CHAPTER 3

JOBS, TRADE AND INVESTMENT: Revisiting the Ties that Bind

The global economy still rests squarely on the shoulders of the transatlantic economy, with the combined output of the United States and the European Union accounting for roughly one-third of world GDP in terms of purchasing power parity in 2016. Even if one excludes the United Kingdom, the figure—31%—is still quite substantial.

The transatlantic economy is not only large, it is wealthy. It is a repository of innovation and technology advancement. And it is at the forefront of global foreign direct investment and global mergers and acquisitions activity. Taken together, U.S. and European exports to the world accounted for 27% of global exports in 2015, the last year of complete data; combined imports represented 31% of the world total. Meanwhile, the United States and Europe together accounted for 57% of inward stock of foreign direct investment (FDI) and a whopping 66% of outward stock of FDI. Each partner has built up the great majority of that stock in the other economy.

In the end, it is the U.S.-European partnership that drives global trade, investment and capital flows. No commercial artery in the world is as large as the investment artery forged between the United States and Europe: total transatlantic foreign affiliate sales topped an estimated $5.5 trillion in 2015.

Of course, emerging markets are making a big impact on the global economy. Growth rates are still above the global average in many nations populated with young consumers who desire Western goods and services. The technological skill levels of many of these countries are now on par with many developing nations. Rising markets offer new sources of supply (labor) and demand (consumers) for U.S. and European firms. It is only natural for American and European firms to build out their in-country presence in these rising nations.

Nonetheless, notwithstanding all the hype about the "Rest," rather than the "West," it is the emerging markets that are today's laggards—not leaders—of the global economy. For both cyclical and structural reasons, growth has slowed over the past year in Brazil, Turkey, South Africa and even China and India. Russia is just now emerging from recession, as are other commodity-dependent nations.

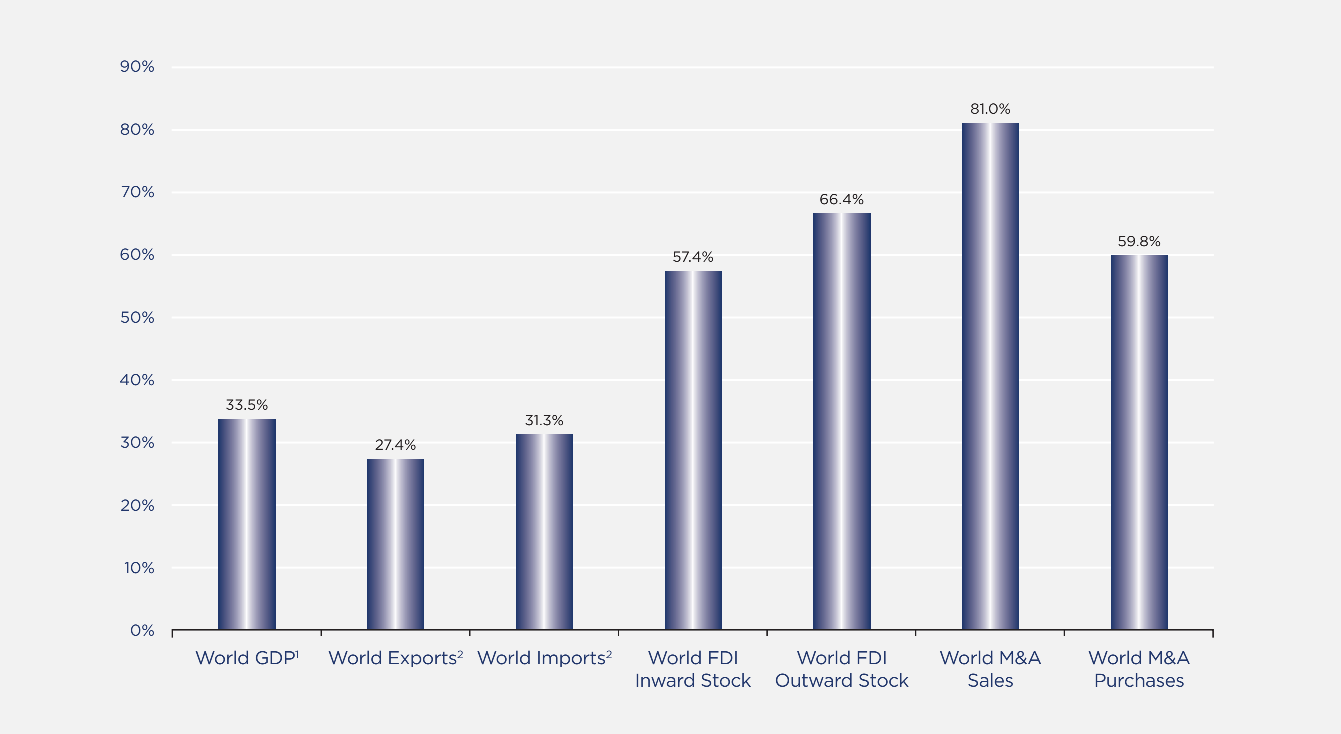
The simple fact of the matter is that emerging markets are still not capable of driving global growth in a sustainable fashion—which underscores why the transatlantic partnership remains so important to not only the United States and Europe, but also to the world. The U.S.-European partnership is too big and too important to fail, as underscored by Tables 1 and 2.

In general, the "Rise of the Rest" is a healthy dynamic for the global economy. But this dynamic does not signal a retreat on the part of U.S. and European firms from the transatlantic economy. It's more about global rebalancing, with many transatlantic firms working to deepen their footprint in the rising economies, replicating the deep ties that are the hallmark of the U.S.-EU relationship. In fact, U.S. and European firms are using global value chains to integrate the value added other nations can contribute to particular products and services into transatlantic bonds of investment and trade. In the end, however, the geoeconomic base of their global operations remains the United States and Europe, as becomes clear if we look more closely at how companies really operate in the global economy.

The Ties That Bind—Quantifying the Transatlantic Economy

The United States and Europe are bound together by the activities of foreign affiliates – the foot soldiers of the transatlantic partnership who over past decades have built a formidable economic foundation.

TABLE 1: THE TRANSATLANTIC ECONOMY VS. THE WORLD - SHARE OF WORLD TOTAL



Sources: UN, IMF, figures for 2015.
1. Based on PPP estimates.
2. Excluding intra-EU, Norway, Switzerland and Iceland trade.

In our annual surveys we examine eight key indices that offer a clear picture of the "deep integration" forces binding the U.S. and Europe together. This chapter updates those indices with the latest available data and our estimates. Each metric, in general, has ebbed and flowed with the cyclical swings of transatlantic economic activity, but has nevertheless grown in size and importance over the past decade.

1. Gross Product of Foreign Affiliates

As standalone entities, U.S. affiliates in Europe and European affiliates in the United States are among the largest and most advanced economic forces in the world. For instance, the total output of U.S. foreign affiliates in Europe (an estimated $748 billion in 2015) and of European foreign affiliates in the U.S. (estimated at $576 billion) was greater than the total gross domestic product of most nations. Combined, transatlantic affiliate output—$1.3 trillion—was larger than the output of such nations as the Netherlands, Turkey or Indonesia.

