THE TRANSATLANTIC ECONOMY 2021

Annual Survey of Jobs, Trade and Investment between the United States and Europe

Daniel S. Hamilton and Joseph P. Quinlan

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16 million jobs
on both sides of the Atlantic

Half of total
global personal consumption

$6.2 trillion
in total commercial sales a year

One third of global GDP
(in terms of purchasing power)

Thriving Together

No two other regions in the world are as deeply integrated as the U.S. and Europe

Digital

75% of digital content is produced in North America and Europe

55% more data flows via transatlantic cables than over transpacific routes

Innovation

R&D spending

$33 billion U.S. affiliate R&D in Europe (2018)

$45 billion European affiliate R&D in the U.S. (2018)

Investment

64% of global investment into the U.S. comes from Europe (2019)

60% of U.S. global investment goes to Europe (2019)

Jobs

Workers

4.9 million U.S. companies in Europe (Direct jobs due to investment, 2019)

5 million European companies in the U.S. (Direct jobs due to investment, 2019)

Trade in goods

$466 billion U.S. goods imports from the EU + UK (2020)

$291 billion U.S. goods exports to the EU + UK (2020)

Trade in services

$345 billion U.S. to Europe (2019)

$245 billion Europe to the U.S. (2019)

Preface and Acknowledgements

Daniel S. Hamilton

Joseph P. Quinlan

This annual survey offers the most up-to-date picture of the dense economic relationship binding European countries to America's 50 states. The survey consists of six chapters. Chapter One underscores how the transatlantic economy today is structurally sound yet buffeted by considerable political uncertainties. Chapter Two updates our basic framework for understanding the deeply integrated transatlantic economy via "eight ties that bind." Chapter Three compares transatlantic commercial relations with those the Atlantic partners have with China, including how supply chains are being transformed. Chapter Four explores the transatlantic digital economy, which in many ways has become the backbone of commercial connections across the Atlantic. Chapter Five offers an overview of European commercial ties with the United States, and Chapter Six an overview of U.S. commercial relations with Europe. The appended charts provide the most up-to-date information on European-sourced jobs, trade and investment with the 50 U.S. states, and U.S.-sourced jobs, trade and investment with the 27 member states of the European Union, as well as Norway, Switzerland, Turkey, and the United Kingdom.

This annual survey complements our other writings in which we use both geographic and sectoral lenses to examine the deep integration of the transatlantic economy, and the role of the U.S. and Europe in the global economy, with particular focus on how globalization affects American and European consumers, workers, companies, and governments.

For this year's survey, we have opted for a fresh new visual concept. This concept takes a variety of landscapes from the U.S. and Europe, and merges them together. The aim of the concept is to highlight the similarities between the two sides of the Atlantic, which is analogous to our shared history, culture and values, as well as the deep economic ties reported in the study.

We would like to thank Thibaut L'Ortye, Wendy Lopes, Nick Pawley and Garrett Workman for their assistance in producing this study.

We are grateful for the generous support of our annual survey from the American Chamber of Commerce to the European Union (AmCham EU), the U.S. Chamber of Commerce and their member companies, as well as the American Chambers of Commerce in Denmark, Finland, Ireland, Slovenia and Sweden.

The views expressed here are our own, and do not necessarily represent those of any sponsor or institution. Other views and data sources have been cited, and are appreciated.

Executive Summary

- Despite transatlantic political turbulence and the COVID-19-induced recession, the U.S. and Europe remain each other's most important markets. The transatlantic economy generates $6.2 trillion in total commercial sales a year and employs up to 16 million workers in mutually "onshored" jobs on both sides of the Atlantic. It is the largest and wealthiest market in the world, accounting for half of total global personal consumption and close to one-third of world GDP in terms of purchasing power.

- Ties are particularly thick in foreign direct investment (FDI), portfolio investment, banking claims, trade and affiliate sales in goods and services, mutual R&D investment, patent cooperation, technology flows, and sales of knowledge-intensive services.

Transatlantic Investment: Still Driving the Transatlantic Economy

- Trade alone is a misleading benchmark of international commerce; mutual investment dwarfs trade and is the real backbone of the transatlantic economy. The U.S. and Europe are each other's primary source and destination for foreign direct investment.

- Together the U.S. and Europe accounted for 27% of global exports and 32% of global imports in 2019. But together they accounted for 64% of the outward stock and 61% of the inward stock of global FDI. Moreover, 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.

- European firms based in the U.S. accounted for 57% of the $395 billion in U.S. exports by U.S.-based foreign affiliates in 2018. German companies exported $50 billion from the U.S. in 2018.

- U.S. foreign affiliate sales in Europe of $3.4 trillion in 2019 were greater than total U.S. exports to the world of $2.5 trillion and roughly half of total U.S. foreign affiliate sales globally.

- Foreign investment and affiliate sales drive transatlantic trade. 63% of U.S. imports from the EU consisted of intra-firm trade in 2019 - much higher than U.S. intra-firm imports from Asia-Pacific nations (around 37%) and well above the global average (49%). Percentages are notably high for Ireland (87%), the Netherlands (70%) and Germany (70%).

