CHAPTER 2

THE POST-CRISIS TRANSATLANTIC ECONOMY: The Eight Ties that Still Bind

When it comes to global commerce, Europe remains at the center of the universe for Corporate America. This fact has been lost in all the chatter about America's strategic pivot to Asia and daily prophesying from pundits that the future of the world economy lies with the "Rest," notably China. Meanwhile, while there are many areas of disagreement between Washington and Brussels, transatlantic business ties and linkages continue to expand and deepen on a day-to-day basis.

As for the rise of the "Rest," it's interesting to note that in early 2014, it is the emerging markets that are the laggards—not the leaders—of the global economy. For both cyclical and structural reasons, growth has slowed sharply over the past year in Brazil, India, Turkey, South Africa and even China. Rising unemployment, capital outflows, plunging currencies, dissatisfied populations—all of these dynamics and more are dogging emerging market economies in South America, Asia, Africa and the Middle East.

The simple fact of the matter is this: the developing nations are not yet capable of driving global growth in a sustainable fashion. Rather than extolling the strengths of the BRICs—Brazil, Russia, India and China—Wall Street has taken to worrying about the "Fragile Five," or South Africa, Indonesia, Brazil, India and Turkey.

All of the above underscores why the transatlantic partnership remains so important to the United States and to Europe. Yes, the emerging markets are new sources of supply (labor) and demand (consumers) for transatlantic multinationals. But for the bulk of these firms, the core of their global operations center on the United States and Europe. The foundation of the global economy still rests on the shoulders of the U.S.-European partnership.

That said, it has been a rocky decade for the transatlantic economy, defined here as the highly integrated economic space inhabited by the United States and Europe. In the past ten years the transatlantic partnership has been buffeted by economic recessions, military conflicts in the Middle East, a U.S.-led financial crisis-cum-global recession, and Europe's sovereign debt crisis. The latter has made Europe the weak link of the global economy this decade. But the tide has now turned in Europe, and for the better.

As we outlined in our last survey, while Europe's unfolding recession has been well covered by the media, less attention has been paid to underlying trends that should make Europe stronger rather than weaker in the long term. While the pace of economic reform has been muddled and frustratingly slow in many debt-laden nations, the evidence continues to point to improving fundamentals in Europe's periphery. Ireland, Spain and Portugal have all acted decisively over the past few years, and through deregulation, labor market reform, and pro-business tax incentives have raised the competitiveness of their economies. Even the heavy lifting in Greece is starting to pay off, with the government projecting a slight pick-up in growth this year. The outlook in these nations remains fragile, but four years after the sovereign debt crisis erupted in Europe there are clear signs of improvement and progress.

Of course, not all economies in Europe are created equal. Some are more competitive, in better financial shape, and more prudently managed than others. The upshot is a mixed European economic performance, with low-debt, highly competitive economies of the north outperforming debt-laden, uncompetitive economies of the south over the past few years.

Leading U.S. multinationals understand this and invest their money based on their practical experience with European markets. They will continue to leverage the European Union to their strategic advantage. U.S. companies are not moving their investments *out* of Europe, but they do move their investments around *within* Europe,

depending on changing circumstance. For instance, U.S. investment in Poland has increased substantially, bringing considerable jobs and helping to generate additional growth for Poland. U.S. investment in Spain, Italy and Greece, on the other hand, has slowed or even gone into reverse.

European firms act similarly within the United States. Even the most skeptical pundits have been surprised by the resiliency of the U.S. economy over the past year, but economic circumstances in one part of the country can differ from other parts, influencing European investment decisions.

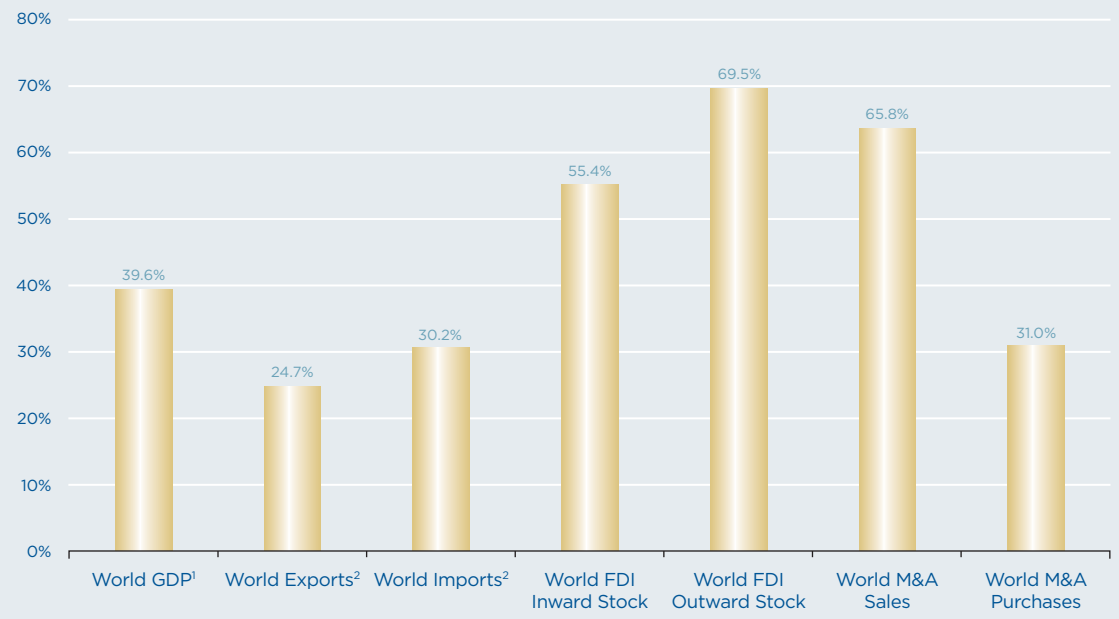
As we suggested in our last report, the downturn in transatlantic foreign direct investment in the post-crisis years has been more cyclical than structural, temporary as opposed to permanent.

American and European firms are building out their in-country presence in the developing nations, and for good reasons. Growth rates are above the global average, most populations are young and want Western goods and services, and the technological skill levels of some nations are now on par with many developed nations. It makes perfect sense for U.S. and European firms to invest outside the transatlantic 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 rushing to deepen their footprint in the developing nations, replicating the deep ties that are the hallmark of the transatlantic partnership. In fact, U.S. and European companies are using global value chains to integrate the value added other countries can contribute to particular products and services into transatlantic bonds of investment and trade.

What makes the transatlantic economy distinctive in this world of rising powers and emerging markets? As we have highlighted in the past, it is foreign investment—the deepest form of global integration—that binds the transatlantic economy together far more than trade. The latter, the cross-border movement of goods and services, is a shallow form of integration and often associated with the early phases or stages of bilateral commerce. In contrast, a relationship that rests on the foundation of foreign

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



Sources: UN, IMF, figures for 2012.
1. Based on PPP estimates.
2. Excluding intra-EU, Norway, Switzerland and Iceland trade.

investment is one in which both parties are extensively embedded and entrenched in each other's economies. Such a relationship is more job-creating, income-producing, and wealth-generating for both parties than one based solely on trade.