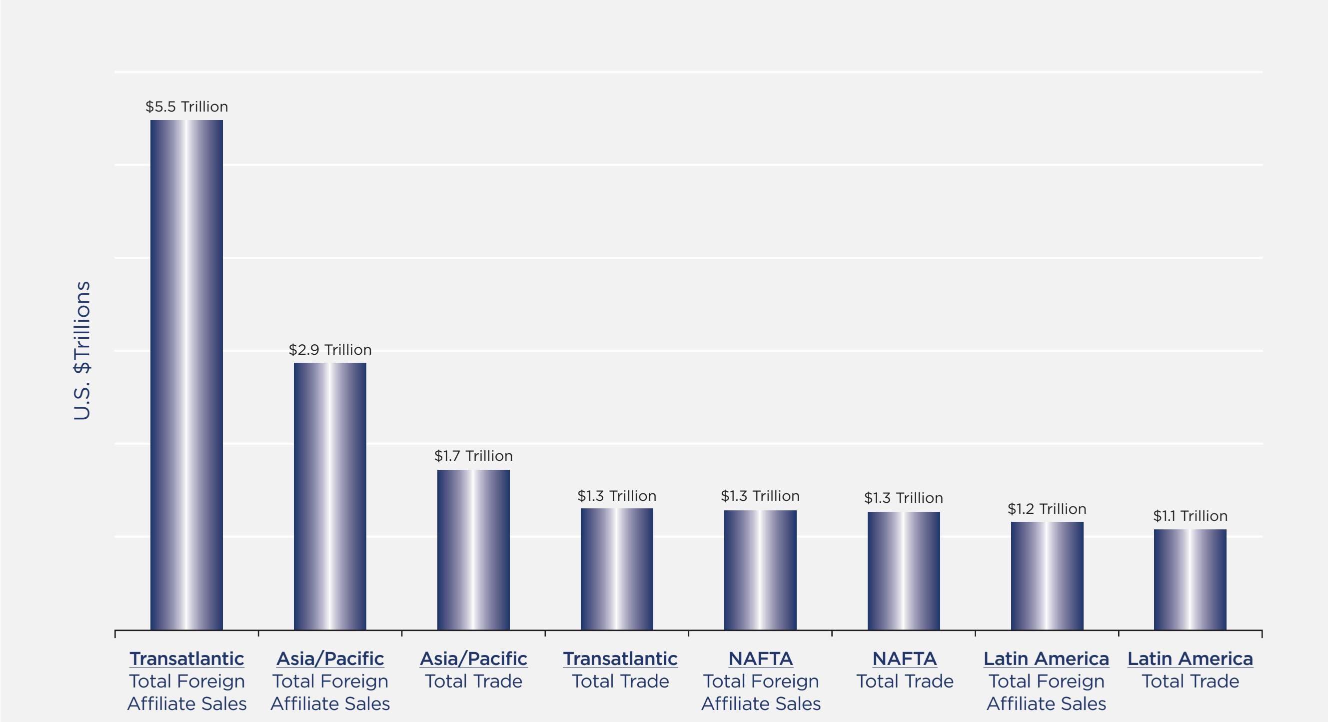
By our estimation, European affiliate output in the United States rose by around 3.7% in 2015, while U.S. affiliate output in Europe rose by a slightly faster 4.3%. European affiliate output in the United States has recovered and expanded since falling to a cyclical low of $391 billion in 2009, increasing by around 47% between 2009 and 2015. U.S. affiliate output in Europe has also recovered from its pre-crisis lows.

We expect further gains in U.S. foreign affiliate output in the near term, supported by Europe's improving economic performance over the balance of 2016 and into 2017. European affiliates engaged in the United States are operating in one of the most dynamic nations in the world and are expected to boost their near-term output as well.

On a global basis, the aggregate output of U.S. foreign affiliates reached $1.5 trillion in 2015, with Europe (broadly defined) accounting for around 49% of the total. The United Kingdom, where U.S. investment ties are deepest, accounted for roughly 24% of total affiliate output in Europe in 2015.

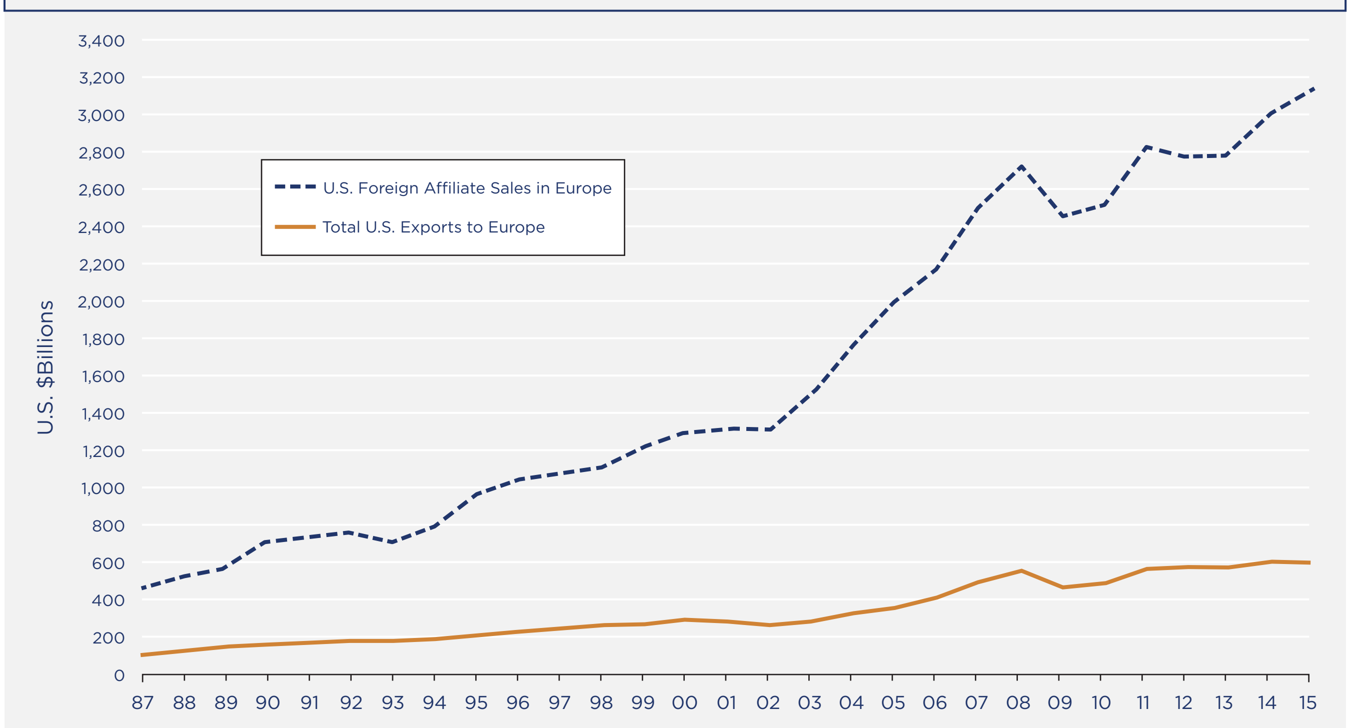
Looking at actual figures for 2014 from the U.S. Bureau of Economic Analysis, U.S. affiliate output in Europe ($717 billion) was roughly double affiliate output in all of Asia ($363 billion). While affiliate output in places like China ($66 billion in 2014) and India ($26 billion) has increased over the past decade, what U.S. affiliates produce in these

