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



**Total U.S. FDI stock
in Europe**
\$3.7 trillion
(2020)



59%

of total U.S. global investment

After rebounding in 2021 from the depressed pandemic-related levels of 2020, economic activity across Europe continues to improve, although the pace of growth not only remains choppy but also disparate among countries and regions. French economic growth in 2021 was 7%, the highest for half a century. French unemployment of 8% is the lowest in 15 years. Germany's export-led economy, in contrast, continues to struggle with global supply chain backlogs, slowing growth in China, and the ripple effects of war in Ukraine. Tourist-dependent economies of southern Europe (Greece, Italy and Spain) remain in the crosshairs of the pandemic-related decline in global travel and tourism. The United Kingdom, in the aftermath of Brexit, remains at risk of rising capital outflows and reduced trade with the European Union. Rising inflationary pressures, notably from soaring energy costs, remain a key challenge. Eurozone inflation rose 5.8% in February 2022 from the prior year, one the strongest annual rises in prices in decades. Inflation is a scourge on both sides of the Atlantic.

Europe's continued economic convalescence is important to the United States for the simple reason that on a global basis, no region of the world offers more opportunities in terms of market size and wealth, and access to skilled resources than Europe. Outside the United States, no region has more sway on the bottom line of Corporate America than Europe. Europe remains the most attractive region in the world for U.S. companies investing abroad.

The latest investment figures underscore Corporate America's enduring commitment to its long-standing transatlantic partner. Measured on a historic cost basis, the total stock of U.S. foreign direct investment (FDI) in Europe was \$3.7 trillion in 2020, or 59% of total U.S. investment abroad. This is almost four times the amount of comparable U.S. investment in the Asia-Pacific region (\$970 billion).

According to the latest figures from the UN, while FDI inflows to both the United States and Europe were severely affected by the global recession of 2020, flows have rebounded over the past year. Global FDI flows to Europe totaled just \$20 billion in 2020, down from \$392 billion in 2019.¹ These sharp swings

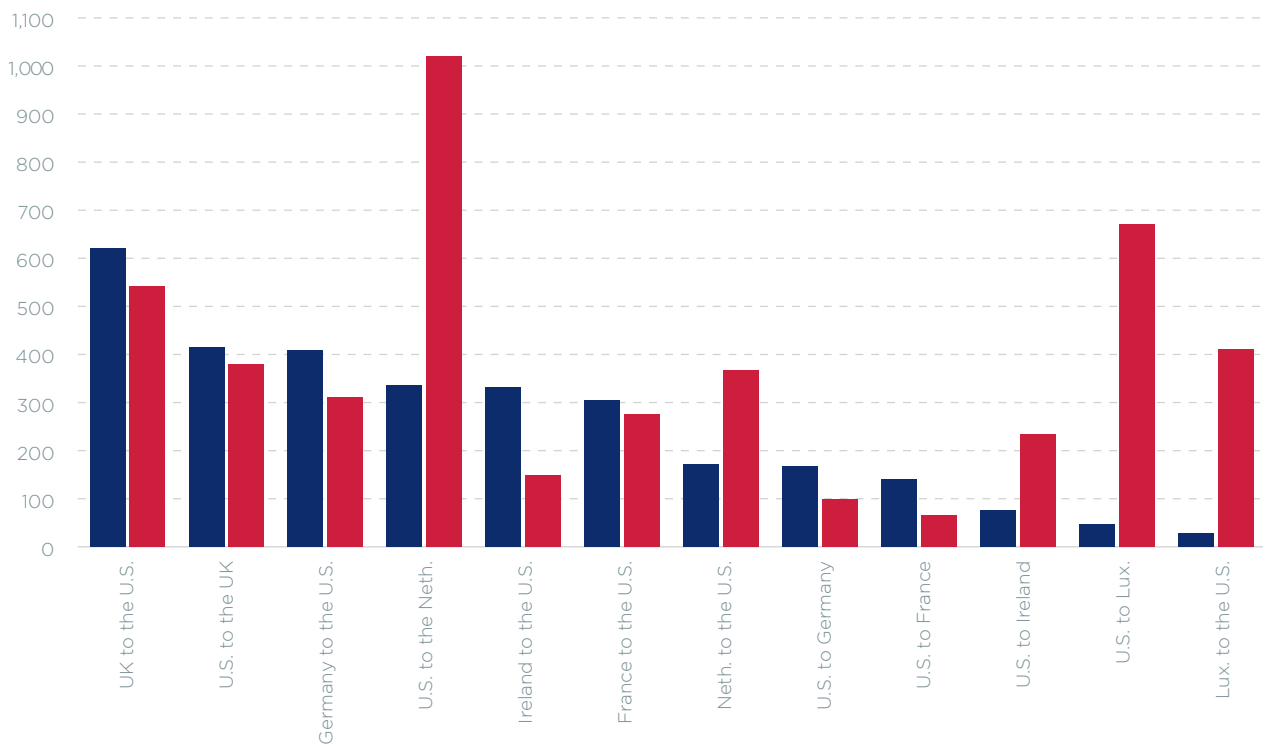
in global FDI to Europe were driven mainly by large divestments and negative intra-company loans in the Netherlands and Switzerland. However, these drops were one-offs. Global FDI flows to Europe rebounded to an estimated \$305 billion in 2021, accounting for 18.5% of total global inflows.