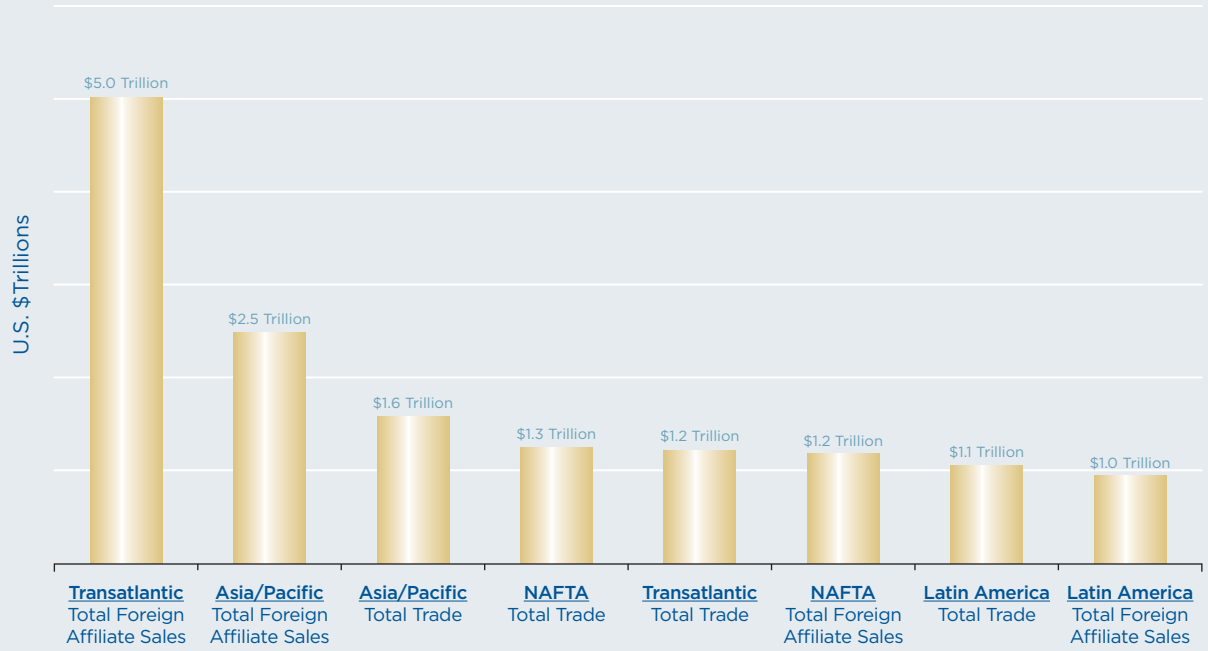
This deep commercial integration epitomizes the transatlantic economy, which is wound and bound together by symbiotic ties between investment and trade in goods and services. Because of this relationship, the global primacy of foreign affiliate sales over trade continues to expand dramatically. To this point, global foreign affiliate sales (sales of affiliates from around the world) in 1990 totaled $5.1 trillion, versus global exports of $4.4 trillion, according to figures from the United Nations. By 2012, however, global foreign affiliate sales tallied a staggering $26 trillion, a figure 16% larger than global exports ($22.4 trillion). The gap between foreign sales and exports reflects in part rising cross-border investment and commerce between the United States and Europe.

Against this backdrop, most American foreign affiliates in Europe are indistinguishable from local German, British, or Dutch firms, while European affiliates operating in the United States are barely distinguishable to U.S. consumers who enjoy European goods and services on a daily basis without much thought. U.S. firms and their global counterparts in Europe, Japan and now even China, Brazil and other countries prefer to deliver goods and services via foreign direct investment (foreign affiliates) rather than trade (exports).

We do not mean to downplay the importance of transatlantic trade, which remains considerable. Indeed, transatlantic trade (defined here as U.S. exports plus imports of goods from the European Union) totaled an estimated $787 billion in 2013, up from $387 billion at the start of the new century. Transatlantic trade is sizable and important to both economies. But one must add investment to the picture to get a true sense of the size and dynamism of the transatlantic economy, particularly compared to any other bilateral economic relationship either partner has in the world.

Companies invest abroad for various reasons. They may want to make a strategic investment, for instance to introduce a new product or service. "Build where you sell" is a mantra of many successful multinationals, and this requires an

TABLE 2: AMERICA'S MAJOR COMMERCIAL ARTERIES



Foreign Affiliate Sales: Estimates for 2012. Total Trade: Data for goods & services, 2012.
Source: Bureau of Economic Analysis.

in-country/region presence in many different parts of the world. They may seek resources, such as acquiring access to specialized knowledge or particular technologies. They may want to win share in new markets, or they may want to achieve greater efficiencies by gaining access to cheap factors of production. While much media and political attention focuses on the resource- or efficiency-seeking motivations behind such investments, particularly the need for cheap foreign labor, the reality is that the increasingly critical need for companies is to position themselves within pan-continental markets, and to generate new sources of knowledge that they can turn into new sources of profit. These latter motivations drive a good deal of mutual investment across the Atlantic.

Moreover, these companies and affiliates invest in local communities. European affiliates in the United States employ millions of American workers and are the largest source of onshored jobs in America. Similarly, U.S. corporate affiliates in Europe employ millions of European workers and are the largest source of onshored jobs in Britain, Ireland and across the European continent.

The Transatlantic Economy in the World

There is no commercial artery in the world as large as the one binding the United States and Europe together. The transatlantic economy still accounts for over 50% of world GDP in terms of value and roughly 40% in terms of purchasing power parity, is the largest and wealthiest market in the world, is at the forefront of global R&D, and drives global foreign direct investment and global mergers and acquisitions activity.

All told, by our estimate roughly $5.0 trillion in commerce takes place between U.S. and European companies and their affiliates each year. Hence, when one half of the transatlantic partnership suffers or goes into recession, like Europe in 2011-12, the other half suffers as well. Europe's problems manifested themselves in declining capital flows from Europe to the U.S., plummeting U.S. exports to Europe, a widening U.S. trade deficit and weaker-than expected U.S. corporate earnings for many companies with extensive links to Europe (think U.S. automakers).

On the flip side, strength in one half of the partnership can have a healing effect on the other. To this point, America's widening trade deficit with Europe—totaling a record $133 billion in 2013—was critical in supporting external growth for Europe against a backdrop of depressed demand at home.

U.S. economic challenges, by the same token, have consequences for Europe, given that the United States is one of the top country export destinations for EU goods and services, the EU's leading source and destination of both FDI and private portfolio investment, and a key innovation partner for European economies seeking to maintain their competitive position in knowledge-based activities. If the United States fails to generate 3%-plus real growth in 2014, the ill effects will be felt not only in the United States but also Europe. Success or failure in one part of the relationship affects the other, since no two regions of the global economy are as economically fused as the two parties straddling the Atlantic.

That said, it has long been our contention that one of the most dangerous deficits affecting the transatlantic partnership is not one of trade, values, or military capabilities but rather a deficit in understanding among opinion leaders of the vital stakes Americans and Europeans have developed in the success of each other's respective economies. Hence, transatlantic differences over financial sector reform and divergences over fiscal and monetary policies, big data and privacy issues, and other critical topics like global climate change are cause for concern. With so much attention devoted to the rise of the Chinese economy and shifting trade flows in both the United States and Europe, many on both sides of the Atlantic have forgotten about the importance of investment and the unappreciated, invisible and little-understood activities of foreign affiliates, which represent the real backbone of the transatlantic economy.

This is illustrated in Table 1, which illustrates the weight of the transatlantic economy in the overall global economy. Taken together, U.S. and European exports to the world accounted for 25% of global exports in 2012; combined U.S. and European imports accounted for 30% of global imports. But the United States and Europe together accounted for 55.4% of the inward stock of foreign direct investment (FDI), and a whopping 69.5% of outward stock of FDI. Moreover, each partner has built up the great majority of that stock in the other economy. In short, mutual investment in the North Atlantic space is very large, dwarfs trade, and has become essential to U.S. and European jobs and prosperity.

All in all, the transatlantic economy remains the dominant force in the global economy. Rising powers are resetting the global economy, but they haven't done so yet. Such a transformation is neither complete nor pre-ordained, as the current crisis in the emerging markets highlights. And a different world economy is not necessarily a worse one for Americans and Europeans—if they use the coming decade to leverage global growth, human talent and innovation while tackling related challenges of deficits and debt, building on their own considerable strengths, and exploiting the full potential of the transatlantic economy. That is a big "if," but each side is laying the groundwork for economic recovery,

and both are launching negotiations to further open transatlantic markets and position themselves for the world rising before them.

The Ties that Bind—Quantifying the Transatlantic Economy

It is the activities of foreign affiliates that bind the United States and Europe together. Foreign affiliates on both sides of the Atlantic have constructed a formidable commercial presence in each other's market over the past half century, if not beyond. A handful of U.S. companies sunk roots in Europe over a century ago.

Notwithstanding all the stress and strain on the transatlantic partnership over the past decade, the transatlantic infrastructure remains solid and sturdy. Many measures of economic activity declined sharply in 2009 due to the global recession, rebounded in 2010 and softened again in 2011 and 2012. By the tail end of 2013, many metrics started to improve, reflecting the cyclical rebound in transatlantic economic activity.

