

# **Buying and selling: Cross-border mergers and acquisitions, and the US corporate income tax**

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This report updates a 2015 report EY issued on this subject.



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## Summary

Today, the United States has the highest statutory corporate income tax rate among developed nations. In addition, it is the only developed country with both a high statutory corporate income tax rate and a worldwide system that taxes all international business income of US companies earned in foreign countries. Together, these outdated features of the US corporate income tax system present a fundamental structural challenge for US companies, putting them at a disadvantage in the global market for mergers and acquisitions (M&A) and hindering US investment by foreign-headquartered companies.

While most developed countries impose little or no additional tax on the active foreign income of multinational companies (MNCs), the United States imposes a high corporate income tax rate on all worldwide business income, regardless of where it is earned. This gives foreign companies that do not face the same burden a clear advantage in the global market for M&A, allowing them to bid more than US companies for acquisitions.

This report is an update and expansion of a 2015 EY report that analyzed the cross-border M&A market for OECD countries and the effect of the US corporate income tax on this market over the period from 2004 through 2013. It examines the M&A market between 2004 and 2016, considering the effects of different statutory corporate tax rates on more than 97,500 global cross-border M&A transactions across 68 countries. The report's key findings include:

American companies are disadvantaged by US international tax rules: Further analysis and research continues to show that the US international tax system, including the high US corporate income tax rate, clearly disadvantages US businesses in the global market for cross-border M&A. From 2014 through 2016, US companies were the acquirer in 16% of cross-border M&A transactions (by value) and the target of 31% of cross-border M&A transactions (by value). The United States had a net deficit of \$510 billion in the global M&A market from 2004 through 2016.

- ▶ This report estimates that a lower corporate income tax rate could enable the United States to become a net acquirer, even under the current worldwide system. With a 25% US statutory corporate income tax rate:
  - US companies would have acquired, on net, \$660 billion in cross-border assets over the 2004 through 2016 period instead of losing, on net, \$510 billion in assets — a net shift of \$1,170 billion in assets from foreign countries to the United States; and
  - The United States would have kept, on net, 3,200 companies.
- ▶ With a 20% US statutory corporate income tax rate:
  - US companies would have acquired, on net, \$1,205 billion in cross-border assets over the 2004 through 2016 period instead of losing, on net, \$510 billion in assets — a net shift of \$1,715 billion in assets from foreign countries to the United States; and
  - The United States would have kept, on net, 4,700 companies.

Although not explicitly analyzed by this report, the adoption of a territorial system in combination with a lower US corporate income tax rate would likely further increase net cross-border acquisitions by US companies.

US tax policies hinder foreign direct investment (FDI): This report expands the 2015 report's analysis to include the impact of corporate income tax systems on foreign direct investment (FDI), finding that outdated US corporate income tax policies cost the United States billions in foreign investment. Inbound M&A is a component of FDI, which is a measure of investment in a country by foreign businesses or individuals. FDI is widely viewed as an important contributor to a country's economy, and it has been found to be responsive to statutory corporate income tax rates.

- ▶ This report estimates that with a 25% US statutory corporate income tax during the period from 2004 through 2012, inward US FDI would have been \$110 billion higher, an increase of 8%.
- ▶ If the US statutory corporate income tax rate had been 20% during this period, inward FDI would have been an estimated \$195 billion higher, an increase of 14%.

Cross-border M&A provides important benefits to countries' economies: M&A plays an important role in the United States and around the world by allowing companies to reshape themselves in response to a fast-changing global economy. Divesting some lines of business and acquiring others allows companies to enter new markets, access new distribution channels, develop new technologies, and release capital for reinvestment.

Cross-border M&A and outbound FDI can reinforce and strengthen the significant economic contributions that US-based companies make to local US economies through their US operations. In 2014, US parent companies maintained a strong US supply chain – purchasing 90% of their inputs from other US firms, totaling \$7.9 trillion in supplier purchases. As US MNCs grow to meet global demand, they may also increase their activity in the United States. As the typical US MNC expands its foreign operations, it is estimated that for every 100 jobs added abroad, an additional 124 jobs are created by the US parent domestically.

M&A is also a way for innovations to be matched with the resources needed to bring them to market. Research indicates that the economic benefits created by innovative US companies, including the benefits of research and development, are more likely to stay in the United States when they are acquired by domestic companies, rather than foreign competitors.

The impact of the US corporate income tax on the cross-border M&A market and FDI is an important component of the ongoing US tax reform debate. Corporate income tax rates affect not only the competitiveness of global US companies, but also the ownership and management of global capital. If the significant disadvantages in the US corporate income tax system persist, they could have long-lasting effects on US productivity, wages, living standards, and economic growth.

## I. The role of cross-border M&A in the US economy

### Key takeaways

- ▶ *Cross-border M&A typically provides benefits because of the “gains from trade” available for companies from different countries. Companies from different countries may have access to different stocks of local know-how, product types, specialized suppliers, workforces, and capital markets, all of which can have an important influence on companies’ competitive capabilities.*
- ▶ *The economic benefits created by innovative companies, including the benefits of R&D, are more likely to stay in the United States when they are acquired by US-incorporated companies. Domestic acquiring companies conduct more of their R&D and other activities in the United States.*
- ▶ *From 2004 through 2013, US companies were the acquirer in 18% of cross-border M&A and the target in 20% of cross-border M&A transactions, as measured by value.<sup>1</sup> From 2014 through 2016, the US acquisition rate decreased to 16% and the US company target rate increased to 31% by value. From 2004 through 2016, US companies were the acquirer in 18%<sup>2</sup> and the target in 23% of cross-border M&A transactions by value.*

In a dynamic economy, companies must frequently adjust their operations in response to the changing market place to better serve customers, respond to technological change, and compete. One way companies do this is by divesting some business units and acquiring others. Mergers, acquisitions, divestitures, spin-offs, and other activities that change the scope and focus of a company’s business are all examples of business reconfigurations. These business reconfigurations are an important tool, particularly for companies in innovative, high-growth sectors, because they may need to adjust to rapidly changing markets.

Being able to divest some business units and acquire others allows companies to more quickly gain access to newly developing technologies and markets. Like other business reconfigurations, M&A may produce many economic benefits, including creating business synergies that may increase the value of the combined companies, providing financial gains to both the acquirer and target, releasing capital for reinvestment, and helping ensure that capital is more efficiently allocated throughout the economy.

M&A creates economic value when it combines two companies that are worth more together than they are apart. This additional value comes from the synergies created by the reconfiguration. Synergies can come from many sources. One example of synergy is the sale of a start-up company with innovative prototype products to a mature company with the manufacturing and distribution capabilities needed to make those prototypes commercially successful. Neither company would be as valuable alone as the two are together.

Companies may create synergies through sharing technologies or business processes. For example, a company that developed a system for improving the efficiency of an energy-intensive industrial process could spread the benefits of this new system by buying companies in other geographic markets and raising the productivity of their operations. Companies may create

synergies through sharing tangible assets like factories, research labs, or distribution systems and enjoying greater economies of scale. For example, two companies with distribution networks that reach retailers in overlapping areas might merge and thereafter reduce costs by closing duplicative warehouses in the overlapping areas and increase revenues by distributing each other's products in the non-overlapping areas.

The benefits of M&A are typically shared by both acquirer and seller. The acquirer gains valuable target assets and the seller shares in the profit from the synergies through the price premium the seller receives from the acquirer over the target's stand-alone market value.<sup>3</sup>

Cross-border M&A typically produces larger synergies because of the greater "gains from trade" available for companies from different countries.<sup>4</sup> Companies from different countries may have access to different stocks of local know-how, product types, specialized suppliers, workforces, and capital markets, all of which can influence a company's competitive capabilities.<sup>5</sup>

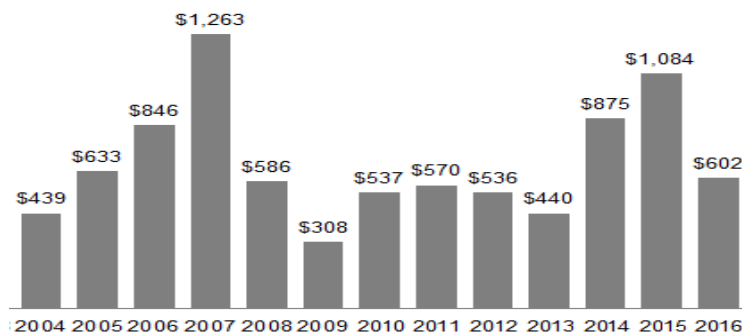
M&A also releases capital for reinvestment. When a company is sold, investors can reinvest their capital in the next growth opportunity. A company's owners choose to sell it when they believe that the company's future growth prospects are less attractive than other investment opportunities. This is true whether the investor is selling the entire company or a single share. M&A allows investors in the target company to shift their investments to higher growth opportunities. In this way, flexible capital markets facilitate economic growth by reallocating capital to its most productive use.

