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Jobs, Trade and Investment: Enduring Ties that Bind

It has been a tumultuous decade for the global economy. In just over three years, the world has been stricken by a pandemic, stunned by a military conflict in the heart of Europe, and shaken by inflationary pressures reminiscent of the 1970s. Rarely have the challenges seemed so acute.

Compounding matters, familiar patterns of globalization are shifting. Even before Russia's further invasion of Ukraine in 2022, the world economy was being splintered by great power rivalries, weaponization of interdependencies, rising barriers to trade and investment, resource protectionism, and calls for firms to "reshore," "near-shore," or "friend-shore" production. The pandemic amplified these trends. Putin's war has sharpened them.

Share of world GDP

31%

U.S and EU27

31%

Regional Comprehensive Economic Partnership (RCEP)

Globalization isn't dead, but it is being refined and reconfigured. U.S. and European multinationals confront a more challenging environment. Firms are not deaf or blind to the shifting contours of globalization, and are increasingly focused on building more resiliency into their supply chains and securing critical inputs to production. But this doesn't mean they are turning their backs on the world. Instead, they are diversifying their sourcing and reinforcing the foundations of their success. Most are derisking rather than decoupling. And for many, the dense transatlantic linkages they have built over decades are an anchor in the storm.

The bottom line: in a world wracked by war, pandemics, soaring inflationary pressures, and the rising gale forces of de-globalization, the two sides of the North Atlantic remain deeply intertwined and embedded in each other's markets. This is not likely to change any time soon, given the deep and entangled commercial ties that link the transatlantic economy, and the fact that shareholders and stakeholders on both sides of the pond directly benefit from deep transatlantic integration. The fact that the United States and Europe are each embroiled in increasingly contentious commercial and geopolitical tensions with Russia and China also suggests transatlantic cooperation will endure. And the post-pandemic world of tighter energy supplies and tighter labor markets portends thicker transatlantic ties.

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Thanks to the dense interlinkages of investment, trade, technology, innovation and jobs that bind the two sides of the North Atlantic together, the transatlantic economy remains a central pillar of the global economy. The combined output of the United States and Europe accounted for roughly one-third of world GDP in terms of purchasing power parity in 2022. Excluding the UK, the EU27 and the United States account for a substantial 31% of world GDP – higher than the combined output of China and India (one-quarter of world GDP) and on par with the newly created combined output of the Regional Comprehensive Economic Partnership (RCEP) in Asia of 31% of GDP.

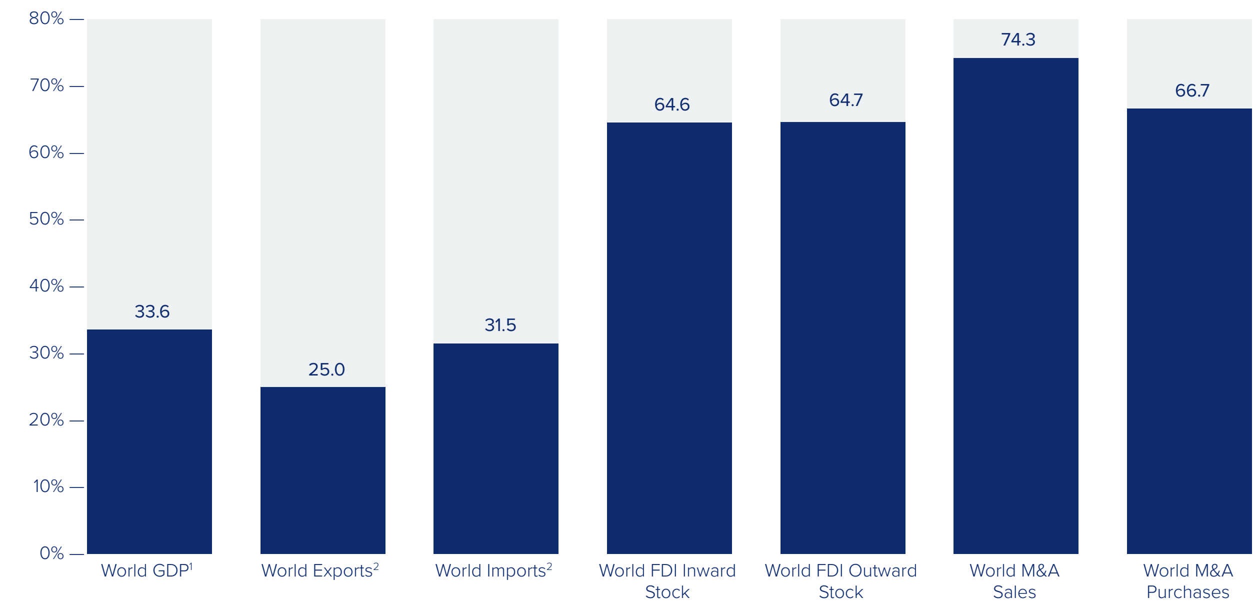
The transatlantic economy is not only larger than the twin giants of Asia but also significantly wealthier. And because wealth matters, it's little wonder that consumers in the United States and the EU easily outspend their counterparts in China and India. As mentioned in Chapter One, the two combined accounted for 51% of global personal consumption in 2021, the last year of available data, versus a combined share of just 16.4% for China and India. Per capita incomes – a key metric of a nation's wealth – matter and on this score, it's no contest. The United States (with an estimated per capita income of roughly $69,000 in purchasing power parity terms in 2021) and the European Union (est. $48,000) are far wealthier than China ($19,000) and India ($7,000).

In addition to the above, the transatlantic economy is a repository of innovation and technological advancement, and at the forefront of global foreign direct investment and global mergers and acquisitions (M&A) activity. Taken together, U.S. and European goods exports to the world (excluding intra-EU trade) accounted for 20% of global goods exports in 2021, the last year of complete data. But the two parties accounted for 66% of global inward stock of foreign direct investment and 66% of outward stock of FDI. Each partner has built up the great majority of that stock in the other economy. Mutual investment in the North Atlantic space is very large, dwarfs trade, and has become essential to U.S. and European jobs and prosperity. Over 70% of M&A purchases are by U.S. and European companies.

It is no surprise, therefore, that the largest commercial artery in the world stretches across the Atlantic. Total transatlantic foreign affiliate sales were estimated at $5.9 trillion in 2021, easily ranking as the most integrated commercial partnership on account of the thick investment ties between the two parties.