- Intra-firm trade also accounted for 39% of U.S. exports to Europe and 56% to the Netherlands, 37% to Germany and 32% to France.

The U.S. in Europe

- Over many decades no place in the world has attracted more U.S. FDI than Europe. During the past decade Europe attracted 57.3% of total U.S. global investment – more than in any previous decade.

- Measured on a historic cost basis, the total stock of U.S. FDI in Europe was $3.6 trillion in 2019 – 60% of the total U.S. global investment position and almost four times U.S. investment in the Asia-Pacific region.

- The pandemic-induced recession caused U.S. FDI flows to Europe to vanish, from $344 billion in 2019 to roughly $0 in 2020. This sharp swing in global FDI to Europe, however, was mainly driven by large divestments and negative intra-company loans in the Netherlands and Switzerland (-$150 billion and -$88 billion FDI flows respectively). Given their one-off nature, we expect the recent investment declines to be temporary. FDI inflows to Europe should bounce back to positive territory in 2021.

- 2018 and 2019 were atypical years as U.S. companies repatriated a large amount of foreign earnings that had been accumulating overseas, in large part because of 2017 changes to U.S. tax law. As a result, holding companies in Europe saw negative U.S. outflows of $47 billion in 2019 while positive FDI of $56 billion flowed to all other industries in Europe, resulting in net U.S. FDI flows to Europe of $8 billion in 2019.

- In the first three quarters of 2020, however, U.S. FDI outflows to Europe increased to $55 billion, once again accounting for roughly half of U.S. global outflows. U.S. outflows to the Asia-Pacific region during the first three quarters of 2020 declined sharply to $8 billion. Just $1.2 billion flowed to China and $2.1 billion to the BRICs (Brazil, Russia, India and China).

- Official figures can be misleading when it comes to the original source and the ultimate destination of FDI. For instance, Germany officially accounted for only 2.5% of U.S. FDI flows since 2010. Yet much U.S. FDI flows into Germany from neighboring countries. Whereas official figures indicate that FDI stock in Germany from the U.S. in 2017 was $90 billion, "real

FDI" stock from the U.S. to Germany was actually $170 billion. Similarly, "real FDI" links from Germany to the U.S. are considerably higher than official statistics might indicate. The same is true for other important bilateral investment links.

- In 2019 nonbank U.S. holding companies reported negative FDI outflows to Europe of -$47 billion due to repatriations and/or divestments. Nonbank holding companies accounted for 54% of total U.S. FDI stock in Europe in 2019.

- Excluding holding companies, total U.S. FDI stock in Europe amounts to $1.6 trillion – a much smaller figure but still more than 2.5 times larger than total U.S. investment in the Asia-Pacific region (FDI stock of $635 billion excluding holding companies).

- From 2000 to 2019, Europe still accounted for over half of total U.S. FDI outflows globally and more than double the share to Asia when flows from holding companies are removed from the overall figures.

- America's capital stock in the UK ($851 billion in 2019) is more than triple combined U.S. investment in South America, the Middle East and Africa ($261 billion). Total U.S. investment stock in China was just $116 billion in 2019, only about 14% of U.S. investment stock in the UK. The U.S. investment presence in China and India combined – totaling $162 billion in 2019 – is just 19% of total U.S. investment in the UK.

- The UK still plays an important role for U.S. companies as an export platform to the rest of Europe. U.S. firms based in the UK export more to the rest of Europe than U.S. firms based in China export to the world.

- In 2019 Europe accounted for roughly 60% – $17.3 trillion – of corporate America's total foreign assets globally. Largest shares: the UK (20%, $5.4 trillion) and the Netherlands (10%, $3.0 trillion).

- America's asset base in Germany ($905 billion in 2018) was about 30% larger than its asset base in all of South America and almost double its assets in China.

- America's assets in Ireland ($2.0 trillion in 2018) and Switzerland ($1.0 trillion) were each much larger than those in China ($466 billion).

- Ireland has also become the number one export platform for U.S. affiliates in the entire world. Exports from U.S. affiliates based in Ireland reached $351 billion in 2018, about 4.5 times more than U.S. affiliate exports from China and about 3.5 times more than affiliate exports from Mexico.

- Total output of U.S. affiliates in Europe ($740 billion) and of European affiliates in the U.S. ($723 billion) in 2019 was greater than the total gross domestic product of such countries as Australia, Spain, Mexico or Indonesia.

- Aggregate output of U.S. affiliates globally reached $1.5 trillion in 2019; Europe accounted for 49% of the total.

- U.S. affiliate output in Europe ($720 billion) in 2018 was roughly double affiliate output in all of Asia ($386 billion). U.S. affiliate output in China ($77 billion) and India ($35 billion) lag behind U.S. affiliate output in the UK ($169 billion), Germany ($85 billion), or Ireland ($110 billion).

