement. It would be the second largest country participating in the negotiations behind the United States, both in terms of population (128 million) and GDP (\$5.5 trillion). Japan's entry would triple the collective GDP of non-U.S. TPP partners and nearly double the collective population of non-U.S. TPP partners. Some analysts argue that a TPP agreement that included Japan could attract other potential Asia-Pacific countries and achieve the goal of membership expansion. Others argue that Japan's entry could complicate the negotiation process, adding a significant economic counterweight to the United States among TPP countries. Japanese interest in the agreement may stem from a desire to remain competitive with South Korea in the U.S. market following the passage of the U.S.-South Korea FTA (KORUS). Nearly 70% of U.S. imports from the two East-Asian nations come from the same three commodity categories: vehicles, machinery, and electrical machinery.<sup>15</sup>

### Canada and Mexico

Economically, and as North American neighbors, both Canada and Mexico are important to the United States. They are the 1<sup>st</sup> and 3<sup>rd</sup> largest U.S. trading partners, respectively. In terms of the magnitude of GDP and population, the TPP agreement would expand considerably were it to include Canada and Mexico. However, given that most of Canada and Mexico's trade with the United States is already covered through the North American Free Trade Agreement (NAFTA), the actual economic significance of their entry for the United States would depend on the inclusion of products and practices not covered by NAFTA, such as the extent to which the final TPP agreement addresses such issues as regulatory coherence, state-owned enterprises, and the

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<sup>13</sup> U.S. Congress, House Committee on Ways and Means, Subcommittee on Trade, *Hearing on the Trans-Pacific Partnership*, 112th Cong., 1st sess., December 14, 2011.

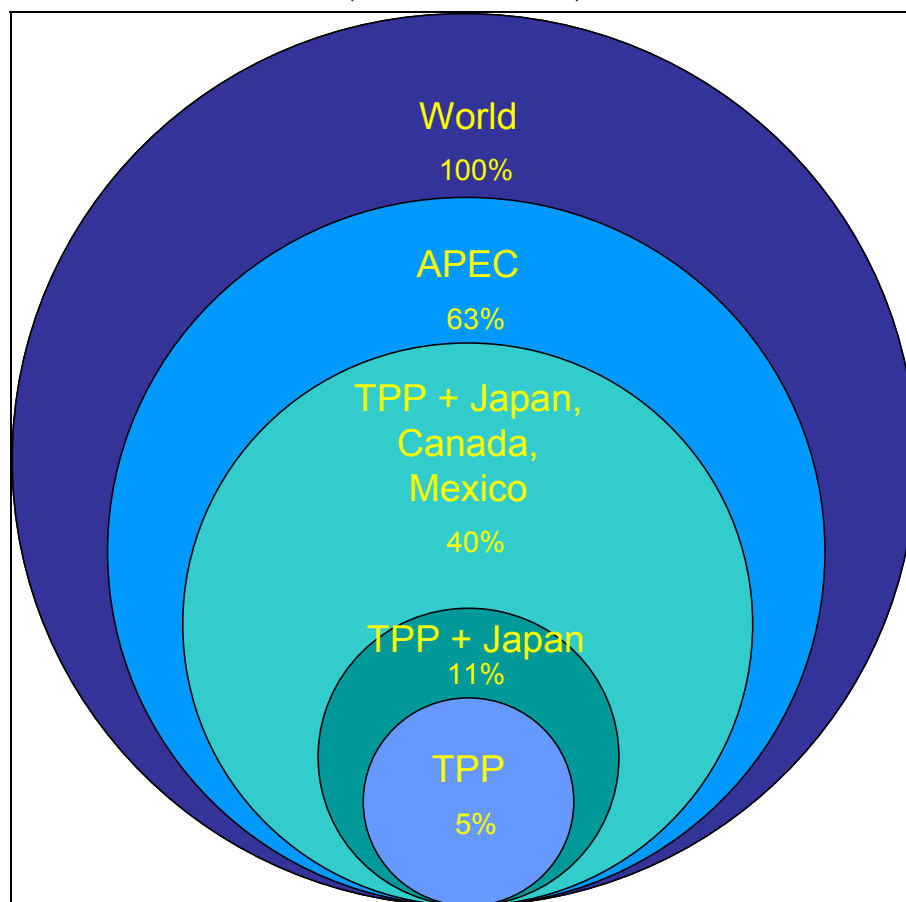
<sup>14</sup> Ibid.

<sup>15</sup> Analysis by CRS. Data from the ITC.

reduction of other non-tariff barriers to trade. In terms of the overall TPP membership, like Japan, Mexico and Canada could add economic and geopolitical strength to the TPP.

**Figure 4. U.S. Merchandise Trade**

(shares of total, 2010)



**Source:** Analysis by CRS. Data from U.S. ITC.

## Existing Trade and Economic Agreements

TPP participants belong to various multilateral, regional, and bilateral trade and economic agreements. For example, all TPP countries are members of the World Trade Organization (WTO), with Vietnam joining most recently in 2007. In addition, TPP countries have FTAs in effect with each other, as well as with countries outside the current TPP agreement. The United States, for example, has FTAs with four TPP participants (Australia, Chile, Peru, and Singapore) and with Canada, Mexico, and most recently, South Korea. In total, there are more than 180 preferential trade agreements among Asia-Pacific countries, most of which do not include the

United States.<sup>16</sup> The United States Trade Representative (USTR), as well as certain stakeholder groups, view the proposed TPP FTA as an opportunity for the United States to address this rapid rise in preferential trade agreements, with a goal of ensuring that U.S. goods and services remain competitive in the region and that the United States plays a central role in developing a framework for future regional free trade negotiations.<sup>17,18</sup> Given the potential for future expansion in TPP membership, the ability to influence the strength and coverage of the agreement at the beginning stage may be particularly advantageous.

## **Asia-Pacific Economic Cooperation (APEC)**

TPP participants are part of a broader network of international partnerships within the Asia-Pacific.<sup>19</sup> The Asia-Pacific Economic Cooperation (APEC) forum is a primary vehicle for broader regional interaction on trade and economic issues in the Asia-Pacific region. The annual APEC Leaders (heads-of-state) meeting provides an opportunity for stakeholders throughout the region, including political and business leaders, to address regional impediments to trade and economic integration through non-binding commitments.<sup>20</sup> Although the organization itself does not negotiate trade agreements, its stated goals, known as the “Bogor Goals,” include freer trade and investment throughout the region. Specifically, APEC views itself as an “incubator” of an eventual Free Trade Area of the Asia-Pacific (FTAAP) and supports the TPP as one step towards that goal.<sup>21</sup> APEC’s 21 members include the three largest economies in the world and the four largest U.S. trading partners.<sup>22</sup>

## **Association of Southeast Asian Nations (ASEAN)**

ASEAN is the other major regional economic partnership that includes TPP countries. ASEAN members include: Brunei, Burma (Myanmar), Cambodia, Indonesia, Laos, Malaysia, the Philippines, Singapore, Thailand, and Vietnam. Unlike APEC, ASEAN has already created a free trade area among its members. However, import tariffs on intra-ASEAN trade are being removed at different rates in different ASEAN countries depending on levels of economic development. Import duties have been completely eliminated on over 99% of tariff lines (product categories) in Brunei, Indonesia, Malaysia, the Philippines, Singapore, and Thailand. Burma (Myanmar), Cambodia, Laos, and Vietnam have been slower to fully open their markets. In these lesser developed ASEAN countries, import duties with other ASEAN members are now 0-5% on 99% of tariff lines.<sup>23</sup> According to the group’s economic community blueprint, ASEAN members

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<sup>16</sup> Ambassador Ronald Kirk, *2011 Trade Policy Agenda*, Office of the United States Trade Representative, March 2011, p. 4, [http://www.ustr.gov/webfm\\_send/2597](http://www.ustr.gov/webfm_send/2597).

<sup>17</sup> Ibid.

<sup>18</sup> Emergency Committee for American Trade, *ECAT 2011 Agenda*, June 14, 2011.

<sup>19</sup> For more information on Asian regional partnerships see CRS Report RL33653, *East Asian Regional Architecture: New Economic and Security Arrangements and U.S. Policy*, by Dick K. Nanto.

<sup>20</sup> For more information on the most recent APEC meetings, see CRS Report R42071, *The Asia-Pacific Economic Cooperation (APEC) Meetings in Honolulu: A Preview*, by Michael F. Martin.

<sup>21</sup> Carlos Kuriyama, *The Mutual Usefulness between APEC and TPP*, APEC Policy Support Unit, October 2011, p. 9.

<sup>22</sup> The three largest economies in the world as measured by nominal GDP are the United States, China, and Japan. The four largest trading partners of the United States are Canada, China, Mexico, and Japan. **Table 1** includes a complete list of APEC economies.

<sup>23</sup> ASEAN Secretariat, *ASEAN Economic Community Factbook*, February 2011, p. 3.

intend to promote further economic integration and freer flow of goods, services, investment, capital, and labor throughout their membership in the future.<sup>24</sup>

The association has also established FTAs collectively with non-ASEAN countries including Australia, China, India, Japan, New Zealand, and South Korea. Further regional integration via ASEAN and its FTA partners, known as the ASEAN +3 (ASEAN, China, Japan, and South Korea) and ASEAN +6 (ASEAN +3, Australia, India, and New Zealand) models that are under consideration, could be an alternative to the TPP in achieving freer trade throughout the Asia-Pacific region. Some see these ASEAN economic partnerships that exclude the United States but include the other major economies of the Asia-Pacific as presenting a challenge to the United States' ability to retain its economic clout and full economic engagement with the region.<sup>25</sup>

## Free Trade Agreements

**Table A-1** in the appendix shows free trade agreements of TPP countries that have either been concluded or are under negotiation. While such a list provides a general overview of a country's proclivity toward economic openness, these FTAs may differ greatly in the extent of their tariff reduction, product inclusion, and trade rules. Due to this variation, a country may enter into a trade agreement as a member of a larger body (e.g., ASEAN-Australia) and also negotiate separate bilateral FTAs (e.g., Malaysia-Australia). The table includes both bilateral FTAs and larger regional agreements.

TPP participants have multiple FTAs in place throughout the Asia-Pacific and the world. As shown in **Table A-1**, TPP countries have several agreements with China and Japan, the second and third largest economies in the region (and the world), behind the United States. Excluding the United States, all TPP countries are either in negotiation or have an FTA in place with China, while the same is true for all but New Zealand with respect to Japan.<sup>26</sup>

TPP countries are also well connected to one another through their existing trade agreements. **Figure 5** below shows that only the United States and Peru have agreements with fewer than five of the other TPP members. Singapore has agreements in place with the entire TPP membership. The FTA among Brunei, Chile, New Zealand, and Singapore that served as the starting point for the current TPP, known as the Trans-Pacific Strategic Economic Partnership agreement (P-4), and ASEAN play a large part in this interconnectedness, each joining four of the TPP economies into a free trade area. This preexisting network of trade agreements among TPP members suggests that the negotiating countries may envision benefits from a concluded TPP agreement that extend beyond reduction of traditional trade barriers.