This overall number, while impressive, does not tell us much about the reasons for such investment or the countries where U.S. companies focus their investments. As we have stated in previous surveys, official statistics blur some important distinctions when it comes to the nature of transatlantic investment flows. Recent research, however, helps us understand better two important phenomena: "round-tripping" and "phantom FDI."

Round-Tripping

Round-tripping investments go from an original investor, for instance in the United States, to an ultimate destination in a country such as Germany, but flow first from the United States to an intermediate country such as Luxembourg, and then from Luxembourg to Germany. Official statistics record this as a U.S.-Luxembourg flow or a Luxembourg-Germany flow. While Luxembourg may derive some economic benefit from that flow emanating originally from the United States, the ultimate beneficiary is in Germany. Applying this example to 2017, the year with the most recent data, official figures from the IMF indicate that FDI in Germany from the United States was around \$90 billion, whereas recent research by economists at the IMF and University of Copenhagen that takes account of these "round tripping" flows concludes that the stock of "real FDI" from the United States in Germany was actually almost \$170 billion.² Similarly, "real FDI" links from Germany to the United States are considerably higher than official statistics might indicate. All told, they estimated that "real FDI" bilateral links from Germany to the United States in that year topped \$400 billion, whereas official statistics put that figure closer to \$300 billion.³ The same is true for other important bilateral investment links. Table 1 shows "real FDI" links both from the United States to Great Britain and from Great Britain to the United States, for instance, to be higher than standard measurements indicate.

Table 1 Estimated Real U.S.-EU FDI Links (\$Billions)



■ Real FDI Ultimate Investor Position (From Damgaard, Elkjaer, Johannesen study)* ■ Total FDI Position (From IMF Official CDIS statistics)*

*Total FDI: Official Statistics from IMF including investments in SPEs and unadjusted for round-tripping. Real FDI position: Captures links between ultimate investors and real investments; Damgaard, Elkjaer and Johannesen calculations. Note these figures reflect the IMF FDI methodology and may differ from the U.S. BEA statistics in Appendix B. Data for 2017, latest available.

Sources: IMF Coordinated Direct Investment Survey; Jannick Damgaard, Thomas Elkjaer and Niels Johannesen, "What Is Real and What Is Not in the Global FDI Network?" IMF Working Paper WP/19/274, December 2, 2019, p. 40.

"Phantom" vs. "Real" FDI

The second important phenomenon is what economists call "phantom FDI," or investments that pass through special purpose entities that have no real business activities. To understand the nature of transatlantic investment links it is important to be able to separate phantom FDI from FDI in the "real" economy. Damgaard, Elkjaer and Johannesen estimate that investment in countries such as Poland, Romania, Denmark, Austria and Spain, for instance, are mostly genuine FDI investments, while investment in countries such as Luxembourg and the Netherlands are largely comprised of investments in corporate shells used to minimize the global tax bills of multinational enterprises. They estimated that most of the world's "phantom FDI" in 2017 was in a small group of well-known offshore centers: Luxembourg (\$3.8 trillion), the Netherlands (\$3.3

trillion), Hong Kong (\$1.1 trillion), British Virgin Islands (\$0.8 trillion), Bermuda (\$0.8 trillion), Singapore (\$0.8 trillion) and the Cayman Islands (\$0.7 trillion). These were global figures rather than investments from U.S. companies, but since U.S. companies are the preeminent foreign investors in Europe one may conclude that these distinctions roughly applied to U.S. FDI in Europe, at least at that time.

In the aggregate, and extrapolating forward, about 54% of America's total FDI position in Europe was allocated to non-bank holding companies in 2020, meaning that less than half of the \$3.7 trillion was invested in "real economy" industries such as mining, manufacturing, wholesale trade, finance, and professional and information services (See Box 6.1). Excluding holding companies, total U.S. FDI stock in Europe in 2020 amounted to \$1.7 trillion - a much smaller figure.