TABLE 2: AMERICA'S MAJOR COMMERCIAL ARTERIES



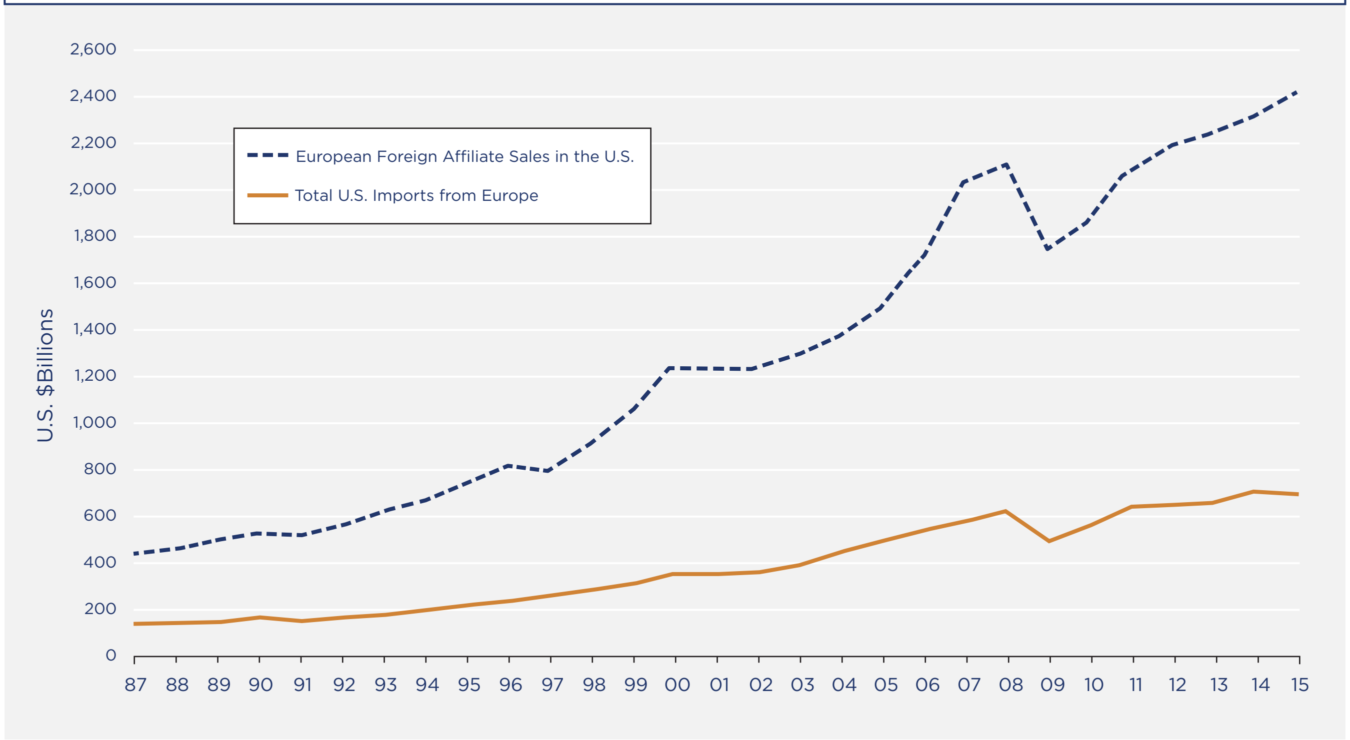
Foreign Affiliate Sales: Estimates for 2015. Total Trade: Data for goods & services, 2015.
Source: Bureau of Economic Analysis.

TABLE 3: SALES OF U.S. AFFILIATES IN EUROPE VS. U.S. EXPORTS TO EUROPE



Source: Bureau of Economic Analysis.
Majority-owned non-bank affiliates data: 1987 - 2008. Majority-owned bank and non-bank affiliates: 2009 - 2015.
Foreign Affiliate Sales: Estimates for 2015.

TABLE 4: SALES OF EUROPEAN AFFILIATES IN THE U.S. VS. U.S. IMPORTS FROM EUROPE



Source: Bureau of Economic Analysis
Majority-owned non-bank affiliates: 1987 - 2006. Majority-owned bank and non-bank affiliates: 2007 - 2015.
Foreign Affiliate Sales: Estimates for 2015.

two emerging Asian giants pales in comparison to affiliate output in the United Kingdom ($172 billion), Germany ($96 billion), and Ireland ($80 billion).

In the U.S., meanwhile, European affiliates are major economic producers in their own right, with British firms of notable importance. The U.S. output of British companies reached an estimated $155 billion in 2015, more than a quarter of the European total. For the same year, output from German affiliates operating in the United States totaled $103 billion, or roughly 18% of the total.

Beyond Europe, only Canada and Japan have any real economic presence in the U.S. Japanese affiliate output totaled approximately $120 billion in 2014, the last year of actual data, while Canadian affiliate output totaled $68 billion. Overall, U.S. affiliates of foreign multinationals contributed roughly $869 billion to U.S. aggregate production in 2014, with European affiliates accounting for nearly two-thirds of the total.

2. Assets of Foreign Affiliates

The United States and Europe are each other's largest and most important foreign investor. According to the latest figures from the Bureau of Economic Analysis, U.S. foreign assets in Europe totaled $15.1 trillion in 2014, representing roughly 60% of the global total.

For 2015, we estimate that U.S. foreign assets in Europe reached $15.7 trillion, close again to 60% of the global total. Within the region, the bulk of U.S. assets was in the United Kingdom, exceeding $5 trillion, or around 22% of the global total.

U.S. assets in the Netherlands (around $2.7 trillion) were the second largest in Europe in 2015. America's significant presence in the Netherlands reflects its strategic role as an export platform/distribution hub for U.S. firms doing business across the continent. More than half of affiliate sales in the Netherlands are for export, namely within the EU.

Meanwhile, America's asset base in Germany ($785 billion in 2014) was roughly 20% larger than its asset base in all of South America. America's asset base in Poland, the Czech Republic and Hungary (roughly $140 billion) was much larger than corporate America's assets in India ($121 billion). America's assets in Ireland ($1.3 trillion in 2014) are much larger than either those in France ($405 billion), Switzerland ($781 billion) and light years ahead of those in China ($360 billion).