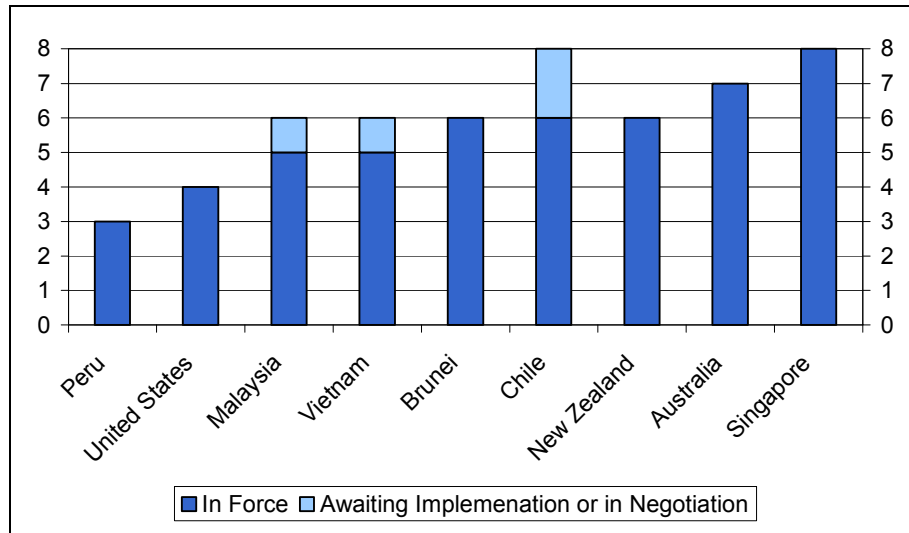
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<sup>24</sup> Association of Southeast Asian Nations, *Roadmap for an ASEAN Community 2009-2015*, April 2009, p. 22.

<sup>25</sup> "U.S. seeks to lead huge new Asia-Pacific trade bloc," *Oxford Analytica*, October 17, 2011.

<sup>26</sup> New Zealand is currently "considering" a trade agreement with Japan. See <http://www.mfat.govt.nz/Trade-and-Economic-Relations/2-Trade-Relationships-and-Agreements/Japan/index.php>.

**Figure 5. Existing Trade Agreements among TPP Members**



**Source:** Analysis by CRS. Data from individual TPP government websites and the WTO's trade agreements database.

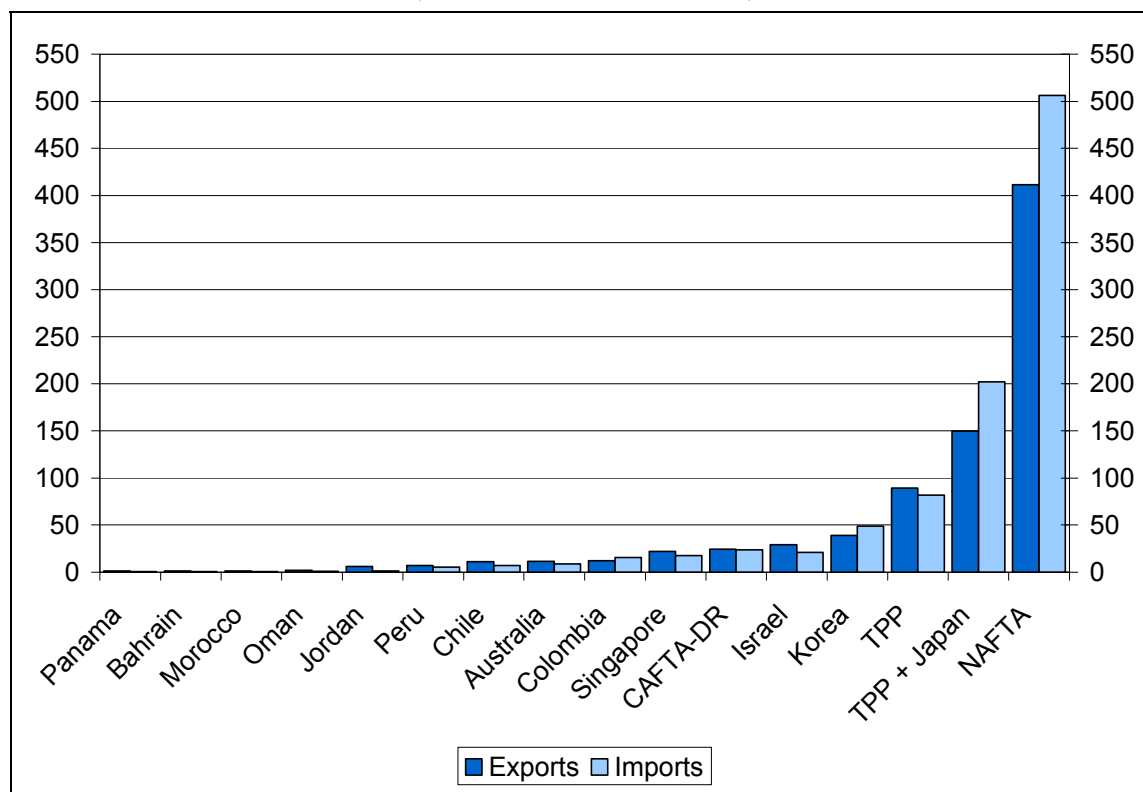
**Notes:** This represents only trade agreements with other TPP members.

## U.S. FTAs and TPP

The United States currently has FTAs in force with 17 countries and has three more in the process of being implemented. **Figure 6** places the potential TPP agreement in context with these existing U.S. FTAs. Even with only the current members, a completed TPP would be the second largest U.S. FTA by trade flows. In 2010, trade between TPP countries and the United States was nearly twice the level of U.S. trade with South Korea, the largest of the United States' recent FTA partners. A TPP agreement that included Japan would encompass over 10% of all U.S. trade. However, as **Figure 6** depicts, even including Japan with the TPP countries, their collective trade with the United States would still represent only a fraction of the U.S. trade under NAFTA (U.S.-Canada-Mexico).

**Figure 6. U.S. Trade with Current FTA Partners and TPP Countries**

(in billions of U.S. dollars, 2010)



**Source:** Analysis by CRS. Data from the ITC.

**Notes:** The North American Free Trade Agreement (NAFTA) includes the United States, Canada, and Mexico. The Dominican Republic-Central America Free Trade Agreement (CAFTA-DR) includes the United States, the Dominican Republic, Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua.

## Bilateral Investment Treaties

International economic relations include investment flows between nations, in addition to trade in goods and services. These investment flows can be the subject of negotiated disciplines in bilateral investment treaties (BITs) or as part of FTAs. The United States typically includes investment provisions in its FTAs, as with each of the existing FTAs between the United States and four TPP participants. Currently, no U.S. BITs are in place with the other four TPP countries.

Among TPP participants, Malaysia and New Zealand have been the most proactive in negotiating BITs, according to the latest United Nations data on international investment treaties. As of June, 2011, both countries had 49 BITs in force, while Australia and Brunei had the lowest number of investment treaties with 21 and 3, respectively. The United States had 40 BITs in force as of June 2011 (see **Table 3**).



## Trade, Investment, and Tariff Patterns

Examining trade and investment flows into and out of TPP countries is part of analyzing their economic relations with the United States and the potential impact the proposed TPP FTA may have on those relations. Given the variation in geography, population, and economic development among TPP countries, the type and quantity of trade and investment varies greatly from country-to-country. Additionally, existing tariff structures among the TPP countries highlight the variation in openness to trade among the TPP countries and may identify some potential difficulties in liberalizing trade between such diverse countries.

The analysis and description that follows depends on the quality and scope of the relevant data. Hence, the most comprehensive examination is on merchandise trade. Three broad patterns on trade and investment are considered where possible: (1) between the United States and other TPP members; (2) among all TPP members; and (3) between non-U.S. TPP members and the rest of the world.

### U.S.-TPP Trade

#### Merchandise Trade<sup>27</sup>

Trade in goods between the United States and other TPP countries represents about 5% of overall U.S. trade, and is relatively balanced. However, the majority of U.S.-TPP trade is concentrated with a few members. **Figure 7** and **Figure 8** below show the goods imports and exports between the United States and its TPP negotiating partners over the past decade. In 2010, of the \$89 billion in U.S. goods exports to the region, over half went to just Australia and Singapore, while over half of the \$82 billion in U.S. imports came from Malaysia and Singapore.

Although these top U.S. trading partners have been dominant in U.S.-TPP trade over the past decade, substantial increases in trade between the United States and some of the smaller economies have occurred. For example, U.S. trade with Peru and Chile, with whom the United States signed FTAs in the past decade, has more than doubled. In the same period, U.S. trade with Vietnam has increased more than ten-fold. **Figure 8** below highlights Vietnam's rapid rise in supplying goods to the United States, moving from the 7<sup>th</sup> to 3<sup>rd</sup> biggest supplier of U.S. imports among TPP countries. Much of this increase likely reflects the improved trade relations between Vietnam and the United States over the past decade. The United States granted Vietnam conditional normal trade relations (NTR) in 2001 and then permanent NTR (PNTR) in 2006 as Vietnam was acceding to the WTO.<sup>28</sup>

The current merchandise trade surplus the United States has with TPP partners emerged in the past three years. **Figure 9** below shows that this rise in the U.S. trade surplus is due to both a decrease in imports and an increase in exports in recent years. As of 2010, U.S. imports from the

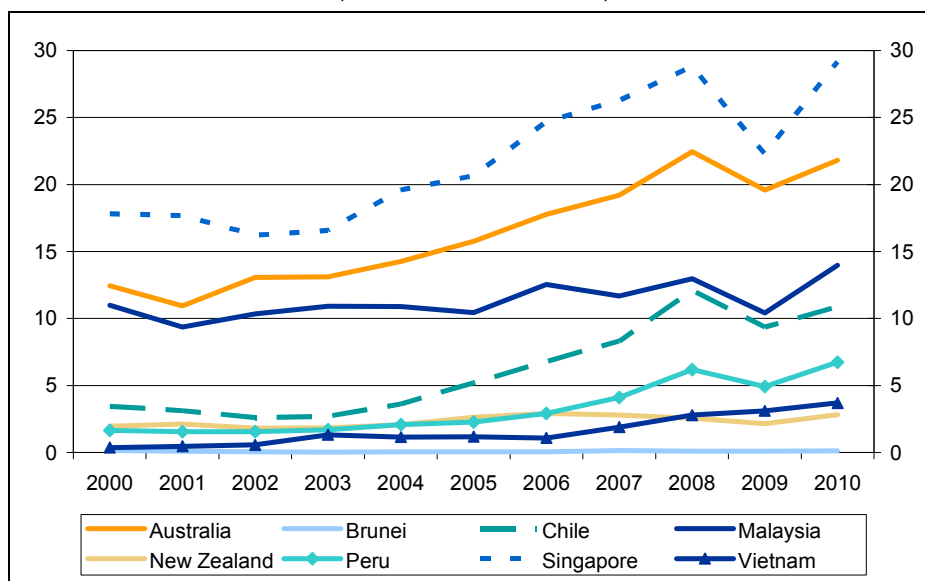
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<sup>27</sup> Exports reflect "total exports" and imports reflect "general imports." Data are also available based on "domestic exports" and "imports for consumption." The differences between these data has to do with the treatment of goods that enter U.S. territory from abroad and are re-exported with minimal modification while in the United States. These re-exports can be high in particular countries. For instance, they were above 10% of total exports to Singapore in 2010.