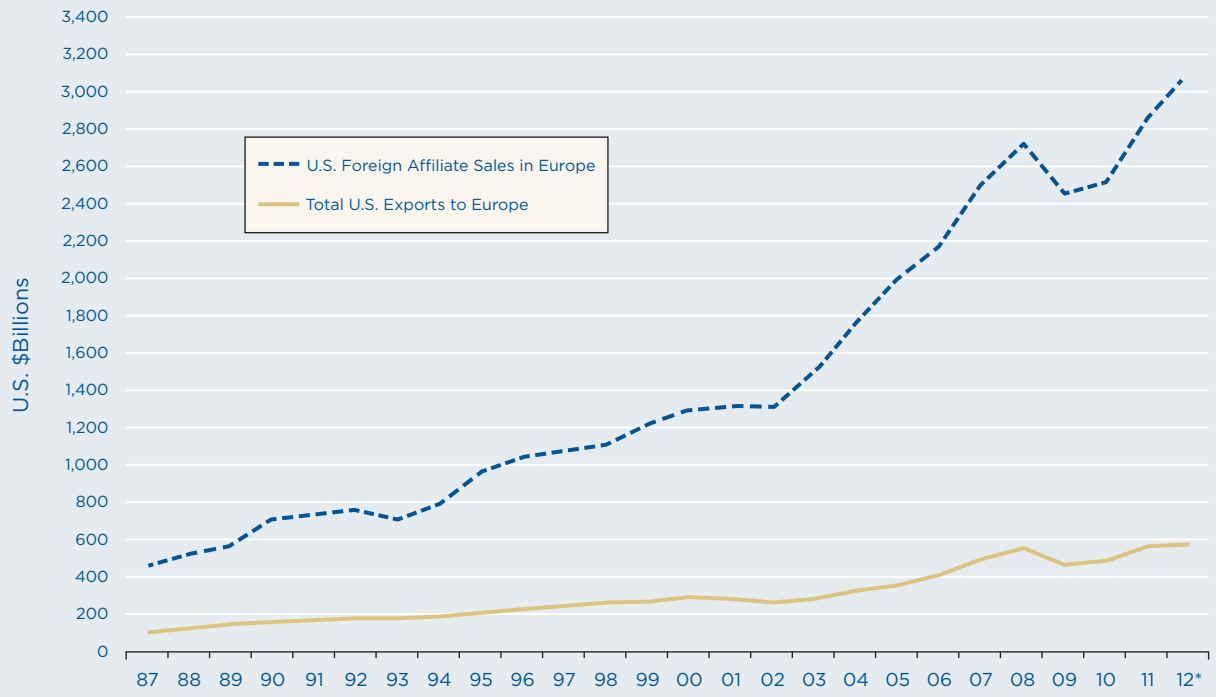
Over the past years we have outlined and examined eight key indices that offer a clearer picture of the "deep integration" forces shaping the transatlantic economy. This chapter updates those indices with the latest available data and our estimates. Each metric, in general, has ebbed and flowed with the cyclical swings of transatlantic economic activity, but has nevertheless grown in size and importance over the past decade.

If there is a common theme to the data below, it is this: most metrics improved over 2013 as the U.S. continued to expand and Europe emerged from recession. More of the same is expected in 2014—thanks to the cyclical upswing in transatlantic economic activity, 2014 is set to be a solid year for affiliates on both sides of the pond.

1. Gross Product of Foreign Affiliates

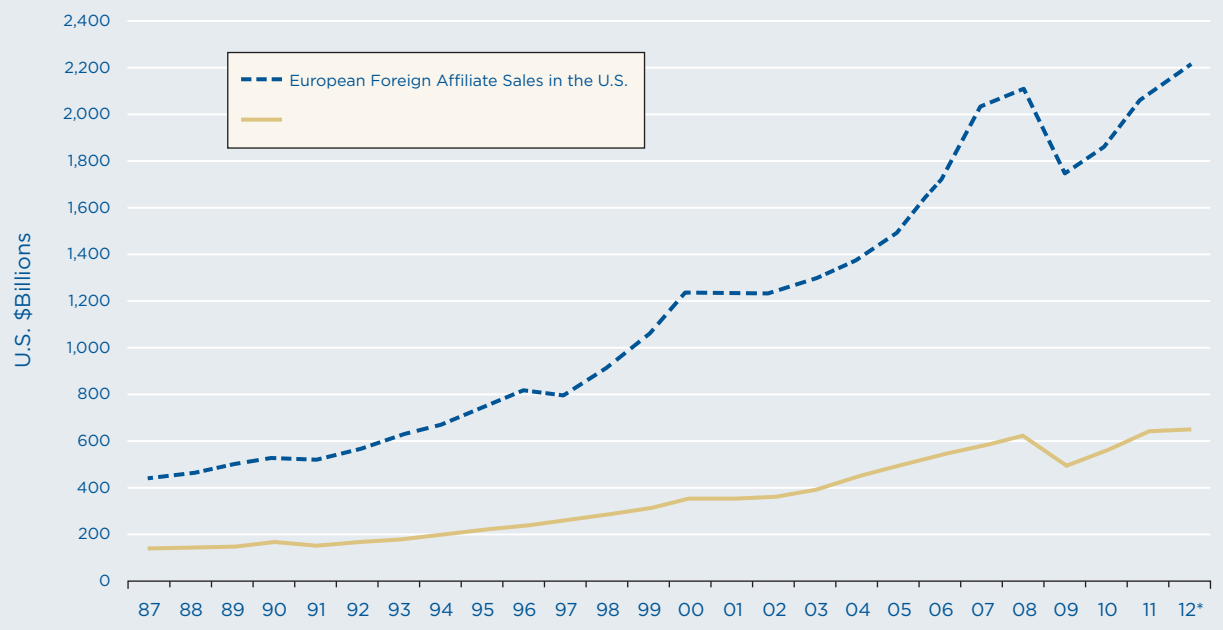
The best way to think about U.S. and European foreign affiliates is to consider them independent economic entities, since in their own right, U.S. affiliates in Europe and European affiliates in the United States are among the largest and most advanced economic forces in the world. For instance, the total output of U.S. foreign affiliates in Europe (an estimated $760 billion in 2012) and of European foreign affiliates in the U.S. (estimated at $500 billion) was greater than the total gross domestic output of most

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



**Estimate for sales.*
Source: Bureau of Economic Analysis.
Majority-owned non-bank affiliates data: 1987 - 2008. Majority-owned bank and non-bank affiliates: 2009 - 2012.

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



**Estimate for sales*
Source: Bureau of Economic Analysis
Majority-owned non-bank affiliates: 1987 - 2006. Majority-owned bank and non-bank affiliates: 2007 - 2012.

nations. Combined, transatlantic foreign output in 2012—in excess of $1.2 trillion—was larger than the output of such nations as the Netherlands, Turkey or Indonesia.

By our estimation, U.S. affiliate output in Europe rose by around 6% in 2012, while European affiliate output in the U.S. rose by a slightly faster pace, 6.5%. European affiliate output in the U.S. has recovered and expanded since falling to a cyclical low of $391 billion in 2009. 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. In the United States, European affiliates are operating in one of the most dynamic developed nations in the world and are expected to boost their near–term output as well.

On a global basis, aggregate output of U.S. foreign affiliates reached $1.6 trillion, with Europe (broadly defined) accounting for around 48% of the total. The latter figure was on par with 2011. The United Kingdom, where U.S. investment ties are deepest, accounted for 22.5% of total affiliate output in Europe in 2012, followed by Ireland (13.8%), and Germany (13.3%). These three nations accounted for roughly half of total U.S. foreign affiliate output in Europe in 2012, with the largest jump in share gains coming from Ireland.

In 2010, U.S. affiliates in Ireland accounted for roughly 10.3% of total output of European affiliates, although the nation's share rose by over 3 percentage points in the subsequent three years. France's share of affiliate output, in contrast, dropped to 7.7% in 2012 from 8.4% in 2010. By sector, output has been tilting towards services (53%) from manufacturing (47%). Germany, the United Kingdom and Ireland accounted for roughly half of total U.S. affiliate manufacturing output in Europe in 2011, the last year of available data.