While M&A can provide broad benefits to a country's economy, this report focuses on how the US corporate income tax system – the high statutory corporate income tax rate and its worldwide system – disadvantages US businesses in the global market for cross-border M&A. Addressing the features of the US tax system that impact M&A transactions would help reduce the role that taxes play in these decisions and allow them to be driven more by economic rather than tax considerations.

## **A) Size and scope of the market for cross-border M&A**

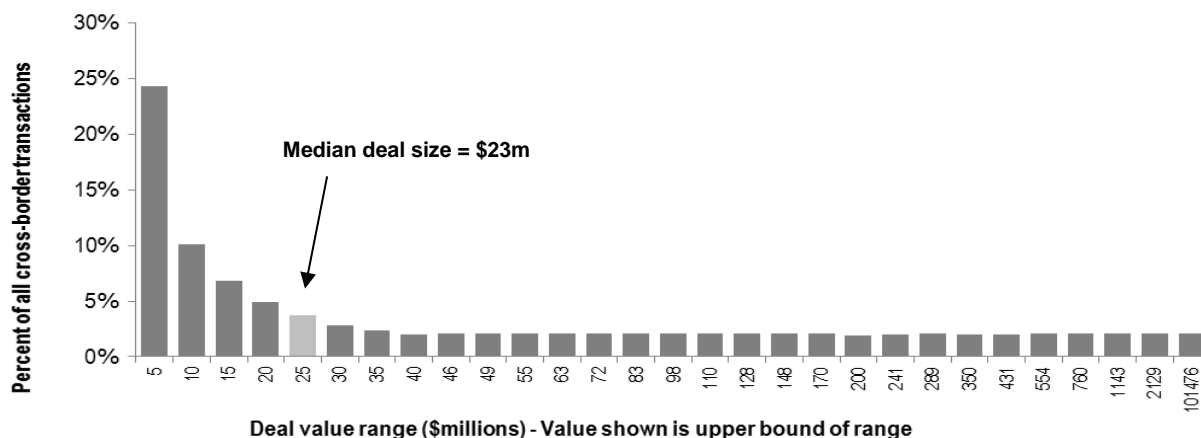
The market for M&A is a global one. Most transactions do not involve companies in the United States as either acquirer or target. Globally, domestic and cross-border M&A transactions totaled \$25 trillion from 2004 through 2016. Cross-border M&A transactions of any size accounted for \$10.0 trillion during this period and deals in which majority control of the foreign target company changed hands comprised \$7.8 trillion of this total. As seen in Figure 1, M&A activity is often cyclical. Global transaction volume has recovered from its recession-era depths but still has yet to exceed its 2007 peak, although 2015 in particular was a strong year for global M&A.

**Figure 1: Global volume for cross-border acquisitions, 2004 – 2016**  
Billions of nominal US dollars



Note: Distribution of transactions with deal value available.  
Source: EY analysis; Thomson Reuters M&A database.

**Figure 2: Distribution of cross-border M&A transactions by median transaction size, 2004-2016**  
Millions of nominal US dollars



Note: Total deal value for transactions with deal value available. Bins represent \$5m increments until \$35m at which point they were calculated to capture 2% of all transactions. The distribution of deals by size is highly skewed and a small number of very large deals results in an average transaction size of \$237 million.  
Source: EY analysis; Thomson Reuters M&A database.

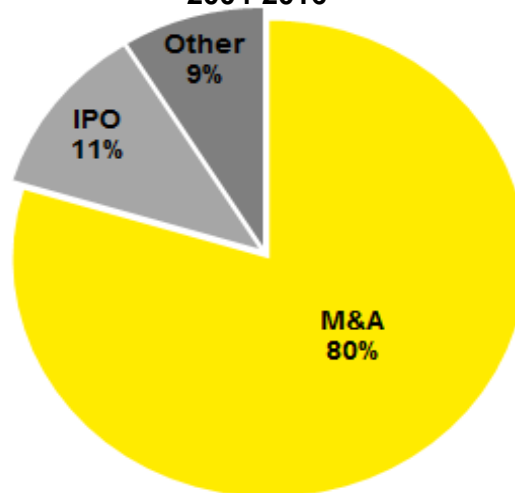
**B) The cross-border M&A market is made up of many small transactions**

While the dollar values involved in cross-border M&A are quite large in aggregate terms, the typical transaction is relatively small. Fifty percent of the number of all transactions from 2004 through 2016 were \$23 million or less and had a total value of \$190 billion, and 25% of transactions were \$5 million or less, valued at \$24 billion (Figure 2). Just 11% of the value of these small transactions, valued at \$20 billion, resulted from foreign acquisitions of US targets, which suggests that cross-border M&A may be more of an issue for medium- and larger-sized transactions.



Nevertheless, smaller transactions can play an important role in the economy. A good example is the role they play in the life cycle of venture capital-backed start-up companies. Venture capitalists (VCs) invest in many early-stage start-up companies in the hope that enough of them succeed to compensate for some inevitable failures. VCs typically cannot invest in the next round of start-ups until they recover their investment in the previous round of companies. They exit their investments through an initial public offering (IPO) on the stock market or by selling the company in an M&A transaction. Despite the public attention given to IPOs, Figure 3 shows most start-ups are sold to larger companies that have the capital and capabilities needed to commercialize their innovations fully. VCs and other early-stage investors are then free to reinvest their profits from successful start-ups into the next generation of new start-ups. The economic benefits created by innovative companies are more likely to stay in the United States when they are acquired by US-incorporated companies because the domestic acquiring companies conduct more of their R&D and other activities in the United States.<sup>6</sup>

**Figure 3: VC-backed US start-up exits  
2004-2016**



Note: "Other" includes secondary sales, write-offs, reverse take-overs, and buybacks.

Source: EY analysis, Thomson Reuters venture capital database.

The sale of small US companies and business units with few growth prospects also plays a vital role in the US economy. When a company or business unit that is failing or has failed is sold to a new owner, it can be an opportunity for a fresh start. Factories can be converted to new uses, brands can be revitalized with new products, and facilities can be refurbished and modernized. These investments can put those business assets back into productive use.

Smaller transactions can also have a significant value when a US company buys a foreign company. Smaller companies can play a role in allowing US companies to gain access to overseas markets. Buying a smaller local company with valuable manufacturing, distribution or marketing assets is a frequent first step for a US multinational expanding into a new market. The acquired foreign firm may not be large, but it may be the key to unlocking a much larger growth opportunity for the acquiring company.

### **C) US companies – net targets, largest participants**

From 2004 through 2016, of the US targets sold to non-US acquirers, 71% were independent companies and 29% were subsidiaries of larger companies. During the same period, every major US sector participated in cross-border business M&A as both an acquirer and target (Figure 4). Technology-intensive sectors account for a significant fraction of transaction value but less technology-oriented sectors like consumer staples and real estate are also well represented.

US companies are both the largest acquirers and the largest targets in cross-border M&A (Figure 5). Based in the largest, most developed economy and home to sophisticated financial markets, US companies have been the acquirer in 18% of cross-border M&A by value and are the targets in 23% of cross-border M&A by value from 2004 through 2016. Companies based in other developed countries, such as the United Kingdom, France, Canada, and the Netherlands, are also highly active in this market. Chinese companies, based in the world's second-largest economy, are not yet a dominant player in this market, though their role is rapidly increasing.