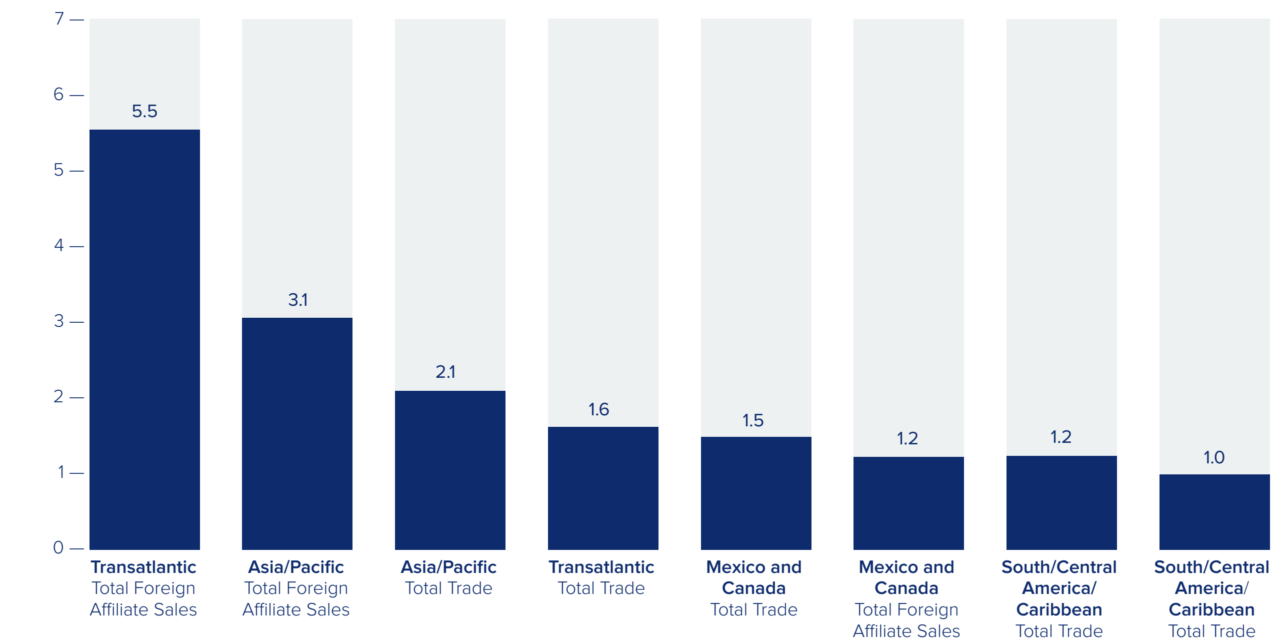
That said, the burgeoning middle class of the developing nations represents new sources of supply (labor) and demand (consumers) for U.S. and European firms. American and European companies are building out their in-country presence in the developing nations, and for good reason. Economic growth rates are still above the global average in most nations, populated with young consumers who desire Western goods and services. In addition, the technological skill levels of many developing nations are now on par with many developing nations. China, for instance, is

Table 1. The Transatlantic Economy vs the World (Share of World Total)



Sources: UN, IMF, figures for 2021. Transatlantic economy measured as U.S., EU, UK, Norway, Switzerland and Iceland.
1. Based on PPP estimates.
2. Excluding intra-EU, UK, Norway, Switzerland and Iceland trade.

Table 2. America's Major Commercial Arteries ($Trillions)



Foreign Affiliate Sales: Author's estimates for 2021. Total Trade: Data for goods & services, 2021. South/Central America and Caribbean includes Mexico.
Source: Bureau of Economic Analysis.

For many U.S. and European companies, the transatlantic economy is the geo-economic base from which they can engage successfully in other parts of the world.

rapidly emerging as an innovation superpower; India lags behind but is advancing; more people in Latin America, Africa and the Middle East are online and connected to the global digital economy. It all makes perfect sense for U.S. and European firms to invest outside the transatlantic economy.

What is often missing from this either/or picture, however, is the fact that for many U.S. and European companies, the transatlantic economy is the geo-economic base from which they can engage successfully in other parts of the world. Many European car companies, for instance, invest in the United States and then export cars made in the U.S.A. to China and other countries. U.S. services companies, in turn, use the scale offered by their dense investment linkages across the transatlantic economy to be globally competitive when it comes to offering services in other parts of the world. Many U.S. multinationals – for both goods and services – also use their presence in Europe to serve the markets of North Africa and the Middle East and beyond.

In all of these ways, the transatlantic partnership remains important not only to the United States and Europe, but also to the world. The U.S.-European partnership is too big and too important to fail, as made all too clear when dissecting the activities of foreign affiliates on both sides of the pond.

The Ties That Bind – Quantifying the Transatlantic Economy

We have long made the case that when it comes to global commerce, traditional trade statistics are incomplete and misguided metrics when measuring the level of global engagement between two parties. Global commerce beats to the tune of foreign direct investment and affiliate sales, not cross-border trade. Hence, as we outline and emphasize each year in this survey, it is the activities of foreign affiliates – the foot soldiers of the transatlantic partnership – that bind the United States and Europe together. Investment, not trade, drives U.S.-European commerce. Understanding this dynamic is essential to understanding the enduring strength and importance of the transatlantic economy.

Total output of foreign affiliates
(2021 estimate)
$670 billion
U.S. in Europe

US affiliate output
(2020)
$383 billion
Asia-Pacific

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

1. Gross Product of Foreign Affiliates

As standalone entities, U.S. affiliates in Europe and European affiliates in the United States are among the largest and most advanced economic forces in the world. The total output, for instance, of U.S. foreign affiliates in Europe (an estimated $670 billion in 2021) and of European foreign affiliates in the United States (estimated at $665 billion) was greater than the total gross domestic product of most countries. Combined, transatlantic affiliate output – more than $1.3 trillion – was larger than the total output of such countries as Mexico, the Netherlands, or Indonesia.

By our estimation, affiliate output rebounded modestly in 2021 from the depressed levels of 2020, when transatlantic activity came to a near standstill due to the pandemic. European affiliate output in the United States rose modestly by 2%, while U.S. affiliate output in Europe rose roughly 4%. European affiliates in the United States are operating in one of the most dynamic economies in the world and are expected to boost their near-term output again this year. And even though Europe is being challenged by the disruptions generated by the war, the eurozone economy actually grew faster than the U.S. or Chinese economy in 2022. This brighter economic outlook, amidst indications that Europe is likely to pivot successfully away from its energy dependencies on Russia, bodes well for firms in both the U.S. and Europe.

On a global basis, the aggregate output of U.S. foreign affiliates was around $1.4 trillion in 2021, with Europe (broadly defined) accounting for around half of the total. According to the Bureau of Economic Analysis, U.S. affiliate output in Europe ($643 billion) in 2020 was 73% greater than affiliate output in the entire Asia-Pacific region ($383 billion).

In the United States, meanwhile, European affiliates are major economic producers in their own right, with British and German firms of notable importance.

The U.S. output of British companies was $150 billion in 2020, the last year of actual data. That represents about one-quarter of the European total. For the same year, output from German affiliates operating in the United States totaled $114 billion, or nearly 20% of the European total. Off the back of strong U.S. economic growth in 2021, we estimate that output of both British and German affiliates in the U.S. rose by 5%, with the former totaling an estimated $158 billion in 2021, and the latter $120 billion.

In 2020, the last year of available data, European affiliates in the United States accounted for nearly 61% of the roughly $1.1 trillion that affiliates of foreign multinationals contributed overall to U.S. aggregate production.

Beyond Europe, only Canadian and Japanese investors have any real economic presence in the United States. Japanese affiliate output totaled nearly $152 billion in 2020, the last year of complete data, while Canadian affiliate output totaled $112 billion. Foreign direct investment from China had soared in the United States over the past few years, but from a relatively low base, and now is plummeting due to bilateral commercial tensions and tighter U.S. scrutiny of such investments. Chinese affiliate output in the U.S. totaled just $14 billion in 2020, less than that of Sweden ($21 billion).

