

5

European Countries: U.S.-Related Jobs, Trade and Investment





Real economic growth in the eurozone

2.5%



\$204 billion

U.S. FDI outflows to Europe in 2017

+12% since 2016

Over the past few years Europe has been navigating a series of shocks, ranging from the aftermath of the financial crisis and disruption within the eurozone to Russia's military interventions in neighboring countries, major migration inflows and the decision of the United Kingdom to leave the European Union in March 2019. In 2017 the focus shifted to the rise of populist movements across the continent and implications for elections in key European countries, including the Netherlands, France and Germany.

In the end the forces of integration held their ground, and the year ended much differently than it had begun. Elections did not bring the adverse market and economic effects that many investors had feared, and macroeconomic conditions improved considerably. Real economic growth in the eurozone came in stronger than expected at 2.5%, and outpaced growth in the United States. Looking ahead, growth in the eurozone is expected to remain solid at 2.2% in 2018 and 2.0% in 2019, according to IMF forecasts.

The acceleration of Europe's economic engine can be attributed to a number of factors – rising consumer confidence and business optimism, improving fiscal conditions, strengthening trade in goods and services, and accommodative monetary policy. However, 2018 brings its fair share of risks that economists, investors and business leaders should monitor closely, including Italian elections, Brexit negotiations, the nature and priorities of a new German government, and the introduction of the EU's sweeping General Data Protection Regulation (GDPR) in May, to name a few. Populist voices have eroded the position of many mainstream parties across the continent. Crises in some eurozone countries have accentuated north-south divisions, while migration challenges have exacerbated east-west splits.

Notwithstanding these risks, Europe remains one of the most attractive regions of the world for U.S. FDI. The latest economic figures underscore Corporate America's enduring commitment to its long-standing transatlantic partner. We estimate that U.S. FDI outflows to Europe in 2017 totaled \$204 billion, a 12% increase from the flows to the region in 2016 (\$183 billion). After hitting a post-crisis peak of \$235 billion in 2011, U.S. FDI outflows to Europe retreated, but since 2014 have increased every year.

On a global basis, U.S. FDI outflows were \$265 billion during the first three quarters of 2017, a 9% rise from the comparable period a year earlier. We estimate that Europe accounted for a 64% share of U.S. outflows in 2017. By contrast, the Asia-Pacific region represented just 16% of the total, underscoring the bias and preference among U.S. firms for Europe versus Asia.

While Europe remains the top destination for U.S. foreign direct investment, the headline figures don't tell the whole story. In a nutshell, U.S. investment in Europe – for a variety of reasons, ranging from the cost of labor to country-specific tax rates – is becoming more concentrated, with firms doing more activities in less locations across the region. In the first nine months of 2017, five nations accounted for over 90% of total U.S. FDI outflows of \$165 billion to Europe. The five nations, ranked in order: the Netherlands, attracting \$48.8 billion and 29.5% of total flows to Europe; Ireland (\$41.9 billion and 25.3%); Switzerland (\$26.4 billion and 16.0%); the United Kingdom (\$16.8 billion and 10.2% of the total); and Luxembourg (\$16.4 billion and 9.9%). That said, some of these investment flows, ultimately make their way to neighboring countries, so they likely misrepresent the ultimate destination of U.S. direct investment.

U.S. direct investment flows to the Netherlands were up 43% in the first nine months of 2017 from the same period a year earlier. By the same metric, flows to Switzerland are projected to have doubled.

Ireland is another favored destination for FDI among U.S. multinationals, with flows also estimated to have grown. This dynamic reflects a number of variables, including Ireland's flexible and skilled English-speaking labor force, membership in the European Union, low corporate tax rates, and pro-business policies. Add in Ireland's economic rebound, with the nation among the fastest-growing economies in the world, and one of Europe's smallest economies has emerged as one of the most attractive anywhere for U.S. firms. Even when adjusting U.S. FDI figures to take account of flows of U.S. holding companies, Ireland still ranks as one of the most attractive places in the world for U.S. businesses.

FDI flows to Germany and France in the first three quarters of 2017 were higher than during the entire year in 2016. Combined flows in France and Germany for the nine-month period were over \$10 billion, an improvement from sluggish investment in recent years, but still weak compared to U.S. FDI flows to China (including Hong Kong) and India, which totaled \$14 billion over the same period. This signals that more and more U.S. firms are finding better market conditions in Asia's largest economies than in Europe's bigger economies, although as mentioned a good deal of U.S. investment flows into countries such as France and Germany from smaller EU countries such as Luxembourg or the Netherlands, and so ultimate U.S. FDI flows to these economies are likely to be larger than direct flows may imply. U.S.

investment over the past few years in India has been averaging roughly \$4 billion per year, well ahead of U.S. investment in most European countries

At the other end of the spectrum are Russia and numerous other European countries, where U.S. FDI inflows have declined over the past year. Flows to Belgium, Hungary, Luxembourg, Poland, and Portugal were all lower in the first nine months of 2017 than in the corresponding months of 2016. Net outflows were reported in Norway, Greece, Finland and Denmark. Inflows to both Italy and Spain rebounded in 2017, although the figures remain relatively small - just \$772 million to Italy and \$2.1 billion to Spain in the first nine months.