<sup>28</sup> For more information on U.S.-Vietnam economic relations, please see CRS Report R41550, *U.S.-Vietnam Economic and Trade Relations: Issues for the 112th Congress*, by Michael F. Martin.

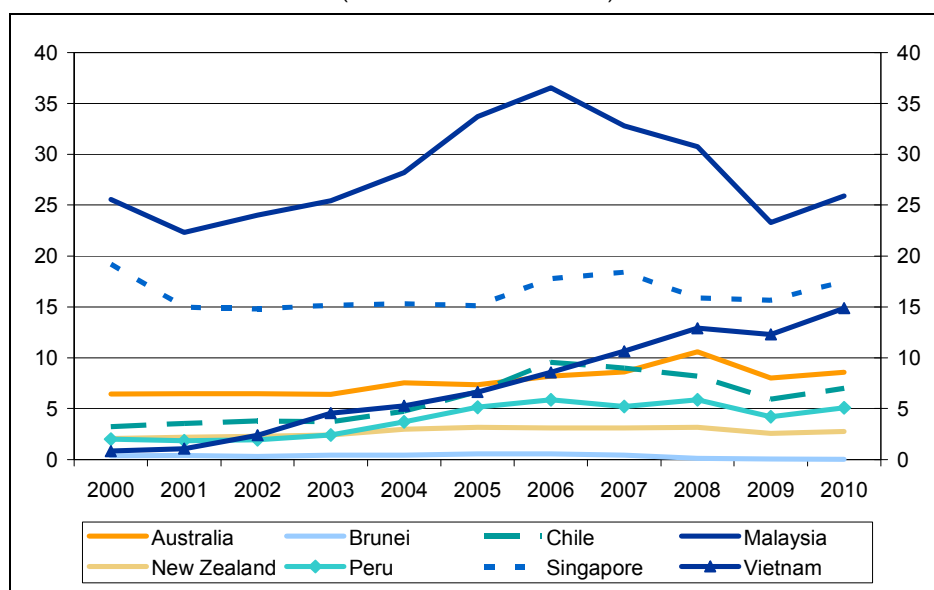
region were almost \$10 billion below their 2006 peak, while exports increased by nearly \$20 billion during the same period. The most recently available 2011 data (Jan.-Nov.), show the U.S. surplus with TPP countries at \$6 billion above, or double, that achieved during the same period in 2010. The major contributors to this rising trade balance between the United States and TPP countries have been falling U.S. imports from Malaysia, and rapidly increasing exports to Australia, Chile, Peru, and Singapore, who are also U.S. FTA partners.

**Figure 7. Bilateral U.S. Merchandise Exports to TPP Countries**  
(in billions of U.S. dollars)



Source: Analysis by CRS. Data from the ITC.

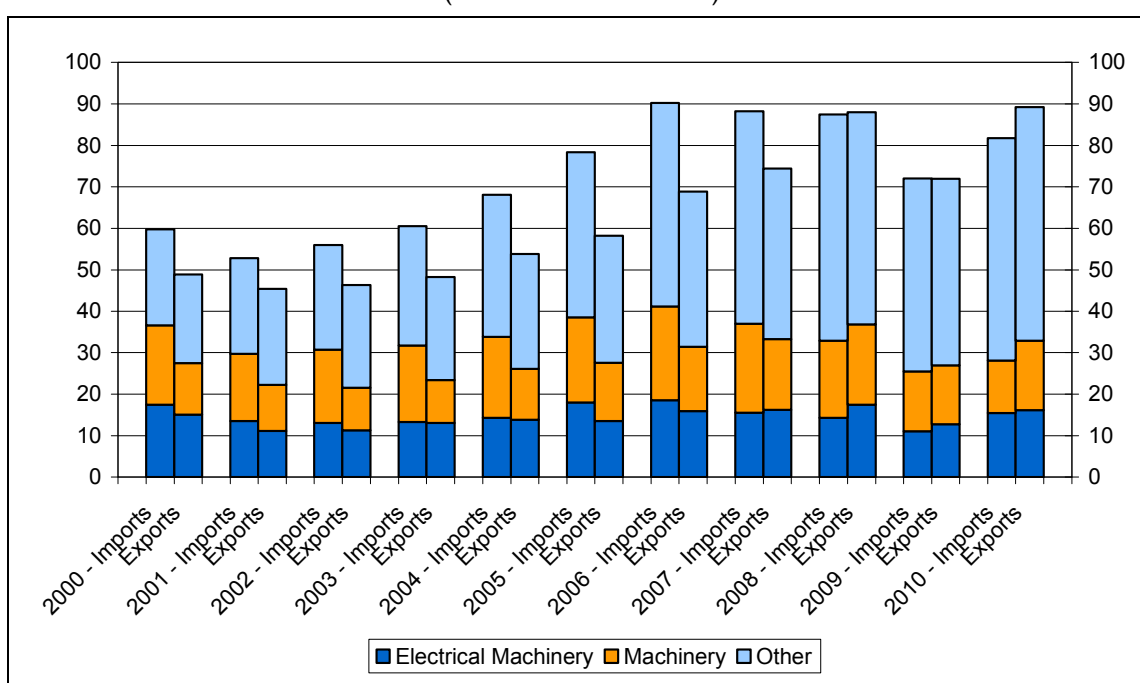
**Figure 8. Bilateral U.S. Merchandise Imports from TPP Countries**  
(in billions of U.S. dollars)



Source: Analysis by CRS. Data from the ITC.

At the aggregate level, machinery and electrical machinery are the largest categories of both imports and exports between the United States and other TPP countries. Together they represent over 35% of the U.S.-TPP goods flow. The significant flow of these products in both directions may reflect the supply chains and production linkages that exist between the United States and Asia-Pacific countries, particularly Malaysia and Singapore. **Figure 9** shows a breakdown of product categories for U.S. imports from and exports to TPP countries over the past decade. The figure shows that U.S.-TPP goods trade is becoming more diversified as the top categories continue to make up a smaller share of the overall trade. Some of the fastest growing U.S. export categories – all more than tripling in value since 2000 – have been mineral fuels (oil refinements mostly), pharmaceutical products, precious stones/metals, and iron/steel.

**Figure 9. Total U.S. Merchandise Imports from and Exports to TPP Countries**  
(in billions of U.S. dollars)



**Source:** Analysis by CRS. Data from the ITC.

Considering bilateral flows, U.S. exports are largely in the same top product categories across countries. However, U.S. imports from TPP countries vary greatly. **Table 2** shows the top three imports/exports for each of the TPP countries, their value, and the percent of each country's total U.S. imports/exports that category represents. Machinery appears in the list of the top three U.S. exports to each TPP country. Other top U.S. exports include electrical machinery, vehicles, and aircraft, highlighting the U.S. advantage in high-tech products.

U.S. imports from TPP countries reflect the dominant industries and relative strengths in each country. Agriculture and natural resource products are the top U.S. imports from Australia, Chile, New Zealand, and Peru. Malaysia and Singapore export primarily manufactured products, such as machinery, chemicals, and electrical machinery. Vietnam, the TPP country with the lowest per capita GDP, specializes in the labor intensive apparel industry with over 40% of its exports to the United States in knitted and woven apparel.

**Table 2. Top U.S.-TPP Trade Categories**

(in millions of U.S. dollars and percentage, 2010)

Country	Top U.S. Imports	Value	Percent of Total	Top U.S. Exports	Value	Percent of Total
Australia	(1) Meat	\$1,148	16 %	(1) Machinery	\$4,530	25 %
	(2) Precious Stones & Metals	\$1,068	15 %	(2) Vehicles	\$2,407	13 %
	(3) Optical, Medical Instruments	\$764	11 %	(3) Optical, Medical Instruments	\$1,940	11 %
Brunei	(1) Knitted Apparel	\$4.4	37 %	(1) Machinery	\$36	31 %
	(2) Organic Chemicals	\$2.6	22 %	(2) Aircraft	\$25	21 %
	(3) Woven Apparel	\$0.8	6 %	(3) Optical, Medical Instruments	\$15	13 %
Chile	(1) Copper	\$2,238	35 %	(1) Machinery	\$2,363	25 %
	(2) Fruits and Nuts	\$1,514	24 %	(2) Mineral Fuels, Oil, etc.	\$2,297	24 %
	(3) Seafood	\$559	9 %	(3) Vehicles	\$1,167	12 %
Malaysia	(1) Electrical Machinery	\$11,582	47 %	(1) Electrical Machinery	\$7,055	56 %
	(2) Machinery	\$6,189	25 %	(2) Machinery	\$1,706	14 %
	(3) Optical, Medical Instruments	\$1,387	6 %	(3) Aircraft	\$903	7 %
New Zealand	(1) Meat	\$726	29 %	(1) Aircraft	\$597	26 %
	(2) Dairy, Eggs, & Honey	\$258	10 %	(2) Machinery	\$410	18 %
	(3) Beverages	\$219	9 %	(3) Optical, Medical Instruments	\$179	8 %
Peru	(1) Mineral Fuel, Oil, etc.	\$1,198	25 %	(1) Machinery	\$1,623	28 %
	(2) Copper	\$691	15 %	(2) Mineral Fuels, Oil, etc.	\$981	17 %
	(3) Knitted Apparel	\$636	13 %	(3) Electrical Machinery	\$588	10 %
Singapore	(1) Machinery	\$5,286	31 %	(1) Machinery	\$5,601	21 %
	(2) Electrical Machinery	\$2,753	16 %	(2) Electrical Machinery	\$5,531	21 %
	(3) Organic Chemicals	\$2,653	16 %	(3) Aircraft	\$3,807	14 %
Vietnam	(1) Knitted Apparel	\$3,359	25 %	(1) Machinery	\$466	16 %
	(2) Woven Apparel	\$2,438	18 %	(2) Vehicles	\$307	11 %
	(3) Furniture, Bedding, etc.	\$1,826	14 %	(3) Food Waste & Animal Feed	\$266	9 %

**Source:** Analysis by CRS. Data from the ITC.

**Notes:** Excludes products categorized as “special classification” under the U.S. Harmonized Tariff System (HTS).

## Services Trade<sup>29</sup>

A main focus of the proposed TPP FTA, billed as a “21<sup>st</sup> century” agreement, is emerging issues in international trade. Although covered in previous U.S. FTAs, trade in services, particularly as it relates to digital trade is one such emerging issue. The United States, in which services provide 83% of non-agricultural jobs and over 65% of GDP, is considered to be particularly competitive in this sector.<sup>30</sup> Services, unlike goods, are typically intangible (e.g., financial, legal, accounting), making their trade more complex to measure than tracking a shipping container from location A to location B. As a result, trade in services data, collected by the Bureau of Economic Analysis (BEA), lack the detail provided for trade in goods. The analysis below only covers the TPP countries individually included in the BEA data: Australia, Chile, Malaysia, New Zealand, and Singapore. Elsewhere in this document, if not specified, trade simply refers to merchandise (goods) trade.