As for foreign-owned assets in the United States, Europe's stakes are sizable and significant. Total assets of European affiliates in the U.S. were valued at roughly $8.4 trillion in 2015 by our estimates. The United Kingdom ranked first, followed by Germany, Switzerland and French firms. In 2014, the last year of available data, European assets accounted for nearly two-thirds of total foreign assets in the United States.

3. Affiliate Employment

U.S. and European foreign affiliates are the major source of onshored jobs on each side of the Atlantic. In fact, they employ more workers in the United States and Europe than in any other place in the world. Despite political speeches and media anecdotes about U.S. companies decamping for low-cost locales abroad, most foreign workers on the payrolls of U.S. foreign affiliates are employed in developed nations, notably Europe.

U.S. foreign affiliate employment in Europe has increased steadily in this century, with affiliate employment in Europe rising from 3.7 million workers in 2000 to 4.5 million workers in 2014, the last year of available data. That represents a 22.4% increase. By our estimates, we forecast that U.S. foreign affiliates in Europe employed 4.7 million workers in 2015 – 140,000 more than in 2014.

While aggregate job numbers continue to rise, U.S. affiliate manufacturing employment in Europe has fallen since 2000. Even here, however, we have detected a rebound for some countries and some industries.

Since the start of the century, U.S affiliate manufacturing employment dropped from 1.9 million in 2000 to 1.8 million in 2014, a slight drop, but higher than in 2013. The largest employment declines were reported in the United Kingdom, with the total manufacturing work force falling from 431,000 in 2000 to 311,000 in 2014. That 2014 figure, however, is 13,600 more than in 2013. During this same period, U.S. affiliate manufacturing employment in France dropped from 249,000 to 196,000. But here again, the 2014 figure was 10,500 higher than in 2013. Meanwhile, U.S. affiliate manufacturing employment in Germany of 386,000 in 2014 was just slightly below its level of 388,000 in 2000, and almost 60,000 higher than in 2013, reflecting the strong German manufacturing economy. And Poland continues to be profiting significantly from U.S. affiliate operations — U.S. affiliate manufacturing employment in Poland more than doubled between 2000 and 2014, rising from 51,000 to over 113,000, and it continues on an upward trend.

On a global basis, U.S. majority-owned affiliates (including banks and non-bank) employed roughly 14 million workers in 2014, with the bulk of these workers—roughly 33%—toiling in Europe. That share is down from 41% in 2008, with the decline reflecting the cyclical slowdown in Europe over the past few years and the fact that a rising share of U.S. overseas capacity is expanding at a faster pace in the faster-growing emerging markets versus slow-growth developed nations. Another factor at work—more and more U.S. firms are opting to stay home due to competitive wage and energy costs, as opposed to shipping more capacity abroad.

The bulk of affiliate employees in Europe are domiciled in the United Kingdom, Germany and France. Meanwhile, U.S. majority-owned firms are on balance hiring more people in services activities than in manufacturing. The latter accounted for just 41% of total U.S. foreign affiliate employment in Europe in 2014. The top industry in terms of manufacturing employment was transportation, with U.S. affiliates employing nearly 392,000 workers, followed by chemicals (300,000). Wholesale employment was among the largest sources of services-related employment, which includes employment in such activities as logistics, trade, insurance and other related functions.

Although services employment among U.S. affiliates has grown at a faster pace than manufacturing employment over the past decade, U.S. affiliates employed more manufacturing workers in Europe in 2014 (1.8 million) than in 1990 (1.6 million). This reflects the EU enlargement process, and hence greater access to more manufacturing workers, particularly in a large country like Poland, and the premium U.S. firms place on highly skilled manufacturing workers, with Europe one of the largest sources in the world.

While the aggregate number of U.S. manufacturing jobs in Europe has increased over the past decades, the geographic distribution of such jobs has shifted. In general, the shift has been towards low-cost locations like the Czech Republic, Poland and Hungary, at the expense of the UK, Germany and France. The later three nations just mentioned accounted for 67% of total U.S. affiliate manufacturing employment in Europe in 1990. By 2014, however, their collective share had dropped to 48%. The United Kingdom took the biggest hit, with the UK's share of manufacturing employment accounting for just 17% of the total in 2014, versus a share of 29% in 1990. Meanwhile, the combined share of U.S. affiliate manufacturing employment in Poland, the Czech Republic and Hungary jumped from virtually zero to nearly 11% in 2014, indicative of the eastern spread of U.S. European operations.

This overall decline of the Big Three in terms of U.S. affiliate manufacturing employment belies the fact, however, that such employment in Germany has stabilized and rebounded, as noted earlier. To provide some perspective, the manufacturing workforce of U.S. affiliates in Germany of 386,000 in 2014 was greater than the number of U.S. affiliate manufacturing workers employed in Brazil (340,000) and India (207,000). Yet it falls short of those employed in China (753,000).

When it comes to affiliate employment, trends in the United States are similar to those in Europe. Despite stories on the continent about local European companies relocating to lower cost locales in central Europe and Asia, most foreign workers of European firms are employed in the United States. Based on the last figures, European majority-owned foreign affiliates directly employed roughly 4.1 million U.S. workers in 2014 — roughly 400,000 workers less than U.S. affiliates employed in Europe. In 2014, the top five European employers in the U.S. were firms from the United Kingdom (1.1 million), Germany (672,000), France (574,000), Switzerland (461,000) and the Netherlands (416,000). European firms employed roughly two-thirds of all U.S. workers on the payrolls of majority-owned foreign affiliates in 2014.

According to our estimates, UK affiliates created 38,000 new jobs and German affiliates 24,000 new jobs in the United States in 2015. French firms added another 20,000 new jobs and Dutch firms 15,000 new jobs in the United States. Italian companies added 4,000 workers and Spanish companies another 2,600 workers in the United States.

In the aggregate, the transatlantic workforce directly employed by U.S. and European foreign affiliates in 2014 was roughly 8.7 million strong, up roughly 5% from the year before. In 2016, modest gains in employment were most likely achieved on both sides of the pond, with employment levels in the United States most likely rising at a faster pace than in Europe. That said, as we have stressed in the past, these figures understate the employment effects of mutual investment flows, since these numbers are limited to direct employment, and do not account for indirect employment effects on nonequity arrangements such as strategic alliances, joint ventures, and other deals. Moreover, foreign employment figures do not include jobs supported by transatlantic trade flows. Trade-related employment is sizable in many U.S. states and many European countries.

In sum, direct and indirect employment remains quite large. We estimate that the transatlantic workforce numbers some 13-15 million workers. Europe is by far the most important source of "onshored" jobs in America, and the United States is by far the most important source of "onshored" jobs in Europe.