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 figures from the Bureau of Economic Analysis, U.S. foreign assets in Europe totaled $18.7 trillion in 2020, representing roughly 63% of the global total.

For 2021, we estimate that U.S. foreign assets in Europe rose modestly, by 2%, to $19 trillion as the continent emerged from the pandemic. The bulk of U.S. assets in Europe was in the United Kingdom: $6.2 trillion in 2020, the last year of available data, or around 21% of the global total.

U.S. assets in the Netherlands (around $3.1 trillion) were the second largest in Europe in 2020. America's significant presence in the Netherlands reflects its strategic role as an export platform/ distribution hub for U.S. firms doing business across the continent. To this point, more than half of U.S. affiliate sales in the Netherlands are for export, particularly within the EU.

Beyond Europe, only Canada and Japan have a significant economic presence in the United States.

Meanwhile, America's asset base in Germany topped $1.1 trillion in 2020, more than a third larger than its asset base in all of South America. America's asset base in Poland, the Czech Republic and Hungary (roughly $234 billion) was greater than corporate America's assets in South Korea ($182 billion). America's assets in Ireland ($2 trillion in 2020) were light years ahead of those in China ($487 billion).

Europe's stakes in the United States are also sizable and significant. Total assets of European affiliates in the United States were valued at roughly $8.3 trillion in 2020. The United Kingdom ranked first, followed by Germany, Switzerland, and French firms. In 2020, the last year of available data, European assets in the United States accounted for over 51% of all foreign-owned assets in the United States. We estimate that European-owned assets in the United States rose modestly in 2021 to $8.4 trillion.

3. Affiliate Employment

U.S. and European foreign affiliates are a major source of employment for the general transatlantic workforce. Indeed, on a global basis, affiliates of both U.S. and European parents employ more workers in the United States and Europe than in other places in the world. Most foreign workers on the payrolls of U.S. foreign affiliates are employed in the developed nations, notably Europe.

U.S. foreign affiliate employment in Europe has increased steadily since the turn of the century, with affiliate employment in Europe rising from 3.7 million workers in 2000 to 4.8 million workers in 2020, the last full year of available data. That represents a near 33% increase. We estimate that U.S. foreign affiliates in Europe employed 4.8 million workers in 2021, unchanged from the prior year.

While aggregate employment levels continue to rise modestly, manufacturing employment has plateaued since 2000. U.S affiliate manufacturing employment totaled 1.9 million in 2000, nearly on par with the levels of 2020 (1.8 million) However, while the overall number has stayed roughly the

U.S. foreign assets in Europe
(2020)

$18.7 trillion

63%
of total U.S. foreign assets globally

U.S. foreign affiliate employment in Europe (2021 estimate)

4.8 million

workers

European foreign affiliate employment in the U.S. (2021 estimate)

5 million

workers

same, the country composition has changed, with more investment shifting to lower-cost locales like Poland and Hungary versus high-cost economies like Germany and France. The largest employment declines were reported in the United Kingdom, with the total U.S. affiliate manufacturing workforce falling from 431,000 in 2000 to 283,000 in 2020. U.S. manufacturing employment in France dropped from 249,000 to 178,000, while a smaller decline from 388,000 to 358,000 was reported in Germany between 2000 and 2020. In terms of net gains in manufacturing jobs, Poland has been a significant winner, with U.S. affiliate manufacturing employment growing almost three times, from 51,000 in 2000 to over 138,000 in 2020.

Roughly 34% of all manufacturing workers employed by U.S. foreign affiliates outside the United States in 2020 were based in Europe.

Table 3. Transatlantic Jobs

(Thousands of Employees, 2021*)

Country	U.S. Companies in Europe	European Companies in the U.S.
Austria	29.2	32.5
Belgium	118.3	76.1
Czech Republic	75.1	3.8
Denmark	37.5	46.9
Finland	21.4	36.3
France	487.9	754.9
Germany	653.0	902.8
Greece	16.9	3.8
Hungary	59.2	0.3
Ireland	151.2	343.2
Italy	246.8	100.7
Luxembourg	24.7	40.3
Netherlands	242.7	580.7
Norway	37.9	7.9
Poland	214.0	1.1
Portugal	33.1	0.8
Romania	85.2	< 0.05
Spain	187.7	95.0
Sweden	62.4	221.6
Switzerland	96.6	496.7
United Kingdom	1,512.7	1,242.0
Europe	**4,803.0**	**5,008.5**

Source: Bureau of Economic Analysis.
**2021 estimates. Majority-owned bank and non-bank affiliates.*

On a global basis, U.S. majority-owned affiliates (including banks and non-bank affiliates) employed 14 million workers in 2020, with the bulk of these workers – roughly 34% – toiling in Europe. That share is down from 41% in 2009. That decline is in part a consequence of Europe's cyclical slowdown for some years, and in part due to the fact that U.S. overseas capacity is expanding at a faster pace in faster-growing emerging markets than slower-growth developed nations. Another factor at work: more and more U.S. firms are opting to stay home due to competitive wage and energy costs, as opposed to shipping more capacity abroad. The sweeping overhaul of the U.S. corporate tax code in 2017, which significantly lowered America's tax rate relative to many in Europe, has spurred more investment to come home or stay in the United States. Other incentives include new subsidies for semiconductor, clean energy and infrastructure production. More on those in Chapter Six. That said, however, with the U.S. labor market at its tightest in decades, U.S. firms are even more dependent on European workers to drive production and sales.

Most employees of U.S. affiliates in Europe live in the UK, Germany, and France. Meanwhile, U.S. majority-owned firms are on balance hiring more people in services activities than in manufacturing. The latter accounted for 38% of total U.S. foreign affiliate employment in Europe in 2020. The key industry in terms of manufacturing employment was transportation equipment, with U.S. affiliates employing nearly 336,000 workers, followed by chemicals (257,000). Wholesale employment was among the largest sources of services-related employment, which includes employment in such activities as logistics, trade, insurance and other related functions.

Although services employment among U.S. affiliates has grown at a faster pace than manufacturing employment over the past decade, according to our estimates U.S. affiliates employed more manufacturing workers in Europe in 2021 (1.9 million) than in 1990 (1.6 million). This reflects the EU enlargement process, and hence greater access to more manufacturing workers, and the premium U.S. firms place on highly skilled manufacturing workers, with Europe one of the largest sources in the world.

When it comes to affiliate employment, trends in the United States are similar to those in Europe. Despite stories on the continent about local European companies relocating to lower cost locales in eastern Europe and Asia, most foreign workers of European firms are employed in the United States. Based on the latest figures, European majority-owned foreign affiliates directly employed 4.9 million U.S. workers in 2020. We estimate the number to have reached 5 million in 2021. The top five European employers in the United States were firms from the UK (1.2 million jobs), Germany (885,000), France (740,000), the Netherlands (569,000) and Switzerland (487,000). European firms employed roughly two-thirds of all U.S. workers on the payrolls of majority-owned foreign affiliates in 2020.

In the aggregate, the transatlantic workforce directly employed by U.S. and European foreign affiliates in pandemic year 2020 was roughly 9.7 million strong – 300,000 more than the year before. Employment levels rebounded again in 2021, to an estimated 9.8 million, and are expected to have increased further in 2022.