- Sales of U.S. affiliates in Europe were double those of U.S. affiliates in the entire Asian region in 2019. Affiliate sales in the UK ($724 billion) were more than double total sales in South America. Sales in Germany ($385 billion) were more than double combined sales in Africa and the Middle East.

- The value added of non-financial U.S. businesses in the EU28 (€490 billion in 2017) was more than 6.5 times the output of Japanese affiliates (€75 billion) and 18 times the output of Chinese affiliates (€27 billion) in Europe.

- In 2020 the pandemic and recession caused U.S. affiliate income in Europe to fall 15% to an estimated $254 billion – still more than 40% larger than during the 2009 financial crisis. Europe still accounted for roughly 55% of U.S. global foreign affiliate income in the first nine months of 2020.

- U.S. affiliate income from China and India in 2019 ($17 billion) was a fraction of what U.S. affiliates earned in the Netherlands ($84 billion), Ireland ($63 billion), or the UK ($57 billion).

- U.S. affiliate income in China in the first three quarters of 2020 ($7.1 billion), however, was more than combined affiliate income in Germany ($2.5 billion), Spain ($1.7 billion) and France ($629 million), and income in India ($3.1 billion) was well more than that earned in many European countries.

Europe in the U.S.

- Europe accounted for over 60% of global FDI that flowed into the U.S. in the first three quarters of 2020. Annualizing data, U.S. FDI inflows from Europe are estimated to come in at $81 billion in 2020 versus $120 billion in 2019.

- UK firms were the largest source of greenfield foreign investment projects in 18 U.S. states during the ten-year period from October 2010-September 2020. German companies led in 11 states, followed by Canadian companies in 10 states and Japanese companies in 7.

- Global FDI flows into the U.S. dropped by almost 50% in 2020, due to large declines in investments from German, British and Japanese companies. Despite the turbulence, the U.S. attracted $134 billion of inflows, ranking second after China ($163 billion). Prior to 2020, the U.S. ranked number one in the world for FDI inflows for 14 years.

- European FDI flows into the U.S. fell to $81 billion in 2020 vs. $120 billion in 2019. Europe accounted for roughly 64% of the $4.5 trillion invested in the United States in 2019 on a historic cost basis. Total European stock in the U.S. of $2.9 trillion was more than three times the level of comparable investment from Asia.

- The bulk of the capital was sunk by British firms (with total UK stock amounting to $505 billion), the Netherlands ($487 billion), Germany ($372 billion), Switzerland ($301 billion).

- In 2018 total assets of European affiliates in the U.S. were an estimated $8.1 trillion. The UK ranked first, followed by Germany, France, and Switzerland.

- In 2018 European assets accounted for nearly 55% of total foreign assets in the United States.

- We estimate income of European affiliates in the U.S. in 2020 fell 32% to $91 billion after hitting a near-record levels in 2019.

- The output of British firms in the U.S. in 2019 reached $178 billion – roughly a quarter of the total output of European firms in the U.S. The output of German firms in the U.S. totaled $135 billion, nearly 19% of the European total.

- European companies operating in the U.S. accounted for nearly 61% of the roughly $1.1 trillion contributed by all foreign firms to U.S. aggregate production in 2018. European affiliate output ($670 billion) was four times larger than Japanese affiliate output ($161 billion), 5.4 times larger than Canadian affiliate output ($125 billion) and over 39 times greater than Chinese affiliate output ($16 billion).

- European companies accounted for 74% of total foreign FDI in U.S. manufacturing in 2019. The U.S. chemicals sector was the biggest recipient of European investment ($592 billion), followed by transportation equipment ($271 billion).

- Affiliate sales, not trade, are the primary means by which European firms deliver goods and services to U.S. consumers. In 2019 European affiliate sales in the U.S. ($2.8 trillion) were more than triple U.S. imports from Europe ($852 billion). By country, sales of British firms were the largest ($714 billion) in 2019, followed by Germany ($555 billion), and the Netherlands ($410 billion),

- Sales by British affiliates in the U.S. totaled $714 billion in 2019, followed by German affiliate sales ($555 billion) and those by Dutch affiliates ($410 billion).

Transatlantic Trade

- U.S. merchandise exports to the EU (including the UK) fell by 13.6% in 2020 to $291 billion. The most resilient export markets included Hungary (U.S. goods exports up 11% in 2020), Malta (+10%), Lithuania (+9%), the Czech Republic (+7%), Sweden (+7%), Ireland (+6%) and Switzerland (+1%).

- The U.S. annual merchandise trade deficit with the EU (including the UK) fell slightly in 2020 to $175 billion. The U.S. deficit with China ($310 billion) is almost double the U.S. deficit with the EU.

- The U.S. and the EU are each other's largest export markets. U.S. goods exports to the EU (including the UK) in 2020 ($291 billion, down 13%) were more than double U.S. goods exports to China ($125 billion). Meanwhile, EU (incl. UK) exports to the U.S. represented roughly 22% of the region's extra-EU exports in 2019; EU exports to China represented just 11% of the total.