## *Cross-Border Trade in Services*<sup>31</sup>

U.S. services trade with the five TPP countries for which data are available, presents the same pattern of competitiveness seen in U.S. services trade with the rest of the world. In 2010, the United States had a collective services trade surplus of more than \$15 billion with the five TPP countries. **Figure 10** and **Figure 11** show services exports to and imports from the five TPP countries over the past decade. They show that Australia and Singapore are the major U.S. services trade partners among the five TPP countries. While both countries are also important for goods trade, their dominance is more pronounced for services. The United States has a significant services trade surplus with all TPP countries for which individual data are available, except for New Zealand, with which it has a nearly balanced services trade. While services exports to the region have grown over the past decade for the five TPP countries, services exports to Australia have nearly tripled from \$4.8 to \$13.1 billion. Services imports from Australia to the United States have increased more slowly causing the U.S. services trade surplus with Australia to surge from \$1.2 to \$7.6 billion.

The composition of U.S. services exports to the five TPP countries differs considerably from the composition of U.S. services imports. **Figure 12** and **Figure 13** below show that the largest differences between imports and exports are in travel and transportation, financial services, and royalties. Financial services and royalties are major U.S. services exports to the five TPP countries, making up 14% and 24% of the total. However, they each comprise only 4% of U.S. services imports from the five TPP countries. Meanwhile, travel and transportation accounts for a much larger share of U.S. services imports from (49%) than exports to (26%) the five TPP countries.

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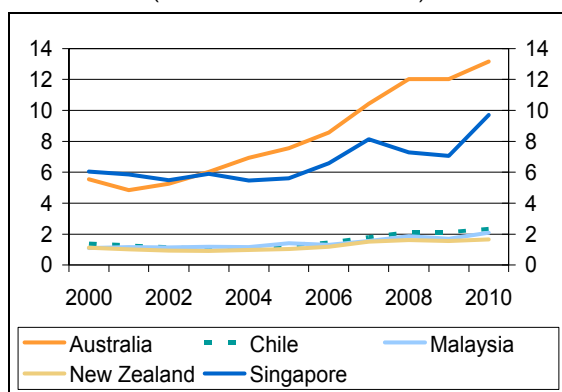
<sup>29</sup> For a more thorough discussion of U.S. trade in services see CRS Report RL33085, *Trade in Services: The Doha Development Agenda Negotiations and U.S. Goals*, by William H. Cooper.

<sup>30</sup> Ibid.

<sup>31</sup> The Bureau of Economic Analysis collects data on both “cross-border” services trade and services supplied through foreign affiliates of multinational companies. The following report provides details on the distinctions between these different types of service. Bureau of Economic Analysis, *U.S. International Services*, October 2011, [http://www.bea.gov/scb/pdf/2011/10%20October/1011\\_services%20text.pdf](http://www.bea.gov/scb/pdf/2011/10%20October/1011_services%20text.pdf).

**Figure 10. Bilateral U.S. Services Exports to Select TPP Countries**

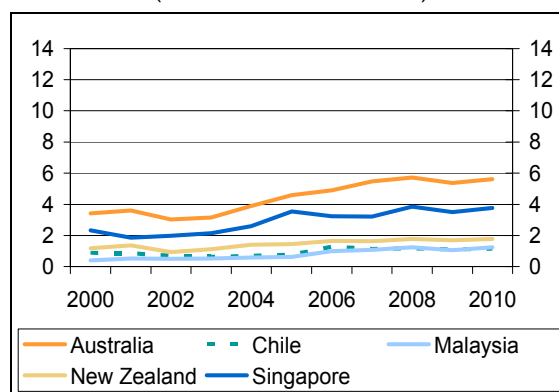
(in billions of U.S. dollars)



Source: Analysis by CRS. Data from BEA.

**Figure 11. Bilateral U.S. Services Imports from Select TPP Countries**

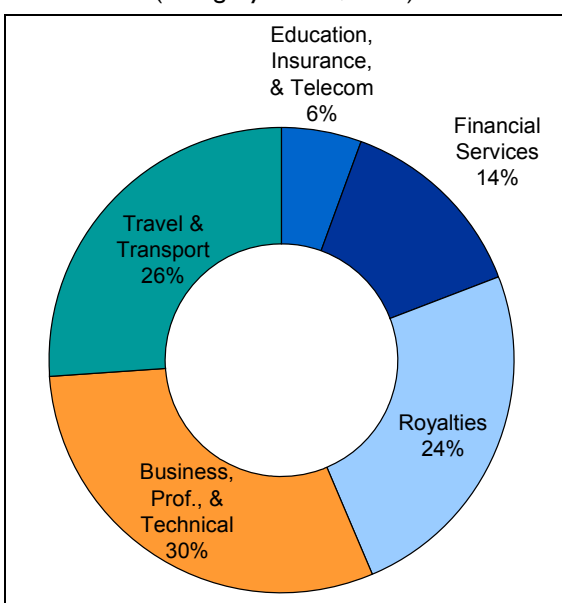
(in billions of U.S. dollars)



Source: Analysis by CRS. Data from BEA.

**Figure 12. Total U.S. Services Exports to Select TPP Countries**

(Category Shares, 2010)

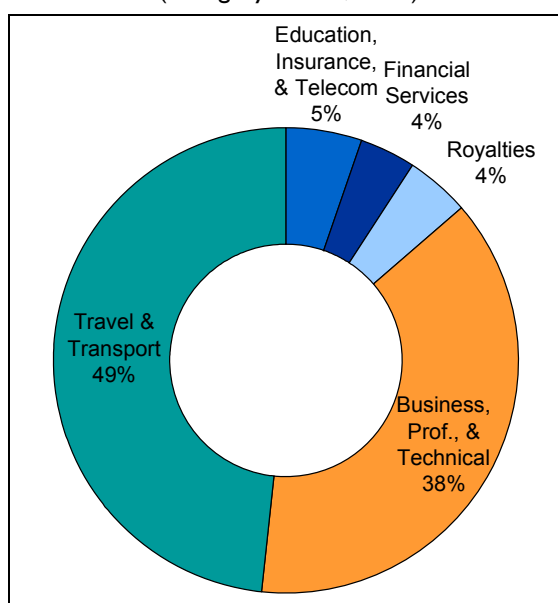


Source: Analysis by CRS. Data from BEA.

Notes: TPP countries included are Australia, Chile, Malaysia, New Zealand, and Singapore.

**Figure 13. Total U.S. Services Imports from Select TPP Countries**

(Category Shares, 2010)

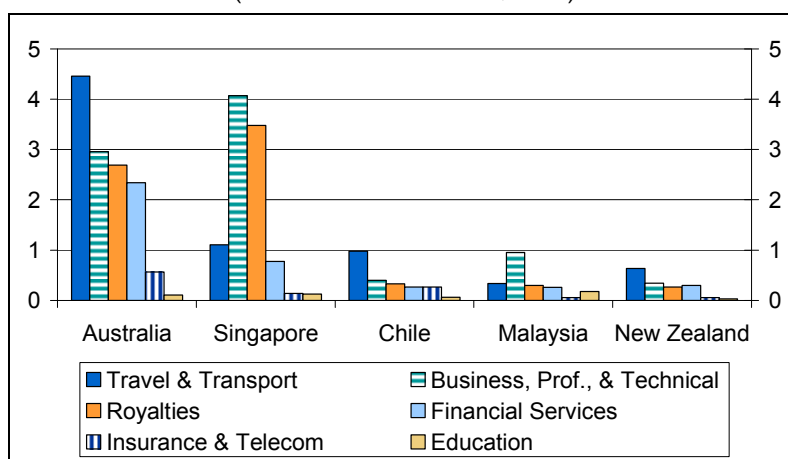


Source: Analysis by CRS. Data from BEA.

Notes: TPP countries included are Australia, Chile, Malaysia, New Zealand, and Singapore.

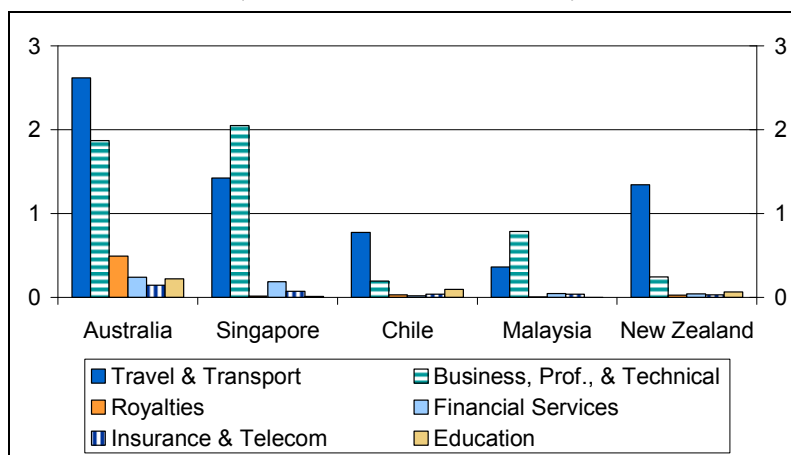
There is also variation in services trade among the five individual TPP countries. **Figure 14** shows the breakdown of U.S. exports to the five TPP countries by sector. **Figure 15** does the same for imports. Some of the differences by sector follow geographic patterns. For instance, the top U.S. services imports and exports for Malaysia and Singapore are business, professional, and technical services, while for Australia, Chile, and New Zealand, the top services imports and exports are travel and transportation. A few industries appear to be particularly important for one country in terms of services trade, but not others. For example, insurance and telecommunications comprise around 12% of U.S. service exports to Chile, but less than 5% in all other TPP countries. The United States also provides more education services to Malaysia than to any of the other five TPP countries even though Malaysia's total U.S. services imports are less than one-sixth of U.S. services imports from Australia. In Singapore, royalties are a significant services import from the United States, making up nearly 36% of total U.S. services exports to Singapore.