One reminder: as we have stressed in the past, these figures understate the employment effects of mutual investment flows, since these numbers are limited to direct employment, and do not account for indirect employment effects on nonequity arrangements such as strategic alliances, joint ventures, and other deals. Moreover, foreign employment figures do not include jobs supported by transatlantic trade flows. Trade-related employment is sizable in many U.S. states and many European nations. In the end, direct and indirect employment remains quite large. We estimate that the transatlantic workforce numbers some 14-16 million workers, counting both direct affiliate employees as well as those whose jobs are supported by transatlantic trade. Europe is by far the most important source of "onshored" jobs in America, and the United States is by far the most important source of "onshored" jobs in Europe.

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

The United States and Europe remain primary drivers of global R&D. Yet as the globalization of R&D has gathered pace, more and more global R&D expenditures are emanating from Asia in general and China in particular. Beijing is unrelentingly focused on being a global leader in artificial intelligence, quantum computing, space exploration, cyber security, life sciences, electric vehicles, supercomputing, semiconductors and 5G wireless devices. Beijing's long-term goal is to become an "international innovation leader" by 2030 and a "world powerhouse of scientific and technological innovation" by 2050.

While governments and corporations are the main drivers of R&D spending, foreign affiliates of multinationals are also in the thick of things. In fact, foreign affiliate R&D has become more prominent over the past decades as firms seek to share development costs, spread risks, and tap into the intellectual talent of other nations. Alliances, cross-licensing of intellectual property, mergers and acquisitions, and other forms of cooperation have become more prevalent characteristics of the transatlantic economy. The digital economy has become a powerful engine of greater transatlantic R&D. The complexity of scientific and technological innovation is leading innovators to partner and share costs, find complementary expertise, gain access to different technologies and knowledge quickly, and collaborate as part of "open" innovation networks. Cross-border collaboration with foreign partners can range from a simple one-way transmission of information to highly interactive and formal arrangements. Developing new products, creating new processes, and driving more innovation – all of these activities result from more collaboration between foreign suppliers and U.S. and European firms. And all of this collaboration, regardless of sector or industry, is dependent on the ability to transfer data across borders, as we discuss in Chapter 5.

The United States and Europe remain primary drivers of global R&D.

Bilateral U.S.-EU flows in R&D are the most intense between any two international partners. In 2020, the last year of available data, U.S. affiliates spent $31.6 billion on research and development in Europe. On a global basis, Europe accounted for roughly 54% of total U.S. R&D in 2020. R&D expenditures by U.S. affiliates were the greatest in the United Kingdom ($6.0 billion), Germany ($5.7 billion), Switzerland ($5.5 billion), Ireland ($4.0 billion), Belgium ($2.2 billion) and France ($1.9 billion). These six countries accounted for nearly 80% of U.S. spending on R&D in Europe in 2020.

In the United States, meanwhile, expenditures on R&D performed by majority-owned foreign affiliates totaled $71.4 billion in 2020. As in previous years, a sizable share of this R&D spending emanated from world-class leaders from Europe, given their interest in America's highly skilled labor force and world-class university system. Most of this investment by European firms took place in such research-intensive sectors as autos, energy, chemicals, and

R&D spending of foreign affiliates (2020)

$31.6 billion
U.S. in Europe

$71.4 billion
Europe in the U.S.

Table 4. Top 20 R&D Spenders

Rank	Company	R&D Spending 2021 ($Billions)	R&D Spending Change from 2020 (%)	Country	Industry
1	Alphabet	27.9	6.0	U.S.	Software & Computer Services
2	Meta	21.8	6.7	U.S.	Software & Computer Services
3	Microsoft	21.6	7.5	U.S.	Software & Computer Services
4	Huawei Investment & Holding	19.5	5.1	China	Technology Hardware & Equipment
5	Apple	19.3	15.6	U.S.	Technology Hardware & Equipment
6	Samsung Electronics	16.8	35.6	South Korea	Electronic & Electrical Equipment
7	Volkswagen	15.6	-2.9	Germany	Automobiles & Parts
8	Intel	13.4	3.9	U.S.	Technology Hardware & Equipment
9	Roche	13.3	1.5	Switzerland	Pharmaceuticals & Biotechnology
10	Johnson & Johnson	13.0	7.1	U.S.	Pharmaceuticals & Biotechnology
11	Pfizer	10.2	-1.3	U.S.	Pharmaceuticals & Biotechnology
12	Bristol-Myers Squibb	9.3	-12.3	U.S.	Pharmaceuticals & Biotechnology
13	Merck US	9.1	70.9	U.S.	Pharmaceuticals & Biotechnology
14	Mercedes-Benz	9.0	10.5	Germany	Automobiles & Parts
15	Toyota Motor	8.7	16.1	Japan	Automobiles & Parts
16	Novartis	8.0	36.9	Switzerland	Pharmaceuticals & Biotechnology
17	Alibaba Group Holding	7.7	32.9	China	Software & Computer Services
18	Tencent	7.2	0.7	China	Software & Computer Services
19	ASTRAZENECA	7.1	-2.2	UK	Pharmaceuticals & Biotechnology
20	General Motors	7.0	-5.5	U.S.	Automobiles & Parts
		265.5	**17.9**		

Source: The 2021 EU Industrial R&D Investment Scoreboard. Data as of December 2021.
Note: Only companies that disclose their R&D figures according to the Scoreboard methodology can be included in the ranking. Excluded from the ranking is Amazon which, according to the Scoreboard, would be positioned at #1 in the world R&D ranking if it had separated its R&D and content investments in its annual report.

telecommunications. In 2020, R&D spending by European affiliates accounted for $47.8 billion, or 67%, of total foreign R&D spending in the United States.

On a country basis, German-owned affiliates were the largest foreign source of R&D in the United States in 2020, spending some $12.7 billion, or 26% of the total of European R&D. Swiss firms ranked second, with $10.2 billion, or 21.5% of the total, followed by British firms, $6.6 billion or 13.5% of the total. As Table 4 highlights, almost all of the world's most innovative companies are domiciled in the United States or Europe.

5. Intra-firm Trade of Foreign Affiliates

While cross-border trade is a secondary means of delivery for goods and services across the Atlantic, the modes of delivery – affiliate sales and trade – should not be viewed independently. They are more complements than substitutes, since foreign investment and affiliate sales increasingly drive cross- border trade flows. Indeed, a substantial share of transatlantic trade is considered intra-firm or related- party trade, which is cross-border trade that stays within the ambit of the company. Intra-firm or related party-trade occurs when BMW or Siemens of Germany sends parts to BMW of South Carolina or Siemens of North Carolina; when Lafarge or Michelin send intermediate components to their Midwest plants, or when General Motors or 3M ships components from Detroit, Michigan or St. Paul, Minnesota to affiliates in Germany or the UK. All of these examples are at the core of interconnected global supply chains.

Table 5. Related-Party Trade (2020)

Country	U.S. Imports: "Related Party Trade" as % of Total	U.S. Exports: "Related Party Trade" as % of Total
European Union (incl. UK)	65	39
Germany	69	38
France	47	35
Ireland	85	38
Netherlands	74	58
UK	54	31

Source: U.S. Census Bureau.
Data as of January 2022.