The presence of U.S. affiliates in some European countries in particularly notable. The gross output of American affiliates in Ireland, for instance, represented over one-quarter of the country's gross domestic product again in 2012, a staggering contribution on both an absolute and relative basis. This dynamic reflects the large U.S. investment base in Ireland, notably by technology and life science companies. U.S. companies have stuck by Ireland, despite the country's recent economic difficulties. Ireland remains a favorite global destination of U.S. firms and is

TABLE 5: THE U.S. - EUROPEAN EMPLOYMENT BALANCE THOUSANDS OF EMPLOYEES, 2012[1]

Country	European Affiliates of U.S. Companies	U.S. Affiliates of European Companies	Employment Balance
Austria	43.9	14.1	-29.8
Belgium	135.9	165.9	30.1
Denmark	32.7	30.1	-2.7
Finland	21.4	27.3	5.9
France	470.0	531.2	61.2
Germany	644.8	600.5	-44.4
Ireland	103.3	175.0	71.7
Italy	207.8	126.9	-80.9
Luxembourg	14.0	38.0	24.0
Netherlands	228.9	405.0	176.1
Norway	42.1	8.0	-34.1
Spain	177.5	85.0	-92.5
Switzerland	94.6	457.0	362.5
United Kingdom	1,315.3	986.0	-329.4
Europe	**4,275.2**	**3,880.2**	**-395.0**

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

the number one export platform in the world for U.S. companies.

Elsewhere, by our estimations, U.S. affiliates accounted for around 6% of the United Kingdom's aggregate output in 2012; 5.8% of Norway's aggregate output; 5% of Switzerland's total output; and 4.9% of Belgium's total output. It is interesting to note that affiliate output in Belgium in 2012 ($25.5 billion) was more than 40% larger than U.S. foreign affiliate output in India (an estimated $18 billion).

In addition to expanding their presence in the more traditional markets of Europe, U.S. firms are taking advantage of the EU's expanding Single Market and incorporating central and eastern European member states, as well as key non-EU countries such as Turkey and Russia, into their European and global production networks. To this point, U.S. affiliate output in Poland rose from $2 billion in 2000 to $12.2 billion in 2011, the last year of available data. We estimate that output rose to $12.6 billion in 2012. Meanwhile, affiliate output in the Czech Republic totaled an estimated $6.1 billion in 2012, after rising from $1.3 billion in 2000 to $5.9 billion in 2011. Between 2000 and 2011, affiliate output in Hungary rose from $1.3 billion to $5 billion, before declining slightly in 2012. U.S. affiliate output in some central and eastern European states now exceeds output in many smaller developed economies in western Europe.

In the United States, 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 $128 billion in 2012, more than a quarter of the European total. For the same year, output from German affiliates operating in the U.S. totaled $87 billion by our estimates, or almost around 18% of the total, while output from French affiliates ($64 billion) accounted for 13% of the total.

Beyond European affiliates, only Corporate Japan and Canada have any real economic presence in the United States. Japanese affiliate output totaled nearly $93 billion in 2011, while Canadian affiliate output totaled $65 billion. Overall, U.S. affiliates of foreign multinationals contributed roughly $775 to U.S. aggregate production in 2012, with European affiliates accounting for roughly two-thirds of the total.

2. Assets of Foreign Affiliates

The global footprint of Corporate America and Corporate Europe is second to none, with each party each other's largest foreign investor. According to the latest data from the Bureau of Labor Statistics, U.S. foreign assets in Europe totaled $12.2 trillion in 2011, representing nearly 60% of the global total.

For 2012, we estimate that U.S. foreign assets in Europe reached $13.2 trillion, close, again, to 60% of the global total. Within the region, the bulk of U.S. assets were in the United Kingdom, with U.S. assets totaling an estimated $5.1 trillion, or 22.5% of the global total.

U.S. assets in the Netherlands (nearly $2 trillion) were the second largest in Europe and in the world in 2012. America's significant presence in the Netherlands reflects its strategic role as an export platform/distribution hub for U.S. firms doing business in the greater European Union. To this point, more than half of affiliate sales in the Netherlands are for export, namely within the EU. Meanwhile, America's asset base in Germany ($721 billion in 2012) was over 50% larger than its asset base in all of South America. America's collective asset base in Poland, the Czech Republic and Hungary (roughly $136 billion) was much larger than corporate America's assts in India (roughly $100 billion). As for Corporate America's in-country presence in Ireland, U.S. assets topped $1 trillion, greater than America's asset base in either Switzerland or France. Ireland accounted for roughly 8.1% of total U.S. assets in Europe in 2011.

As for foreign-owned assets in the United States, Europe's stakes are sizable even after declining after the 2008-09 recession. Total assets of European affiliates in the United States were valued at $8.7 trillion in 2012 by our estimate. The United Kingdom ranked first (est. $2.2 trillion), followed by German firms ($1.5 trillion), Swiss ($1.4 trillion) and French firms ($1.2 trillion). U.S. assets of Dutch firms totaled an estimated $1 trillion in 2012.

3. Affiliate Employment

The outsourcing debate rages on in Washington, with the common assumption that when it comes to hiring workers overseas, the bulk of the hiring is done in low-wage developing nations like Mexico, China and India. Reality is different. Most foreign workers on the payrolls of U.S. foreign affiliates are employed in the developed nations in general, and Europe in particular.

Indeed, between 2000 and 2011, U.S. foreign affiliate employment in Europe rose by 12.9%, increasing from 3.7 million workers in 2000 to 4.2 million in 2011. Figures for 2012 are not yet available but we estimate that the number of workers employed by U.S. affiliates rose to roughly 4.3 million workers. According to estimates, U.S. foreign affiliates added 62,600 new jobs to the UK economy in 2012, created 12,600 new jobs in Germany, 3,500 new jobs in the Czech Republic, 6,700 new jobs in the Netherlands and 1,800 jobs in Spain.

Aggregate employment levels continue to rise but manufacturing employment fell slightly, from 1.9 million at the start of the century to 1.8 million in 2011, the last year of available data. The largest declines in manufacturing employment among U.S. affiliates was reported in the United Kingdom, with the total manufacturing work force declining to 301,000 in 2011 from 431,000 in 2000. Employment in France dropped from 249,000 to 199,000, and a decline from 388,000 to 359,000 was recorded in Germany, although there was a net gain of U.S. affiliate employment in Germany of 5,500 in 2011 from 2010. Poland was a big gainer: U.S. affiliate employment there doubled between 2000 and 2011, climbing from 51,000 to over 100,000 in 2011.

On a global basis, U.S. majority-owned affiliates (banks and non-banks) employed roughly 11.8 million workers in 2012, with the bulk of these workers—roughly 35%—toiling in Europe. That share is down from 41% in 2008. The decline is due in part to the cyclical fall in output and employment across recession-weary Europe. It also reflects the fact that a rising share of U.S. overseas capacity (manufacturing and services) is expanding at a faster pace in the high-growth emerging markets versus slow-growth developed nations.

The bulk of affiliate employees in Europe are based in the United Kingdom, Germany and France, a trend little changed from previous years. What is changing, however, is that U.S. majority-owned foreign affiliates are on balance hiring more people in the services sector than in manufacturing.

Manufacturing employment accounted for just 42.5% of total employment in 2011, the last year of available data. The top industry in terms of manufacturing employment was transportation, with U.S. affiliates employing nearly 373,000 workers, followed by chemicals (264,000). Wholesale employment was among the largest sources of services-related employment, which includes employment in such areas as logistics, trade, insurance and other related activities.

Although services employment among U.S. affiliate has grown at a faster pace than manufacturing employment over the past decade, it is interesting to note that U.S. affiliates employed more manufacturing workers in Europe in 2011 (1.8 million) than in 1990 (1.6 million).