**Figure 14. Bilateral U.S. Services Exports to Select TPP Countries, by Category**  
(in billions of U.S. dollars, 2010)



Source: Analysis by CRS. Data from BEA.

**Figure 15. Bilateral U.S Services Imports from Select TPP Countries, by Category**  
(in billions of U.S. dollars, 2010)



Source: Analysis by CRS. Data from BEA.

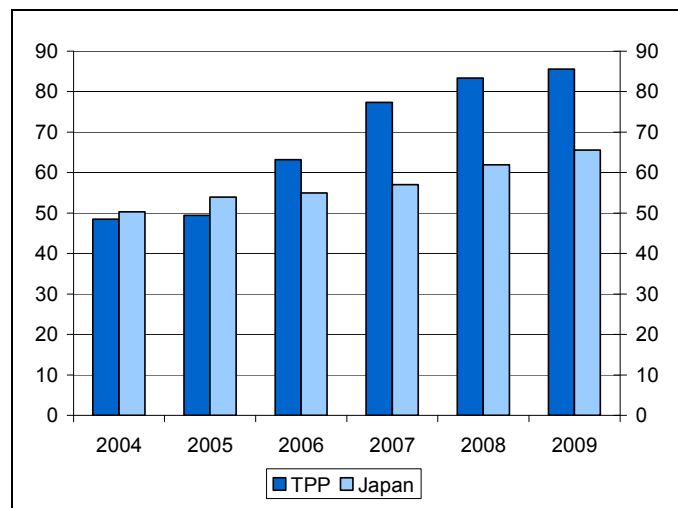
### Services Supplied through Foreign Affiliates

In addition to trading services across international borders, countries also provide services to foreign residents by establishing a commercial presence in local markets. The BEA collects data on services supplied to foreign residents by majority-owned foreign affiliates (MOFAs) of U.S. multi-national corporations (MNCs) (*i.e.*, U.S. companies with operations in foreign countries). Typically, the value of U.S. services supplied through MOFAs is considerably larger than the cross-border trade in services discussed above. For instance, in 2009, more than \$1 trillion in services were provided to foreign residents through foreign affiliates of U.S. companies, compared to \$487 billion supplied through cross-border trade. At a much smaller scale, the same pattern holds true for U.S. services provided to the five TPP countries for which services data are available. During 2004-2009, the latest period for which consistent data are available, services supplied through U.S. MOFAs grew rapidly, particularly in the five TPP countries.

This growth is especially evident if one compares U.S.-MOFA services provided in Japan with those in the five TPP countries. **Figure 16** shows that, in 2004, Japan accounted for a greater share of the services supplied by U.S. MOFAs than the five TPP countries combined. However, during the next five years, the value of services supplied through U.S. MOFAs increased by 75% among the five TPP countries, but by only 30% in Japan, and by 58% in the rest of the world. By 2009, services supplied to the five TPP countries through U.S. MOFAs were one-third greater than those to Japan. As with U.S.-TPP cross-border trade in services, in 2009, the majority of services supplied to TPP countries through U.S. MOFAs went to Australia and Singapore (nearly 85%).

In 2009, the value of services supplied to U.S. residents through majority-owned U.S. affiliates (MOUSAs) of foreign MNCs (*i.e.*, foreign companies that have established a commercial presence in the United States) was only about 60% of the value of services supplied abroad through MOFAs of U.S. MNCs. This same pattern is even more evident among the five TPP countries: services supplied to the United States through TPP MOUSAs are less than one-quarter of those supplied to TPP countries from U.S. MOFAs.

**Figure 16. Services to TPP Countries and Japan through MOFAs of U.S. MNCs**  
(in billions of U.S. dollars)



Source: Analysis by CRS. Data from the BEA.



## Intra-TPP Trade

As highlighted throughout this report there is great variation in location, population, and economic development among TPP countries. That variation is also reflected in the trading patterns among TPP members. **Figure 17** provides an illustration of each TPP country's relative trading relationship with the other TPP members.

**Figure 17** is intended to show at a glance for each country, the relative strength of its trade relationships (exports and imports) with each of its eight TPP trading partners. For instance, consider Australia's trade represented in segment (a) of **Figure 17**. Australia's imports from the United States, shown as a wide arrow pointing towards Australia, are larger than its exports to the United States. Moreover, Australia's imports from the United States far outweigh both its imports and exports with every other TPP country. As shown in segment (i), the opposite is true for Vietnam. Vietnamese exports to the United States are larger than both its imports from the United States and its imports from and exports to all other TPP countries. A strong U.S. presence in the trading relationship of each TPP country is not surprising given the size of the U.S. economy relative to the other TPP members.

Both geography and relative economic size can play substantive roles in determining a country's most important trading partners. This can be seen in two examples: one with partners of similar economic (GDP) size, and one with partners of unequal size. For example, similarly-sized, Malaysia (d) and Singapore (g) are each other's largest TPP trading partner. On the other hand, for unequally sized neighbors Australia (a) and New Zealand (e), Australia, with an economy nearly ten times as great, is a much more significant trading partner for New Zealand than vice versa.

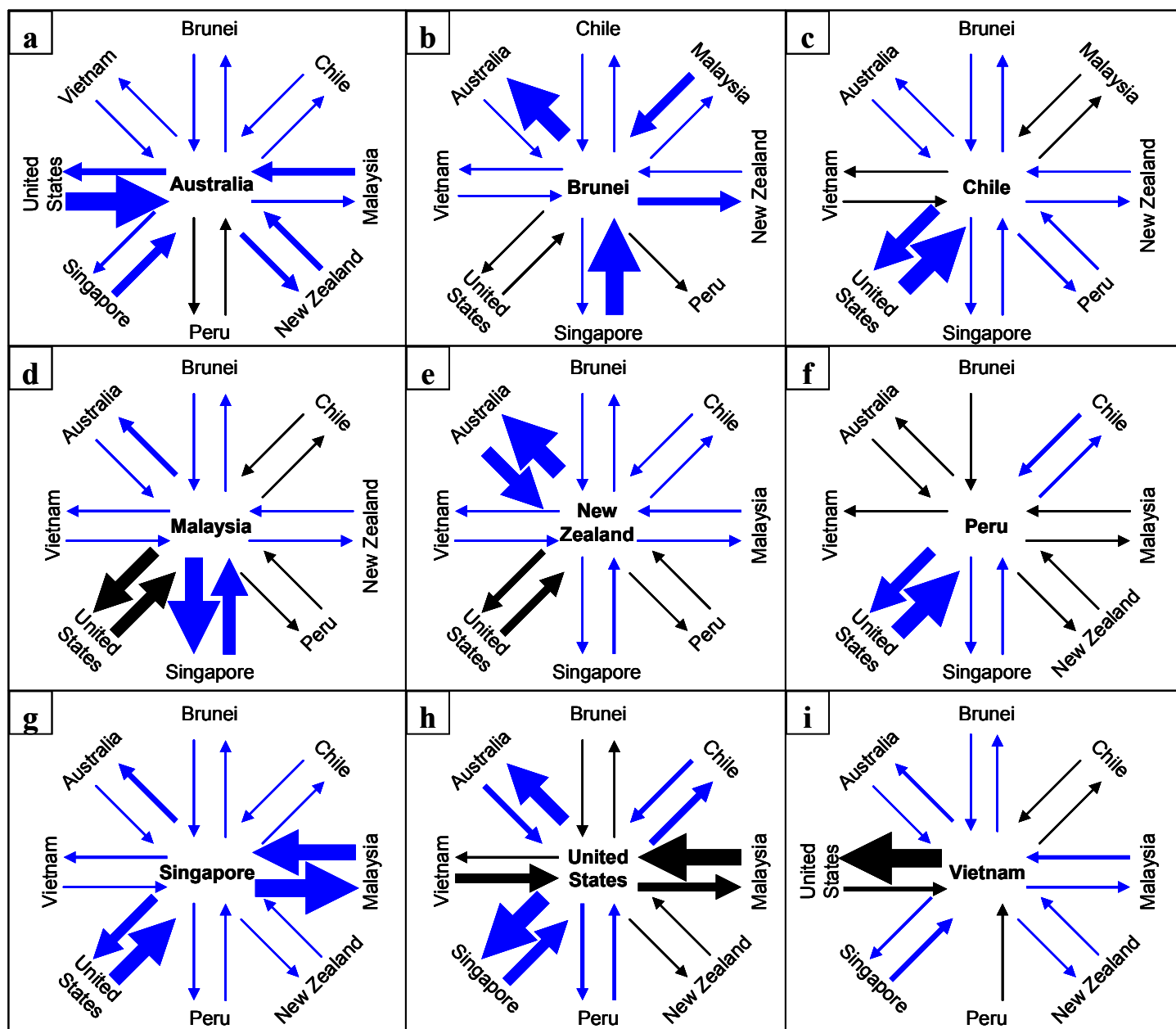
As discussed above, and as represented by the blue shading in **Figure 17**, FTAs are prevalent throughout the TPP region. They also account for some of the most significant trading relationships in the region. This may explain, in part, the willingness of the current negotiating partners to focus on complex issues such as those in a more comprehensive, high standards agreement, such as the proposed TPP, because much of their trade is already covered under existing trade agreements. The two largest bilateral trading relationships not covered under current FTAs are U.S.-Malaysia and U.S.-Vietnam (see segments d, h, and i).

### **Intra-TPP Merchandise Trading Relationships: Interpreting Figure 17**

- Nine segments (a-i) depict trade between the nine TPP countries, and their eight TPP trading partners.
- The direction of the arrows represents exports and imports.
- FTA partners are highlighted in blue.
- Arrows are scaled to denote the magnitude of trade between each country and its TPP trading partners.
- For each trade partner, the relative widths of the export and import lines generally indicates whether there is a trade surplus or deficit.
- Nothing on this chart indicates the relative total trade volumes of the various countries, see **Figure 1** for this information.
- The data used to derive **Figure 17** can be seen in **Table A-2** in the appendix.

Figure 17. Intra-TPP Merchandise Trading Relationships

2010



**Source:** Analysis by CRS. Data from IMF Direction of Trade Statistics.

**Notes:** See text box on previous page for details on interpreting **Figure 17**. See **Table A-2** in the appendix for trade data. A missing arrow denotes either no trade or missing data. Direction of Trade Statistics data consider trade flows from each individual country's perspective, whenever possible. Countries can differ in their classification methods, particularly classification of trade flows that pass through a third-party before reaching their final destination. Hence, Country A's reported imports from Country B may not equal Country B's reported exports to Country A.