**Figure 4: Distribution of US cross-border transactions, by sector, 2004-2016**  
Billions of nominal US dollars

	Foreign acquirer / US target		US acquirer / Foreign target	
	\$billions	% value	\$billions	% value
Healthcare	\$385	17%	\$210	12%
Energy and power	270	12%	110	6%
Consumer staples	240	11%	115	7%
High technology	225	10%	160	9%
Industrials	225	10%	150	9%
Materials	215	10%	110	6%
Financial services	215	9%	90	5%
Real estate	120	5%	105	6%
Consumer products and service	110	5%	60	3%
Media and entertainment	105	5%	80	5%
Telecommunications	80	4%	55	3%
Retail	45	2%	82	5%
Investors/holding companies	30	1%	435	25%
<b>Total, US</b>	<b>\$2,270</b>	<b>100%</b>	<b>\$1,760</b>	<b>100%</b>

Note: Total deal value for transactions where a US company in a given industry is the acquirer or target. Deal value for transactions with deal value available and completed from 2004 through 2016. Total may not sum due to rounding.

Source: EY analysis; Thomson Reuters M&A database.

**Figure 5: Largest acquirer and target countries in cross-border transactions, 2004-2016**  
Billions of nominal dollars

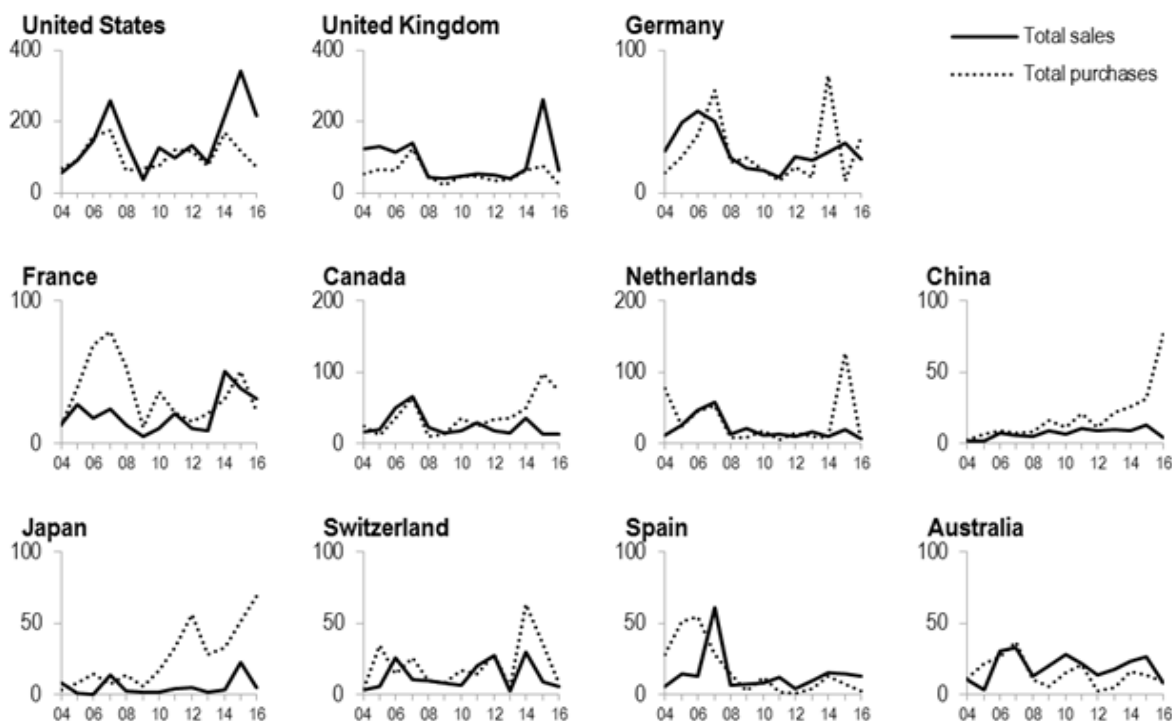
Target			Acquirer		
Country	\$ billions	% deal value	Country	\$ billions	% deal value
United States	\$2,270	23%	United States	\$1,760	18%
United Kingdom	\$1,380	14%	United Kingdom	\$980	10%
Germany	\$510	5%	Canada	\$600	6%
Canada	\$420	4%	France	\$600	6%
France	\$380	4%	Netherlands	\$530	5%
Netherlands	\$320	3%	Germany	\$500	5%
Spain	\$270	3%	Japan	\$440	4%
China	\$240	2%	Switzerland	\$380	4%
Switzerland	\$200	2%	China	\$360	4%
Belgium	\$150	2%	Spain	\$310	3%
Japan	\$110	1%	Belgium	\$240	2%
Rest of world	\$3,730	37%	Rest of world	\$3,280	33%
<b>Total, worldwide</b>	<b>\$9,980</b>	<b>100%</b>	<b>Total, worldwide</b>	<b>\$9,980</b>	<b>100%</b>

Note: Total deal value for cross-border, majority acquisition transactions completed from 2004 through 2016 with deal value available. Targets are classified by country of the target company. Acquirers are classified by country of the ultimate parent of the acquirer. Rest of world includes all countries in Thomson Reuters database.

Source: EY analysis; Thomson Reuters M&A database.

The pattern of sales and purchases across countries shows significant year-to-year variation but also reveals that some countries' companies are consistently net purchasers while others are net sellers (Figure 6). US and UK companies were net targets from 2004 through 2016, while French, Chinese and Japanese companies were net acquirers.

**Figure 6: Sales vs. purchases by country, 2004-2016**  
Billions of nominal dollars



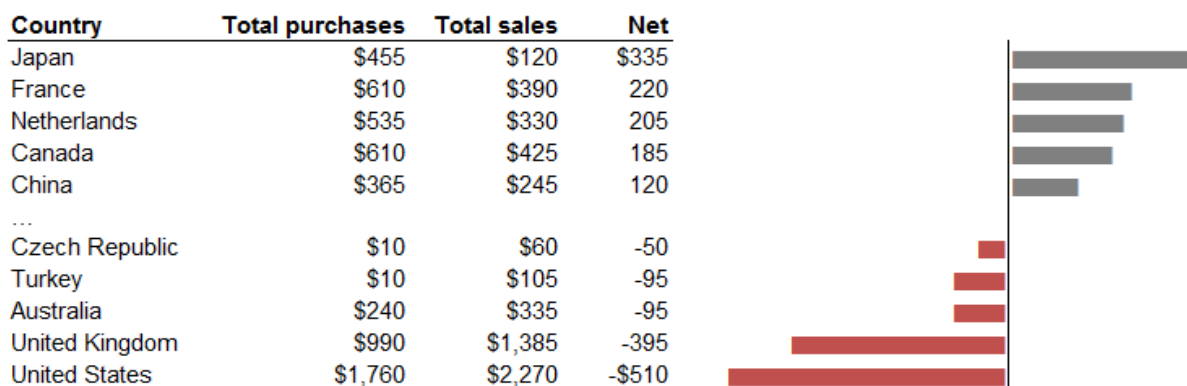
Note: Total deal value for cross-border, majority acquisition transactions completed from 2004 through 2016 with deal value available. Sales are classified by country of the target company. Purchases are classified by country of the ultimate parent of the acquirer. Note that the scale varies from country-to-country.

Source: EY analysis; Thomson Reuters M&A database.

The countries with the largest M&A surpluses and deficits are shown in Figure 7. The US deficit is large as an absolute number in part because the total transaction volume of US companies is larger than that of the companies from any other country. Sales of US companies to foreign purchasers exceeded US companies' purchases of foreign targets by a smaller percentage (29%) than in the other deficit countries shown in Figure 7.

Since the 2015 EY report on cross border M&A, Canada and the Netherlands have emerged among the top net purchasers and sellers. Furthermore, from 2014 through 2016 US companies had a net deficit of \$360 billion in acquisitions by value. This net deficit is more than double the US net deficit to global competitors from 2004 through 2013 (\$150 billion), comprising the majority of the \$510 billion US cross-border M&A deficit recorded from 2004 through 2016.<sup>7</sup>

**Figure 7: Largest net purchaser and seller countries, 2004-2016**  
Billions of nominal dollars



Note: Total deal value for transactions with deal value available. Sales are classified by country of the target company. Purchases are classified by country of the ultimate parent of the acquirer.  
Source: EY analysis; Thomson Reuters M&A database.