The tight linkages between European parent companies and their U.S. affiliates are reflected in the fact that roughly 65% of U.S. imports from the European Union consisted of intra-firm trade in 2020, the last year of available data. That is much higher than the intra-firm imports from Pacific Rim nations (around 40%) and well above the global average (48%). The percentage was even higher in the case of Ireland (85%) and Germany (69%).

Meanwhile, 39% of U.S. exports to the EU plus UK in 2020 represented intra-firm trade, but the percentage is much higher for some countries. For instance, more than half of total U.S. exports to the Netherlands (58%) was classified as related-party trade. The comparable figure for Germany was 38% and for France it was 35%.

6. Foreign Affiliate Sales

U.S. majority-owned foreign affiliate sales on a global basis (goods and services) totaled an estimated $6.5 trillion in 2021. Total U.S. exports, in contrast, were $2.5 trillion in 2021, or roughly 39% of foreign affiliate sales. This gap underscores the primacy of foreign affiliate sales over U.S. exports. As we have noted many times before, one of the best kept secrets in Washington is how U.S. firms actually deliver goods and services to foreign customers.

As usual, Europe accounted for the bulk of U.S. affiliate sales in 2021. We estimate that U.S. foreign affiliate sales in Europe totaled $3.1 trillion; U.S. affiliate sales in Europe, by our estimates, amounted for roughly half of the global total.

Reflecting the primacy of Europe when it comes to U.S. foreign affiliate sales, sales of U.S. affiliates in Europe were roughly 70% larger than the comparable figures for the entire Asian region in 2020, the last full year of available data. Affiliate sales in the United Kingdom ($649 billion) were double total sales in South America. Sales in Germany ($343 billion) were roughly double combined sales in Africa and the Middle East.

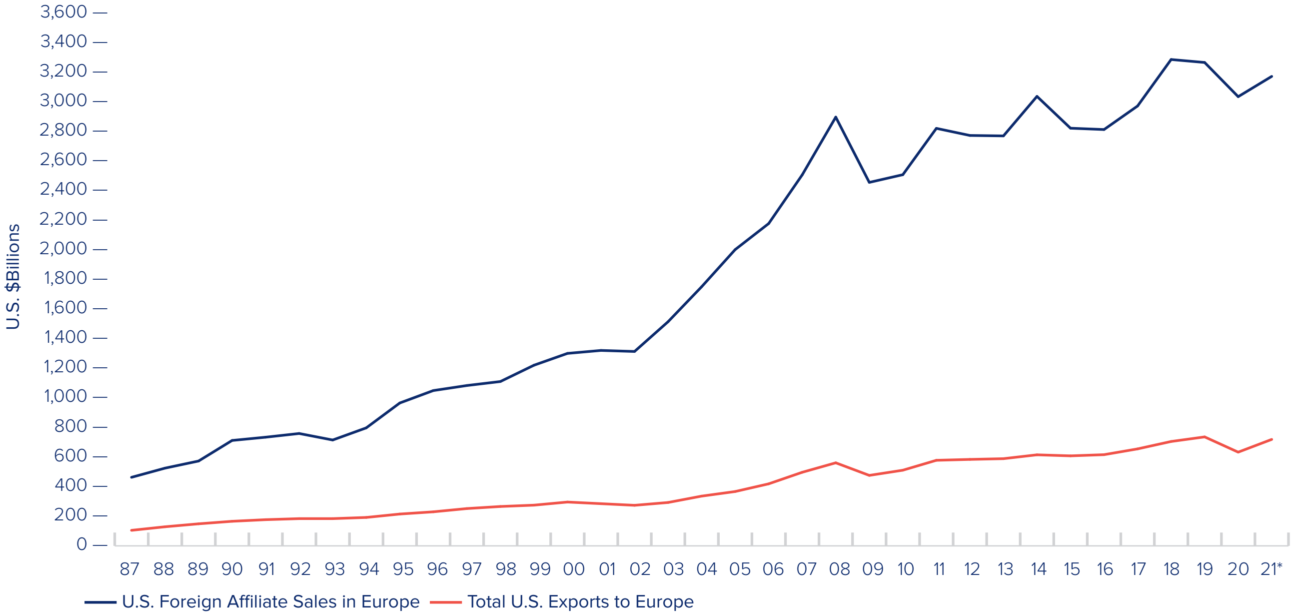
Affiliate sales are also the primary means by which European firms deliver goods and services to customers in the United States. In 2021, for instance, we estimate that majority-owned European affiliate sales in the United States ($2.7 trillion) were more than triple U.S. imports from Europe. By country, sales of British firms were the largest ($555 billion) in 2020, followed by Germany ($554 billion), and the Netherlands ($315 billion). For virtually all countries in Europe, foreign affiliate sales were easily in excess of their U.S. imports in 2021.

Foreign affiliate sales
(2021 estimate)

$3.1 trillion
U.S. in Europe

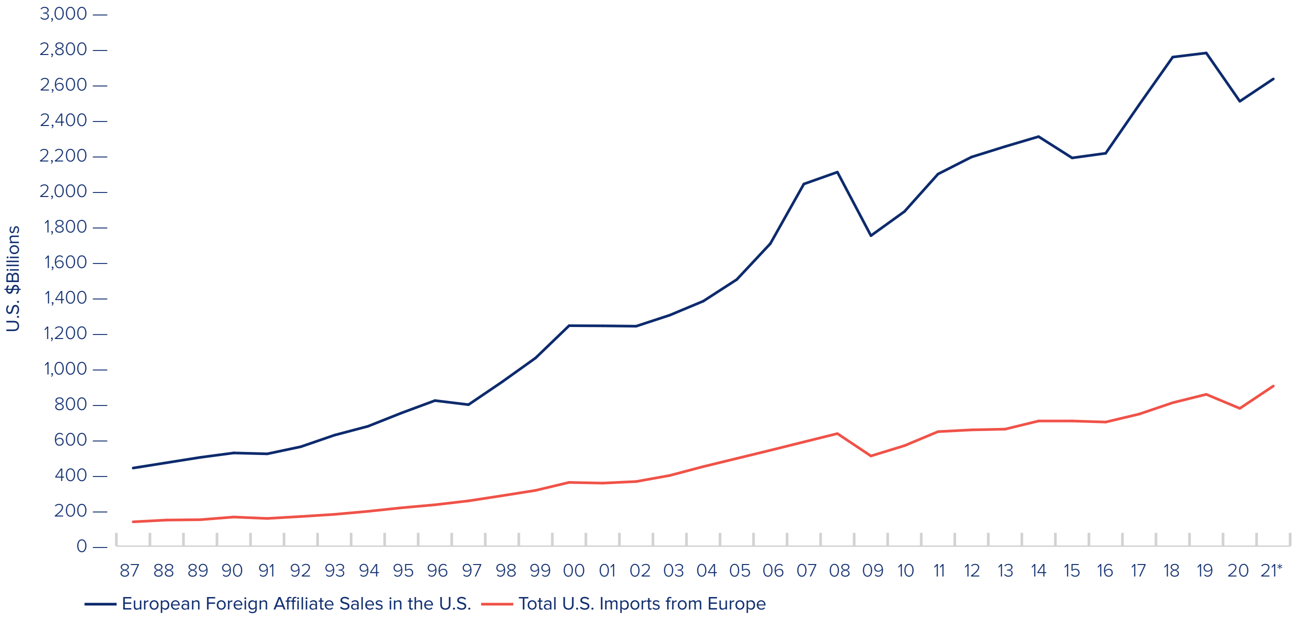
$2.7 trillion
Europe in the U.S.