- U.S. merchandise exports to Europe have almost doubled in value from 2000 to 2020. U.S. exports of goods to Europe were up 3% in 2019 but fell 13% in 2020. Fifteen U.S. states registered double-digit growth in goods exports to Europe from 2018 to 2019. However, all but two U.S. states (New Hampshire and New Jersey) registered negative export growth to Europe in 2020.

- 48 of the 50 U.S. states export more to Europe than to China, in many cases by a wide margin. America's five Pacific coast states exported about 40% more goods to Europe than to China.

- In 2019 New York and Maryland exports to Europe were more than nine times those to China; Florida almost eight times more; Connecticut and New Jersey six times more; Georgia, Indiana Kentucky, Nevada and Texas roughly five times more. Arizona, Kansas, Massachusetts Virginia, Illinois and Missouri each exported roughly four times more to Europe than to China.

- Germany was the top European export market for 20 U.S. states and the UK for 14 in 2019.

Transatlantic Services

- The U.S. and Europe are the two leading services economies in the world. The U.S. is the largest single country trader in services, while the EU is the largest trader in services among all world regions. The U.S. and EU are each other's most important commercial partners and major growth markets when it comes to services trade and investment. Moreover, deep transatlantic connections in services industries, provided by mutual investment flows, are the foundation for the global competitiveness of U.S. and European services companies.

- Four of the top ten export markets for U.S. services are in Europe. Europe accounted for 39% of total U.S. services exports and for 42% of total U.S. services imports in 2019.

- U.S. services exports to Europe reached a record $345 billion in 2019. The U.S. had a $100 billion trade surplus in services with Europe in 2018, compared with its $223 billion trade deficit in goods with Europe.

- U.S. imports of services from Europe also hit an all-time high in 2019 of $245 billion. The UK, Germany, Switzerland, Ireland, France and Italy are top services exporters to the U.S.

- Moreover, foreign affiliate sales of services, or the delivery of transatlantic services by foreign affiliates, have exploded on both sides of the Atlantic over the past few decades and become far more important than exports.

- We estimate that sales of services of U.S. affiliates in Europe rose by around 3% to $968 billion in 2019, 2.8 times more than U.S. services exports to Europe of $345 billion.

- The UK alone accounted for 28% of all U.S. affiliate sales in Europe in 2018 – $267 billion, greater than combined affiliate sales in South and Central America ($124 billion), Africa ($14 billion), or the Middle East ($22 billion).

- Europe accounted for roughly 55% of total U.S. affiliate services sales globally.

- European affiliate sales of services in the U.S. of $636 billion in 2018 were about 32% below U.S. affiliate sales of services in Europe.

- Nonetheless, European companies are the key provider of affiliate services in the U.S. Foreign affiliate sales of services in the U.S. totaled $1.2 trillion in 2018; European firms accounted for 54% of the total. British affiliates lead in terms of affiliate sales of services ($161 billion), followed closely by Germany ($151 billion).

- European companies operating in the U.S. generated an estimated $664 billion in services sales in 2019, which is 2.8 times more than European services exports to the U.S. of $245 billion.

The Transatlantic Digital Economy

- The transatlantic theatre is the fulcrum of global digital connectivity. North America and Europe generate about 75% of global digital content.

- U.S. and European cities (Frankfurt, London, Amsterdam, Paris, Stockholm, Miami, Marseille, New York) are the world's foremost hubs for international communication and data exchange.

- Transatlantic cable connections are the densest and highest capacity routes, with the highest traffic, in the world, with an estimated 38% compound annual growth rate until 2025. Submarine cables in the Atlantic carry 55% more data than transpacific routes, and 40% more data than between the U.S. and Latin America.

- The U.S. and Europe are each other's most important commercial partners when it comes to digitally-enabled services. The U.S. and the EU are also the two largest net exporters of digitally-enabled services to the world.

- In 2019, digitally-enabled services accounted for 59% of all U.S. services exports, 50% of all services imports, and 76% of the U.S. global surplus in trade in services.

- In 2019 the U.S. registered a $219.9 billion trade surplus in digitally-enabled services with the world. Its main commercial partner was Europe, to which it exported over $245 billion in digitally-enabled services and from which it imported an estimated $133 billion, generating a trade surplus with Europe in this area of over $112 billion.

- U.S. exports of digitally-enabled services to Europe were about 2.7 times greater than U.S. digitally-enabled services exports to Latin America, and double U.S. digitally-enabled services exports to the entire Asia-Pacific region.

- The 27 EU member states collectively exported €1.1 trillion in digitally-enabled services to countries both inside and outside the EU in 2019. EU27 imports of digitally-enabled services were also €1.1 trillion in 2019.

- Excluding intra-EU trade, EU member states exported €585 billion and imported €622 billion in digitally-enabled services, resulting in a deficit of €37 billion for these services.

- Digitally-enabled services represented 55% of all EU services exports to non-EU countries and 63% of all EU services imports from non-EU countries.

- In 2019 the United States accounted for 22% of the EU27's digitally-enabled services exports to non-EU countries, and 27% of EU digitally-enabled services imports from non-EU countries.