Box 6.1 FDI Outflows to Europe Adjusted for Flows of Holding Companies

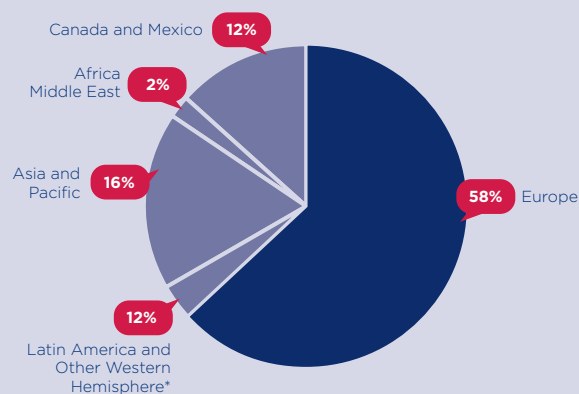
U.S. holding companies have played an important role in the rise of U.S.-Europe FDI over the past few decades. As of 2020, the last year of available data, nonbank holding companies accounted for \$2.9 trillion, or about 47% of the global U.S. outward FDI position of approximately \$6.2 trillion, and 54% of total U.S. FDI stock in Europe.

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 a 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.”

Tables 2a and 2b, drawing on BEA data, reflect the significance of holding companies in the composition of U.S. FDI outflows. European markets have accounted for roughly 58% 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. In 2020, U.S. FDI flows to holding companies in Europe rebounded sharply to \$62.8 billion. This represented over half of total U.S. FDI outflows to Europe. In prior years, FDI outflows to Europe were negative (-\$189 billion in 2018 and -\$87 billion in 2019), as U.S. companies repatriated a large amount of accumulated foreign earnings.

In the long run, when FDI related to holding companies is stripped from the numbers, the U.S. foreign direct investment position in Europe is not as large as typically reported by the BEA. Nonetheless, Europe remains the destination of choice among U.S. firms even after the figures are adjusted. Between 2009 and 2020, Europe still accounted for over half 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 United States and Europe.

Table 2a Total U.S. FDI Outflows, 2009-2020
(% of Total)

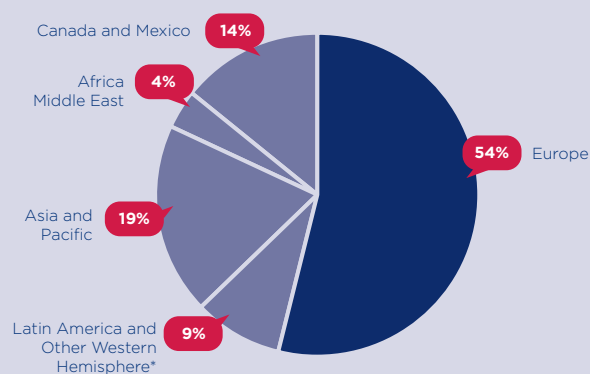


*Excluding Mexico.

Source: Bureau of Economic Analysis.

Data as of January 2022.

Table 2b U.S. FDI Outflows Excluding Flows to Nonbank Holding Companies, 2009-2020
(% of Total)



Box 6.2 U.S. Corporate Tax Reform: Impact on FDI Outflows

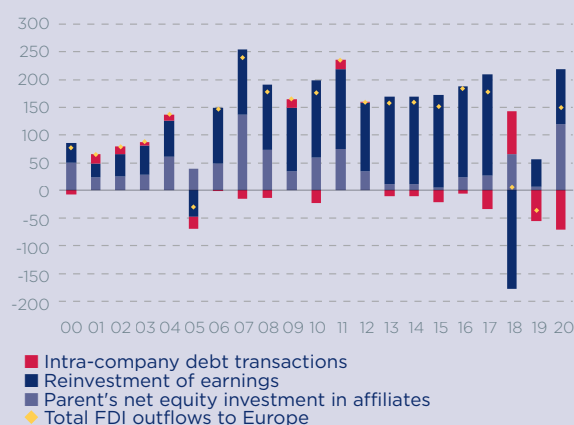
In December 2017, the United States passed the “Tax Cuts and Jobs Act,” which included several changes to the U.S. taxation of international profits. An important provision of the tax reform bill, which had a material impact on U.S. international investment flows, was the reduced tax rate on U.S. firms’ repatriated earnings. This repatriation tax break, which was expected, led to negative U.S. FDI outflows as companies brought home significant quantities of cash. The sweeping U.S. tax reform package also reduced the corporate tax rate from 35% to 21% and moved the United States towards a “territorial” system, under which profits earned by U.S. foreign affiliates will not be taxed.

Prior to the tax reform, U.S. multinational companies would reinvest their global earnings back into their operations abroad, deferring U.S. taxation of these foreign profits. This strategy, widely adopted by U.S. multinationals, caused reinvested earnings to become the primary source of U.S. FDI flows. Table 3a shows the breakout of U.S. FDI flows to Europe by component, with reinvested earnings making up the bulk of total U.S. investment prior to tax reform. Since the tax reform, however, equity investments abroad are the largest source of FDI outflows to Europe.