Table 1 U.S. FDI in Europe: The Long View (Millions of \$, (-) inflows)

	1990-1999		2000-2009		2010-3Q2017	
	\$ Aggregate Total	% of Total	\$ Aggregate Total	% of Total	\$ Aggregate Total	% of Total
Europe	465,337		1,149,810		1,389,063	
Austria	2,908	0.6%	501	0.0%	14,349	1.0%
Belgium	12,028	2.6%	40,120	3.5%	15,354	1.1%
Czech Republic	155	0.0%	1,941	0.2%	2,756	0.2%
Denmark	2,798	0.6%	5,782	0.5%	10,471	0.8%
Finland	1,485	0.3%	1,598	0.1%	224	0.0%
France	29,063	6.2%	42,963	3.7%	17,489	1.3%
Germany	31,817	6.8%	60,363	5.2%	26,607	1.9%
Greece	413	0.1%	943	0.1%	387	0.0%
Hungary	2,929	0.6%	1,376	0.1%	-38	0.0%
Ireland	21,369	4.6%	115,085	10.0%	312,596	22.5%
Italy	13,825	3.0%	26,462	2.3%	6,147	0.4%
Luxembourg	15,912	3.4%	126,989	11.0%	233,731	16.8%
Netherlands	70,770	15.2%	295,889	25.7%	393,481	28.3%
Norway	4,198	0.9%	4,997	0.4%	10,721	0.8%
Poland	2,681	0.6%	4,699	0.4%	1,054	0.1%
Portugal	1,993	0.4%	2,212	0.2%	745	0.1%
Russia	1,555	0.3%	11,289	1.0%	-4	0.0%
Spain	11,745	2.5%	28,371	2.5%	14,667	1.1%
Sweden	10,783	2.3%	16,974	1.5%	-11,402	-0.8%
Switzerland	32,485	7.0%	97,869	8.5%	101,452	7.3%
Turkey	1,741	0.4%	5,994	0.5%	4,229	0.3%
United Kingdom	175,219	37.7%	237,906	20.7%	235,808	17.0%
Other	17,465	2.6%	19,487	1.4%	-1,761	-0.1%

Source: Bureau of Economic Analysis.



Europe remains the favored destination of U.S. firms

Meanwhile, flows to the United Kingdom, a long-preferred destination of U.S. firms, declined by 50% in the first nine months of 2017 compared with the period a year earlier. Brexit may have had some impact on the decline of flows, yet to what extent is not entirely certain, since the 2016 numbers were skewed by a surge in inflows in the second quarter of 2016 (\$20 billion); the other quarters in 2016 averaged roughly \$6 billion, in line with average quarterly FDI flows in 2017.

As evidenced by the figures above, changes in quarterly, and even annual, FDI flows can be an extremely volatile measure of U.S.-European investment ties. Thus, Table 1 provides a more long-term view of U.S. foreign direct investment across Europe. A few items stand out. First, three countries on the list (Hungary, Russia and Sweden) have experienced net outflows of U.S. investment since the start of this decade. After sinking over \$11 billion into Russia in the first decade of this century, U.S. investment in Russia has dried up since 2010.

Second, as mentioned earlier, the share of U.S. FDI in both Germany and France has declined sharply this decade, with France accounting for just 1.3% of U.S. FDI flows to Europe since 2010. Germany's share is slightly higher, 1.9%, but still off the levels of previous decades. That said, some of these figures need to be used carefully, since some U.S. investment in countries neighboring Germany, for instance the Netherlands or Luxembourg, finds its way ultimately to Germany.

Just as U.S. firms leverage different states across America, with certain activities sprinkled around the northeast, mid-west, the south and west, so U.S. firms deploy the same strategies across Europe, leveraging the specific attributes of each country. Economic activity across the EU is just as distinct and differentiated by country. Different growth rates, differing levels of consumption, varying degrees of wealth, labor force participation rates, financial market development, innovation capabilities, corporate tax rates – all of these factors, and more, determine where and when U.S. firms invest in Europe.

Table 2 underscores this point. The figures show U.S. affiliate sales to other destinations, or the exports of affiliates per nation. Ireland is the number one export platform for U.S. affiliates in the entire world, reflecting the country's attraction as a strategic beachhead for U.S. multinationals hoping to penetrate the larger European market.