## II. How the US corporate income tax disadvantages US corporate acquirers

### Key takeaways

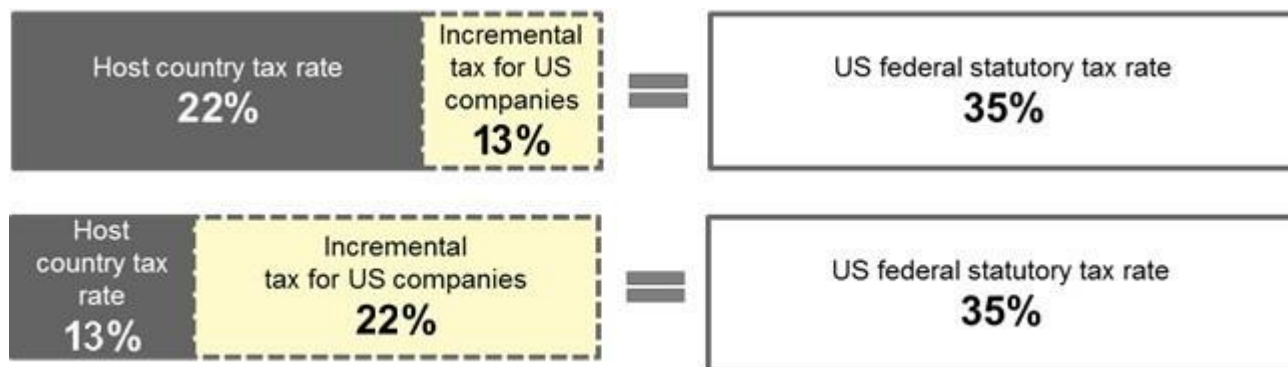
- ▶ *The US corporate income tax, through its high statutory tax rate and worldwide tax system, puts US companies at a competitive disadvantage in the cross-border M&A market, allowing non-US companies to outbid US companies.*
- ▶ *The gap between the US corporate income tax rate and the weighted global average rate has increased from 4% to 13% since 2004, increasing the disadvantage in the M&A market for US companies.*

### A) Current US income tax treatment of US corporate foreign earnings

The combination of a high corporate income tax rate and a worldwide system puts US companies at a competitive disadvantage in the market for cross border M&A. Businesses incorporated in countries with a territorial tax system face host country tax rates on their activity located in those countries but almost no additional tax in their home country. If those businesses were instead incorporated in the United States, they would pay additional tax on repatriated foreign earnings. The result is an economic disincentive for US ownership of corporate assets.

The United States taxes the income of a US-incorporated corporation on a worldwide basis — regardless of where it is earned — with a credit for income taxes paid to foreign governments. This means that if the US tax liability on income earned in a given host country is higher than the host country tax liability on that income, the US company will eventually owe the difference to the US Treasury. The difference between the US corporate income tax rate and the foreign host country tax rate can be thought of as a “repatriation tax” — the additional tax a US-incorporated company would pay on its taxable foreign earnings upon repatriation (Figure 8).

**Figure 8: Repatriation tax on foreign earnings of US companies**



Note: US corporations are subject to US tax on their foreign income. A tax credit is allowed for foreign income taxes paid by US corporations to offset US tax on their foreign source income. In general, US corporations are not taxed on the active foreign source income of foreign subsidiaries until the subsidiaries repatriate the income to their US parents. US corporations can defer US tax liability on their foreign subsidiaries' foreign source income by reinvesting profits in non-US countries or otherwise not repatriating such profits.

This report illustrates ways in which differences between the United States' and other countries' corporate income taxes affect cross-border M&A transactions. The repatriation tax rate on foreign earnings — the difference between the US statutory corporate income tax rate and the local statutory corporate income tax rate in a host country — is used to gauge the additional tax burden on a company's foreign source income as a result of differences between countries' corporate income tax rates.

On average, US companies are generally at a disadvantage relative to companies operating in other developed economies in the cross-border M&A market. The 35% US corporate income tax rate, for example, far exceeds the 22% simple average among the 68 analyzed countries in 2016.<sup>8</sup> Based on this comparison, US companies would, on average, pay a repatriation tax of 13% on their foreign earnings from an acquisition.

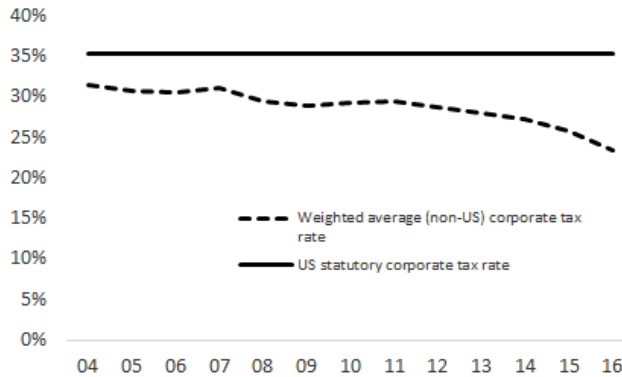
There are many factors that can affect the actual tax a company pays in a host country and under the US corporate income tax. As discussed below, deferral of US tax on active foreign source income of foreign subsidiaries, for example, may lower the present value of taxes and US tax on repatriated income. Changes in leverage or reorganization of business segments after an acquisition can also affect the total tax paid by companies.<sup>9</sup>

While lower corporate income tax rates serve as an additional investment incentive for non-US companies, companies incorporated in the United States face higher tax rates on repatriated foreign earnings as a result of lower host country tax rates enacted abroad (Figures 9 and 10).

While the repatriation tax burden on US companies has grown, the number of countries that assess significant repatriation taxes on their own companies has fallen. As recently as 2000, half of OECD countries taxed the worldwide income of their companies, as the United States does.<sup>10</sup> Today, only 6 out of 35 OECD countries, or 18%, have worldwide corporate income tax systems. The United States is the only OECD country with both a worldwide system and a statutory rate greater than 30%.

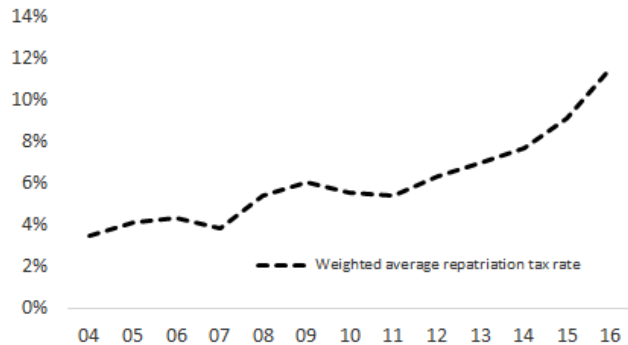
Another way to visualize the growing repatriation tax disadvantage of US companies is with the maps shown in Figures 11, 12, and 13. Each country is shaded to indicate the degree of repatriation tax, including both national and subnational tax rates, faced by US companies doing business there, if they were to repatriate foreign earnings. In 1995, US companies faced potential repatriation tax rates greater than 10% in only a handful of countries (Figure 11). By 2013, repatriation tax rates exceeded 10% in many of the United States' largest trading partners, including Canada, Mexico, China, Germany, South Korea, and the United Kingdom (Figure 12). A 10-percentage point reduction in the US corporate income tax rate would be large enough to lower the repatriation tax to less than 10% in all but a handful of countries (Figure 13).

**Figure 9: US and foreign average tax rates used to calculate the repatriation tax**



Note: The weighted average statutory corporate tax rate is weighted by GDP. The United States is excluded from the averages.  
Source: EY analysis and EY 2016 Worldwide Tax Guide.