The cumulative effect of years of companies keeping profits overseas led to a large accumulation of U.S. corporate earnings abroad. When the U.S. government passed corporate tax reform, reducing the tax rate on these earnings, it incentivized companies to tap into the large pile of foreign profits by repatriating the foreign capital. When companies withdraw prior accumulated earnings, this results in negative retained earnings which has a negative overall impact on U.S. FDI outflows. A similar pattern occurred in 2005 after the U.S. Homeland Investment Act introduced a similar tax break for multinational companies.

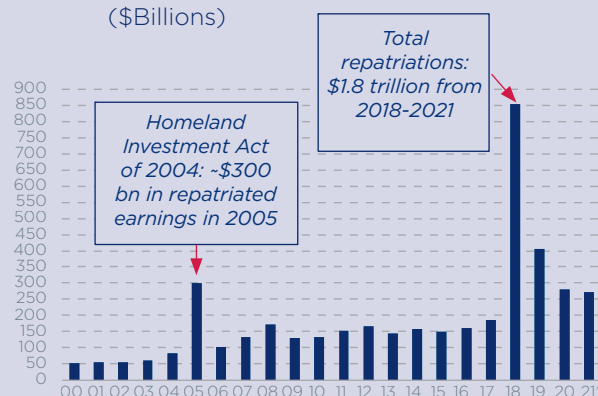
In the first four years after the change in the U.S. corporate tax code, U.S. repatriations of global earnings are estimated to have totaled approximately \$1.8 trillion, or over half of the estimated \$3 trillion in funds stockpiled overseas at the end of 2017 (Table 3b). While these repatriations suppressed FDI outflows from the United States to Europe in recent years, we expect the pace of repatriations to slow, and FDI to continue to recover in the years ahead. However, according to UNCTAD’s January 2019 Investment Trends Monitor, in the long run the shift to a territorial tax system in the United States may lead to “structurally lower reinvested earnings by U.S. multinationals in the future.”

Table 3a U.S. FDI Outflows to Europe by Component (\$Billions)



Source: U.S. Bureau of Economic Analysis.
Data as of January 2022.

Table 3b U.S. Repatriations of Global Earnings (\$Billions)



*2021 authors’ estimate.
Source: U.S. Bureau of Economic Analysis.
Data as of January 2022.

These figures illustrate the extremely volatile nature of U.S. FDI annual outflows. Table 4 provides a more long-term view of U.S.-European investment ties. As shown in the chart, the share of U.S. FDI in both Germany and France declined sharply this past decade, with France accounting for just 1.4% of U.S. FDI flows to Europe from 2010 through the third quarter of 2020. Germany's share is slightly higher, 4%, but still off the levels of previous decades. However, as mentioned these figures need to be interpreted very carefully, since a good deal of original investment from the United States makes its way to France and Germany via other countries, and analyses that include "round-tripping" estimates conclude that U.S. FDI that eventually ends up in France and Germany remains robust.

Ireland has become a favored destination for FDI among U.S. companies looking to take advantage of the country's flexible and skilled English-speaking

labor force, low corporate tax rates, strong economic growth, membership in the European Union, and pro-business policies. 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.

Just as U.S. firms leverage different states across America, with certain activities sprinkled around the Northeast, Midwest, the South and West, 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 4 U.S. FDI Outflows to Europe: The Long View (\$Millions, (-) inflows)

Country	1990-1999		2000-2009		2010-3Q2021	
	\$ Aggregate Total	% of Total Europe	\$ Aggregate Total	% of Total Europe	\$ Aggregate Total	% of Total Europe
Europe	465,337		1,149,810		1,711,926	
Austria	2,908	0.6%	501	0.0%	8,362	0.5%
Belgium	12,028	2.6%	40,120	3.5%	37,217	2.2%
Czech Republic	155	0.0%	1,941	0.2%	4,890	0.3%
Denmark	2,798	0.6%	5,782	0.5%	10,612	0.6%
Finland	1,485	0.3%	1,598	0.1%	2,554	0.1%
France	29,063	6.2%	42,963	3.7%	24,072	1.4%
Germany	31,817	6.8%	60,363	5.2%	68,332	4.0%
Greece	413	0.1%	943	0.1%	502	0.0%
Hungary	2,929	0.6%	1,376	0.1%	1,214	0.1%
Ireland	21,369	4.6%	115,085	10.0%	290,735	17.0%
Italy	13,825	3.0%	26,462	2.3%	19,553	1.1%
Luxembourg	15,912	3.4%	126,989	11.0%	340,522	19.9%
Netherlands	70,770	15.2%	295,889	25.7%	358,021	20.9%
Norway	4,198	0.9%	4,997	0.4%	3,946	0.2%
Poland	2,681	0.6%	4,699	0.4%	4,120	0.2%
Portugal	1,993	0.4%	2,212	0.2%	996	0.1%
Russia	1,555	0.3%	11,289	1.0%	-1,452	-0.1%
Spain	11,745	2.5%	28,371	2.5%	16,763	1.0%
Sweden	10,783	2.3%	16,974	1.5%	1,937	0.1%
Switzerland	32,485	7.0%	97,869	8.5%	132,351	7.7%
Turkey	1,741	0.4%	5,994	0.5%	8,603	0.5%
United Kingdom	175,219	37.7%	237,906	20.7%	367,942	21.5%
Other	17,465	2.6%	19,487	1.4%	10,134	0.6%

Source: Bureau of Economic Analysis.
Data as of January 2022.