## World-TPP Trade

**Figure 18** and **Figure 19** below compare shares of non-U.S. TPP trade in 2000 and 2010. Trade between TPP countries and the rest of the world over the past decade highlights a rapidly growing Chinese presence in the economies of the Asia-Pacific region.

In 2000, the United States accounted for 16% of all goods exported to non-U.S. TPP countries. By 2010, the United States' share had fallen to 11%. During the same period, China's share of goods exported to non-U.S. TPP countries increased from 6% to 15%. This pattern holds true for trade in both directions. In 2000, the United States was also the top importer from other TPP countries, receiving 16% of all exports from non-U.S. TPP countries, but by 2010 this share dropped to 8%. Again, China's share increased from 4% to 15%, over the same time period.

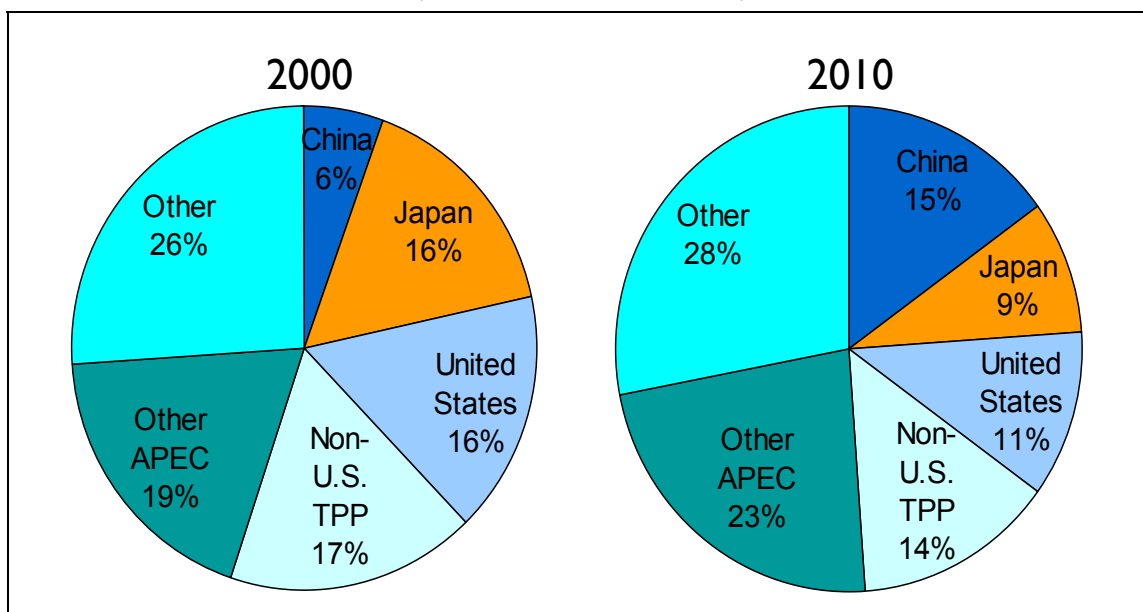
Other APEC economies also increased their share of non-U.S. TPP trade, while relative trade among TPP countries fell slightly. Relatively speaking, since 2000, TPP countries are trading less with Japan, the United States, and each other, and more with the other APEC economies, especially China.

China's rapid economic rise in the region can also be seen at the individual country level. For example, the same pattern emerges if one examines exports to Australia and Singapore, the top two destinations for U.S. exports among TPP countries. **Figure 20** shows the top four exporting countries to Singapore over the past decade, while **Figure 21** shows the same for Australia. In Singapore, China has narrowed the gap between its own exports and those of Malaysia and the United States, overtaking Japan as the third largest supplier of goods to the country. In Australia, China's growth in exports has been even more significant. In 2006, China replaced the United States as the chief supplier of Australian imports.

While China's rise as a trading partner with TPP countries has been rapid and significant, it is representative of China's trade patterns with the rest of the world. During the same time period referenced above, the share of U.S. imports coming from China increased from 8% to 19%, some of which may be the result of a shift in lower-cost production to China from other Asia-Pacific countries. China has also been active in negotiating trade agreements with TPP countries. The United States is the only TPP country that has neither a completed FTA nor ongoing trade agreement negotiations with China.

**Figure 18. Source of Merchandise Imports for non-U.S.TPP Countries**

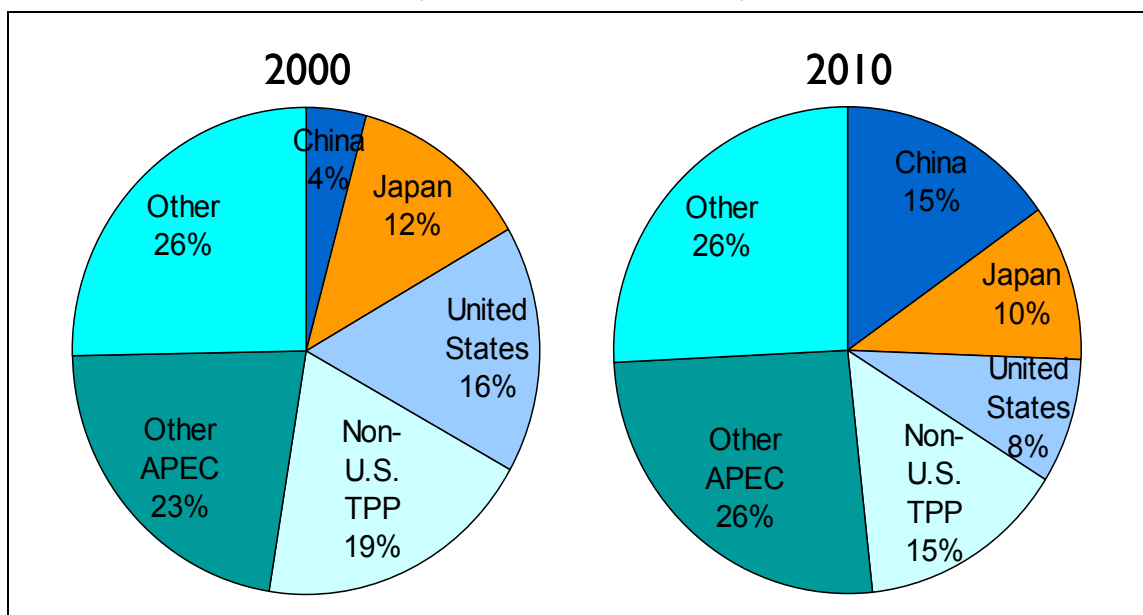
(share of total, 2000 and 2010)



Source: Analysis by CRS. Data from the IMF, Direction of Trade Statistics.

**Figure 19. Destination of Merchandise Exports for non-U.S.TPP Countries**

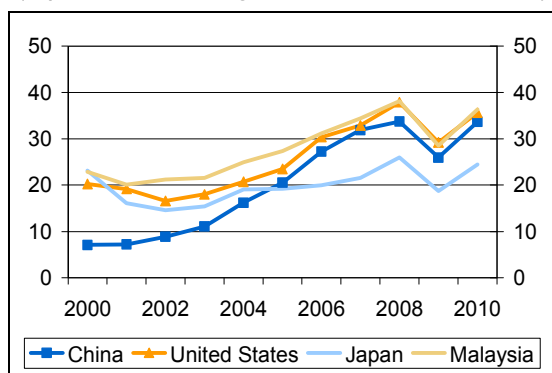
(share of total, 2000 and 2010)



Source: Analysis by CRS. Data from the IMF's Direction of Trade Statistics.

**Figure 20. Merchandise Imports into Singapore**

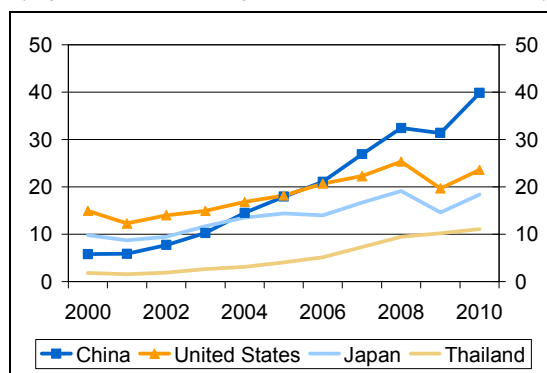
(top countries of origin, in billions of U.S. dollars)



**Source:** Analysis by CRS. Data from the IMF's Direction of Trade Statistics.

**Figure 21. Merchandise Imports into Australia**

(top countries of origin, in billions of U.S. dollars)



**Source:** Analysis by CRS. Data from the IMF's Direction of Trade Statistics.

## Investment Patterns

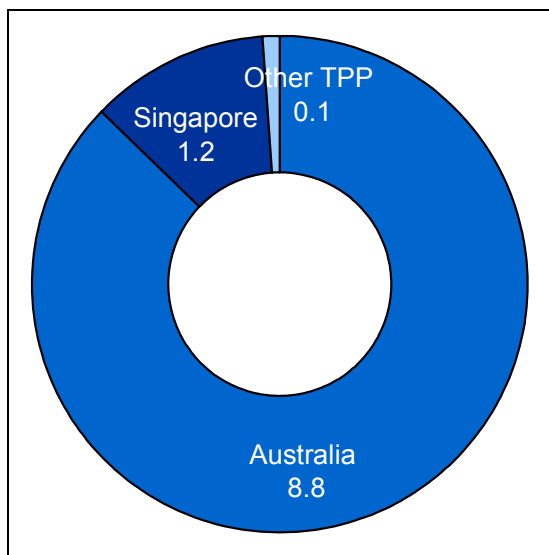
The proposed TPP FTA, like previous U.S. FTAs, is expected to include provisions on investment. As mentioned above, the four FTAs the United States has in place with TPP countries (Australia, Chile, Peru, and Singapore) include investment provisions. However, no other bilateral investment treaties (BITs) exist between the United States and the remaining TPP countries.

The four existing U.S. FTAs with TPP countries already cover the countries responsible for the majority of TPP-U.S. direct investment flows. **Figure 22** highlights that TPP investment in the United States in 2010 was provided almost exclusively by Australia and Singapore, with a combined \$10 billion in FDI in the United States, compared with \$86 million in FDI from all other TPP countries. However, **Figure 23** shows that U.S. direct investment abroad into TPP countries is more diversified. While Australia and Singapore are still important, Malaysia, Chile, and Peru also received a significant level of U.S. direct investment abroad.