**Figure 10: Average repatriation tax rate faced by US companies on foreign earnings**

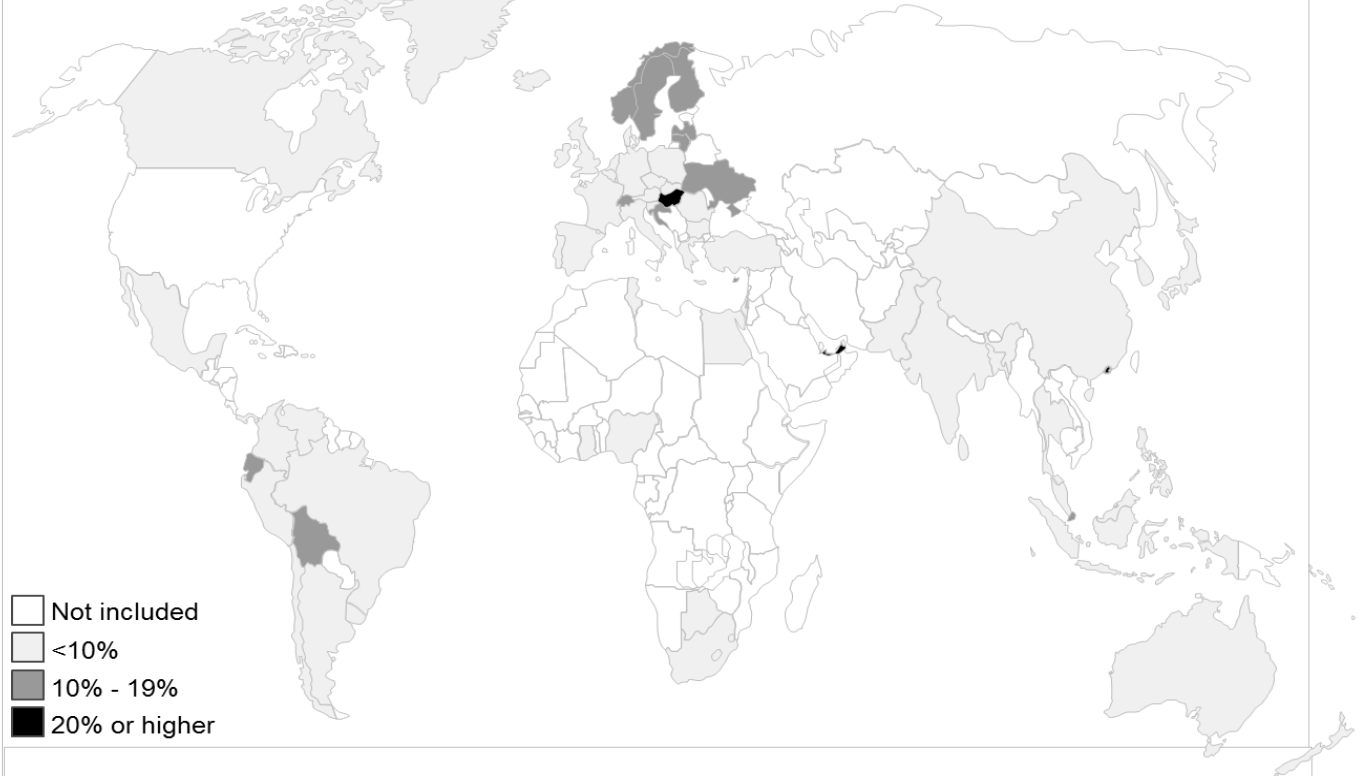


Note: The US repatriation tax rate for each country is the difference between the US statutory corporate income tax rate and the statutory corporate income tax rate in that host country.  
Source: EY analysis and EY 2016 Worldwide Tax Guide.

## B) The role of deferral in quantifying the repatriation tax

The repatriation tax on the foreign earnings of US corporations is not necessarily due immediately. US corporations generally pay taxes on the income of their controlled foreign corporations (CFCs) only when that income is repatriated to the United States or when it is considered by the tax code to be “passive” or “mobile” income and subject to immediate US tax under the “Subpart F” rules. Foreign income earned through CFCs that is not repatriated or covered by Subpart F is said to be “deferred” because it is not subject to immediate US tax. US-incorporated companies also earn foreign income through foreign branches. Income earned through foreign branches is considered income of the US corporation and subject to immediate US tax.

**Figure 11: Potential repatriation tax rate faced by US companies under worldwide tax, 1995**



**Figure 12: Potential repatriation tax rate faced by US companies under worldwide tax, 2016**



Source: EY analysis; OECD tax rate data; EY *Worldwide Corporate Tax Guide*.



**Figure 13: Potential repatriation tax rate faced by US companies, 10-percentage point rate reduction scenario 2016**



Source: EY analysis; OECD tax rate data; EY *Worldwide Corporate Tax Guide*.

Deferral postpones and reduces the present value of taxes. In practice, due to deferral, repatriation taxes may be paid well after the associated income is earned or possibly never paid.<sup>11</sup> Nevertheless, because investors expect a return on funds a company invests outside the United States, companies may be expected to eventually repatriate their foreign subsidiaries' earnings to provide a return to shareholders in the form of a dividend or share buyback. Borrowing in the United States may be an approach to finance dividend payments, at least in the near-term. In this analysis, the repatriation tax is assumed to be paid immediately. The estimates do not take into account the impact of deferral of US tax on un-repatriated foreign earnings.

### **C) Illustrative examples of how the US corporate income tax affects cross-border M&A**

As highlighted above, the high corporate income tax rate in the United States places US-incorporated companies at a competitive disadvantage versus companies resident in jurisdictions with a lower worldwide corporate income tax rate or a territorial tax system. As many of the United States' largest trading partners have lowered their corporate income tax rates in recent years, US companies face a growing disadvantage in the global marketplace for cross-border acquisitions. In some cases, US companies themselves have become targets of non-US competitors.

### Example: Purchasing a foreign company

*The high US tax rate and the US worldwide tax system disadvantage US multinationals when entering new markets.*

A US-incorporated multinational seeks to enter a rapid growth emerging market. The US multinational has found a local foreign company that, if acquired, would give it an ideal foothold in the market. A non-US multinational in another foreign country is competing to acquire the local company and both potential acquirers believe it will produce net income totaling \$50 million pre-tax. The corporate income tax rate in the emerging market is 15%, but since the United States

#### *Purchasing a foreign company*

##### **US multinational**

Pre-tax value	\$50.0m
Host country tax (15%)	-\$7.5m
<u>US repatriation tax (20%)</u>	<u>-\$10.0m</u>
After-tax value	\$32.5m

##### **Non-US multinational**

Pre-tax value	\$50.0m
Host country tax (15%)	-\$7.5m
<u>Domestic tax (0%)</u>	<u>-\$0.0m</u>
After-tax value	\$42.5m

has a 35% tax rate and a worldwide tax system, the US-incorporated multinational is unable to take advantage of the lower rate since it must pay the host country tax plus the US repatriation tax, resulting in an after-tax value of \$32.5 million. Under current law, the US-incorporated multinational could reinvest the target's earnings in the host country rather than repatriating those earnings to the United States and would not be subject to US tax on such earnings on a current basis, but still must account for the repatriation tax when evaluating the deal.

The non-US multinational is domiciled in a country with a 15% tax rate (the same tax rate as in the country of the target company) and a worldwide system. As a result of foreign tax credits in its home country, the non-US multinational would only have to pay

the host country tax, leaving it \$42.5 million post-tax. The non-US multinational is able to offer \$33 million, which is more than all the post-tax income (assuming repatriation) the US company could expect to earn, but still low enough that the non-US multinational can expect to book nearly a 30% profit of \$9.5 million.

The results of this example would be the same if the non-US multinational were domiciled in a country with a territorial tax system. A US multinational acquirer would be subject to a repatriation tax, but the non-US multinational would not.

In this example, the higher US tax rate and the US worldwide tax system puts the US multinational at a competitive disadvantage when bidding to enter this rapid growth market. The tax system in the home country of the non-US multinational enables it to be more competitive when pursuing its business strategies globally. In this example, if the United States had a 15% tax rate or a territorial tax system, the US multinational would not have been at a disadvantage and could have bid competitively in the emerging market. As noted above, the US-incorporated multinational could choose to reinvest in the target company, which would defer the cost of its US tax.

### Example: Purchasing a US subsidiary

*The high-rate US worldwide tax system creates incentives for foreign companies to acquire US exporters.*

A US multinational wants to reconfigure its business to focus on fewer industries and is selling a US subsidiary that does not fit this plan. The US subsidiary does all of its manufacturing in the United States and does 60% of its distribution in the United States and 40% outside the United States. A US acquirer would pay US tax on income from domestic sales, and host country tax (at a rate of 22% in this example) on income from foreign distribution activity, plus additional US repatriation tax on income from foreign activity, resulting in a post-tax valuation of \$162.5 million for the US manufacturer.

The non-US acquirer would pay US tax on income from domestic sales and host country tax on income from foreign distribution activity, but is resident in a country with a low tax rate or a territorial tax regime and has the potential to restructure the business so that future foreign activity is done outside the acquired US subsidiary and therefore outside the US tax system.<sup>12</sup> The after-tax value for the non-US acquirer would be up to \$175.5 million. In this case, the non-US acquirer

could outbid a US acquirer and still book up to an \$13 million profit.