A launchpad for U.S. companies 10 European countries among top 20 global export platforms

Table 5 underscores this point. The figures show U.S. affiliate sales from a given country to other destinations, or the exports of affiliates per country. 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. For U.S. companies, Ireland is the number one platform in the world from which their

affiliates can reach foreign customers. Switzerland, ranked third, remains a key export platform and pan-regional distribution hub for U.S. firms.

On a standalone basis, U.S. affiliates' exports from Ireland are greater than the total export volumes of most countries. 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,

Table 5 Global Export Platforms for U.S. Multinationals (U.S. Affiliate Sales From Abroad to Other Destinations*)
(\$Millions)

Rank	1982		1990		2000		2019	
	Country	Value	Country	Value	Country	Value	Country	Value
1	United Kingdom	33,500	United Kingdom	51,350	United Kingdom	94,712	Ireland	377,193
2	Switzerland	27,712	Canada	46,933	Canada	94,296	Singapore	280,019
3	Canada	25,169	Germany	41,853	Germany	69,522	Switzerland	275,016
4	Germany	19,117	Switzerland	38,937	Netherlands	67,852	United Kingdom	207,636
5	Netherlands	15,224	Netherlands	33,285	Singapore	56,961	Netherlands	176,132
6	Belgium	11,924	France	24,782	Switzerland	56,562	Canada	162,691
7	Singapore	11,579	Belgium	21,359	Ireland	51,139	Germany	120,788
8	France	11,255	Singapore	15,074	Mexico	37,407	Belgium	117,022
9	Indonesia	8,289	Hong Kong	9,951	France	35,797	Mexico	106,179
10	Hong Kong	4,474	Italy	9,562	Belgium	32,010	Hong Kong	100,555
11	Italy	3,993	Ireland	9,469	Hong Kong	22,470	China	75,106
12	Australia	3,710	Spain	7,179	Malaysia	16,013	France	55,579
13	Ireland	2,842	Japan	7,066	Sweden	15,736	India	37,723
14	United Arab Emirates	2,610	Australia	6,336	Italy	14,370	Australia	33,415
15	Brazil	2,325	Mexico	5,869	Spain	12,928	Brazil	31,445
16	Japan	2,248	Indonesia	5,431	Japan	11,845	Luxembourg	30,430
17	Malaysia	2,046	Brazil	3,803	Australia	9,370	Spain	29,033
18	Panama	1,662	Norway	3,565	Brazil	8,987	Japan	27,491
19	Spain	1,635	Malaysia	3,559	China	7,831	Italy	27,084
20	Mexico	1,158	Nigeria	2,641	Norway	6,238	Malaysia	25,971
	All Country Total	252,274	All Country Total	398,873	All Country Total	857,907	All Country Total	2,692,998

Source: Bureau of Economic Analysis.
Data as of January 2022.

*Destination = affiliate sales to third markets and sales to U.S. for majority-owned foreign affiliates.

the UK's exit from the EU may further solidify Ireland's spot as the number one location for U.S. affiliate exports. When exporting from the UK, new barriers to trade, including regulatory checks and rules of origin requirements, in addition to stricter immigration rules, could cause some companies to relocate operations to Ireland in search of easier access to the EU market.

The UK still plays an important role for U.S. companies as an export platform to the rest of Europe. However, the introduction of the euro, the Single Market, EU enlargement and now Brexit have enticed more U.S. firms to invest directly in EU member states. 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 shaping economic policy.

Why Europe Matters

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 joined together in a Single Market. Indeed, the sum of Europe's parts is one of the largest economic entities in the world. In nominal U.S. dollar terms, the European Union (plus the UK, Norway, Switzerland, and Iceland) accounted for an estimated 23% of world output in 2021 – slightly lower than the U.S. share (24%) but greater than that of China (18%). Based on purchasing power parity figures, Europe's share was greater than that of the United States but less than that of China in 2021.