Table 6. **Sales of U.S. Affiliates in Europe vs U.S. Exports to Europe**



Source: Bureau of Economic Analysis.
Majority-owned non-bank affiliates data: 1987 - 2008. Majority-owned bank and non-bank affiliates: 2009 - 2021.
**Foreign Affiliate Sales: Estimates for 2021.*

Table 7. **Sales of European Affiliates in the U.S. vs U.S. Imports from Europe**



Source: Bureau of Economic Analysis
Majority-owned non-bank affiliates: 1987 - 2006. Majority-owned bank and non-bank affiliates: 2007 - 2021.
**Foreign Affiliate Sales: Estimates for 2021.*

7. Foreign Affiliate Profits

As we outlined in Chapter 1, transatlantic profits rebounded strongly in 2021 from the depressed levels of 2020, and remained robust again in 2022. By our estimates (based on three quarters' worth of data), U.S. affiliate income in Europe rose to a record $325 billion in 2022, while European affiliate income in the United States reached $151 billion – the second highest level in history. It was another solid year for profits – notwithstanding the tumult ripping through the global economy. As the key source of foreign profits for U.S. firms, the EU accounted for nearly 56% of U.S. global foreign affiliate income in the first nine months of 2021.

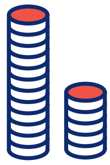
On comparative basis, U.S. affiliate income from Europe is simply staggering: $239 billion in the first nine months of 2022, about 2.7 times more than U.S. affiliate income in all of Asia ($84 billion). As a reminder, we define Europe here in very broad terms, including not only the EU27 but also the United Kingdom, Norway, Switzerland, Russia and smaller markets in Central and Eastern Europe.

It is interesting to note that combined U.S. affiliate income from China and India in 2021 ($17.9 billion), the last year of full data, was a fraction of what U.S. affiliates earned/reported in the Netherlands, the United Kingdom and Ireland.

Transatlantic profits rebounded strongly in 2021 from the depressed levels of 2020, and remained robust again in 2022.

Still, there is little doubt that the likes of China, India and Brazil are becoming more important earnings engines for U.S. firms. To this point, in the first nine months of 2022, U.S. affiliate income in China alone ($9.0 billion) was in excess of affiliate income in Germany ($8.6 billion), France ($2.9 billion), and Spain ($1.8 billion). U.S. affiliates in India earned $5.8 billion in the January-September period, well more than that earned in many European countries.

All 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 firms.

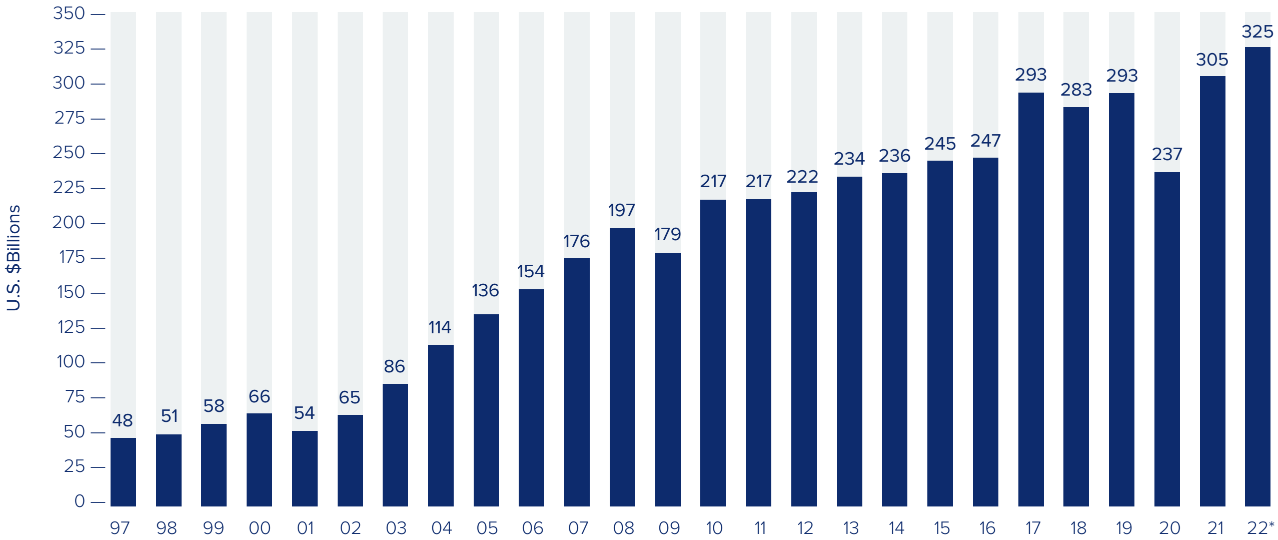


Foreign affiliate profits
(2022 estimate)

$325 billion
U.S. in Europe

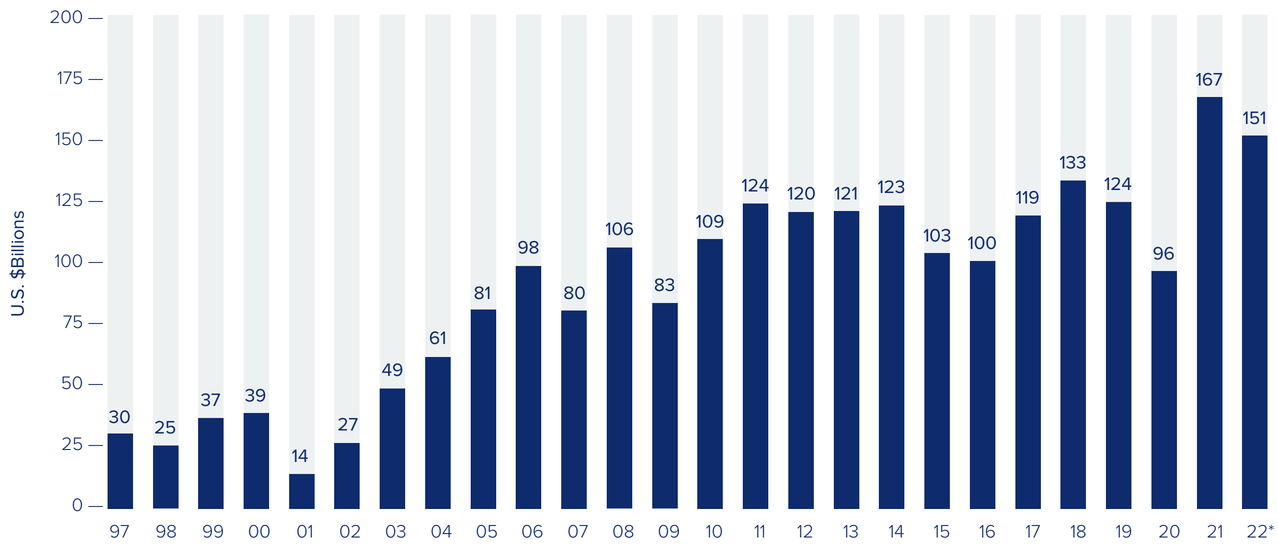
$151 billion
Europe in the U.S.