#### *Purchasing a US subsidiary*

##### **US multinational**

Pre-tax value	\$250.0m
US tax on domestic sales (35%)	-\$52.5m
Host country tax on foreign sales (22%)	-\$22.0m
<u>Additional US tax on foreign sales (13%)</u>	<u>-\$13.0m</u>
After-tax value	\$162.5m

##### **Non-US multinational**

Pre-tax value	\$250.0m
US tax on domestic sales (35%)	-\$52.5m
Host country tax on foreign sales (22%)	-\$22.0m
<u>Repatriation tax on foreign sales (0%)</u>	<u>-\$0.0m</u>
After-tax value	\$175.5m

The difference in after-tax valuation between a US and non-US acquirer is created by the United States' high corporate income tax rate and its worldwide tax system. For example, if the United States lowered its corporate tax rate to 22% (or adopted a territorial tax system), a US acquirer would face the same level of taxes as the non-US acquirer.

### III. Estimating the impact of corporate income taxes on cross-border M&A

#### *Key takeaways*

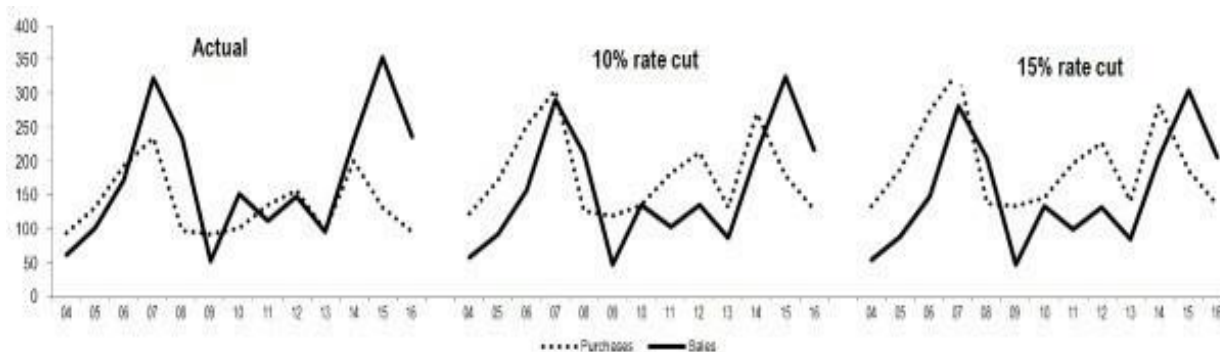
- ▶ *If the US statutory corporate income tax rate had been 10 percentage points lower (25%) from 2004 through 2016, it is estimated that:*
  - *US companies would have acquired a net \$660 billion in cross-border assets, rather than losing a net \$510 billion in assets — a net shift of \$1,170 billion in assets from foreign countries to the United States; and*
  - *The United States would have kept, on net, 3,200 companies.*
- ▶ *If the US statutory corporate income tax rate had been 15 percentage points lower (20%) from 2004 through 2016, it is estimated that:*
  - *US companies would have acquired a net \$1,205 billion in cross-border assets, rather than losing a net \$510 billion in assets — a net shift of \$1,715 billion in assets from foreign countries to the United States; and*
  - *The United States would have kept, on net, 4,700 companies.*

This report considers the potential impact of lower repatriation tax rates by analyzing data on more than 97,500 M&A transactions among the 68 countries analyzed from 2004 through 2016. A standard economic model for measuring cross-border trade and investment flows between countries was used to estimate the relationship between differences in tax policy and cross-border M&A activity between countries. This report's focus on repatriation tax rates provides an indication of the likely impact, notwithstanding other considerations that might come into play. For example, if, in addition to lowering the corporate income tax rate the United States were to also shift to a territorial system, there would likely be a further increase in new cross-border acquisitions by US companies.

The model specification for this analysis is the same as the one used in the 2015 EY report. It links the repatriation tax rate in both the country of the acquirer and the country of the target to the value of cross-border M&A flows for each country pair, while controlling for other factors. In this way, the analysis attempts to both capture and isolate the impact of the repatriation tax rate on the value of cross-border M&A. A more detailed description of the gravity model and methodology is available as a technical appendix to this report.

Following other research investigating the relationship between M&A activity and tax policy, the following variables were included in the analysis: the difference in the repatriation tax rate of the acquirer's country and target's country and the effective average tax rate for the target's country.<sup>13</sup> To help isolate the tax impact, common language, physical distance and shared borders were included to capture pairwise country relationships further, as well as other control variables. Data sources included the Thomson Reuters M&A database, the OECD, CEPII (a French research institute), the World Bank, and the EY *Worldwide Corporate Tax Guide*.

**Figure 14. Estimated total US M&A under alternative scenarios**



Source: EY analysis.

The results of the analysis can be understood with reference to alternative scenarios under which the US corporate income tax rate was assumed to be 10-percentage points lower (i.e., reduced to 25%) or 15-percentage points lower (i.e., reduced to 20%) during the 2004 through 2016 period. Estimates of changes in annual US sales and purchases of cross-border M&A with the other 67 countries analyzed under these two tax policy scenarios are the relationship between US and non-US share of global cross-border M&A in the historical data during this 12-year period analyzed. These estimates provide information about the impact of US corporate tax rate reductions on cross-border M&A activity, but they do not reflect any other changes. The estimated impacts could vary depending on other tax changes. Note that deferral of US tax on un-repatriated foreign earnings is not taken into account in the estimates.

Under the 10-percentage point rate reduction scenario, it is estimated that the United States potentially would have shifted from a \$510 billion deficit with the other 67 countries analyzed to a net \$660 billion surplus, a net \$1,170 billion shift. In addition, US headquartered companies would control, on net, 3,200 additional companies.

Under the 15-percentage point rate reduction scenario, it is estimated that the United States potentially would have shifted from a net \$510 billion deficit with the other 67 countries to a net \$1,205 billion surplus, a net \$1,715 billion shift. In addition, US headquartered companies would control, on net, 4,700 additional companies.

**Figure 15: Estimated US M&A deficit/surplus under alternative scenarios, 2004-2016**  
Billions of nominal dollars

	<b>Total purchases (2004-2016)</b>	<b>Total sales (2004-2016)</b>	<b>Net</b>
Actual	\$1,760	\$2,270	-\$510
10% rate cut	\$2,055	\$1,395	\$660
15% rate cut	\$2,685	\$1,480	\$1,205

Note: Total deal value for transactions with deal value available. Sales are classified by country of the target company. Purchases are classified by country of the ultimate parent of the acquiring company.  
Source: EY analysis; Thompson Reuters M&A database.











### Box 1: Impact of lower US corporate income tax rates on US FDI

FDI receives significant attention by policy makers in the United States and in other countries largely because it is widely viewed as an important contributor to a country's economy.<sup>i</sup> As countries have adapted their tax systems to the changing global economy, MNCs have options for where to locate their investments and engage in FDI as a way to reach new markets, access local labor and other inputs, and diversify their operations. Taxes and other government policies in host countries are important determinants of companies' investment decisions. Economic research repeatedly finds that corporate income tax and other government policies in host countries are important determinants of the location and amount of inward FDI.<sup>ii</sup> US tax reform could have a significant impact on the attractiveness of the United States for inward FDI.

This report analyzes trends in US FDI and for other developed countries and estimates the impact that a lower US corporate income tax rate would have on inward FDI. As shown in the figure below, from 2004 through 2012, the most recent year FDI data are available for the 68 countries analyzed, the United States received more FDI on net than any other country. In 2014, cumulative FDI in the United States, the size of the United States capital stock attributable to FDI, was \$2.9 trillion.<sup>iii</sup> Thus, the stock of US FDI is roughly 5.5% of fixed assets or capital used in domestic production and is an important determinant of growth for the US economy.

#### Top and bottom five: Net inward FDI flows 2004-2012

Billions of nominal dollars

Country	Net	
United States	\$840	
Japan	\$630	
Germany	\$450	
France	\$390	
Switzerland	\$260	
.....		
Mexico	-\$210	
United Arab Emirates	-\$230	
Brazil	-\$240	
Singapore	-\$270	
China	-\$440	

Note: Net inward FDI flows reported in this figure reflect global estimates for all countries. However, estimates are presented for 2004 through 2012 to correspond to the time period used for this report's empirical analysis of FDI. Data for the 68 countries used for the empirical analysis FDI were not available on a consistent basis beyond 2012.  
Source: United Nations Conference on Trade and Development.