4. Research and Development (R&D) of Foreign Affiliates

The United States and Europe no longer have a monopoly on global R&D. As the globalization of R&D has gathered pace this decade, more and more global R&D expenditures are emanating from China, South Korea, and Japan—or Asia in general. There are no boundaries to innovation thanks to the internet and falling global communication costs. Both dynamics have helped to spawn more R&D from the developing nations, with South Korea and China emerging as leaders.

While governments and corporations are the main drivers of R&D spending, foreign affiliates of multinationals are also in the thick of things. In fact, foreign affiliate R&D has become more prominent over the past decades as firms seek to share development costs, spread risks, and tap into the intellectual talent of other nations. Alliances, cross-licensing of intellectual property, mergers and acquisitions, and other forms of cooperation have become more prevalent characteristics of the transatlantic economy in the past decade. The internet, in particular, has powered greater transatlantic R&D. The complexity of scientific and technological innovation is leading innovators to partner and share costs, find complementary expertise, gain access to different technologies and knowledge quickly, and collaborate as part of "open" innovation networks. Cross-border collaboration with foreign partners can range from a simple one-way transmission of information to highly interactive and formal arrangements. Developing new products, creating new processes, and driving more innovation—all of these activities result from more collaboration between foreign suppliers and U.S. and European firms.

That said, bilateral U.S.-EU flows in R&D are the most intense between any two international partners. In 2014, the last year of available data, U.S. affiliates sunk $31 billion on research and development in Europe, up slightly from the prior year, and a record annual total. On a global basis, Europe accounted for roughly 60% of total U.S. R&D in 2014. R&D expenditures by U.S. affiliates were the greatest in Germany ($8.3 billion), the United Kingdom ($6.3 billion), Switzerland ($4.1 billion), Ireland ($2.4 billion), France ($2.4 billion) and the Netherlands ($1.2 billion). These six nations accounted for 81% of U.S. spending on R&D in Europe in 2014.

TABLE 5: THE U.S. - EUROPEAN EMPLOYMENT BALANCE. THOUSANDS OF EMPLOYEES, 2015*

Country	European Affiliates of U.S. Companies	U.S. Affiliates of European Companies	Employment Balance
Austria	46.2	17.0	-29.2
Belgium	132.1	150.2	18.1
Czech Republic	95.0	0.0	-95.0
Denmark	45.9	35.5	-10.4
Finland	19.3	24.5	5.2
France	491.8	593.8	102.0
Germany	700.8	695.9	-4.9
Greece	18.2	2.5	-15.7
Hungary	71.8	0.1	-71.7
Ireland	125.0	225.0	100.0
Italy	224.0	130.9	-93.0
Luxembourg	21.3	20.9	-0.4
Netherlands	251.9	430.5	178.5
Norway	52.7	6.8	-45.9
Poland	182.6	0.9	-181.6
Portugal	31.5	0.6	-30.8
Romania	57.4	0.0	-57.4
Spain	185.6	77.2	-108.4
Sweden	74.8	210.9	136.1
Switzerland	107.6	473.4	365.8
United Kingdom	1,396.2	1,137.4	-258.9
Europe	**4,690.9**	**4,259.6**	**-431.4**

Note: Employment balance "+" favors the United States
Source: Bureau of Economic Analysis
**2015 Estimates. Majority-owned bank and non-bank affiliates.*

In the United States, meanwhile, expenditures on R&D performed by majority-owned foreign affiliates totaled $57 billion in 2014, up slightly from the prior year. As in previous years, a sizable share of this R&D spending emanated from world-class leaders from Europe, given their interest in America's highly skilled labor force and world-class university system. Most of this investment took place among European firms in such research-intensive sectors as autos, energy, chemicals, and telecommunications. In 2014, R&D spending by European affiliates totaled $42 billion, accounting for 74% of total foreign R&D spending in the United States.

By nation, Swiss-owned affiliates were the largest foreign source of R&D in the U.S. in 2014, with Swiss firms pumping some $10.6 billion in R&D spending in the U.S. Swiss firms accounted for a quarter of the European total. British firms accounted for the second largest percentage of affiliate expenditures, with a 17.3% share in 2014. Germany's share was close, at 16.8%, followed by France, 16.0%. As Table 6 highlights, some of the world's most innovative companies are domiciled in the U.S. and Europe.

5. Intra-firm Trade of Foreign affiliates

While cross-border trade is a secondary means of delivery for goods and services across the Atlantic, the modes of delivery—affiliate sales and trade—should not be viewed independently. They are more complements than substitutes, since foreign investment and affiliate sales increasingly drive cross-border trade flows. Indeed, a substantial share of transatlantic trade is considered intra-firm or related-party trade, which is cross-border trade that stays within the ambit of the company. Intra-firm or related party-trade occurs when BMW or Siemens of Germany sends parts to BMW of South Carolina or Siemens of North Carolina; when Lafarge or Michelin sends intermediate components to their plants mid-west, or when 3M ships components from its office products or communications sectors from St. Paul to affiliates in Germany or the UK.

The tight linkages between European parent companies and their U.S. affiliates are reflected in the fact that roughly 60% of U.S. imports from the European Union consisted of related-party trade in 2014. That is much higher than the related party imports from the Pacific Rim nations (around 43%) and South/Central America (42%) and well above the global average (51%). The percentage was even higher in the case of Ireland (91%) and Germany (70%).

Meanwhile, roughly one-third of U.S. exports to Europe in 2014 represented related-party trade, but the percentage is much higher for some nations. For instance, more than half of total U.S. exports to Belgium (55%) were classified as related-party trade. The comparable figure for the Netherlands was 46%, Germany was 33% and 24% for the United Kingdom.

6. Foreign Affiliate Sales

U.S. majority-owned foreign affiliate sales on a global basis (goods and services) totaled an estimated $6.6 trillion in 2015, an increase of $200 billion from the previous year. Total U.S. exports, in contrast, were $2.3 trillion in 2015, or roughly one-third of foreign affiliate sales, and stagnant from the prior year. This growing gap underscores the primacy of foreign affiliate sales over U.S. exports. As we have noted many times before, one of the best kept secrets in Washington is how U.S. firms actually deliver goods and services to foreign customers.