In 2010, the United States was the largest recipient and source of international direct investment among TPP participants in absolute terms (see **Table 3**). However, scaling total investment by GDP levels reveals that relative to the size of their economies, investment flows in and out of Singapore were considerably higher than those in the United States. Singapore and most TPP countries, except the United States and Malaysia, were net recipients of FDI in 2010. This was particularly true in Vietnam and Peru. As the least developed TPP economies, as measured by GDP/capita and, hence, with relatively scarce domestic capital, one would expect these nations to be primarily recipients of FDI. However, the direction of investment flows are also influenced by current macroeconomic conditions (i.e., exchange rates, interest rates, and economic stability).

**Figure 22. Sources of U.S. FDI from TPP Countries**

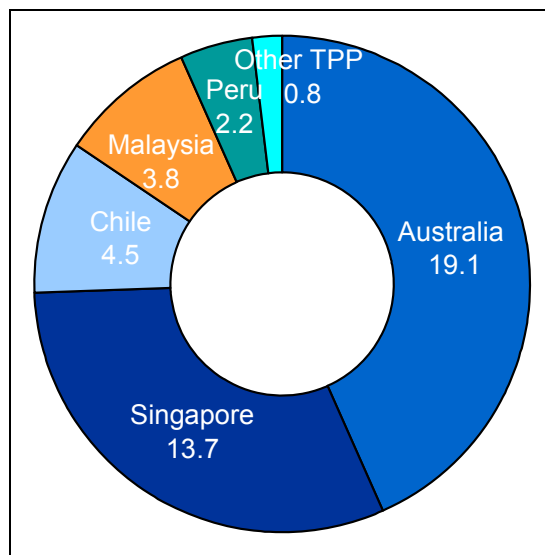
(in billions of U.S. dollars, 2010)



Source: Analysis by CRS. Data from the BEA.

**Figure 23. Destination of U.S. Direct Investment Abroad to TPP Countries**

(in billions of U.S. dollars, 2010)



Source: Analysis by CRS. Data from the BEA.

**Table 3. Bilateral Investment Treaties and Flows for TPP Countries**

(in millions of U.S. dollars, 2010)

Country	Number of Agreements	Total FDI (inward)	Total Direct Investment Abroad (outward)	Total Investment (inward and outward) to GDP Ratio
Australia	21	\$32,472	\$26,431	.05
Brunei	3	\$496	\$6	.04
Chile	38	\$15,095	\$8,744	.12
Malaysia	49	\$9,103	\$13,329	.09
New Zealand	49	\$561	\$589	.01
Peru	31	\$7,328	\$215	.05
Singapore	35	\$38,638	\$19,740	.26
United States	40	\$228,249	\$328,905	.04
Vietnam	40	\$8,173	\$853	.09

Source: Analysis by CRS. Data from the United Nations Conference on Trade and Development (UNCTAD).

Notes: The number of agreements include only those in force.

## Tariff Patterns

TPP negotiating partners are striving for a high standard and comprehensive FTA that addresses trade barriers beyond tariffs. Traditional tariff barriers, however, still exist among TPP members and can be an impediment to expanded trade. While tariffs are only one form of potential trade barrier, they are relatively easy to compare and can provide a general picture of a country's openness to trade.

As all TPP members are members of the WTO, one relevant tariff to consider is the applied most-favored nation (MFN) tariff.<sup>32</sup> The MFN concept is a WTO principle that requires member countries to non-discriminately apply their tariff rates to other members.<sup>33</sup> The average *applied* MFN tariff then is simply the average, among all products, of the tariff rates actually applied to other countries, as opposed to *bound* rates which are essentially caps, or the maximum level that may be imposed under WTO commitments.<sup>34</sup> Hence, a reduction in the applied rate is a reduction in the current tariff level, while a reduction in the bound rate is a prevention against a future increase in the tariff level. Often, applied rates are well below bound rates. For example, Malaysia's average MFN applied rate is 8% compared to an average bound rate of 23%. Both levels are important and the proposed TPP FTA aims to eventually reduce and eliminate tariffs at both the applied and bound level.

The average applied MFN tariffs vary greatly among TPP countries.<sup>35</sup> Vietnam has an average rate of almost 10%, while Singapore charges tariffs on so few items that it has an average rate of 0%. **Figure 24** below shows the average MFN tariffs for TPP participants as reported in the most recent WTO tariff profiles. Per capita GDP, a rough measure of economic development, is graphed on the right axis, revealing that, in general, the more highly developed TPP countries tend to be those with the lower tariff levels. Hence, movement towards zero tariff rates will require a greater reduction in applied tariffs among the less developed members.

Although average tariff rates among all products are below 10% for TPP countries, some industrial and agricultural sectors have relatively high tariffs. For example, the average U.S. tariff rate on dairy products is 20% even though the overall U.S. average is only 3.5%. As seen in **Table 4** below, in six of the nine TPP countries, either clothing or beverages/tobacco is the product category with the highest average applied tariff rate.

Uniquely among the TPP members, Chile and Singapore, have little variation in tariffs at the industry level. Singapore has an average tariff of 0% in every category except beverages and tobacco. Chile has a higher but still uniform tariff structure, with an average tariff of 6% in all but two product groups.

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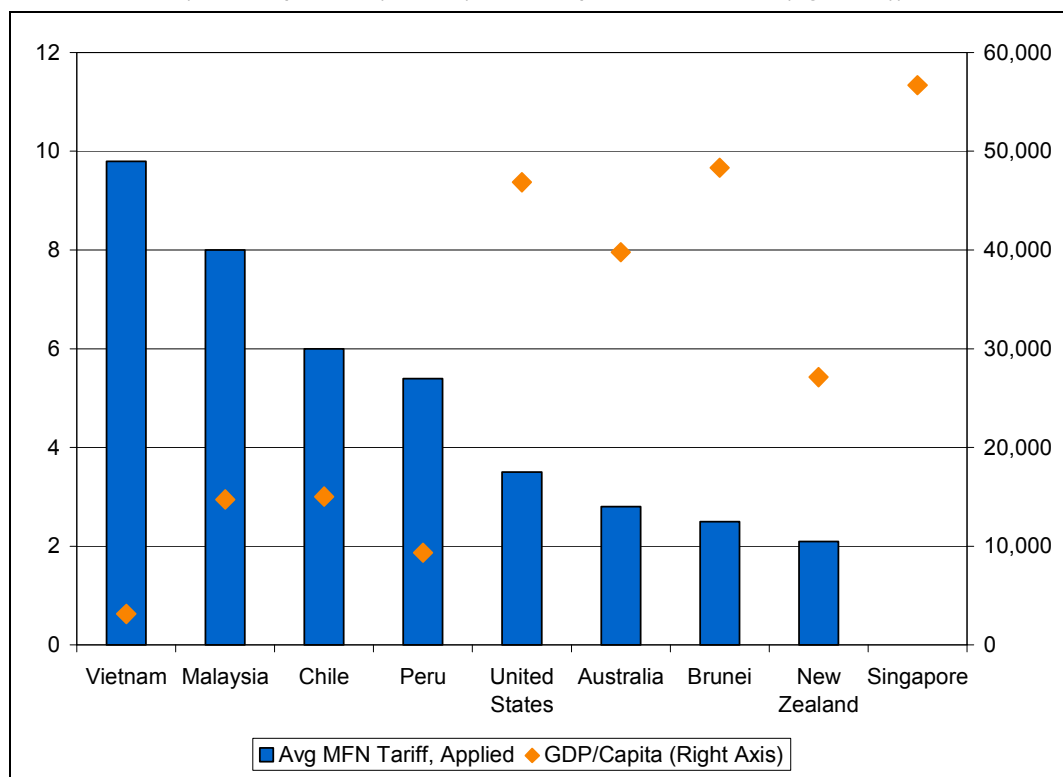
<sup>32</sup> Tariff rate data are also available by trade-weighted averages. In their construction, these averages weight tariffs by the percentage of a country's overall trade in that particular tariff line. Tariffs, by their nature, can discourage trade in the particular products to which they apply. Hence, trade-weighted tariff averages tend to be lower than simple tariff averages, which weight all tariff lines equally.

<sup>33</sup> An obvious exception to this rule exists in the case of FTAs, like the proposed TPP. The WTO allows FTA partners to provide preferential tariff treatment to one another below the MFN rates. For more information see, CRS Report RL31356, *Free Trade Agreements: Impact on U.S. Trade and Implications for U.S. Trade Policy*, by William H. Cooper.

<sup>34</sup> [http://www.wto.org/english/thewto\\_e/glossary\\_e/glossary\\_e.htm](http://www.wto.org/english/thewto_e/glossary_e/glossary_e.htm).

<sup>35</sup> Great variation also exists for bound rates among TPP countries, ranging from 29% in Peru to 3.5% in the United States.

**Figure 24. Average Applied Tariffs and GDP/Capita**  
(tariffs in percent (left axis), GDP/Capita in U.S. dollars (right axis))



**Source:** IMF World Economic Outlook and WTO Tariff Profiles 2011.

**Notes:** GDP per capita based on purchasing power parity (PPP).

**Table 4. Highest Tariffs by Product Category**  
(tariffs in percent, 2010)

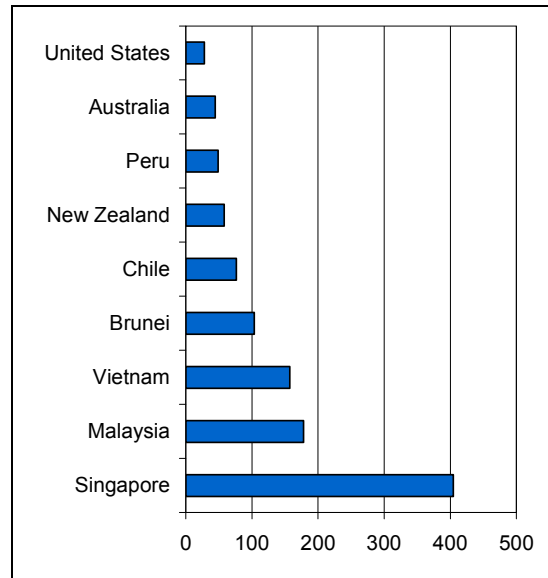
Country	Product	Avg. Applied MFN Tariff (%)
Australia	Clothing	8.9
Brunei	Electrical machinery	14.2
Chile	Animal products	6.1
Malaysia	Beverages and tobacco	120.9
New Zealand	Clothing	9.6
Peru	Clothing	17.0
Singapore	Beverages and tobacco	2.3
United States	Dairy	20.3
Vietnam	Beverages and tobacco	43.6

**Source:** WTO Tariff Profiles, 2010.



When considering tariff rates, it is useful to consider the overall importance of trade in a nation's economy. Trade-to-GDP ratios, shown in **Figure 25**, provide one such measure. The figure shows a great range in trade-to-GDP ratios among TPP countries. Singapore's trade-to-GDP ratio of over 400% implies that the country's imports and exports are four times larger than its total domestic production of goods and services. Such a high figure likely reflects Singapore's importance as a regional shipping hub, re-exporting products that merely pass through its borders, as well as its importance in international supply chains, perhaps domestically producing only a portion of the components in the manufactured goods it exports. Given this significant reliance on international trade, it is less surprising that Singapore would have such a low average applied tariff level. The United States, the TPP country with the largest population and economy, and, hence, the largest domestic market, has a trade-to-GDP ratio of less than 30%, indicating the lowest reliance on trade among any of the TPP countries. The United States, however, has one of the lowest average applied tariff rates among the TPP countries suggesting that the importance of trade in a country's economy is not the only determinant of its openness to trade. The variation in trade-to-GDP ratios is another indicator of the diversity among the TPP countries, which may ultimately be reflected in their trade policy priorities.