Given its size, Europe remains a key pillar of the global economy and critical component to the corporate success of U.S. firms. As Table 6 highlights, Europe attracts more than half of U.S. aggregate FDI outflows. The region's share of total U.S. FDI during the last decade was 57.3%, which is up from the first decade of this century as well as from the level of the 1990s. We are early in this decade, but thus far, Europe's share of U.S. FDI outflows has actually increased to 62.6% of the total. Part of this dynamic reflects weakening U.S. investment flows to China.

Table 6 Cumulative U.S. FDI Outflows (\$Billions)

Decade	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	2,056,007	1,149,810	55.9%
2010-2019	2,404,739	1,378,601	57.3%
2020 - Q3 2021	542,347	339,610	62.6%

Source: Bureau of Economic Analysis.
Data as of January 2022.

Even after adjusting for FDI flows related to holding companies, Europe remains the favored destination of U.S. firms. This runs counter to the fashionable but false narrative that corporate America prefers low-cost nations in Asia, Latin America, and Africa to developed markets like Europe.

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. As shown in Table 7, there has been a wide divergence between U.S. FDI to the BRICs (Brazil, Russia, India, China) and U.S. FDI to Europe. After a drop in flows to Europe in 2019 due to U.S. domestic tax reform, investment in Europe rebounded in 2020 and continued to gather momentum in 2021. In the first three quarters of 2021, U.S. FDI outflows to Europe totaled roughly \$190 billion, compared with just \$5.1 billion in flows to China and \$11.5 billion in flows to the BRICs.

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

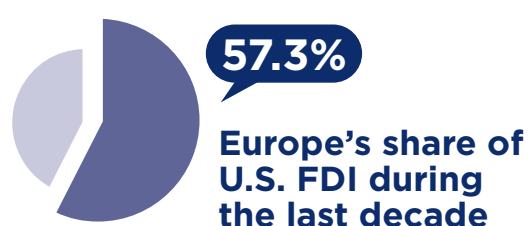
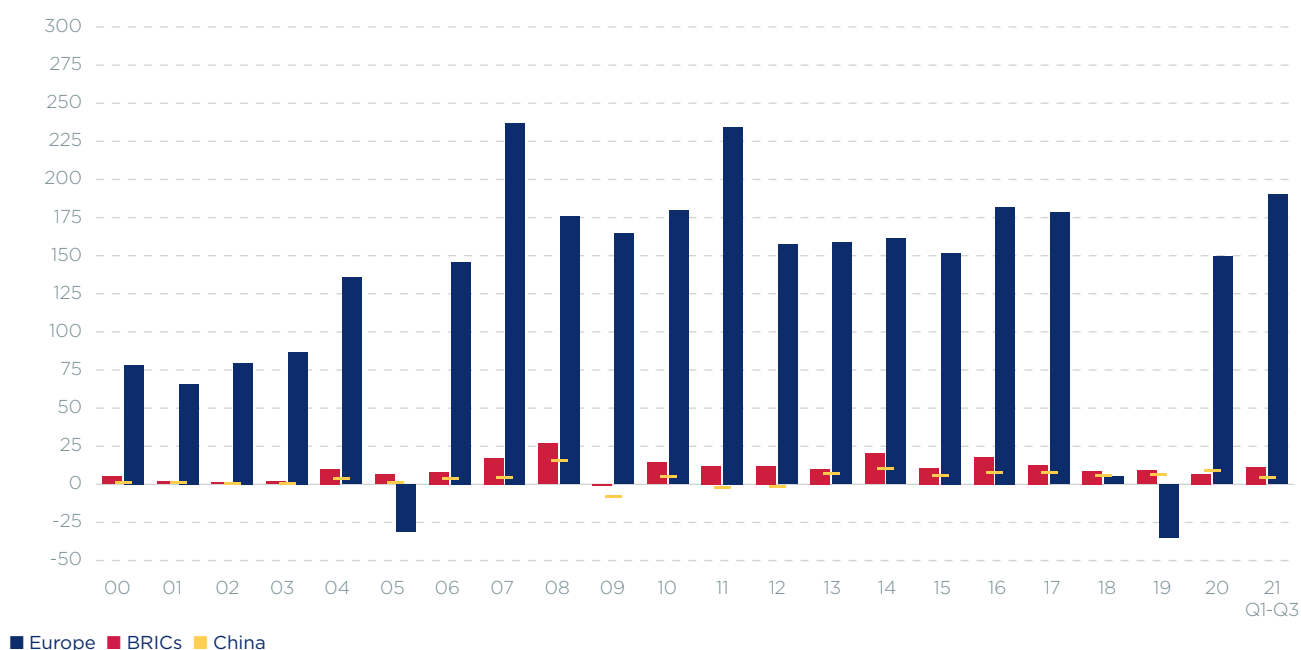


Table 7 U.S. Foreign Direct Investment Outflows to the BRICs vs. Europe* (\$Billions)



*Europe does not include flows to Russia.
 Source: Bureau of Economic Analysis.
 Data as of January 2022.

world class R&D infrastructure, among other things. In the aggregate, 15 of the 25 wealthiest nations in the world are European. Per capita income levels in Europe are significantly greater than those in India, in China, and in all of Africa. China's per capita income (in purchasing power parity terms) of just \$19,100 in 2021 is well below that of Switzerland (\$78,100), the Netherlands (\$62,800), Germany (\$58,200), Finland (\$53,100), and the European Union (\$48,300). Meanwhile, India's per capita GDP was just \$7,300 in 2021, according to estimates from the IMF.