As usual, Europe accounted for the bulk of U.S. affiliate sales in 2015. We estimate that U.S. foreign affiliate sales

TABLE 6: THE TOP 20 R&D SPENDERS

		R & D Spending			
2016	**Company**	**2016, $ Billions**	**Change from 2015**	**Headquarters Location**	**Industry**
1	Volkswagen	13.2	2.7%	Germany	Automotive
2	Samsung	12.7	-3.0%	South Korea	Computing and electronics
3	Amazon	12.5	35.2%	United States	Software and Internet
4	Alphabet	12.3	24.9%	United States	Software and Internet
5	Intel Co	12.1	5.1%	United States	Computing and Electronics
6	Microsoft	12.0	5.8%	United States	Software and Internet
7	Roche	10.0	-3.2%	Switzerland	Healthcare
8	Novartis	9.5	-1.6%	Switzerland	Healthcare
9	Johnson & Johnson	9.0	6.5%	United States	Healthcare
10	Toyota	8.8	5.1%	Japan	Automotive
11	Apple	8.1	33.5%	United States	Computing and Electronics
12	Pfizer	7.7	-8.4%	United States	Healthcare
13	General Motors	7.5	1.4%	United States	Automotive
14	Merck	6.7	-6.6%	United States	Healthcare
15	Ford	6.7	0.0%	United States	Automotive
16	Daimler	6.6	4.5%	Germany	Automotive
17	Cisco	6.2	-1.4%	United States	Computing and Electronics
18	AstraZeneca	6.0	7.5%	Britain	Healthcare
19	Bristol-Myers Squibb	5.9	30.6%	United States	Healthcare
20	Oracle	5.8	4.8%	United States	Software and Internet
		179.4	**6.3%**		

Source: Bloomberg data, Capital IQ data, Strategy& analysis

in Europe topped $3.1 trillion, up roughly 4% from the prior year. U.S. affiliate sales in Europe, by our estimates, amounted for roughly half of the global total, also an increase over the prior year.

Sales of U.S. affiliates in Europe were almost double the comparable figures for the entire Asian region in 2014, the last year of available data. Affiliate sales in the United Kingdom ($668 billion) were almost double total sales in South America. Sales in Germany ($365 billion) were over two-thirds larger than combined sales in Africa and the Middle East.

Affiliate sales are also the primary means by which European firms deliver goods and services to customers in the United States. In 2015, for instance, we estimate

TABLE 7: RELATED PARTY TRADE, 2014

	US Imports: "Related Party Trade," as % of Total	US Exports: "Related Party Trade," as % of Total
European Union	60.0	32.1
Germany	69.8	32.5
France	45.0	29.7
Ireland	90.8	35.9
Netherlands	57.2	45.8
United Kingdom	50.8	24.2

Source: U.S. Census Bureau

that majority-owned European affiliate sales in the U.S. ($2.4 trillion) were more than triple U.S. imports from Europe. Affiliate sales rose by 4% by our estimates. By country, sales of British firms were the largest ($643 billion) in 2014, followed by Germany ($466 billion), and the Netherlands ($258 billion). For virtually all countries in Europe, foreign affiliate sales were easily in excess of their U.S. imports in 2014.

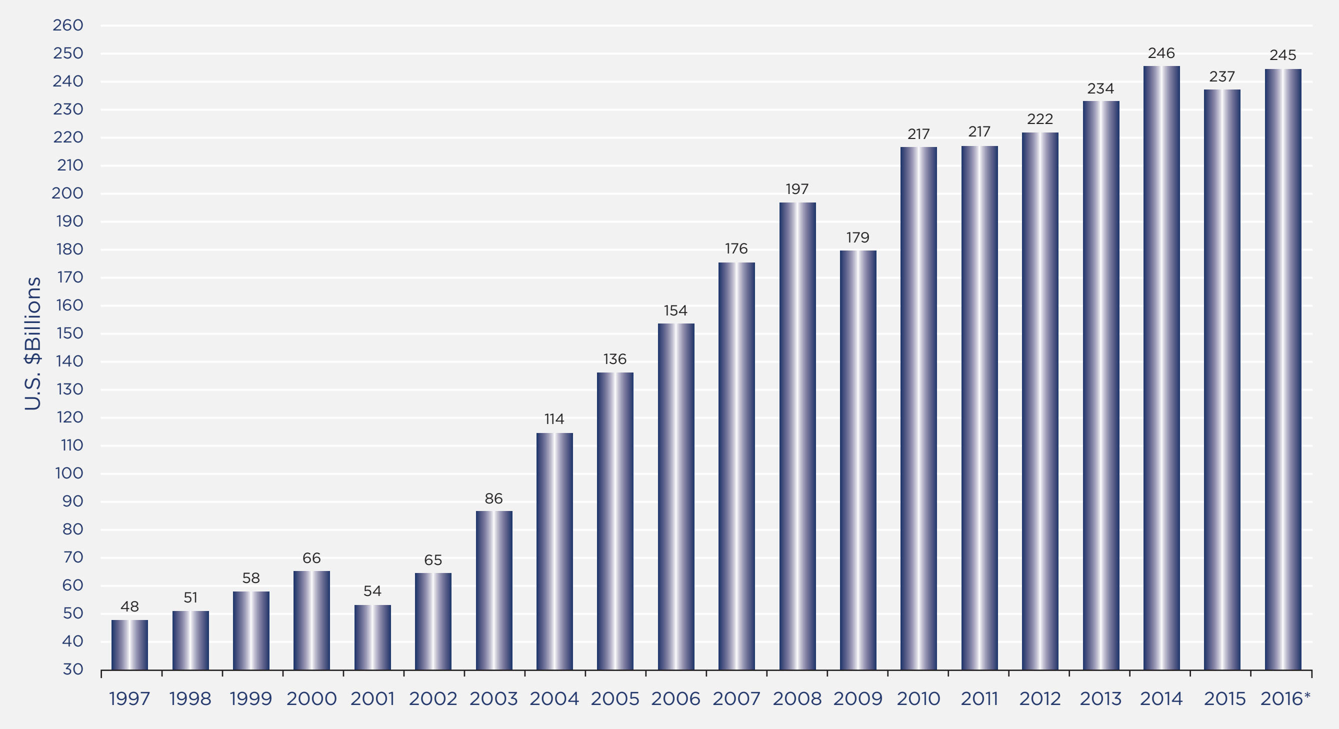
7. Foreign Affiliate Profits

Transatlantic profits have rebounded from the depressed levels of 2009, when the global financial crisis and ensuing recession triggered a sharp downturn in affiliate income/earnings on both sides of the pond. In 2016, U.S. affiliate income in Europe rose to $245 billion, close to the record reached in 2014. The figure for 2016 was more than one-third larger than the depressed levels of 2009, when affiliate income earned in Europe plunged to $179 billion. Meanwhile, European affiliate income earned in the U.S. rose 9% last year, according to estimates.

Soft growth in Europe, along with the weak euro against the U.S. dollar, makes for a challenging earnings backdrop for U.S. foreign affiliates in Europe over the near term. That said, the region still accounts for the bulk of U.S. global foreign affiliate income, with the region accounting for roughly 63% of global income in the first nine months of last year. Europe, in other words, remains a very important market to U.S. multinationals. As a footnote, we define Europe here in very broad terms, including not only the EU28 but also Norway, Switzerland, Russia and smaller markets in central and Eastern Europe.