- European countries with the largest estimated value of digitally-enabled services exports were the UK (€261 billion), Ireland (€177 billion), Germany (€173 billion), and the Netherlands (€160 billion).

- Digitally-enabled services are not just exported directly, they are used in manufacturing and to produce goods and services for export. Over half of digitally-enabled services imported by the U.S. from the EU is used to produce U.S. products for export, and vice versa.

- EU27 member states imported €1.1 trillion in digitally-enabled services, according to 2019 data from Eurostat. 42% originated from other EU27 member states. Another 16% (€167 billion) came from the United States – making it the largest supplier of these services – and 11% came from the UK.

- Even more important than both direct and value-added trade in digitally-enabled services, however, is the delivery of digital services by U.S. and European foreign affiliates. U.S. services supplied by affiliates abroad were $1.7 trillion, roughly double global U.S. services exports of $875 billion.

- 52% of the $938 billion in services provided in Europe by U.S. affiliates in 2018 was digitally-enabled.

- In 2018 U.S. affiliates in Europe supplied $490.51 billion in digitally-enabled services, double U.S. digitally-enabled exports to Europe.

- In 2018 European affiliates in the U.S. supplied $273.78 billion in digitally-enabled services, double European digitally-enabled exports to the U.S.

- In 2018, Europe accounted for 69% of the $289.6 billion in total global information services supplied abroad by U.S. multinational corporations through their majority-owned foreign affiliates.

- U.S. overseas direct investment in the "information" industry in the UK alone was more than double such investment in the entire Western Hemisphere outside the United States, and 33 times such investment in China. Equivalent U.S. investment in Germany was four times more than in China.

Transatlantic Jobs

- Despite stories about U.S. and European companies decamping for cheap labor markets in Mexico or Asia, most foreigners working for U.S. companies outside the U.S. are European, and most foreigners working for European companies outside the EU are American.

- European companies in the U.S. employ millions of American workers and are the largest source of onshored jobs in America. Similarly, U.S. companies in Europe employ millions of European workers and are the largest source of onshored jobs in Europe.

- U.S. and European foreign affiliates directly employed 9.9 million workers in 2019. These figures understate the overall job numbers, since they do not include jobs supported by transatlantic trade flows; indirect employment effects of nonequity arrangements such as strategic alliances, joint ventures, and other deals; and indirect employment generated for distributors and suppliers.

- U.S. affiliates directly employed an estimated 4.9 million workers in Europe in 2019 – close to one-third more than in 2000.

- Roughly 33% of the 14.4 million people employed by U.S. majority-owned affiliates around the world in 2018 lived in Europe; that share is down from 38% in 2008.

- U.S. affiliates employed more manufacturing workers in Europe in 2018 (1.9 million) than they did in 1990 (1.6 million), and about the same as in 2000 (1.9 million). Manufacturing employment has declined in some countries but has rebounded in others.

- Poland has been a big winner: U.S. affiliate manufacturing employment grew more than 2.5 times between 2000 and 2018, rising from 51,000 to over 131,000.

- Manufacturing employment among U.S. affiliates in the UK has declined from 431,000 in 2000 to 293,000 in 2018 and in France from 249,000 to 195,000.

- Manufacturing employment among U.S. affiliates in Germany has remained relatively steady – 362,000 jobs in 2018, compared to 388,000 in 2000.

- U.S. affiliates employ more Europeans in services than in manufacturing and this trend is likely to continue. Manufacturing accounted for 38% of total employment by U.S. affiliates in Europe in 2018. U.S. affiliates employed nearly 336,000 European workers in transportation and 283,000 in chemicals. Wholesale employment was among the largest sources of services-related employment, which includes employment in such areas as logistics, trade, insurance and other related activities.

- European majority-owned foreign affiliates directly employed 5 million U.S. workers in 2019. European companies now directly employ more Americans than U.S. companies employ Europeans.

- In 2018 the top five European employers in the U.S. were firms from the United Kingdom (1.3 million), Germany (860,700), France (780,000), the Netherlands (550,000), and Switzerland (478,500).

- European firms employed roughly two-thirds of all U.S. workers on the payrolls of majority-owned foreign affiliates in 2018.

- European companies directly supported 301,000 jobs in the U.S. transportation equipment industry in 2018 – 50% of total foreign affiliate employment in this industry.

- Texas gained 25,300 jobs (6.7% more) directly from European investment between 2017 and 2018. Others with significant gains included California – 22,100 jobs added (+4.7%); New York 16,300 (+4.8%); Michigan 15,100 (+8%); Florida 12,600 (+5.8%); and Virginia 10,500 (+7.4%).

- The top five U.S. states in terms of jobs provided directly by European affiliates in 2018 were California (490,700), Texas (401,500), New York (357,400), Illinois (240,300) and Pennsylvania (232,900).

- American companies reshoring jobs to the U.S. in 2020 created more jobs (69,000) than FDI (42,000) for the first time in seven years, due to pandemic-induced disruptions to supply chains, digital innovations, and changes to the U.S. tax code.