However, while the aggregate number of U.S. manufacturing jobs in Europe has increased, the geographic distribution of such jobs has shifted over the past few decades. In general, the shift has been towards lower cost locations like Ireland, Poland and Hungary, at the expense of the United Kingdom, France and Germany. To this point, the later three nations accounted for 67% of total U.S. affiliate manufacturing employment in Europe in 1990. In 2011, their share had been reduced to 48.3%. The United Kingdom took the biggest hit, with the UK's share of U.S. affiliate manufacturing employment accounting for just 17% of the total in 2011, versus a share of 29% in 1990. Between 1990 and 2011, U.S. affiliate manufacturing employment in the United Kingdom and Germany fell by roughly 35% and 10%, respectively. Meanwhile, manufacturing employment in Ireland soared by over 40% over the same period, while the combined share of U.S. affiliate manufacturing employment in Poland, the Czech Republic and Hungary jumped from virtually zero to nearly 11% in 2011, indicative of the eastern spread of U.S. European operations.

Even given these changes, the manufacturing workforce of U.S. affiliates in Germany totaled nearly 360,000 workers in 2011—above the number of manufactured workers employed in Brazil (316,000), and India (149,000) yet below the figures from China (574,000).

When it comes to affiliate employment, trends in the United States are similar to those in Europe. In other words, despite stories on the continent about local European companies

decamping for cheap labor markets in central Europe or Asia, most foreigners working for European firms outside of Europe are Americans. Based on the latest figures, European majority-owned foreign affiliates directly employed roughly 3.9 million U.S. workers in 2012—some 400,000 less workers than U.S. affiliates employed in Europe. By our estimates, the top five European employers in the U.S. were firms from the United Kingdom (986,000), Germany (600,000), France, (531,000), Switzerland (457,000), and the Netherlands (405,000). European firms employed roughly two-thirds of all U.S. workers on the payrolls of majority-owned foreign affiliates in 2012.

According to estimates, UK affiliates created 42,500 new U.S. jobs in 2012, Dutch companies generated an additional 5,200 jobs, Italian companies 6,200 more, Irish companies 8,100 more, and French companies in the U.S. generated an additional 6,800 jobs. Swiss companies employed an additional 10,700 people in the United States, German companies an extra 19,200 and Spanish companies 3,600 new U.S. jobs.

In the aggregate, the transatlantic workforce directly employed by U.S. and European foreign affiliates in 2011 was roughly 8.2 million strong, up roughly 3% from the prior year. In 2013, modest gains in employment were most likely achieved as employment rebounded due to increased hiring among European firms based in the United States. 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, affiliate employment figures do not include jobs supported by transatlantic trade flows. Trade-related employment is substantial in many U.S. states and many European regions.

In total, and adding indirect employment, we estimate that the transatlantic work force numbers some 13-15 million workers. Europe is by far the most important source of "onshored" jobs in America, and the U.S. is by far the most important source of "onshored" jobs in Europe.

4. Research and Development of Foreign Affiliates

The globalization of R&D has gathered pace over the past decade, with more and more global R&D expenditures emanating from China, South Korea, and Japan—or Asia in general. There are no boundaries to innovation thanks to proliferation of the internet and falling global communications. Both dynamics have helped spawn more R&D from the developing nations; indeed, based on the rankings of the top ten R&D-spending nations in 2014, the rankings were evenly split between developed nations and developing nations.

The United States ranked first, followed by China, Japan, Germany, South Korea, France, the United Kingdom, India, Russia and Brazil. Four of the top ten nations were transatlantic economies; four were also the BRICs—Brazil, Russia, India and China, underscoring the fact that R&D is no longer the sole preserve of the developed nations.

The figures come from the *2014 Global R&D Funding Forecast*, produced by Battelle and *R&D Magazine*. As the report notes:

- In 2014, ten countries will spend more than 80% of the total $1.6 trillion invested on R&D around the world; the combined investment by the U.S., China, and Japan will account for more than half, and with Europe about 78%, of the total.
- Given the current, weak economic environment in Europe, large increases in R&D investments are not expected for the next several years.
- The United States remains the world's largest R&D investor with projected $465 billion spending in 2014.
- At the current rates of growth and investment, China's total funding of R&D is expected to surpass that of the U.S. by about 2022.

While governments and corporations are the main generators of R&D spending, foreign affiliates of multinationals are also in the thick of things. Indeed, 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 acquisition, and other forms 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 the above results from more collaboration between foreign suppliers and U.S. and European companies.

TABLE 6: THE INNOVATION TOP 20

	R & D Spending				
Rank 2011	**Company**	**2013, $US Billions**	**Change from 2012**	**Headquarters Location**	**Industry**
1	Volkswagen	11.4	22.4%	Germany	Auto
2	Samsung	10.4	15.6%	South Korea	Computing and Electronics
3	Roche Holding	10.2	14.7%	Switzerland	Healthcare
4	Intel	10.1	21.5%	U.S.	Computing and Electronics
5	Microsoft	9.8	8.5%	U.S.	Software and Internet
6	Toyota	9.8	3.5%	Japan	Auto
7	Novartis	9.3	-2.6%	Switzerland	Healthcare
8	Merck	8.2	-3.5%	U.S.	Healthcare
9	Pfizer	7.9	-13.3%	U.S.	Healthcare
10	Johnson & Johnson	7.7	1.6%	U.S.	Healthcare
11	General Motors	7.4	-9.3%	U.S.	Auto
12	Google	6.8	31.6%	U.S.	Software and Internet
13	Honda	6.8	7.8%	Japan	Auto
14	Daimler	6.6	3.2%	Germany	Auto
15	Sanofi	6.3	2.3%	France	Healthcare
16	IBM	6.3	0.7%	U.S.	Computing and Electronics
17	GlaxoSmithKline	6.3	-1.0%	United Kingdom	Healthcare
18	Nokia	6.1	-14.4%	Finland	Computing and Electronics
19	Panasonic	6.1	-3.5%	Japan	Computing and Electronics
20	Sony	5.7	9.3%	Japan	Computing and Electronics
	Top 20 Total	**159.2**	**8.1%**		

Source: Booz & Company

Bilateral U.S.-EU flows in R&D are the most intense between any two international partners. In 2011, the last year of available data, U.S. affiliates sunk $27.7 billion on research and development in Europe, an increase of $3.3 billion over 2010 and roughly 61% of the total R&D expenditures of total global R&D by U.S. foreign affiliates of $45.7 billion. R&D expenditures by U.S. affiliates were greatest in Germany, the United Kingdom, Switzerland, France, the Netherlands, Belgium and Ireland. These seven nations accounted for 86% of U.S. global spending on R&D in Europe in 2011.

In the United States, meanwhile, expenditures on R&D performed by majority-owned foreign affiliates totaled $45.2 billion in 2011, up around 7% from the prior year. As in previous years, a significant share of this R&D spending emanated from world-class leaders from Europe, given their interest in America's highly skilled labor force and first-class university infrastructure. Most of this investment took place among European firms in such research-intensive sectors as autos, energy, chemicals, and telecommunications. In 2011, R&D spending by European affiliates totaled $33.4 billion, over $2 billion more than in 2010 and a sizable high value-added capital investment representing three-fourths of all R&D performed by majority-owned foreign affiliates in the United States.

By country, Swiss-owned affiliates were the largest foreign source of R&D in the U.S. in 2011; Swiss-owned R&D in the

TABLE 7: RELATED PARTY TRADE, 2012

	US Imports: "Related Party Trade," as % of Total	US Exports: "Related Party Trade," as % of Total
European Union	61.8	32.2
Germany	69.2	34.9
France	52.4	28.3
Ireland	89.9	30.7
Netherlands	64.8	45.4
United Kingdom	54.9	27.9

Source: U.S. Census Bureau

U.S. totaled $8.9 billion, down slightly from $9.3 billion the year before. Swiss firms accounted for nearly one-fifth of total affiliate R&D in the United States. British affiliates accounted for the second largest percentage of affiliate expenditures, with a 14.2% share in 2011. The share of Germany and France was 12.2% and 11.1%, respectively.

As Table 6 underscores, some of the world's most innovative companies are domiciled in the United States and Europe.

5. Intra-Firm Trade of Foreign Affiliates

While cross-border trade is a secondary means of delivery 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 trade 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 Mercedes of Germany send parts to BMW of South Carolina or Mercedes of Alabama; when Lafarge or Michelin send intermediate components to their plants in the Greater Cincinnati area, or when 3M ships components for 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 62% of U.S. imports from the European Union consisted of related-party trade in 2012. That is much higher than the related party imports from the Pacific Rim nations (43.3%) and South/Central America (39.5%), and well above the global average (50.3%). The percentage was even higher in the case of Ireland (89.9%) and Germany (69.2%).