**Figure 25. Trade-to-GDP Ratio**  
(in percent, 2007-2009)



Source: WTO Trade Profiles, 2011

## Conclusion

The proposed Trans-Pacific Partnership FTA would be a significant free trade agreement for the United States and could eventually become the platform for an Asia-Pacific free trade area, an area that encompasses 40% of the world's people and over half of global production. It would be the second largest U.S. free trade agreement after NAFTA, based on trade flows. Due to the great diversity among the TPP participants, there may be challenges in achieving a comprehensive and high standard agreement. TPP countries vary in terms of population, economic development, and geography.

Currently, Australia, Malaysia, and Singapore are the top U.S. partners in merchandise trade among TPP countries. Australia and Singapore are also the major U.S. partners in services trade and investment flows among TPP countries. Vietnam, given its significant population and quickly growing economy, may hold the greatest potential for increased economic relations with the United States moving forward. Malaysia, Chile, and Peru also represent growing economies that have populations above 20 million. Chile and Peru's potential for increased U.S. economic exchange due to the TPP, however, may be somewhat lessened given their existing FTAs with the United States.

## Appendix.

**Table A-1. Trade Agreements in TPP Countries**

Country	Existing Trade Agreements	Agreements In Negotiation or Awaiting Implementation
<b>Australia</b>	ASEAN-Australia-New Zealand Chile New Zealand Singapore Thailand United States	China Gulf Cooperation Council <sup>a</sup> India Indonesia Japan Malaysia South Korea PACER <sup>b</sup> TPP <sup>c</sup>
<b>Brunei*</b>	AFTA <sup>d</sup> Japan P-4 <sup>e</sup>	TPP <sup>c</sup>
<b>Chile</b>	Argentina <sup>f</sup> Australia Bolivia <sup>f</sup> Canada Chile-Central America <sup>g</sup> China Colombia Cuba <sup>h</sup> Ecuador <sup>f</sup> EFTA <sup>i</sup> European Union <sup>i</sup> India <sup>h</sup> Japan Mercosur <sup>k,f</sup> Mexico P-4 <sup>e</sup> Panama Peru South Korea Turkey United States Venezuela <sup>f</sup>	India Malaysia Nicaragua Thailand Vietnam TPP <sup>c</sup>
<b>Malaysia*</b>	AFTA <sup>d</sup> Japan New Zealand Pakistan	Australia Chile D-8 <sup>l</sup> European Union TPS-OIC <sup>m</sup> Turkey TPP <sup>c</sup>
<b>New Zealand</b>	ASEAN-Australia-New Zealand Australia China Hong Kong Malaysia P-4 <sup>e</sup> Singapore Thailand	Gulf Cooperation Council <sup>a</sup> India Russia-Belarus-Kazakhstan South Korea TPP <sup>c</sup>

<b>Country</b>	<b>Existing Trade Agreements</b>	<b>Agreements In Negotiation or Awaiting Implementation</b>
<b>Peru</b>	Andean Community <sup>n</sup> Canada <i>Chile</i> China Cuba <sup>h</sup> EFTA <sup>i</sup> Mercosur <sup>k,f</sup> Mexico <i>Singapore</i> South Korea Thailand <i>United States</i>	Costa Rica El Salvador European Union <sup>i</sup> Guatemala Honduras Japan Panama TPP <sup>c</sup>
<b>Singapore*</b>	AFTA <sup>d</sup> <i>Australia</i> China EFTA <sup>i</sup> India Japan Jordan <i>New Zealand</i> P-4 <sup>e</sup> Panama <i>Peru</i> South Korea <i>United States</i>	Canada Costa Rica Gulf Cooperation Council <sup>a</sup> Mexico Pakistan Ukraine TPP <sup>c</sup>
<b>United States</b>	<i>Australia</i> Bahrain CAFTA-DR <sup>o</sup> <i>Chile</i> Israel Jordan Morocco NAFTA <sup>p</sup> Oman <i>Peru</i> <i>Singapore</i>	Colombia Panama South Korea TPP <sup>c</sup>
<b>Vietnam*</b>	AFTA <sup>d</sup> Japan	<i>Chile</i> TPP <sup>c</sup>
<b>ASEAN (Association of Southeast Asian Nations)</b>	<i>Australia and New Zealand</i> China India Japan South Korea	European Union <sup>i</sup>

**Source:** Websites of TPP member countries; WTO online trade agreements database; and Organization of American States, Foreign Trade Information System.

**Notes:** Agreements with other TPP countries are in italics. TPP countries that are also members of ASEAN are marked with an asterisk(\*). Collective agreements, to which the individual ASEAN members are party, are listed above.

- Gulf Cooperation Council: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates.
- Pacific Agreement on Closer Economic Relations (PACER): 15 Pacific Island nations.
- Trans-Pacific Partnership Agreement (TPP): Australia, Brunei, Chile, Malaysia, New Zealand, Peru, Singapore, United States, Vietnam.
- ASEAN Free Trade Area (AFTA): Brunei, Burma (Myanmar), Cambodia, Indonesia, Laos, Malaysia, the Philippines, Singapore, Thailand, Vietnam.

- e. Trans-Pacific Strategic Economic Partnership (P-4): Brunei, Chile, New Zealand, Singapore.
- f. Economic Complementarity Agreement
- g. Chile-Central America: Chile, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua
- h. Partial Scope Agreement
- i. European Free Trade Association (EFTA): Iceland, Lichtenstein, Norway, Switzerland.
- j. European Union (EU): Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom.
- k. Mercosur: Argentina, Brazil, Paraguay, Uruguay.
- l. Developing Eight (D-8): Bangladesh, Indonesia, Iran, Malaysia, Egypt, Nigeria, Pakistan, Turkey.
- m. Trade Preferential System-Organization of Islamic Conference (TPS-OIC): 57 Islamic Countries.
- n. Andean Community: Bolivia, Colombia, Ecuador, Peru.
- o. Dominican Republic-Central America-United States Free Trade Agreement (CAFTA-DR): Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, United States.
- p. North American Free Trade Agreement (NAFTA): Canada, Mexico, United States.

**Table A-2. Intra-TPP Merchandise Trade**

(in millions of U.S. dollars, 2010)

Country	Exports to	Value	Imports from	Value
<b>Australia</b>	United States	8,464	United States	23,602
	New Zealand	7,365	Singapore	10,785
	Singapore	4,445	Malaysia	9,162
	Malaysia	3,347	New Zealand	7,298
	Vietnam	1,404	Vietnam	3,154
	Chile	257	Brunei Darussalam	1,076
	Peru	92	Chile	941
	Brunei Darussalam	31	Peru	155
<b>Brunei</b>	Australia	979	Singapore	1,040
	New Zealand	415	Malaysia	496
	Singapore	118	United States	137
	Malaysia	44	Australia	34
	United States	12	Vietnam	16
	Vietnam	9	New Zealand	3
	Peru	0	Chile	0
	Chile	0	Peru	0
<b>Chile</b>	United States	7,008	United States	9,869
	Peru	1,637	Peru	1,375
	Australia	786	Australia	327

Country	Exports to	Value	Imports from	Value
	Vietnam	230	Malaysia	141
	Malaysia	206	Vietnam	115
	Singapore	64	Singapore	69
	New Zealand	25	New Zealand	43
	Brunei Darussalam	0	Brunei Darussalam	0
<b>Malaysia</b>	Singapore	26,597	Singapore	18,805
	United States	18,989	United States	17,540
	Australia	7,473	Australia	3,188
	Vietnam	3,549	Vietnam	2,616
	New Zealand	930	New Zealand	611
	Brunei Darussalam	451	Chile	229
	Peru	86	Brunei Darussalam	48
	Chile	84	Peru	12
<b>New Zealand</b>	Australia	7,243	Australia	5,571
	United States	2,705	United States	3,216
	Singapore	596	Singapore	1,185
	Malaysia	559	Malaysia	1,073
	Vietnam	304	Brunei Darussalam	457
	Peru	57	Vietnam	164
	Chile	45	Chile	31
	Brunei Darussalam	3	Peru	19
<b>Peru</b>	United States	4,870	United States	7,424
	Chile	1,250	Chile	1,801
	Australia	141	Australia	101
	Vietnam	63	Malaysia	95
	New Zealand	17	New Zealand	63
	Malaysia	11	Singapore	33
	Singapore	11	Brunei Darussalam	0
	Brunei Darussalam	0	Vietnam	0
<b>Singapore</b>	Malaysia	41,913	Malaysia	36,358
	United States	23,005	United States	35,633
	Australia	12,585	Australia	3,451
	Vietnam	7,387	Vietnam	1,604
	New Zealand	1,717	New Zealand	574
	Brunei Darussalam	946	Chile	159
	Chile	39	Brunei Darussalam	130
	Peru	30	Peru	12

Country	Exports to	Value	Imports from	Value
<b>United States</b>	Singapore	29,150	Malaysia	26,628
	Australia	21,807	Singapore	17,747
	Malaysia	13,982	Vietnam	15,888
	Chile	10,872	Australia	8,872
	Peru	6,749	Chile	7,671
	Vietnam	3,710	Peru	5,357
	New Zealand	2,821	New Zealand	2,941
	Brunei Darussalam	124	Brunei Darussalam	13
<b>Vietnam</b>	United States	14,238	Singapore	4,101
	Australia	2,704	United States	3,767
	Singapore	2,121	Malaysia	3,413
	Malaysia	2,093	Australia	1,444
	New Zealand	123	New Zealand	353
	Chile	94	Chile	291
	Brunei Darussalam	14	Peru	69
	Peru	0	Brunei Darussalam	10

**Source:** Analysis by CRS. Data from IMF's Direction of Trade Statistics.

**Notes:** Direction of Trade Statistics data considers trade flows from each individual country's perspective, whenever possible. Countries can differ in their classification methods, particularly classification of trade flows that pass through a third-party before reaching their final destination. Hence, Country A's reported imports from Country B may not equal Country B's reported exports to Country A.

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