The Transatlantic Energy Economy

- Foreign companies have invested roughly $400 billion into U.S. energy-related industries. In 2018, FDI in the U.S. energy economy directly supported 173,500 U.S. jobs, contributed $1.2 billion in R&D and generated $5.7 billion in U.S. exports.

- German companies are by far are the leading source of foreign direct investment in the U.S. energy economy in recent years, accounting for 16% of the 830 greenfield investment projects in the U.S. energy sector over the past decade. Other notable European investors include France (9%), the UK (8%), and Spain (7%).

- Europe and the U.S. made up over 80% of all green bonds and 78% of all sustainable debt issued in 2020.

- Monthly liquefied natural gas (LNG) exports from the United States to Europe dipped in 2020, but still averaged 65 billion cubic feet for the year, up from 57 billion cubic feet in 2019. The U.S. is a net energy exporter of crude and petroleum products to Europe.

- U.S. companies in Europe have become a driving force for Europe's green revolution. Since 2007 U.S. companies have been responsible for more than half of the long-term renewable energy agreements in Europe. U.S. companies account for four of the top five purchasers of solar and wind capacity in Europe.

The Transatlantic Innovation Economy

- Bilateral U.S.-EU flows in R&D are the most intense between any two international partners. In 2018 U.S. affiliates spent $33 billion on R&D in Europe, 56% of total U.S. R&D conducted globally by affiliates.

- R&D expenditures by U.S. affiliates were the greatest in the UK ($6.7 billion), Germany ($6.3 billion), Switzerland ($5.4 billion), Ireland ($3.4 billion), France ($2.1 billion), Belgium ($1.8 billion) and the Netherlands ($1.6 billion). These seven nations accounted for roughly 83% of U.S. spending on R&D in Europe in 2018.

- In the U.S. R&D expenditures by majority-owned foreign affiliates totaled $66.9 billion in 2018. R&D spending by European affiliates totaled $45.1 billion, representing 67% of all R&D performed by majority-owned foreign affiliates in the U.S.

- The largest European sources of R&D in the U.S. in 2018 were firms from Germany ($10 billion) and Switzerland ($9.6 billion).

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Time to Heal:
The Transatlantic Partnership in 2021

New York

France

The last four years tested the transatlantic relationship

Escalating trade tensions and tariffs

Expanding restrictions on foreign direct investment

Differing objectives on climate change

Conflicting views over China, Russia and Iran

Quarreling over defense spending, military deployments and even the future viability of NATO

Deviating approaches to the WTO Appellate Body

Disputes over privacy regulations, industrial subsidies and digital taxes

Divergent positions on Brexit

A once-in-a-century global health crisis

As of this writing, the COVID-19 pandemic has taken more than two and a half million lives worldwide. The United States and the European Union (EU) have each lost over 500,000 lives. Unprecedented scientific collaboration has brought us vaccines, but it will take a year or more to manufacture and deploy enough vaccines to stop the pandemic. Even after vaccination becomes routine, it is likely that the virus will remain endemic and continue to evolve, requiring vaccine adjustments and constant vigilance for years to come.[1]

At its best, 2021 will be a time to heal. A time to move our societies and our economies from sickness to health. A time to repair and recast the transatlantic partnership. COVID-19 is an extraordinary test of transatlantic and global cooperation. It is also a transformative opportunity for the United States and Europe to build international coalitions to end the pandemic and create new economic pathways out of the recession.

Bent, But Not Broken

The last four years subjected the transatlantic partnership to the ultimate stress test: escalating trade tensions and tariffs; expanding restrictions on foreign direct investment (FDI); differing objectives on climate change; conflicting views over China, Russia and Iran; quarreling over defense spending, military deployments and even the future viability of North Atlantic Treaty Organization (NATO); deviating approaches to the World Trade Organization (WTO) Appellate Body; disputes over privacy regulations, industrial subsidies, and digital taxes; and divergent positions on the United Kingdom's departure from the EU. The icing on the proverbial cake: a once-in-a-century global health crisis that brought the global economy to its knees, spawning even more transatlantic discord and division.

In the face of these multiple headwinds, the transatlantic partnership bent. But it did not break. Even as political storms howled, the world's largest and most important bilateral commercial relationship stayed on track. The best metric of this dynamic: in 2019, one year before the pandemic rattled the global economy, U.S. foreign income in Europe hit a record high of $298 billion; meanwhile, European affiliate income in the U.S. tallied $134 billion in the same year, the second highest annual total on record. Notwithstanding outsized policy differences, transatlantic business carried on. Countries traded, tourists traveled, companies invested, profits were earned, capital crossed borders, workers worked, consumers consumed.

Owing to the devastating effects of the pandemic-induced recession, transatlantic flows of virtually everything (trade, investment, capital, people) dropped dramatically over the past twelve months. But the declines are one-off, an anomaly against a backdrop of steadily rising and solidifying transatlantic commercial ties. As we shift to the post-pandemic world, and as the transatlantic economy heals this year, we expect the bilateral flows that shape the transatlantic partnership to rebound as well.