Ireland ranked well down the list in 1982, ranking 13th in the world in terms of U.S. foreign affiliate exports. Then, U.S. affiliates exports totaled just \$2.8 billion. By 1990 that figure had grown to \$9.5 billion and by 2000, was in excess of \$50 billion. In the first decade of this century, as the industrial and technological capacities of U.S. affiliates in Ireland surged, so did U.S. affiliate exports, soaring nearly six times between 2000 and 2015 to \$298 billion. U.S. firms leverage Ireland as an export base to a far greater degree than low-cost locales like Mexico, Hong Kong and China. U.S. affiliates export almost five times more from Ireland than from China and about four times more than from Mexico, despite strong NAFTA linkages.

On a standalone basis, U.S. affiliates' exports from Ireland are greater than most countries' exports. Such is the export-intensity of U.S. affiliates in Ireland and the strategic importance of Ireland to the corporate success of U.S. firms operating in Europe and around the world. Moreover, the UK's decision to leave the European Union may further solidify Ireland's spot as the number one location for U.S. affiliate exports if companies decide to relocate operations to Ireland in search of easier access to the EU market.

Of the top twenty global export platforms for U.S. multinationals in the world, ten are located in Europe, a trend that reflects the intense cross-border trade and investment linkages of the European Union and the strategic way U.S. firms leverage their European supply chains. Switzerland, ranked third, remains a key export platform and pan-regional distribution hub for U.S. firms.

Table 2 Top 20 U.S. Affiliate Sales Abroad by Destination* (\$Millions)

Rank	1982		1990		2000		2015	
	Country	Value	Country	Value	Country	Value	Country	Value
1	United Kingdom	33,500	United Kingdom	51,350	United Kingdom	94,712	Ireland	297,864
2	Switzerland	27,712	Canada	46,933	Canada	94,296	Singapore	283,943
3	Canada	25,169	Germany	41,853	Germany	69,522	Switzerland	230,077
4	Germany	19,117	Switzerland	38,937	Netherlands	67,852	United Kingdom	173,397
5	Netherlands	15,224	Netherlands	33,285	Singapore	56,961	Germany	151,767
6	Belgium	11,924	France	24,782	Switzerland	56,562	Netherlands	143,950
7	Singapore	11,579	Belgium	21,359	Ireland	51,139	Canada	130,809
8	France	11,255	Singapore	15,074	Mexico	37,407	Mexico	79,632
9	Indonesia	8,289	Hong Kong	9,951	France	35,797	Hong Kong	75,964
10	Hong Kong	4,474	Italy	9,562	Belgium	32,010	Belgium	64,561
11	Italy	3,993	Ireland	9,469	Hong Kong	22,470	China	62,667
12	Australia	3,710	Spain	7,179	Malaysia	16,013	France	58,418
13	Ireland	2,842	Japan	7,066	Sweden	15,736	Australia	33,849
14	United Arab Emirates	2,610	Australia	6,336	Italy	14,370	Luxembourg	32,791
15	Brazil	2,325	Mexico	5,869	Spain	12,928	Spain	31,086
16	Japan	2,248	Indonesia	5,431	Japan	11,845	Brazil	29,143
17	Malaysia	2,046	Brazil	3,803	Australia	9,370	India	26,347
18	Panama	1,662	Norway	3,565	Brazil	8,987	Italy	25,499
19	Spain	1,635	Malaysia	3,559	China	7,831	Japan	24,615
20	Mexico	1,158	Nigeria	2,641	Norway	6,238	Korea	23,627
	All Country Total	252,274	All Country Total	398,873	All Country Total	857,907	All Country Total	2,392,084

Source: Bureau of Economic Analysis.

*Destination = Affiliate sales to third market + sales to U.S. for majority-owned foreign affiliates.

The UK still plays an important role for U.S. companies as an export platform to the rest of Europe. The exports of U.S. firms based in the UK to the rest of Europe are greater than the exports of U.S. firms based in China to the rest of the world. However, the introduction of the euro, the Single Market and EU enlargement have enticed more U.S. firms to invest directly in continental member states of the EU. The extension of EU production networks and commercial infrastructure throughout a larger pan-continental Single Market has shifted the center of gravity in Europe eastward within the EU, with Brussels playing an important role in economic policies and decision-making. Additionally, the looming Brexit deadline has many implications for the strategy of U.S. firms when it comes to investment in different European countries.

Why Europe Still Matters

The secular and structural case for investing in Europe remains relatively positive for a number of reasons. First, while both the United States and China loom large in the hierarchy of the global economy, so does the European Union, still one of the largest economies in the world. This fact is often overlooked or ignored by fashionable – and often superficial – political and media consensus, which is more attuned to what’s wrong with Europe, as opposed to what’s right. In nominal U.S. dollar terms, the European Union (plus Norway, Switzerland, Iceland) accounted for 23.0% of world output in 2017, according to estimates from the International Monetary Fund. Even when the United Kingdom is excluded from the figures, the aggregate output of this group of nations – \$15.6 trillion, or 19.7% – is among the largest in the world. The figure (EU excluding the UK) is slightly less than America’s share (24.4%), but in excess of China’s – 15.1%. Based on purchasing power parity figures, the European Union’s share, including Norway, Switzerland, and Iceland, was greater than that of the United States, but slightly less than that of China in 2017.