On a comparative basis, U.S. affiliate income from Europe is simply staggering, with foreign affiliate income in Europe—$182 billion in the first nine months of 2016—more than the combined affiliate income of Latin America

TABLE 8: U.S. EARNINGS IN EUROPE (U.S. FOREIGN AFFILIATE INCOME FROM EUROPE)



Source: Bureau of Economic Analysis
**Data for 2016 is estimate.*

($47 billion) and Asia ($46 billion). It is interesting to note that combined U.S. affiliate income from China and India in 2015 ($12.8 billion), the last year of full data, was less than in 2014 and only around 18% of what U.S. affiliates earned/reported in the Netherlands and a fraction of U.S. earnings in such countries as the United Kingdom and Ireland.

Still, there is little doubt that China, India, Brazil and other rising economies are becoming more important earnings engines for U.S. firms. To this point, in the first nine months of 2016, U.S. affiliate income in China alone ($6.6 billion) was well in excess of affiliate income in Germany ($2.4 billion), France ($1.9 billion), and Spain ($3.0 billion). U.S. affiliates in Brazil earned just $600 million in the January-September period, less than the same period a year earlier but well more than that earned in many European nations.

All that said, we see rising U.S. affiliate earnings from emerging markets as a complement, not a substitute, to earnings from Europe, which very much remains a key source of prosperity for corporate America.

Similarly, the United States remains the most important market in the world in terms of earnings for many European firms. These earnings had recently been falling year-over-year, but showed signs of rebounding in 2016. In the first nine months of 2016, the income of European affiliates in the U.S. rose 2.2% from the same period a year earlier.

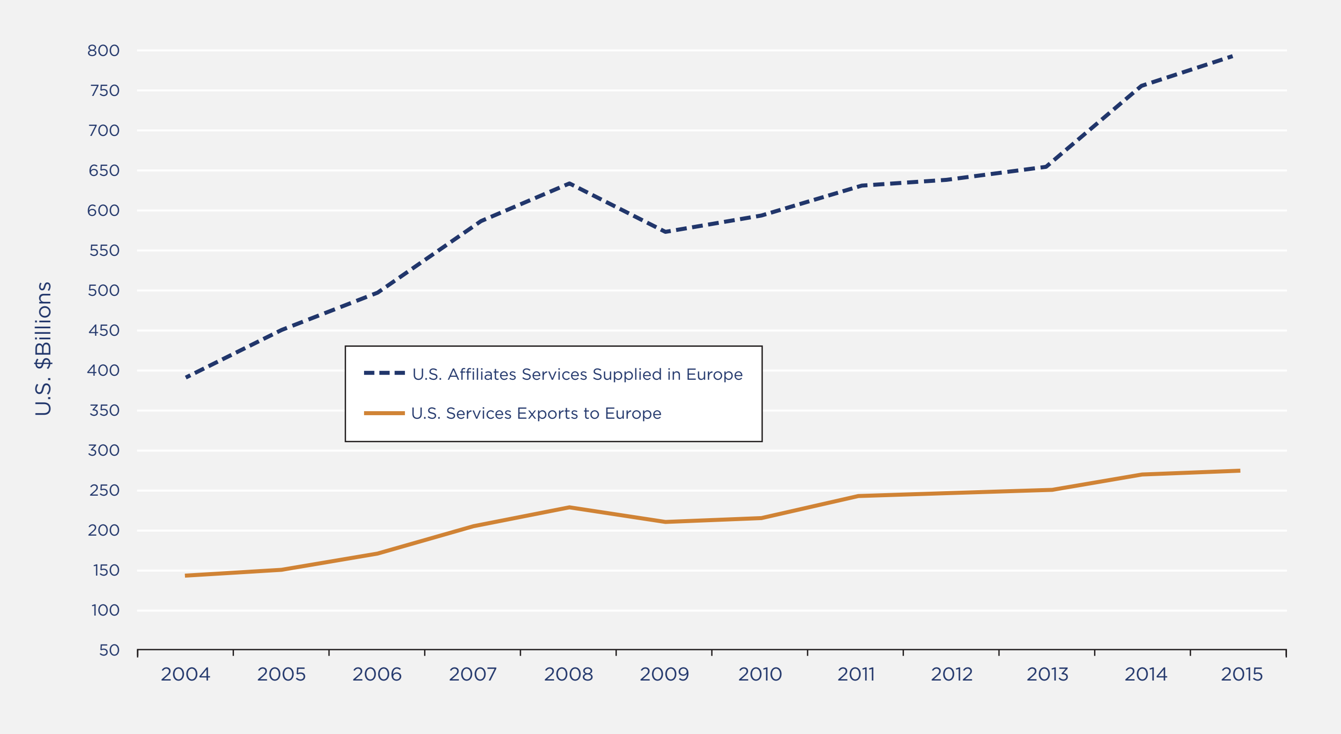
8. Transatlantic Services Linkages

Services are the sleeping giant of the transatlantic economy, and a key area offering significant opportunities for stronger and deeper transatlantic linkages.

That said, transatlantic ties in services—both in trade and investment—are already quite large. Indeed, the services economies of the United States and Europe have become even more intertwined over the past decade, with cross border trade in services and foreign affiliate sales of services continuing to expand in the post-crisis environment. By sectors, transatlantic linkages continue to deepen in insurance, education, telecommunications, transport, utilities, advertising and computer services. Other sectors such as aviation, e-health and e-commerce are slowly being liberalized and deregulated.

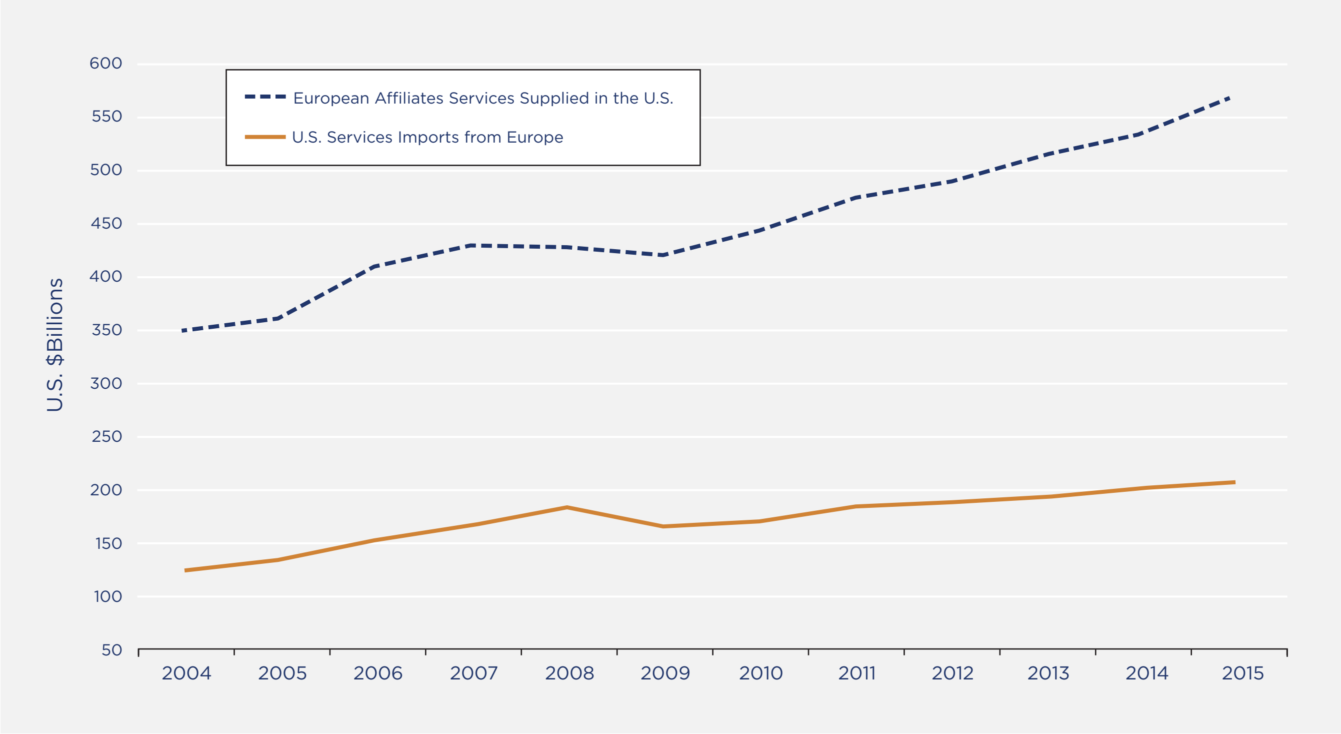
On a regional basis, Europe accounted for 37% of total U.S. services exports and for 42% of total U.S. services imports in 2015. Four out of the top ten export markets for U.S. services in 2015 were in Europe. The United Kingdom