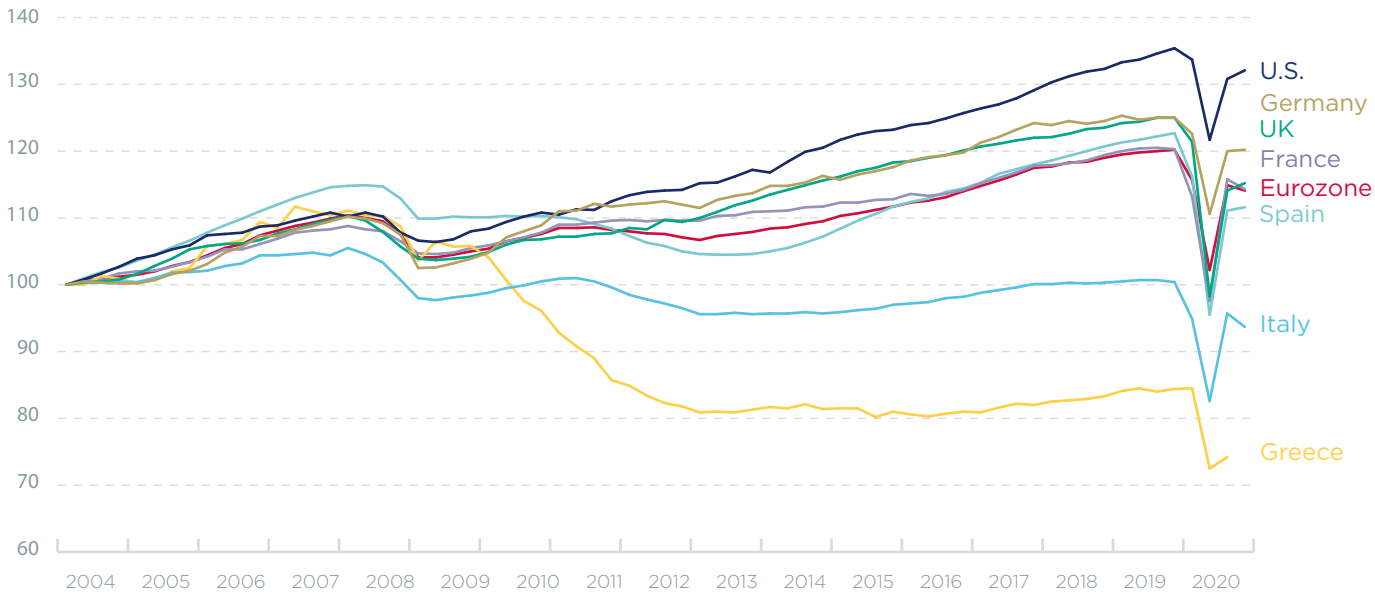
The global pandemic strongly impacted transatlantic flows, but declines are expected to be one-off.

The Transatlantic Economic Outlook: Moving From Sickness to Health

The COVID-19 pandemic will go down in history as one of the most significant global events of the modern era. It has ravaged societies and economies with unprecedented ferocity and scale. It blindsided public authorities who threw together ad hoc, uncoordinated measures ranging from cross-border travel bans to social distancing recommendations. As the pandemic swept the world in early 2020, curfews were put in place. Schools were closed. Airports became desolate canyons. Planes were grounded. Businesses were shuttered. The majority of the work force went remote. Quarantines became the norm. Students left universities for home. Stay-at-home orders multiplied; recreational venues were closed and events canceled. Never had the world experienced such a sudden hard stop.

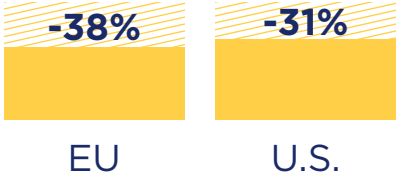
As the International Monetary Fund (IMF) noted in its annual economic outlook, "this crisis is like no other." The Great Lockdown brought the $90 trillion global economy to a near halt in the second quarter of 2020. Seasonally adjusted, in that period, EU real GDP dropped by a staggering 38% and U.S. output by 31%.

Table 1 **COVID-19 Economic Downturn in the U.S. and in European Countries** (Real GDP level, Q1 2004 = 100)



Source: Haver Analytics.
Greece data through Q3 2020. All other data through Q4 2020.

The Great Lockdown: impact on output



2Q 2020 GDP Decline
(Seasonally Adjusted Annualized Rate)

The health crisis quickly morphed into an economic crisis for a number of reasons. Containing the virus necessitated quarantines, lockdowns, social distancing, and stay-at-home orders – all leading to less work, less income, less spending and less mobility. Human interaction fuels economic activity, so when everyday activities of workers and consumers come to a halt, so do economies. Those sectors dependent on mobility – travel, hospitality, sports, entertainment and tourism – were hammered, even as many technology sectors profited. As factories closed, supply chain disruptions rippled across the world, exposing the fragile interconnectedness of global manufacturing networks. Consumers curtailed spending, with many opting to shop online rather than in person. This triggered a wave of business closures and layoffs, fueling more downside pressure on economic growth. And as one country after another plunged into recession, global trade volumes collapsed, putting even more downside pressure on the global economy. According to the WTO, the volume of global goods trade dropped 2% in the first quarter of 2020 and by 13% in the second quarter.