What started out as a loosely configured market of six nations (Belgium, France, West Germany, Italy, Luxembourg and the Netherlands) in the late 1950s is now an economic behemoth of 28 member states joined together in a Single Market. Even with the UK’s decision to leave the EU, the sum of Europe’s parts is one of the largest economic entities in the world; as such, Europe remains a key pillar of the global economy and critical component to the corporate success of U.S. firms.

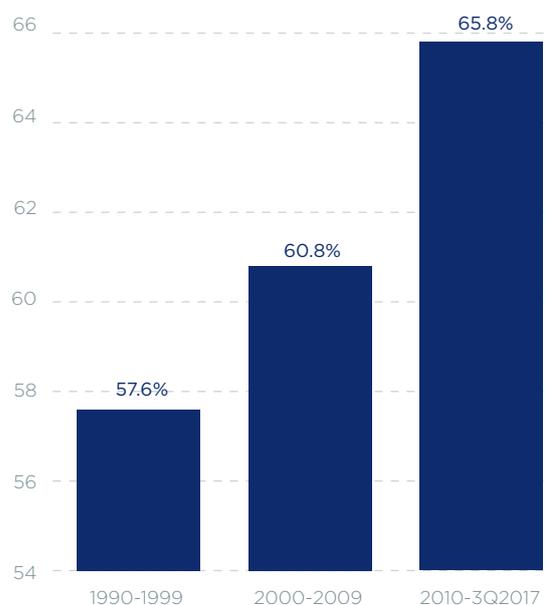
Table 3 Cumulative U.S. FDI Outflows (\$Millions)

	All Countries	Europe	Europe as a % of World
1950-1959	20,363	3,997	19.6%
1960-1969	40,634	16,220	39.9%
1970-1979	122,721	57,937	47.2%
1980-1989	171,880	94,743	55.1%
1990-1999	869,489	465,337	53.5%
2000-2009	2,056,009	1,149,810	55.9%
2010Q1-2017Q3	2,399,121	1,389,063	57.9%

Source: Bureau of Economic Analysis.

As Table 3 highlights, Europe continues to attract more than half of U.S. aggregate FDI outflows. The region’s share of U.S. FDI has remained relatively constant at 57.9% of the total over this decade, which is up from the first decade of this century as well as from the level of the 1990s. When U.S. FDI flows to Caribbean offshore financial centers are subtracted from the total, Europe’s share climbs even higher, to almost two-thirds of U.S. direct investment (see Table 4).

Table 4 U.S. FDI Flows to Europe
(% of World Total*)



*Excluding Caribbean and Other Western Hemisphere.
Source: Bureau of Economic Analysis.
Data as of January 2018.



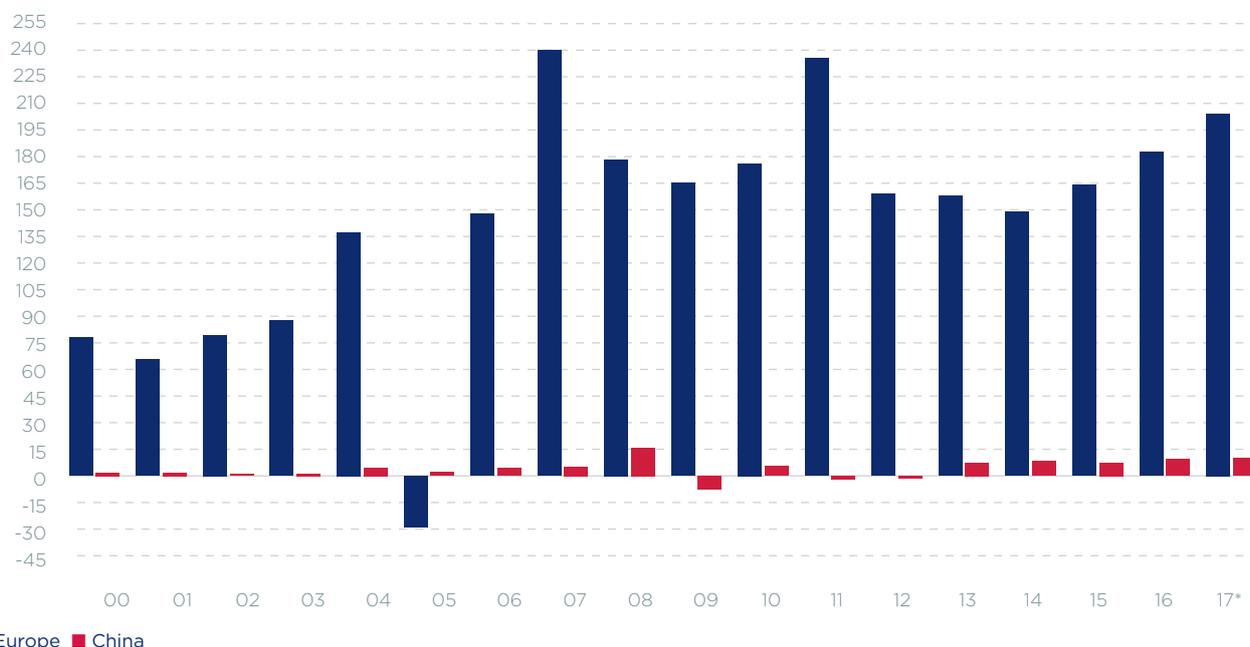
Economic growth in Europe is on the rebound