Meanwhile, roughly one-third (32.3%) of U.S. exports to Europe in 2012 represented related-party trade, but the percentage is higher for some countries. For instance, almost half of total U.S. exports to Belgium (49.5%) and the Netherlands in 2012 (45.4%) was classified as related-party trade. The comparable figure for Germany was 34.9% and 27.9% for the United Kingdom.

6. Foreign Affiliate Sales

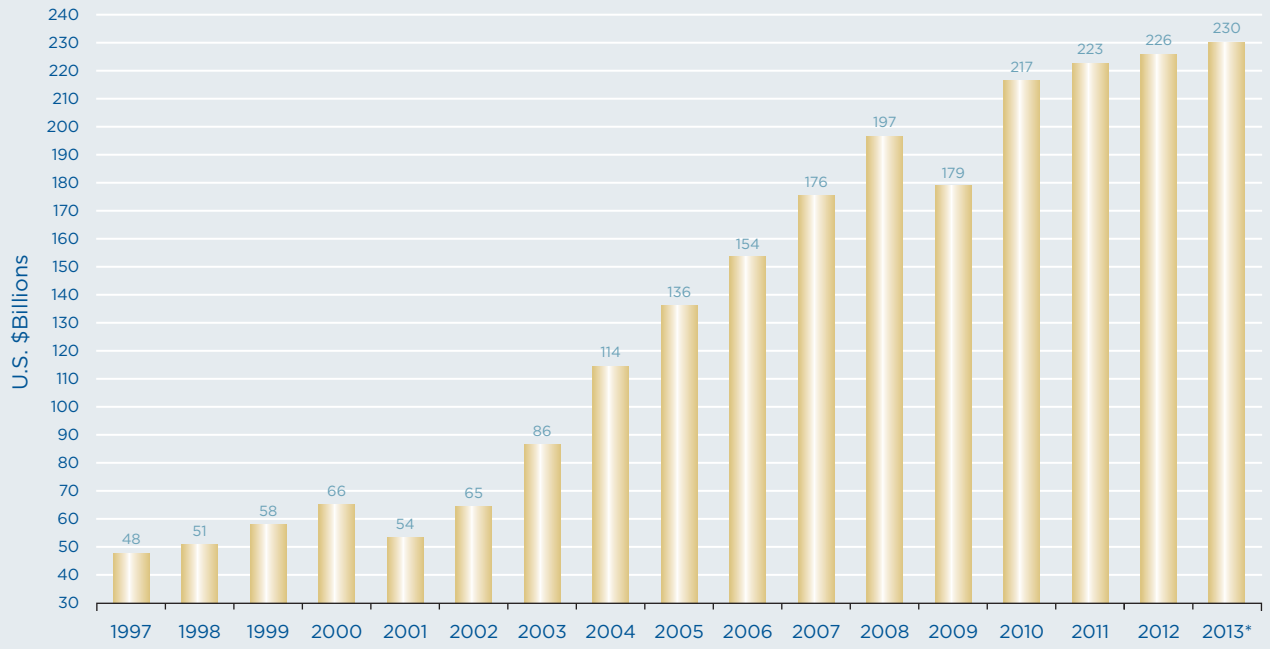
U.S. majority-owned foreign affiliate sales on a global basis (goods and services) totaled an estimated $6.6 trillion in 2012, having rebounded from the decline in 2009 caused by the global recession. Total U.S. exports, in contrast, were $2.2 trillion in 2012—a sizable difference that underscores the primacy of foreign affiliate sales over U.S. exports. 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 2012. We estimate that U.S. foreign affiliate sales in Europe topped $3 trillion for the first time, rising roughly 8% from the prior year. U.S. affiliate sales in Europe amounted to nearly 47% of the global total.

Reflecting just how important Europe is to Corporate America, sales of U.S. affiliates in Europe in 2011, the last year of available data, were roughly double comparable sales in the entire Asia/Pacific region. Affiliate sales in the United Kingdom ($665 billion) were almost double aggregate sales to South America. Sales in Germany ($352 billion) were 80% larger than combined sales in Africa and the Middle East. While U.S. affiliate sales in China have soared over the past decade, they have done so from a low base, and still remain well below comparable sales in Europe. For instance, U.S. affiliate sales of $206 billion in China in 2011 were below those in France ($220 billion), the Netherlands ($228 billion) and Switzerland ($304 billion). U.S. foreign affiliate sales in Ireland ranked third in Europe at $320 billion in 2011—a good share of these sales, however, take the form of U.S. affiliate exports to the EU and other third markets.

Affiliate sales are also the primary means by which European firms deliver goods and services to consumers in the United States. In 2012, for instance, we estimate that majority-owned European affiliate sales in the United States ($2.2 trillion) were more than triple U.S. imports from Europe (roughly $655 billion). Affiliate sales rose by roughly 6% in 2012, by our estimate. By country, sales of British firms led the way, totaling an estimated $521 billion in 2012—$27 billion more than in 2011—followed by Germany ($411 billion) and the Netherlands ($374 billion). For virtually all countries in Europe, foreign affiliate sales were easily in excess of their U.S. imports in 2011.

TABLE 8: U.S. EARNINGS FROM EUROPE HITTING NEW HIGHS (U.S. FOREIGN AFFILIATE INCOME FROM EUROPE)



Source: Bureau of Economic Analysis
** Data through 3Q2013. Data annualized for full year estimate*

7. Foreign Affiliate Profits

After plunging in 2009, transatlantic affiliate profits rebounded in 2010 and have continued to increase, albeit moderately in some cases, to the current day. Looking just at 2012, U.S. affiliate income in Europe inched up to $226.4 billion from $223 billion the year before. In the first nine months of 2013, U.S. affiliate income totaled $172.2 billion, up slightly from the same period a year earlier. In the aggregate, income rose very modestly in 2013, by less than 2% by our estimate, to $230 billion. The slight rise represents an all-time high for what U.S. affiliates earned in Europe, yet masks deep declines over many parts of Europe.

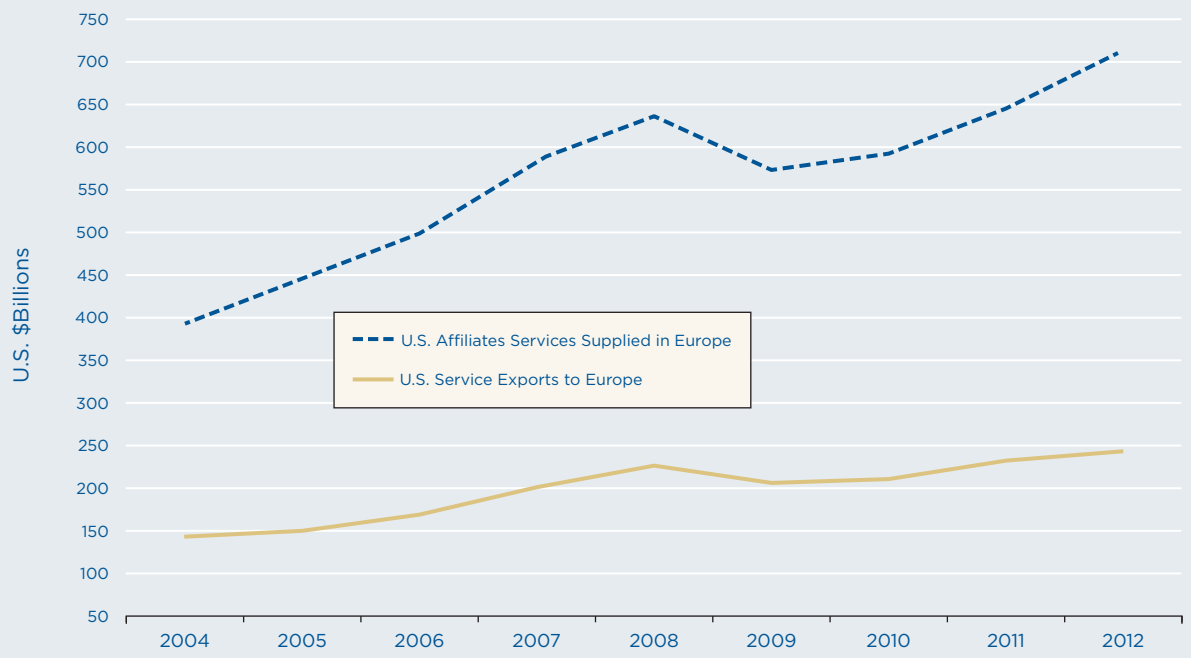
The general weakness in U.S. affiliate income in Europe was widespread—for instance, affiliate income in France and Germany in the January-September 2013 period was down 12% and 63%, respectively, from the same period a year earlier. Income fell 144% in Greece and 65% in Italy over the same period. U.S. affiliate income in Spain plunged 25%. On the positive side, affiliate income in the January-September period was up a 8% in Switzerland (year over year), and rose 12.8% in the UK and 1.1% in Ireland. Without these strong gains, U.S. affiliate income would have declined for the year.