Table 8. **U.S. Earnings in Europe Rebound to New Highs**



Source: Bureau of Economic Analysis.
**Data for 2022 is annualized using 3 quarters of 2022 data.*

Table 9. Historic Highs: European Affiliate Earnings in the U.S.



Source: Bureau of Economic Analysis.
**Data for 2022 is annualized using 3 quarters of 2022 data.*

8. Transatlantic Services

The United States and Europe are the largest services economies in the world. They are each other's largest services market, which means that when an exogenous shock like Covid-19 strikes, transatlantic services activities are most vulnerable. The pandemic battered numerous U.S.-European services activities in 2020, but transatlantic services markets rebounded robustly in 2021.

U.S. services exports to Europe totaled $332 billion in 2021, a sharp rise from the depressed levels of the year before. The UK remains the largest market for U.S. services exports and the largest source of U.S. services imports.

U.S. services imports from Europe also rebounded in 2021, rising to $230 billion, up from $197 billion the year before. Against this backdrop, the U.S. services surplus with, after falling to $94 billion in 2020, rose to $101 billion in 2021. This compares to a $219 billion trade deficit in goods for the same year. On a regional basis, Europe accounted for 41% of total U.S. services exports in 2021 and for 42% of total U.S. services imports.
Five out of the top ten export markets for U.S. services in 2021 were in Europe. Ireland ranked first, followed by the United Kingdom (2nd), Switzerland (3rd), Germany (7th), and the Netherlands (10th). Of the top ten services providers to the United States in 2021, five were European states, with the UK ranking first, Germany second, Switzerland sixth, Ireland seventh, and France tenth.

Trade figures, while significant, do not do full justice to the importance of the transatlantic services economy. Transatlantic foreign affiliate sales of services are much deeper and thicker than traditional trade figures suggest. Indeed, sales of affiliates have exploded on both sides of the Atlantic over the past few decades thanks to falling communication costs and the rise of the digital economy. Affiliate sales of services have not only supplemented trade in services, they have become the overwhelming mode of delivery in a rather short period of time. Worldwide affiliate sales of U.S. services almost doubled from 2005 to 2020, the last year of available data, totaling $1.6 trillion, a slight decline from the year before.

Sales of services of U.S. foreign affiliates in Europe totaled $977 billion, or 56% of the global total in 2020. U.S. services exports to Europe in the same year totaled $332 billion, well below sales of services by affiliates. In other words, like goods, U.S. firms primarily deliver services in Europe (and vice versa) via their foreign affiliates rather than by trade.

Table 10. Top Markets for U.S. Services Trade ($Billions, 2021)

U.S. Services Exports

Rank	Total Services		Travel		Other Business		Financial		IP Charges		Transport		Telecom/Info Svcs	
1	UK	67.8	Mexico	11.5	Singapore	19.7	UK	22.5	China	8.8	South Korea	5.3	Canada	7.1
2	Canada	56.1	China	10.9	Canada	18.3	Canada	9.9	Canada	7.6	Japan	5.2	UK	6.1
3	China	39.5	India	7.6	UK	17.2	Luxembourg	6.8	UK	6.0	Germany	4.8	Japan	4.1
4	Japan	36.9	Canada	3.0	Netherlands	11.8	Japan	5.4	Japan	5.9	Canada	4.7	Germany	3.1
5	Germany	32.0	South Korea	2.0	Germany	10.9	China	4.5	Germany	5.3	China	3.3	Brazil	2.6
6	Mexico	30.5	UK	1.7	Japan	9.3	Germany	4.3	Netherlands	4.8	UK	3.1	Singapore	2.5
7	Singapore	30.1	Brazil	1.4	China	5.6	Australia	4.1	Singapore	4.2	Mexico	2.9	Australia	2.5
8	Netherlands	23.8	Argentina	1.0	Mexico	5.2	Netherlands	3.4	Hong Kong	4.1	France	2.8	Mexico	2.1
9	South Korea	19.2	Germany	0.9	France	4.5	Hong Kong	3.2	South Korea	4.0	Taiwan	2.2	China	1.9
10	India	18.5	Taiwan	0.8	Hong Kong	3.6	Mexico	3.1	Mexico	3.5	Brazil	1.9	Netherlands	1.7
	Total	**795.3**	**Total**	**70.2**	**Total**	**217.4**	**Total**	**171.7**	**Total**	**124.6**	**Total**	**65.8**	**Total**	**59.8**

U.S. Services Imports

Rank	Total Services		Travel		Other Business		Financial		IP Charges		Transport		Telecom/Info Svcs	
1	UK	61.1	Mexico	16.0	UK	18.4	UK	15.8	Japan	8.0	Japan	9.3	India	11.8
2	Germany	34.7	UK	2.1	India	12.7	Canada	2.9	Germany	5.8	China	8.5	Canada	6.1
3	Canada	33.1	Italy	1.6	Canada	9.9	Hong Kong	2.4	UK	4.6	Taiwan	8.0	UK	4.2
4	Japan	31.1	Canada	1.5	Germany	8.9	Japan	2.2	France	2.7	Germany	7.3	Netherlands	1.3
5	India	28.8	France	1.4	China	8.7	Singapore	1.9	Netherlands	2.2	France	7.2	Germany	1.0
6	Mexico	27.8	Germany	1.2	Singapore	4.8	France	1.6	Canada	1.6	Canada	5.7	Mexico	0.7
7	China	21.5	India	1.1	Mexico	4.3	China	1.3	India	1.6	South Korea	5.4	Japan	0.7
8	France	18.4	Netherlands	0.5	Netherlands	4.0	Germany	1.2	China	0.5	Mexico	4.8	China	0.5
9	South Korea	12.3	Japan	0.4	France	3.2	Australia	1.1	Australia	0.5	Hong Kong	4.0	Korea	0.4
10	Netherlands	12.2	Brazil	0.4	Japan	3.1	Brazil	0.9	Singapore	0.5	UK	3.3	France	0.4
	Total	**550.0**	**Total**	**56.9**	**Total**	**129.6**	**Total**	**49.5**	**Total**	**43.3**	**Total**	**105.3**	**Total**	**43.1**