Even after adjusting for FDI flows related to holding companies, Europe remains the favored destination of U.S. firms (see Box 2 on holding company flows). This runs counter to the fashionable narrative that Corporate America prefers low-cost nations like Asia, Latin America and Africa to developed markets like Europe. Reality is different for a host of reasons.

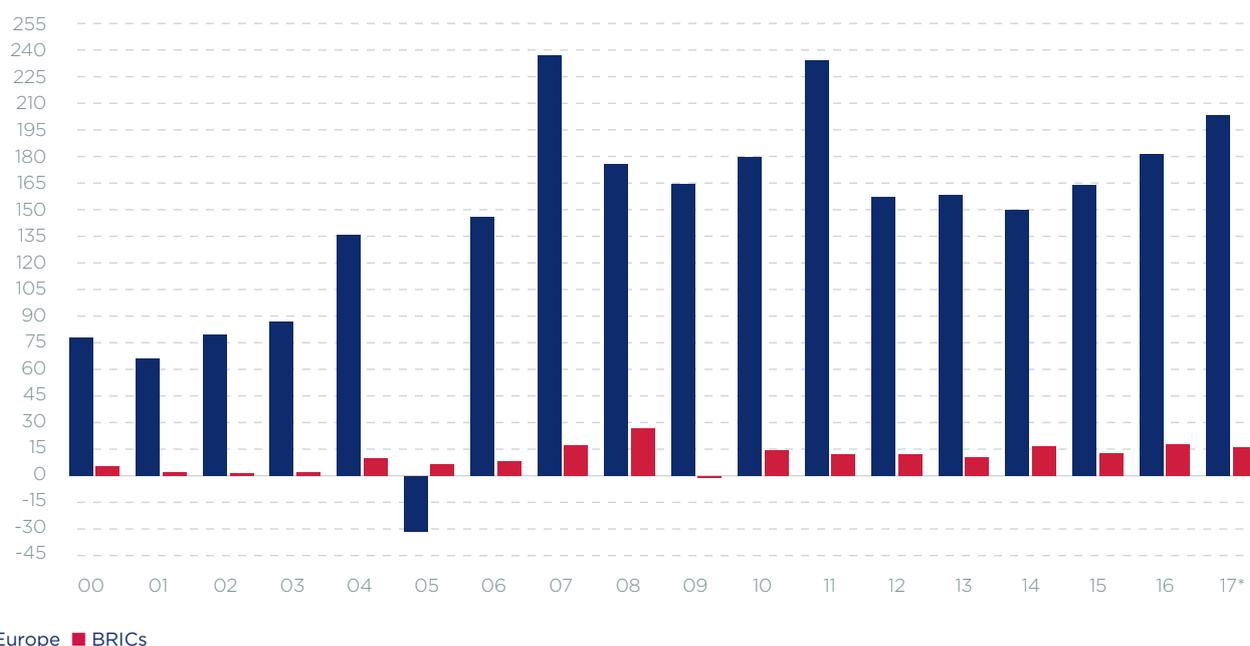
First, investing in emerging markets such as China, India and Brazil remains difficult, with indigenous barriers to growth (poor infrastructure, dearth of human capital, corruption, etc.) as well as policy headwinds (foreign exchange controls, tax preferences favoring local firms), reducing the overall attractiveness of these markets to multinationals.

Second, real growth in the emerging markets has downshifted, notably in Brazil, Russia and China. Although both Russia and Brazil have emerged from recession, growth is still projected to remain relatively weak in 2018 compared to the eurozone. Growth prospects in China, meanwhile, have slowed considerably as the nation shifts towards more consumption and service-led growth and away from export- and investment-driven growth. India's economy is on the rebound but the nation is too poor and too closed to make much of difference to the bottom line of Corporate America. In the end, for both cyclical and structural factors, the BRICs and the emerging markets remain difficult places to do business. Hence the wide divergence between U.S. FDI to the BRICs and U.S. FDI to Europe (see Tables 5 and 6).

Table 5 U.S. Foreign Direct Investment Flows to China vs. Europe (\$ Billions)



*2017 estimate based on 1Q-3Q data.
 Source: Bureau of Economic Analysis.
 Data as of January 2018.