In 2014, we expect a continued gradual improvement among U.S. foreign affiliates in Europe. Affiliate earnings weakened over the second half of 2011 as the European debt crisis triggered widening credit spreads, a contraction in lending, a drop in consumer and business confidence, and pushed many parts of Europe into recession. Europe limped into 2013 but gained strength as the year wore on. The situation is likely to improve moderately as this year progresses.

Despite a very soft earnings backdrop for U.S. affiliates in Europe in 2013, the region still accounted for slightly more than half (52%) of global foreign affiliate income for the first three quarters of the year. Hence, Europe remains an important market to U.S. firms. Indeed, since 2000, Europe has accounted for over 57% of total U.S. foreign affiliate income. 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. See our endnotes for the exact definition.

On a comparative basis, U.S. affiliate income from Europe is simply staggering, with foreign affiliate income in Europe—$172 billion in the first nine months of 2013—more than the combined affiliate income of Latin America ($64 billion) and Asia ($56 billion). It is interesting to note that combined U.S. affiliate income from China and India in 2012 ($10.4 billion) was only around 15% of what U.S. affiliates

TABLE 9: U.S. - EUROPE SERVICE LINKAGES



Source: Bureau of Economic Analysis
Majority-owned bank and non-bank affiliates. Services Supplied in Europe estimate for 2012.

earned/reported in the Netherlands ($73 billion) and a fraction of U.S. affiliate earnings in the United Kingdom ($36 billion) or Ireland ($30 billion). These trends continued into 2013; U.S. affiliate income in Ireland between January-September 2013 of $23.2 billion was more than three times U.S. affiliate income from China ($7 billion).

Still, there is little doubt that the likes of India, Brazil and China are becoming more important earnings engines for U.S. firms. To this point, in the first nine months of 2013, U.S. affiliate income of $7 billion in China alone was well in excess of affiliate income in Germany ($1.1 billion), France ($2.2 billion) and Spain (only $265 million - down from $1.9 billion in the same period in 2012). U.S. affiliates in Brazil earned nearly $5.7 billion in the January-September period, less than the same period a year earlier yet well more than that earned in many European nations.

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

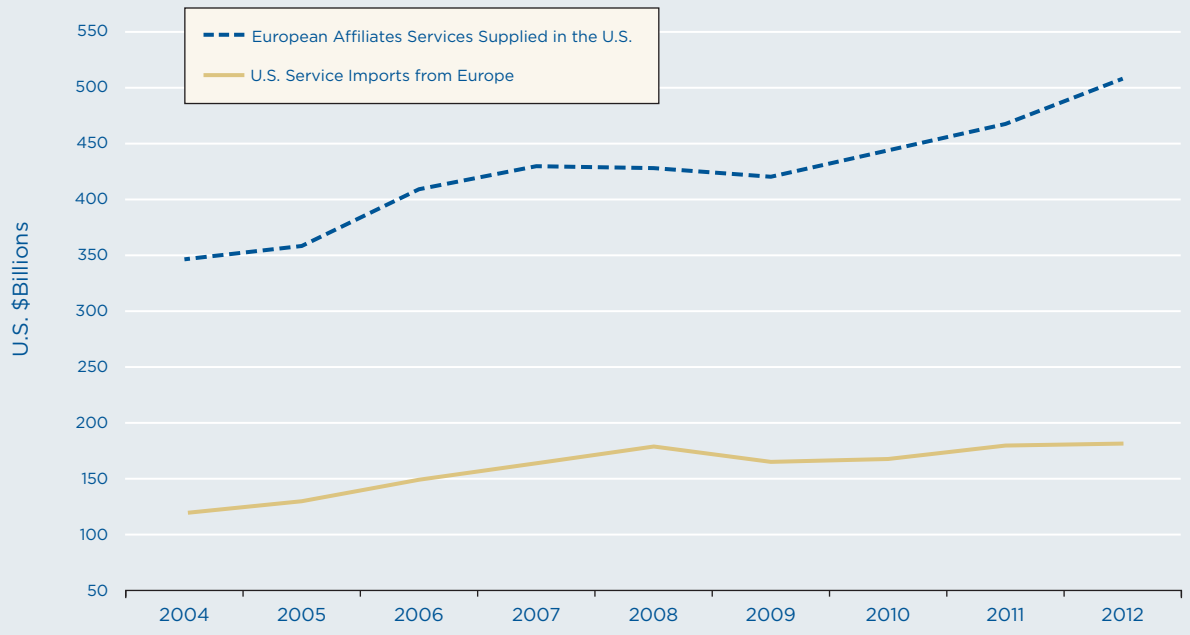
Similarly, the United States remains the most important market in the world in terms of earnings for many European multinationals. Profits of European affiliates in the United States plunged 21.3% in 2009, soared in 2010—by 22.3%—and 2011 before leveling off in 2012. A slight decline was posted in 2013. In the first nine months of 2013, the income of European affiliates dropped 5.4% from the same period a year earlier. For all of 2013, we estimate European affiliate income in the U.S. fell by roughly 5%, to $119 billion, with the decline reflecting subpar growth in the U.S. and the stronger euro against the dollar, which reduced affiliates' dollar-based earnings in the United States.

8. Transatlantic Services Linkages

Services are the sleeping giant of the transatlantic economy—a key area offering significant opportunities for stronger and deeper transatlantic commercial ties.[1]

The United States and Europe are the two leading services economies in the world. According to the World Trade Organization, the U.S. is the largest single country trader in services, while the EU is the largest trader in services among all world regions, accounting for 46.7% of global exports of services. Among the three largest components of global services trade—travel, transportation and other commercial services—Europe ranks number one in each category. However, exports of services from Europe declined by 2.3% in 2012 owing to depressed economic conditions in the region. According to the World Trade

TABLE 10: EUROPE - U.S. SERVICE LINKAGES



Source: Bureau of Economic Analysis
Majority-owned bank and non-bank affiliates. Services Supplied in the U.S. estimate for 2012.

Organization, the UK, the world's largest services exporter after the United States, saw exports decline by 3.4% in 2012; Germany's services exports declined by 1.1%, while France's services exports dropped 5.7%. Services exports from the United States, in contrast, rose 5.5% in 2012.

Transatlantic services trade figures are impressive. But the more important services linkages are actually in mutual flows of foreign direct investment. The services economies of the United States and Europe have become even more intertwined over the past year, with cross-border trade in services and sales through affiliates posting strong gains. By sectors, transatlantic linkages continue to deepen in financial services, insurance, education, telecommunications, utilities, advertising, and computer services. Other sectors such as aviation and e-health are slowly being liberalized and deregulated.

On a regional basis, Europe accounted for 38.1% of total U.S. services exports and for 41.6% of total U.S. services imports in 2012. Five out of the top ten export markets for U.S. services in 2012 were in Europe. The United Kingdom ranked #2, followed by Ireland (5th), Germany (7th), Switzerland (8th) and France (10th). Similarly, four of the countries just mentioned were among the top ten services providers to the U.S. The United Kingdom ranked #1, followed by Germany (5th), Switzerland (6th), and France (9th).[2] The U.S. enjoyed a $66.8 billion trade surplus in services with Europe in 2012, compared with its $126 billion trade deficit in goods with Europe.