TABLE 9: U.S. - EUROPE SERVICES LINKAGES



Source: Bureau of Economic Analysis.
Majority-owned bank and non-bank affiliates. Services supplied in Europe estimates for 2015.

TABLE 10: EUROPE - U.S. SERVICES LINKAGES



Source: Bureau of Economic Analysis.
Majority-owned bank and non-bank affiliates. Services supplied in the U.S. estimates for 2015.

ranked 1st, followed by Ireland (5th), Switzerland (8th), and Germany (9th). Of the top ten services providers to the U.S. in 2015, five were European states, with the United Kingdom ranked first, Germany second, Switzerland eighth, France ninth, and Ireland tenth. U.S. services imports from Europe in 2015 reached an all-time high at $206 billion, up roughly 25% from the depressed levels of 2009. Still, the U.S. enjoyed a $69 billion trade surplus in services with Europe in 2015, versus a $174 billion trade deficit in goods with Europe.

U.S. services exports reached a record $274 billion in 2015, up more than one-quarter from the cyclical slows of 2009, when exports to Europe plunged 9%. Services exports (or receipts) have been fueled by a number of service-related activities like travel, passenger fares, education and financial services. In terms of transport, the top five export markets in 2015, ranked in order, were Japan, Canada, the UK, China, and Germany. The United Kingdom ranked as one of the largest markets for exports of insurance services; the UK and Belgium-Luxembourg also ranked in the top five in financial services. Ireland was the top export market for U.S. trade in intellectual property—or charges or fees for the use of intellectual property rights. The United Kingdom ranked number one in telecommunications, computer and information services. As for "other business service exports" or activities like management consulting and R&D, Ireland ranked number one in 2015, followed by Switzerland and the UK.

Beyond services trade, there are the activities of foreign affiliates, with transatlantic foreign affiliate sales of services much deeper and thicker than traditional trade figures suggest. Indeed, sales of affiliates have exploded on both sides of the Atlantic over the past few decades thanks to the internet and falling communication costs. Affiliate sales of services have not only supplemented trade in services but also become the overwhelming mode of delivery. Affiliates sales of U.S. services rose more than 10-fold between 1990 and 2014, exceeding $1 trillion for the first time in 2007. In 2014, the last year of full data, U.S. affiliate services sales ($1.5 trillion) were more than double the level of U.S. services exports ($750 billion).

Sales of services of U.S. foreign affiliates in Europe have increased each year since plunging in 2009 on account of the transatlantic recession. Sales rose to $757 billion in 2014, up sharply from the depressed levels of 2009. U.S. services exports to Europe in the same year totaled $269 billion, well below sales of services by affiliates. In other words, like goods, U.S. firms deliver services in Europe (and vice versa) primarily through U.S. foreign affiliates.

TABLE 11: AMERICA'S FDI ROOTS IN EUROPE (BILLIONS OF $)

Industry	US FDI to Europe	% of Industry Total
European Total	2,949	59%
Manufacturing	310	47%

TABLE 12: EUROPE'S FDI ROOTS IN THE US (BILLIONS OF $)

Industry	US FDI from Europe	% of Industry Total
Total from Europe	2,163	69%
Manufacturing	955	79%

Note: Historic-cost basis, 2015
Source: Bureau of Economic Analysis

The United Kingdom accounted for roughly 30% of all U.S. affiliate sales in Europe; affiliate sales totaled $222 billion, a figure greater than total affiliate sales in South and Central America ($135 billion), Africa ($15 billion) and the Middle East ($22 billion). Affiliate sales in Ireland remain quite large—$107 billion—and reflect strong U.S-Irish foreign investment ties with leading U.S. internet, software and social media leaders. Europe accounted for 50% of total U.S. affiliate services sales worldwide.

We estimate that sales of services of U.S. affiliates in Europe rose by around 5% to $795 billion in 2015. U.S. services exports to Europe for the same year were $274 billion, well below sales of affiliates. U.S. affiliate sales in services in Europe continue to exceed sales of services by U.S. affiliates of European firms. In 2014, the last year of complete data, European affiliate services sales in the United States totaled $535 billion, over 30% below comparable sales of U.S. affiliates in Europe. That said, European affiliates are the key provider of affiliate services in the United States. Foreign affiliate sales of services in the U.S. totaled $919 billion in 2014, with European firms accounting for 58% of the total. By country, British affiliates lead in terms of affiliate sales of services in Europe ($140 billion), followed closely by Germany ($135 billion).

We estimate that European affiliate service sales in Europe totaled $570 billion in 2015, well above U.S. services imports from Europe ($206 billion) in the same year. The difference between affiliate sales and services imports reflects the ever-widening presence of European services leaders in the U.S. economy.

In the end, the United States and Europe each owe a good part of their competitive position in services globally to deep transatlantic connections in services industries provided by mutual investment flows. A good share of U.S. services exports to the world are generated by European companies based in the United States, just as a good share of European service exports to the world are generated by U.S. companies based in Europe.

In sum, these eight indices underscore the depth and breadth of the transatlantic commercial relationship and convey a more complex and complete picture of U.S.-European engagement than simple trade figures. Transatlantic commerce goes well beyond trade, even though cross-border trade is an important ingredient in the U.S.-European relationship. But foreign direct investment and foreign affiliate sales, not trade, represent the backbone of the transatlantic economy.