Table 6 U.S. Foreign Direct Investment Outflows to the BRICs vs. Europe¹ (\$ Billions)

■ Europe ■ BRICs

¹ Europe does not include flows to Russia.

*2017 estimate based on 1Q-3Q data.

Source: Bureau of Economic Analysis.

Data as of January 2018.

Third, economic growth in Europe is on the rebound. As mentioned, real economic growth accelerated to 2.5% 2017, one of the strongest levels in years, thanks to rising consumer and business sentiment, declining unemployment, higher consumption, and the European Central Bank's accommodative monetary policies.

Fourth, in addition to being one of the largest economic blocs in the world, Europe is also wealthy, and wealth matters. Wealth is correlated with highly skilled labor, rising per capita incomes, innovation, and a world class R&D infrastructure, among other things. In the aggregate, 14 of the 25 wealthiest nations in the world are European. Per capita income levels in Europe are light years ahead of those in India and China, and all of Africa.

While much has been made of the rise of China, with the mainland's economy now the second largest in the world, the Middle Kingdom remains relatively poor, with China's per capita income totaling just \$8,123 in 2016, according to figures from the World Bank. The Chinese figure ranks 73rd in the world and is well below the per capita income levels of Sweden (\$51,949), the Netherlands (\$45,670), Finland (\$43,403), Germany (\$42,070), and the European Union average of around \$32,000. With a miserly per capita income of about \$1,700, India ranks 141st.

Wealth drives consumption, with the EU accounting for about 21% of total global personal consumption expenditures in 2016, a slightly lower share than that of the United States but well above that of China (10%) and India (3%) and the BRICs combined (17%). Gaining access to wealthy consumers is among the primary reasons why U.S. firms invest overseas, and hence the continued attractiveness of wealthy Europe to American companies.

Europe is also attractive because of the ease of doing business in the region. Just as the macroeconomic backdrop influences any business climate, so do micro factors. Country and industry regulations can help or hamper the foreign activities of U.S. multinationals, and greatly influence where U.S. companies invest overseas. Think property rights, the ability to obtain credit, regulations governing employment, the time it takes to start a business, contract enforcements, and rules and regulations concerning cross border trade. These and other metrics influence and dictate the ease of doing business, and on this basis many European countries rank as the most attractive in the world.

The World Bank annually ranks the regulatory environment for domestic firms in 190 nations, a ranking which serves as very good proxy for the ease of doing business for domestic and foreign companies alike. And in the 2018 Ease of Doing Business rankings, 18 European economies ranked

among the top 30 most business-friendly countries. Denmark ranked 3rd overall, followed by the United Kingdom (7th), Norway (8th), Georgia (9th), Sweden (10th), Macedonia (11th), Estonia (12th), Finland (13th), Lithuania (16th), Ireland (17th), Latvia (19th), Germany (20th), Austria (22nd), Iceland (23rd), Poland (27th), Spain (28th), Portugal (29th), and the Czech Republic (30th) (See Table 7).

Table 7 Ease of Doing Business 2018 Global Rankings

Ease of Doing Business 2018	
Rank	Country
1	New Zealand
2	Singapore
3	Denmark
4	Korea
5	Hong Kong
6	United States
7	United Kingdom
8	Norway
9	Georgia
10	Sweden
11	Macedonia
12	Estonia
13	Finland
14	Australia
15	Taiwan
16	Lithuania
17	Ireland
18	Canada
19	Latvia
20	Germany
21	United Arab Emirates
22	Austria
23	Iceland
24	Malaysia
25	Mauritius
26	Thailand
27	Poland
28	Spain
29	Portugal
30	Czech Republic

Source: World Bank, *Ease of Doing Business Report 2018*.

Outliers include Italy, ranked 46th, Croatia, ranked 51st, and Greece, ranked 61th. Reflecting the challenging business environment of many key emerging markets, China ranked 78th in terms of ease of doing business in the latest rankings, while Brazil ranked 125th. India moved up 30 places to the 100th spot, but the nation still significantly lags some of the developing countries in Europe. In other words, while

the BRICs are regularly hyped as among the most dynamic in the world, strong real GDP growth does not necessarily equate to a favorable environment for business. Other factors need to be considered, like the rise of state capitalism in many developing nations, continued intellectual property right infringements, capital controls, and discriminating domestic policies against foreign firms. These factors have become favorite policy tools in many key emerging markets, further enhancing the attractiveness of Europe in the eyes of U.S. multinationals.

In the end, the greater the ease of doing business in a country, the greater the attractiveness of that nation to U.S. firms. The micro climate matters just as much as the macro performance; Europe trumps many developing nations by this standard.