Wealth, in turn, drives consumption. The EU plus the UK accounted for about 20% of total global personal consumption expenditures in 2020, a slightly lower share than that of the United States but well above that of China (11%) and India (4%). Gaining access to wealthy consumers is among the primary reasons why U.S. firms invest overseas – hence the continued attractiveness of wealthy Europe to American companies.

Just as the macroeconomic backdrop influences investment decisions, so too do micro factors. Country and industry regulations can help or hamper the foreign activities of U.S. companies, and greatly influence where U.S. firms invest overseas. Think intellectual property right protections, 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 and data flows. 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.

Finally, Europe continues to be a world leader when it comes to innovation and knowledge-based activities. According to the 2021 Global Innovation Index, 8 European economies rank among the top 15 most innovative countries in the world. The index takes into account a wide range of factors such as institutions, education quality, research & development, information & communication technologies (ICT) infrastructure, and more. On these measures, Europe is the most attractive region in the world for innovation. Another important measure of knowledge-based capabilities, also highlighted in the report, is science & technology (S&T) intensity – or the sum of the patent and scientific publication shares divided by the population. By this measure, many European and U.S. regions have more scientific output per capita than their Asian counterparts. In fact, of the top 15 science & technology clusters, ranked by S&T intensity, 7 are located in Europe, 6 in the United States, and only 2 are in Asia.



U.S. business contributes to Europe's
R&D expenditures
\$33 billion

Table 8 Global Innovation Index 2021

Overall Global Innovation Index	
Rank	Country
1	Switzerland
2	Sweden
3	United States
4	United Kingdom
5	South Korea
6	Netherlands
7	Finland
8	Singapore
9	Denmark
10	Germany
11	France
12	China
13	Japan
14	Hong Kong, China
15	Israel

Science and Technology (S&T) Intensity		
Rank	S&T Cluster	Country
1	Cambridge	UK
2	Eindhoven	Belgium/Neth.
3	Ann Arbor, MI	U.S.
4	Oxford	UK
5	San Jose-San Francisco, CA	U.S.
6	Daejeon	Korea
7	Boston-Cambridge, MA	U.S.
8	Seattle, WA	U.S.
9	San Diego, CA	U.S.
10	Raleigh, NC	U.S.
11	Lund-Malmö	Sweden
12	Kanazawa	Japan
13	Munich	Germany
14	Lausanne	Switz./France
15	Stockholm	Sweden

Source: Cornell University, INSEAD, and the World Intellectual Property Organization, Global Innovation Index 2021. Data as of 2021.

Since R&D expenditures are a key driver of value-added growth, it is interesting to note that EU- and UK-based organizations accounted for about one-fifth of total global R&D in 2019 in purchasing-power parity terms. That lagged the share of the United States and China but exceeded the share of Japan and South Korea. Over the past two decades, China has steadily advanced its R&D capabilities, and is projected to overtake the United States as the top R&D spender in the world (Table 9).

Sweden, Germany, Switzerland, and Austria rank among the top countries in terms of R&D spending as a percentage of GDP. All had R&D-to-GDP ratios above 3% in 2019, larger than that of the United States (2.8%) and China (2.1%). As shown in Table 10, a large part of the R&D funding in these countries comes from businesses.

U.S. corporate affiliates in Europe also play an important role in the R&D and innovation climate of the region. These affiliates contributed \$33 billion to Europe's total expenditures on R&D.

Europe remains a leader in a number of cutting-edge industries, including life sciences, agriculture and food production, automotives, 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. Europe is the world leader in terms of full-time equivalent research staff. Of the world's total pool of research personnel, the EU plus the UK, Switzerland, Norway and Iceland housed an estimated 2.3 million researchers in 2019 versus 1.6 million in the United States and 2.1 million in China, according to OECD estimates.