Thanks to a variety of factors—stronger growth, the weaker dollar, EU enlargement, industry reform and deregulation—U.S. services exports to Europe more than doubled between 2001 and 2012, rising from around $102 billion to $239 billion. U.S. services exports to Europe plunged by 9.4% in 2009 but rose 2.6% in 2010, 10.7% in 2011, and 3.8% in 2012, helped by rising exports (or receipts) of a number of services-related items like travel, passenger fares, and royalties and license fees. Gains were also reported among exports of "other private services," or in such value-added activities as computer processing, engineering, advertising and related activities. In this category, U.S. exports to Europe totaled $116 billion in 2012, yielding a near $30 billion trade surplus.

U.S. private services imports from Europe, meanwhile, also rebounded in 2012, rising 3.2% from the prior year. Services imports peaked at $167.1 billion in 2008, more than double the levels of 1999, before reaching a new peak last year at $172 billion. The same top countries that ranked in the top ten U.S. services export markets also ranked among the top

ten services providers to the U.S. (Ireland ranked 11th). On a regional basis, Europe accounted for just roughly 42% of total U.S. services imports in 2012.

Meanwhile, while the U.S. recorded a $116 billion deficit in goods exports with the European Union in 2012, a sizable amount of the deficit in goods was offset by America's $56 billion surplus in private services. That was up from a surplus of roughly $54 billion in 2012. The U.S. enjoyed a sizable surplus in many activities, including financial services, travel and in particular in "other private services," notably in activities associated with "business, professional and technical services." The latter surplus was roughly $12 billion in 2012. By activity, the U.S. registered a surplus in computer and information services, management consulting, legal services, construction engineering, and operational leasing with Europe in 2012. Top U.S. business services exports to Europe included management, consulting, and public relations services ($20.2 billion in 2012), research, development, and testing services ($17.9 billion); and computer and information services ($9.1 billion).

Beyond services trade, there are the foreign affiliate sales of services, or the delivery of transatlantic services by U.S. and European foreign affiliates. Sales of affiliates have exploded on both sides of the Atlantic over the past decade; indeed, affiliate sales of services have not only supplemented trade in services but also become the overwhelming mode of delivery in a rather short period of time. Affiliate sales of U.S. services rose more than 10-fold between 1990 and 2011, topping $1 trillion for the first time in 2007. In the same year, U.S. services exports were roughly half the level of affiliate sales of services.

Not unexpectedly, and reflecting the transatlantic recession, sales of services of U.S. foreign affiliates in Europe declined in 2009 but have rebounded since then in 2011, the last year of available data. Sales rose to $645 billion in 2011, up from $571 billion in 2009. Notwithstanding this modest rise, sales of services by U.S. affiliates in Europe were more than two and half times U.S. services exports to Europe in 2011. The United Kingdom accounted for around 30% of all U.S. affiliate sales in Europe; UK services sales totaled $191 billion in 2011, an increase of 1% from the prior year but nevertheless greater than total affiliate sales of services in South and Central America ($111 billion), Africa ($13 billion) and the Middle East ($29 billion). On a global basis, Europe accounted for 50% of total U.S. services sales.

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

Industry	US FDI to Europe	% of Industry Total
European Total	2,477	56%
Manufacturing	311	49%

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

Industry	US FDI from Europe	% of Industry Total
Total from Europe	1,876	71%
Manufacturing	718	80%

Note: Historic-cost basis, 2011
Source: Bureau of Economic Analysis

U.S. affiliate sales of services in the EU continue to exceed sales of services by U.S. affiliates of European firms. The latter totaled $467 billion in 2011, the former some $645 billion. However, on a country-by-country basis, French and German affiliates sold more services in the U.S. in 2011 than American affiliates sold in France and Germany. Of particular note, European affiliate sales of services were more than two and a half times larger than U.S. services imports—a fact that underscores the ever-widening presence of European services leaders in the U.S. economy.

In fact, the U.S. and EU 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 EU services exports to the world are generated by U.S. companies based in Europe.

In the end, these eight indices convey a more complete and complex picture of global engagement than simple tallies of exports and imports. Foreign direct investment and foreign affiliate sales, not trade, represent the backbone of the transatlantic economy. The eight variables just highlighted underscore the depth and breadth of the transatlantic commercial relationship.

Endnotes

1. For a closer examination of the transatlantic services economy, see Daniel S. Hamilton and Joseph P. Quinlan, eds., *Sleeping Giant: Awakening the Transatlantic Services Economy* (Washington, DC: Center for Transatlantic Relations, 2007).
2. Bureau of Economic Analysis, U.S. International Services, Cross-Border Services Exports and Imports by Type and Country.

Notes on Terms, Data and Sources

EMPLOYMENT, INVESTMENT, AND TRADE LINKAGES FOR THE 50 U.S. STATES AND EUROPE

Data for investment as well as investment-related jobs are from the U.S. Commerce Department's Bureau of Economic Analysis. Investment data measure gross property, plant, and equipment of affiliates. Europe includes Belgium, France, Germany, Italy, Netherlands, Sweden, Switzerland, and the United Kingdom. Trade data are from the International Trade Administration's Office of Trade and Industry Information at the U.S. Commerce Department. Europe includes Albania, Andorra, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, Cyprus, Denmark, Estonia, Faeroe Islands, Finland, France, Germany, Georgia, Gibraltar, Greece, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Macedonia, Malta, Moldova, Monaco, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Russia, San Marino, Serbia, Slovakia, Slovenia, Spain, Svalbard, Sweden, Switzerland, Tajikistan, Turkey, Ukraine, United Kingdom, Vatican City. The top ten exports to Europe bar chart employs a logarithmic scale to facilitate cross state comparisons.

INVESTMENT AND TRADE FOR THE EU 28, NORWAY, SWITZERLAND, TURKEY AND THE U.S.

Investment data are from the Bureau of Economic Analysis. Trade data are from the IMF Trade Statistics. Data for the top ten U.S. imports bar charts are from the Office of Trade and Industry Information of the International Trade Administration. They employ logarithmic scales to facilitate cross-country comparisons.

TERMS

Throughout this report, the term "EU" refers to all 28 member states of the European Union. The term EU15 refers to the older EU member states: the United Kingdom, Ireland, Belgium, Luxembourg, the Netherlands, Austria, Spain, Italy, Greece, France, Germany, Portugal, Sweden, Finland, and Denmark. The term EU12 refers to the newer EU member states: Estonia, Latvia, Lithuania, Poland, the Czech Republic, Slovakia, Hungary, Slovenia, Malta, Cyprus, Romania and Bulgaria. EU12 data does not include Croatia, which on July 1, 2013 became the 28th member state of the European Union.

In addition to the above, the term "Europe" in this report refers to the following: all 28 members of the European Union plus Russia, Turkey, Switzerland, Albania, Andorra, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Gibraltar, Greenland, Iceland, Kazakhstan, Kyrgyzstan, Macedonia, Malta, Moldova, Monaco, Montenegro, Serbia, Tajikistan, Turkmenistan, Union of Soviet Socialist Republics, Uzbekistan.

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DANIEL S. HAMILTON and **JOSEPH P. QUINLAN** have been producing *The Transatlantic Economy* annual survey since 2004. They have authored and edited a series of award-winning books and articles on the modern transatlantic economy, including *Atlantic Rising: Changing Commercial Dynamics in the Atlantic Basin* (2014); *Germany and Globalization* (2009); *France and Globalization* (2009); *Globalization and Europe: Prospering in a New Whirled Order* (2008); *Sleeping Giant: Awakening the Transatlantic Services Economy* (2007); *Protecting Our Prosperity: Ensuring Both National Security and the Benefits of Foreign Investment in the United States* (2006); *Deep Integration: How Transatlantic Markets are Leading Globalization (2005); and Partners in Prosperity: The Changing Geography of the Transatlantic Economy* (2004). Together they were recipients of the 2007 Transatlantic Leadership Award by the European-American Business Council and the 2006 Transatlantic Business Award by the American Chamber of Commerce to the European Union.

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