Table 8 Transatlantic Economies are the Most Competitive in the World

Global Competitiveness Index 2017-2018	
Rank	Country
1	Switzerland
2	United States
3	Singapore
4	Netherlands
5	Germany
6	Hong Kong
7	Sweden
8	United Kingdom
9	Japan
10	Finland
11	Norway
12	Denmark
13	New Zealand
14	Canada
15	Taiwan
16	Israel
17	United Arab Emirates
18	Austria
19	Luxembourg
20	Belgium
21	Australia
22	France
23	Malaysia
24	Ireland
25	Qatar
26	Korea
27	China
28	Iceland
29	Estonia
30	Saudi Arabia

Source: World Economic Forum, *Global Competitiveness Report 2017-2018*.

In addition, despite numerous structural challenges in Europe and notwithstanding current market problems, many European economies remain among the most competitive in the world. For instance, in the latest rankings of global competitiveness from the World Economic Forum, six European countries were ranked among the top ten, and nine more among the top thirty. Switzerland ranked first, the Netherlands 4th, Germany 5th, Sweden 7th, the United Kingdom 8th and Finland 10th (see Table 8). The United States, by way of comparison, ranked 2nd in the latest rankings.

At the other end of the spectrum, a handful of European nations scored poorly, underscoring the fact that Europe's competitiveness is hardly homogenous. Some nations did not even score in the top fifty – Latvia ranked 54th, Slovakia 59th, Hungary 60th, Romania 68th, Croatia 74th, while Greece ranked 87th in the latest survey, the worst performer among EU Member States.

The spread between Number One Switzerland and floundering Greece underscores the divergent competitiveness of the EU and highlights the fact that various nations exhibit various competitive strengths and weaknesses. For instance, Greece received low marks for its macroeconomic environment and financial markets, which stands in contrast to Norway's healthy credit market and budget balances or Sweden's efficient financial markets.

Belgium was cited for outstanding health indicators and primary education; France was highlighted for its transport links and energy infrastructure, as well as strengths in sophistication of business culture, market size, and leadership in innovation. Spain's ranking was hurt by macroeconomic imbalances and labor market inefficiencies, but scored relatively well in terms of technological readiness and infrastructure. Finally, Germany ranked highly across many variables: quality of infrastructure, consumer sophistication, R&D spending and labor market productivity, among other things.

All of the above is another way of saying that there is a great deal more to Europe than the daily diet of negative headlines. The various countries of Europe offer specific micro capabilities/competencies that are lacking on a relative basis in the United States and critical to the global success of U.S. firms.

Finally, Europe is no slouch when it comes to innovation and knowledge-based activities. Based

on the Innovation Union Scoreboard for 2017, Sweden, Denmark, Finland, the Netherlands, the UK, and Germany rank as “innovation leaders” in Europe. These are the most innovative states in the EU, performing well above that of the EU 28 average.

So-called “strong innovators” include Austria, Luxembourg, Belgium, Ireland, France, and Slovenia. The performance of the Czech Republic, Portugal, Estonia, Lithuania, Spain, Malta, Italy, Cyprus, Slovakia, Greece, Hungary, Latvia, Poland, and Croatia was below that of the EU average; these nations are considered moderate innovators. The laggards, or modest innovators, include Bulgaria and Romania.

While significant discrepancies exist among nations in the EU as to knowledge-based capabilities, the innovation performance of the EU remains ahead of all BRIC nations. In addition, based on the latest figures, the EU is closing its performance gap with the United States.

In that R&D expenditures are a key driver of value-added growth, it is interesting to note that Europe-based companies accounted for 21.2% of total global R&D in 2016. That lagged the share of the United States (25.6%) but exceeded the share of Japan (8.6%), China (20.1%), and India (3.6%). In 2016, Germany, Sweden, Switzerland, Finland, and Denmark spent more than the United States on R&D as a percentage of GDP.

Led by European industry leaders like Roche, Novartis, Daimler, Sanofi, and GlaxoSmithKline, Europe remains a leader in a number of cutting-edge industries including life sciences, agriculture and food production, automotives, aerospace, nanotechnology, energy, and information and communications. Innovation requires talent and on this basis, Europe is holding its own relative to other parts of the world. To this point, Europe is among one of the world leaders in full time equivalent (FTE) research staff. Of the world's global research pool, the EU housed 1.8 million researchers in 2015 versus 1.4 million in the United States and 1.6 million in China, according to OECD estimates.

The EU remains notably strong in such high-technology manufacturing industries as pharmaceuticals and scientific instruments and aerospace. Also, the EU is the largest exporter of commercial knowledge-intensive services (excluding intra-EU exports), which includes communications, business services, financial services, telecommunications, and computer and information services.

Finally, in terms of future workers, the U.S. high school graduation rate lags behind most European nations, including states like Austria, Denmark, Germany, Italy, Norway, Poland, and Slovenia. The U.S. graduate rate was 83% in 2015 versus an OECD average of 86%.

While U.S. universities remain a top destination for foreign students, the UK, Germany and France are also notable attractions. In the end, Europe remains among the most competitive regions in the world in terms of science and technology capabilities. The U.S. National Science Board has explicitly recognized EU research performance as strong and marked by pronounced EU-supported, intra-EU collaboration.