A model specification similar to that used to analyze cross-border M&A was used to estimate the relationship between differences in countries' corporate income tax rates and FDI. The model links inward FDI with the statutory tax rate of the host country and of the country in which the investment is located. At the same time, the model controls for other country and global economic factors commonly thought to influence FDI. A more detailed description of the gravity model and methodology is available as a technical appendix to this report.

The results of the analysis are reflected in two alternative scenarios for the United States whereby it is assumed that the US corporate income tax rate had been either 10-percentage points lower (i.e., a 25% corporate income tax rate) or 15-percentage points lower (i.e., a 20% corporate income tax rate) lower from 2004 through 2012.

Under the scenario where the corporate rate is assumed to be 10-percentage points lower, it is estimated that US FDI inflows would have increased \$110 billion from \$1.37 trillion to \$1.48 trillion, an 8% increase. If the corporate income tax rate were 15-percentage points lower, it is estimated that US FDI inflows would have increased by \$195 billion from \$1.37 trillion to \$1.48 trillion, a 14% increase. These estimated changes represent what would have been a significant increase in FDI and, more broadly, to the productive capital deployed in the United States and a source for increased US economic growth.

<sup>i</sup> FDI is a measure of investment in a country by foreign businesses or individuals. FDI occurs when a business investment in a country is made by a foreign entity and the foreign entity reserves direct control of the business. For example, when a foreign company acquires a US company the cost of the acquisition is considered inward US FDI. Inbound M&A is a component of FDI.

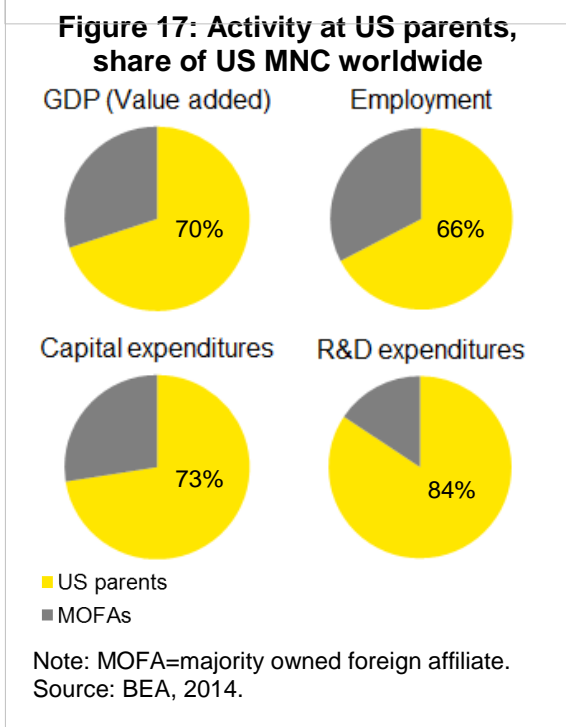
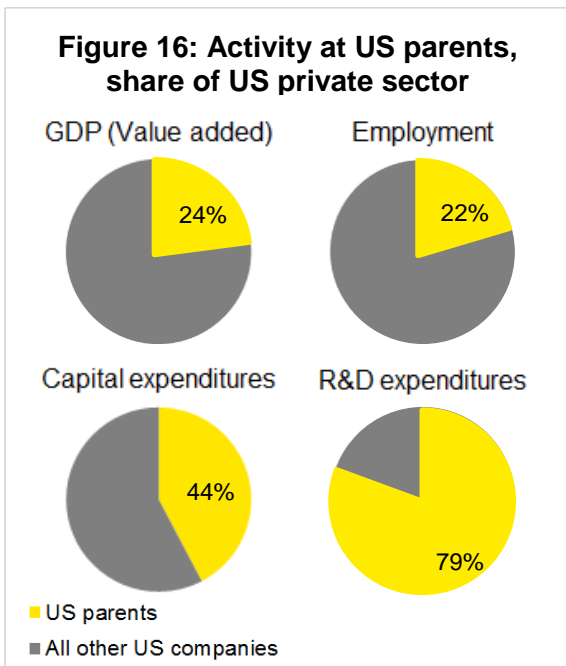
<sup>ii</sup> Ruud A. De Mooij and Sjeff Ederveen, "Taxation and foreign direct investment: a synthesis of empirical research," *International tax and public finance*, vol. 10, no. 6, 2004, pp. 673-693, and Harvard and OECD Tax Policy Studies, "Tax Effects on Foreign Direct Investment Recent Evidence and Policy Analysis: Recent Evidence and Policy Analysis," 2008.

<sup>iii</sup> IIS Department of Commerce, Bureau of Economic Analysis

## IV. The economic value of US-headquartered companies

- ▶ *US parent companies maintain strong US supply chains — purchasing nearly 90% of their inputs from other US firms and employing 22% of private sector workers.*

The US Bureau of Economic Analysis (BEA) conducts periodic surveys of the operations of US multinationals. In 2014, 22% of people working in the United States were employed by US-based MNCs, generating 25% of private-sector US GDP (more than \$3.8 trillion, Figure 16).<sup>14</sup> Data show that worldwide investment, employment, and value added are concentrated in the US parents of US multinationals. The BEA defines the US parent company of a US MNC to include all domestic operations. In 2014, nearly two-thirds of US MNC employment was from domestic operations. Further, 70% of value added, 73% of capital expenditures, and 84% of worldwide R&D expenditures by US MNCs occurred at home (Figure 17).



**GDP (value added).** In 2014, US operations of US-headquartered companies generated more than \$3.8 trillion of US GDP. Further, US parents comprised 65% of US manufacturing sector GDP in 2014.<sup>15</sup>

**Employment and wages.** US MNCs employed 22% of private sector workers in 2014. These 26.6 million employees earned more than \$2 trillion in compensation, averaging \$77,104 per worker — 25% higher than the US average for all private sector companies of \$61,770.

In 2014, US MNCs and their majority-owned foreign affiliates (MOFAs) employed 40 million workers worldwide, 66% of whom were employed in the United States. Since 2009, the share of employees in the United States has averaged 66%.

**Capital expenditures.** In 2014, US parents made \$714 billion of capital investments in new US property, plant, and equipment, averaging \$26,866 per worker, 44% greater than the US private sector average and representing 32% of all private, non-residential fixed investment.

**R&D expenditures.** In 2014, US-based MNCs invested more than \$320 billion worldwide in research and development with 84% (\$269 billion) occurring in the United States. Further, MNCs were responsible for more than three-quarters of all R&D expenditures in the United States in 2014.<sup>16</sup> This commitment to domestic investment increases the value of intellectual property registered in the United States. A 10% increase in sales by overseas affiliates is estimated to increase US R&D by their US parents by nearly 5%.

**Trade.** Trade associated with US parents or their foreign affiliates accounted for more than half of US goods exported in 2014.<sup>17</sup> It is estimated that a 10% increase in sales by overseas affiliates increase exports by US parents to their overseas affiliates by 6.5%.<sup>18</sup>

**Indirect and induced economic impact.** The economic contribution of US-based companies extends beyond the office doors to include their US supply chain and the local businesses that sell to parent company employees.

In 2014, US parents maintained a strong US supply chain — purchasing 90% of their inputs from other US firms, totaling \$7.9 trillion in supplier purchases that year.<sup>19</sup>

US-based firms also support domestic economic activity through employee compensation and dividends paid to US shareholders.<sup>20</sup> A 2016 report found that globally engaged US companies contributed an additional 53 million jobs and \$2.8 trillion in compensation to the US localities in which they operated in 2013. These jobs supported additional US GDP as employees spent their incomes at local restaurants, retailers, and other businesses — estimated to generate an additional \$4.8 trillion in value added — the induced economic impact.<sup>21</sup> It was also reported that total employment generated by US MNCs, both directly and indirectly, was 48% of total US private employment.