Number of researchers hosted

(2019)



2.3 million
EU + Iceland
+ Norway + UK
+ Switzerland

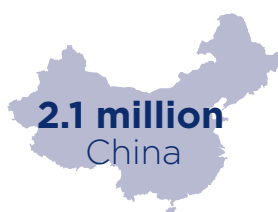
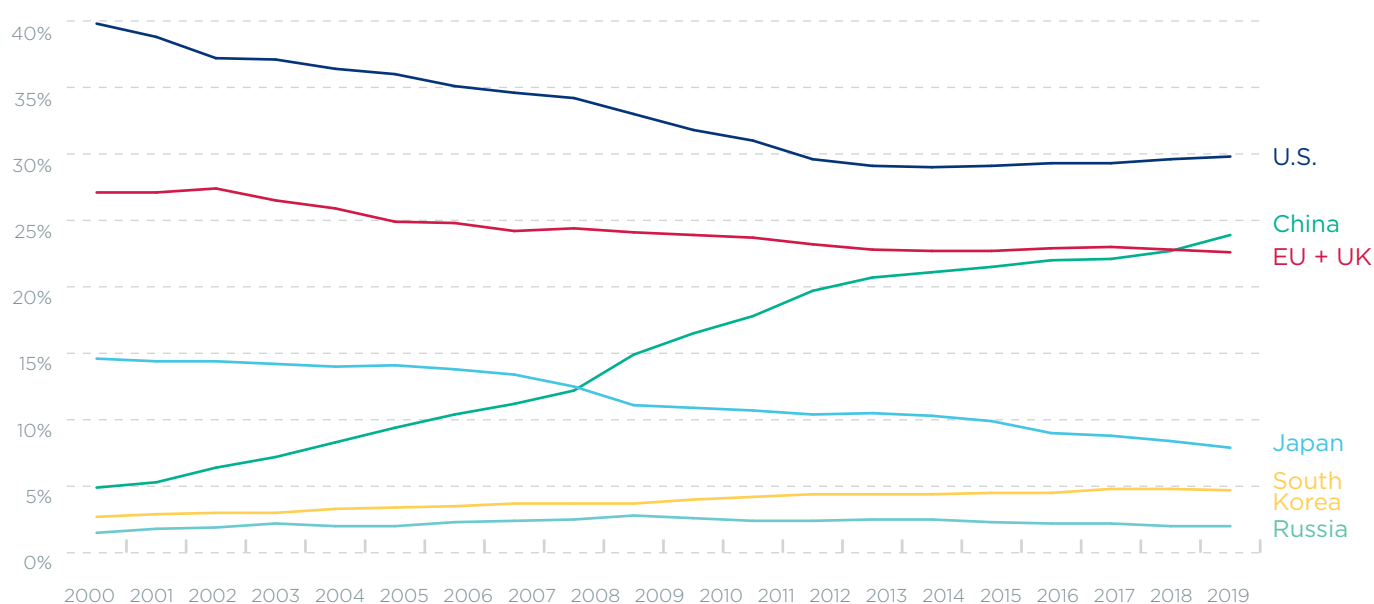


Table 9 Global R&D Expenditures and the Rise of China (% of Total)

R&D share calculated in terms of current purchasing-power parity dollars. Global R&D is a sum of the OECD countries plus Argentina, China, Russia, Singapore, South Africa, Chinese Taipei and Romania.

Source: OECD.

Data as of January 2022.

Finally, Europe is home to one of the most educated workforces in the world. In countries such as Ireland, Switzerland, Lithuania, Luxembourg, Belgium and the Netherlands, the share of the working age population with a bachelor's degree or higher exceeds 40%. The comparable figure for the U.S. is 39%. 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 intra-EU collaboration.

Adding It All Up

Given all the above, Europe remains a key destination for U.S. companies looking to expand their global footprint. The region remains large, wealthy, richly endowed, open for business, and an innovation leader in many key global industries. This, along with the easing of transatlantic tensions under the Biden Administration, positions Europe to remain a critical and indispensable geographic node in the global operations of U.S. companies. In the post-pandemic world, U.S. companies increasingly view the world through a tripolar lens – a world encompassing the Americas, Europe, and Asia, along with attendant offshoots. In this tripolar world, U.S. companies are not about to give up on or decamp from one of the main pillars of the global economy. Given America's resource constraints (notably a lack of sufficient skilled labor), Europe is more important than ever to the success of U.S. firms.

Endnotes

- UNCTAD Global Investment Trends Monitor No. 40, January 2022.
- See Jannick Damgaard, Thomas Elkjaer, and Niels Johannesen, "The Rise of Phantom Investments," IMF Finance & Development, September 2019, <https://www.imf.org/external/pubs/ft/fandd/2019/09/the-rise-of-phantom-FDI-in-tax-havens-damgaard.htm>; and Jannick Damgaard, Thomas Elkjaer and Niels Johannesen, "What Is Real and What Is Not in the Global FDI Network?" IMF Working Paper WP/19/274, December 2, 2019.
- Note the dataset used by the authors for their analysis is the IMF Coordinated Direct Investment Survey, which due to differences in measurement, can vary from the figures reported by the U.S. Bureau of Economic Analysis used in the Appendix pages of this study.