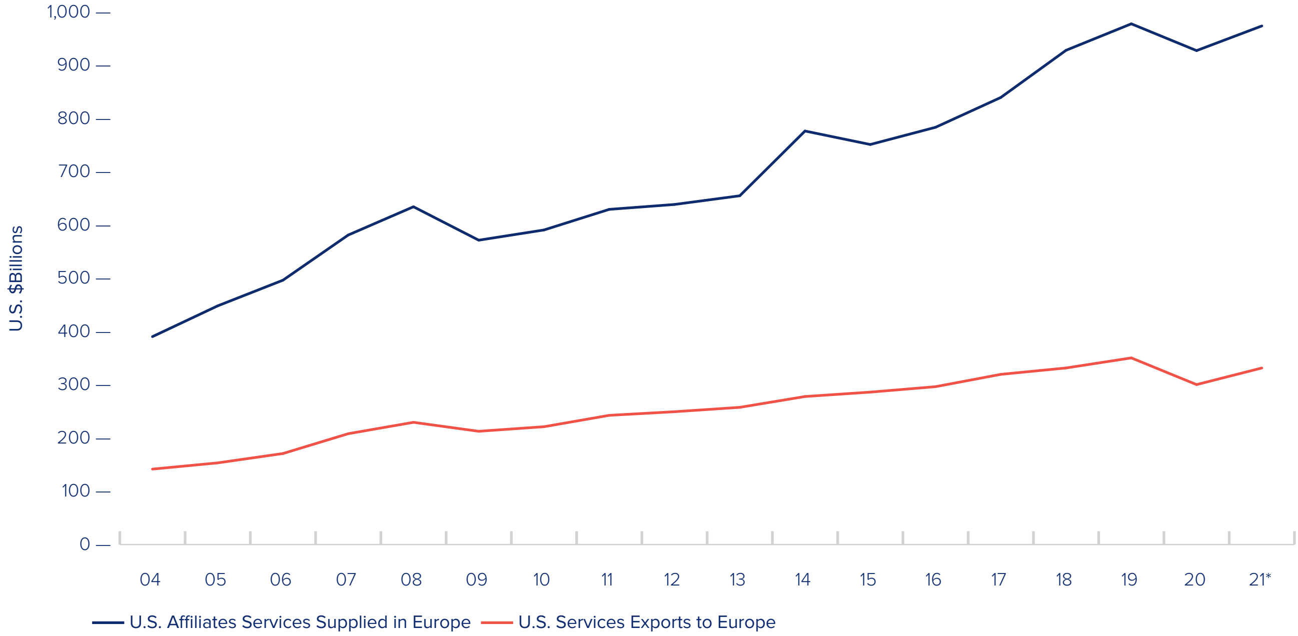
Source: Bureau of Economic Analysis.
Data as of January 2023.

The United States and Europe are the largest services economies in the world.

According to the U.S. Bureau of Economic Analysis, services by U.S. companies based in the UK and UK firms based in the U.S. totaled $435.4 billion in 2020. That's 3.4 times greater than U.S.-UK overall trade in services of $116.3 billion. The contrast is even greater in terms of U.S.-German commercial ties: services by US companies based in Germany and German firms based in the U.S. totaled $252.1 billion. That's 4.1 times U.S.-German services trade of $61.4 billion.

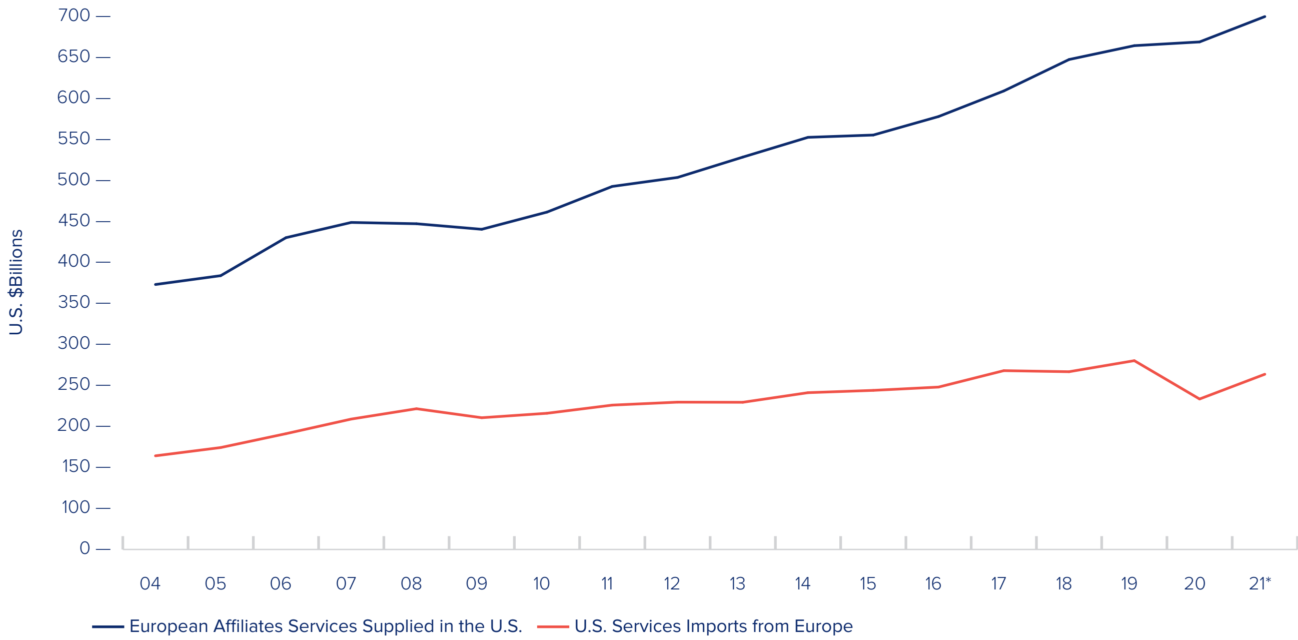
The UK accounted for roughly 30% ($274 billion) of all U.S. affiliate services sales in Europe – more than combined U.S. affiliate sales in Latin America and the Caribbean ($158 billion), Africa ($15 billion) and the Middle East ($26 billion). Affiliate sales in Ireland remain quite large – $172 billion – and reflect strong U.S-Irish foreign investment ties, underlined by the presence of several leading U.S. internet, software and social media leaders.

Table 11. U.S.-Europe Services Linkages



Source: Bureau of Economic Analysis.
*Majority-owned bank and non-bank affiliates. *Services supplied in Europe estimates for 2021.*

Table 12. Europe-U.S. Services Linkages



Source: Bureau of Economic Analysis.
*Majority-owned bank and non-bank affiliates. *Services supplied in the U.S. estimates for 2021.*

U.S. affiliate sales of services in Europe continue to exceed sales of services by U.S. affiliates of European firms. In 2020, the last year of complete data, European affiliate services sales in the United States totaled $666 billion, about one-third below comparable sales of U.S. affiliates in Europe. That said, European affiliates are the key provider of affiliate services in the United States. Germany affiliates lead in terms of affiliate sales of services in the United States ($170 billion), followed closely by British affiliates ($161 billion). We estimate that European affiliate services sales in the United States rose modestly in to around $680 billion in 2021, after falling the year before due to the pandemic-induced recession. That's well above U.S. services imports from Europe ($197 billion) in 2021. The difference between affiliate sales of services and services imports reflects the ever-widening presence of European service leaders in the U.S. economy.

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

Foreign direct investment and foreign affiliate sales, not trade, represent the backbone of the transatlantic economy.

These eight indices convey a more complex and complete picture of U.S.-European engagement than trade figures alone. Transatlantic commerce goes well beyond trade. Foreign direct investment and foreign affiliate sales, not trade, represent the backbone of the transatlantic economy.

Table 13a. U.S. FDI Roots in Europe

Industry	U.S. FDI to Europe ($Billions)	Europe's % of Total U.S. FDI
European Total, all industries	3,981	61
Manufacturing	476	52

Table 13b. Europe's FDI Roots in the U.S

Industry	U.S. FDI from Europe ($Billions)	Europe's % of Total U.S. FDI
Total from Europe, all industries	3,186	64
Manufacturing	1,552	74

Note: Historic-cost basis, 2021.
Source: Bureau of Economic Analysis.