Adding It All Up

Europe, long the weak link of the global economy, is in recovery mode and remains a formidable economic entity. The region remains quite large, wealthy, richly endowed, open for business, and technologically out in front in many key global industries.

Due to all of the above, Europe will remain a critical and indispensable geographic node in the global operations of U.S. companies. Remember: U.S. multinationals increasingly view the world through a tri-polar lens - a world encompassing the Americas, Europe and Asia, along with attendant offshoots. In this tri-polar world, U.S. companies are not about to give up on or decamp from one of the largest segments of the global economy.

Box 2. FDI Outflows to Europe Adjusted for Flows of Holding Companies

For the past few years, we have highlighted the role of U.S. holding companies in determining U.S. investment flows to Europe. This additional lens is warranted since holding companies account for a growing share of total U.S. FDI outflows to Europe. This has generated considerable political and media attention, and is important to understand in order to get a full picture of transatlantic commercial linkages.

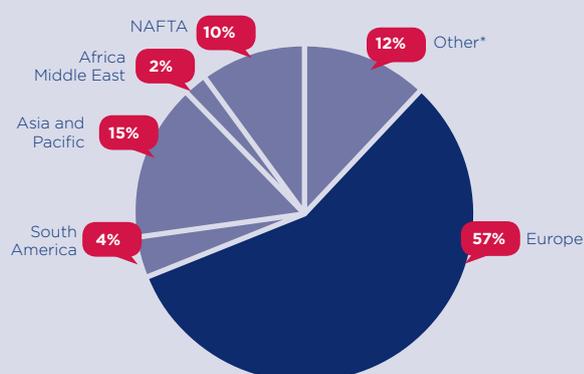
In 2016, the last year of available data, nonbank holding companies accounted for \$142 billion, or over half of global U.S. FDI of \$281 billion, and 54% of total U.S. foreign direct investment to the European Union of \$183 billion. As the U.S. Bureau of Economic Analysis (BEA) notes, “The growth in holding-company affiliates reflects a variety of factors. Some holding-company affiliates are established primarily to coordinate management and administration activities – such as marketing, distribution, or financing – worldwide or in particular geographic region. In addition, the presence of holding-company affiliates in countries where the effective income tax rate faced by affiliates is relatively low suggests tax considerations may have also played a role in their growth. One consequence of the increasing use of holding companies has been a reduction in the degree to which the U.S. Direct Investment Abroad position (and related flow) estimates reflect the industries and countries in which the production of goods and services by foreign affiliates actually occurs.”

Against this backdrop, total U.S. FDI flows to Europe over the past few years have been driven in part by holding companies. The countries attracting the most investment of holding companies, not surprisingly, are those with some of the lowest corporate tax rates in Europe, such as Luxembourg, the Netherlands, the UK and Ireland.

Tables 9a and 9b, drawing on BEA data, reflect the significance of holding companies in the composition of U.S. FDI outflows. European markets have accounted for roughly 57% of total U.S. FDI outflows since 2009. However, when flows to nonbank holding companies are excluded from the data, the share of outflows to markets such as Europe and Other Western Hemisphere declines.

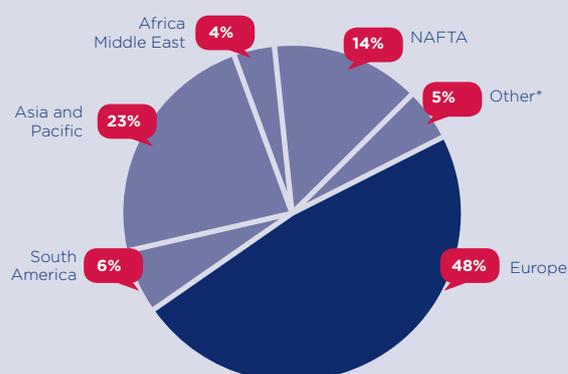
The bottom line: when FDI related to holding companies is stripped from the numbers, U.S. FDI outflows are not as large as typically reported by the BEA. Nonetheless, Europe remains the top destination of choice among U.S. firms even after the figures are adjusted. Between 2009 and 2016, Europe still accounted for over 47% of total U.S. FDI outflows when flows from holding companies are removed from the aggregate. Europe’s share was still more than double the share to Asia, underscoring the deep and integrated linkages between the U.S. and Europe.

Table 9a Total U.S. FDI Outflows, 2009-2016
(% of Total)



*Includes Central America (excluding Mexico) and Other Western Hemisphere.
Source: Bureau of Economic Analysis.
Data as of January 2018.

Table 9b U.S. FDI Outflows Excluding Flows to Nonbank Holding Companies, 2009-2016
(% of Total)



*Includes Central America (excluding Mexico) and Other Western Hemisphere.
Source: Bureau of Economic Analysis.
Data as of January 2018.