**Domestic impact of US MNC foreign affiliates.** As US MNCs grow to meet global demand, they may also increase their headquarters activity in the United States. As the typical US MNC expands operations in its foreign affiliates, it is estimated that for every 100 jobs added abroad, 124 jobs are added by the US parent domestically.<sup>22</sup>



## V. Limitations and caveats

The discussion of the impact of the US corporate income tax on cross-border M&A in this report is based on standard methodologies and publicly available data. However, the reader should be aware of certain limitations with respect to the analysis:

- ▶ The corporate income tax rate reduction scenarios in this report are being used as illustrations of the potential magnitude of estimated tax effects on M&A transactions. They do not represent an evaluation of any particular tax reform plan.
- ▶ The estimates presented in this report are for a reduction in the US statutory corporate income tax rate without any other changes. The estimated impacts could vary depending on the extent to which broadening the corporate income tax base applied to the operations of the target and acquiring companies.
- ▶ The estimates in this report do not reflect deferral of tax on un-repatriated earnings, and changes in leverage and business structure that could affect companies' tax liability. Also, the analysis does not account for withholding taxes paid to host country governments, which are often reduced by tax treaties between countries.
- ▶ The repatriation tax on companies' foreign earnings reflects the statutory corporate income tax rate, not their tax paid. This measure provides an easy to understand metric to highlight the role of the corporate income tax.
- ▶ Statutory corporate income tax rates were used because they are available on a consistent and comparable basis for all countries in the analysis. Effective tax rates on corporate income are likely lower than the statutory corporate income tax rates in many countries.
- ▶ The analysis does not reflect or incorporate the potential impact of changes in US M&A activity on US revenues or related budgetary and fiscal impacts.
- ▶ Estimates of the number of companies and business units that would not have been sold to foreign acquirers are based on the outputs of a statistical model and the average size of US M&A transactions and do not represent a claim that any particular company would or would not have been sold.
- ▶ Values reported in the rate reduction scenarios represent standard point estimates generated by regression analysis. Standard errors have been omitted for ease of presentation but do not alter the findings presented. A description of the methodology and estimation results for the regression analysis is available separately in a technical appendix.
- ▶ The analysis of the size distribution of cross-border, majority acquisition transactions completed from 2004 through 2016 is based on transactions with value information, approximately 41% of relevant transactions in the Thomson Reuters M&A database.
- ▶ The data on M&A transactions and FDI, while the most recent, are from different sources that cover different time periods. The M&A data are from the Thomson Reuters M&A database and cover the period 2004 through 2016. The FDI data are from the United Nations Conference on Trade and Development (UNCTAD) for 2004 through 2012.
- ▶ This report relies on publicly available data sources, including the Thomson Reuters M&A database, the OECD, CEPII (a French research institute), the World Bank, and the EY

*Worldwide Corporate Tax Guide* and its conclusions are only as reliable as the available data.

- ▶ Estimates assume that cross-border transactions for which the deal value is available are similar to those transactions for which the deal value is not reported.



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## Endnotes

<sup>1</sup> The US shares of global cross-border M&A will differ from those found in the 2015 report because the Thomson Reuters database revised their definition of mergers in 2016. The 2015 report also used a slightly different definition for cross border transactions. In the current report, a cross-border transaction is defined as a transaction where the acquirer and target companies are in different countries. In the 2015 report a cross-border transaction is defined as a transaction where the country of the ultimate parent of the acquirer company and the country of the target company are different. For example, under the Thomson Reuters definition used for the 2015 report, a M&A transaction where the ultimate parent of an acquiring company and the ultimate parent of a target company are in the same country, but the target company is located in a different country, would be considered a cross-border transaction.

<sup>2</sup> US companies were the acquirer in 18.36% of transactions from 2004 through 2013. From 2004 through 2016 that number falls to 17.72%.

<sup>3</sup> Research finds that cross-border M&A produces a broad range of economic benefits. For example, see John Doukas and Nickolaos Travlos, "The Effect of Corporate Multinationalism on Shareholders' Wealth: Evidence from International Acquisitions," *Journal of Finance*, vol. 43, no. 5, December 1988; and Randall Morck and Bernard Yeung, "Why Investors Value Multinationality," *Journal of Business*, vol. 64, no. 2, April 1991.

<sup>4</sup> John Doukas and Nickolaos Travlos, "The Effect of Corporate Multinationalism on Shareholders' Wealth: Evidence from International Acquisitions," *Journal of Finance*, vol. 43, no. 5, December 1988.

<sup>5</sup> Michael Porter, *The Competitive Advantage of Nations*, Free Press, 1990.

<sup>6</sup> Kevin Barefoot, *US Multinational Companies; Operations of US Parents and their Foreign Affiliates in 2010*, BEA, November 2012.

<sup>7</sup> Thomson Reuters transaction data in the 2015 report was produced under a different company valuation method. Thomson Reuters' current method splits a merger or acquisition involving cash and equity into two separate transactions. Under the old method both the cash and equity transactions for a single merger or acquisition would be considered a single transaction. The date reported for equity transactions is also determined by a different method of realization.

<sup>8</sup> The difference between the US corporate income tax rate and the rate among the other 67 countries used for this analysis is smaller when weighting other countries' corporate income tax rates by their GDP to account for differences in their size. Moreover, the combined US federal-state corporate income tax rate on foreign source income was about 35.4% in 2016, as compared to 38.9% as reported by the OECD, when taking into account that foreign earnings of US incorporated corporations are lightly taxed if at all at the state level (e.g., have territorial-like tax systems). For an explanation of this calculation, see: Bob Cline, "US combined federal-state average statutory marginal corporate income tax rates: alternative calculations," EY report prepared on behalf of (2012). Comparing the 35.4% US corporate income tax rate to the GDP weighted average (non-US) corporate income tax rate of 22.3% results in a repatriation tax of 13.1% in 2016.

<sup>9</sup> A US company that is acquired by a non-US company will still be subject to US tax as it was before the acquisition. A potential tax advantage for a non-US company acquiring a US company can include the tax treatment of future growth that can occur outside of the US company. In addition, changes in leverage can affect total tax paid.

<sup>10</sup> Phillip Dittmer, "A Global Perspective on Territorial Taxation," Tax Foundation, August 10, 2012.

<sup>11</sup> The allowance of deferral does not completely mitigate the short-term burden of a corporate tax. For discussion of the corporate tax burden under deferral see Harry Grubert and Roseanne Altshuler, "Fixing the System: An Analysis of Alternative Proposals for the Reform of International Tax," *National Tax Journal*, vol. 66, no. 5, September 2013.

<sup>12</sup> Such a restructuring would have US tax consequences.

<sup>13</sup> For example, see: Julian di Giovanni, "What drives capital flows? The case of cross-border M&A activity and financial deepening," *Journal of International Economics*, vol. 65 (2005), pp. 127-149; and Lars P. Feld et al, "Effects of Territorial and Worldwide Corporation Tax Systems on Outbound M&As," CESifo Working Paper No 4455, October 2013.

<sup>14</sup> Unless otherwise noted, data on the operations of US parents and their majority-owned foreign affiliates are based on the most recent information published by the US Bureau of Economic Analysis (BEA) in its survey of US direct investment abroad. US parent companies are defined by the BEA to include the ultimate parent and any US corporation whose voting securities are more than 50% owned by the US corporation above it. See Kevin Barefoot, *US Multinational Companies; Operations of US Parents and their Foreign Affiliates in 2010*, BEA, November 2012.

<sup>15</sup> Jonathan Cummings et al., *Growth and Competitiveness in the United States: The role of its multinational companies*, McKinsey Global Institute, June 2010.

<sup>16</sup> NSF reported that US companies invested nearly \$302 billion in research and development in 2012 and \$294 billion in 2011. See Raymond M. Wolfe, *Business R&D Performance in the United States Tops \$300 Billion in 2012*, October 2014.

<sup>17</sup> The Bureau of Economic Analysis data indicates that US exports associated with US MNCs were 52% in 2014.

<sup>18</sup> Bureau of Economic Analysis, 2012 and McKinsey Global Institute, 2010.

<sup>19</sup> Bureau of Economic Analysis data.

<sup>20</sup> In 2007, US residents directly or indirectly (through pension, retirement, or insurance accounts) held 86% of the total market value of US companies. Note that US Federal Reserve Flow of Funds data are not reported separately for US MNCs. See: McKinsey, 2010.

<sup>21</sup> PwC, *Economic Impacts of Economic Impacts of Globally Engaged US Companies: Employment, Labor Income, and GDP*, prepared for the Business Roundtable, May 2016, available at:

[http://businessroundtable.org/sites/default/files/Economic%20Impacts%20of%20Globally%20Engaged%20US%20Companies\\_FINAL%20of%20Distribution\\_0.pdf](http://businessroundtable.org/sites/default/files/Economic%20Impacts%20of%20Globally%20Engaged%20US%20Companies_FINAL%20of%20Distribution_0.pdf)

<sup>22</sup> Ibid.