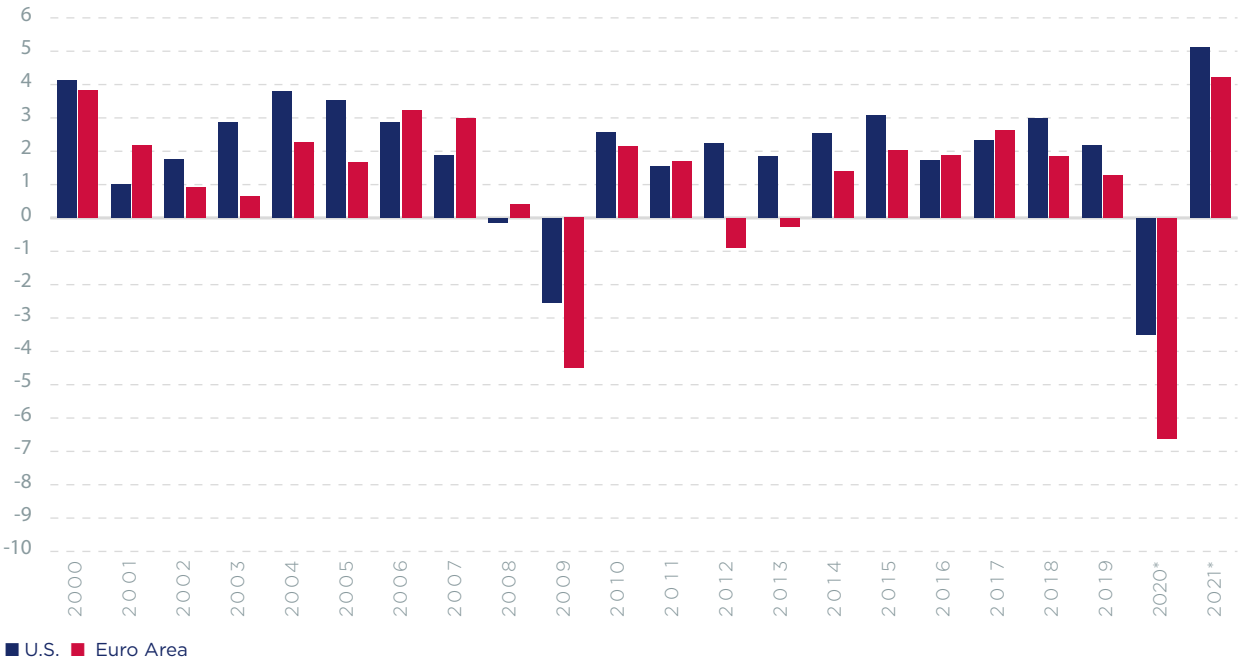
As we wrote in last year's survey, "the extent and nature of a COVID-19-induced transatlantic recession will depend on how quickly the virus can be brought under control, and the extent to which governments are prepared to help economies weather the storm."

On the former score – controlling the virus – governments have largely failed: at the beginning of April 2020, the number of daily new COVID-19 cases reported was roughly 30,000 in the United States and 36,000 in Europe. By the end of 2020, the figures were 203,000 and 239,000, respectively.[2] On the latter score, however, policy makers have fared much better. Indeed, on both sides of the Atlantic, policymakers have been extraordinarily aggressive in leveraging monetary and fiscal tools to combat the transatlantic recession, producing more a V-shaped recovery than the U-shaped rebound many forecasted.

In the United States, the combined fiscal and monetary response – some $10 trillion by the end of 2020 – represents an unprecedented 48% of GDP. The Biden administration's $1.9 trillion relief package of March 2021 will further jolt the economy. In Europe, policy makers have also stepped up in a big way. Eurozone and UK governments introduced about $7.8 trillion in fiscal stimulus and central bank liquidity injections from February to December 2020.[3]

Owing in large part to the massive policy response, the transatlantic economy is on the mend, but the rebound is not synchronized. It is uneven. The U.S. economy is leading, while Europe not only lags, it lags by a great deal. After engineering a rebound in economic growth in the third quarter of 2020, Europe's output contracted in the final quarter of the year, causing the continent to limp into 2021. Following an estimated decline in real GDP of 6.6% in 2020 – one of the steepest drops in output in the post-World War II era – the eurozone is expected to expand by 4.2% this year, assuming the pandemic is controlled and the continent is successful in rolling out vaccinations over the balance of the year. That said, the economic impact of the pandemic remains uneven across many countries and the speed of the recovery is also projected to vary significantly.[4]

Table 2 **U.S. vs. Euro Area** Real GDP, Annual Percent Change

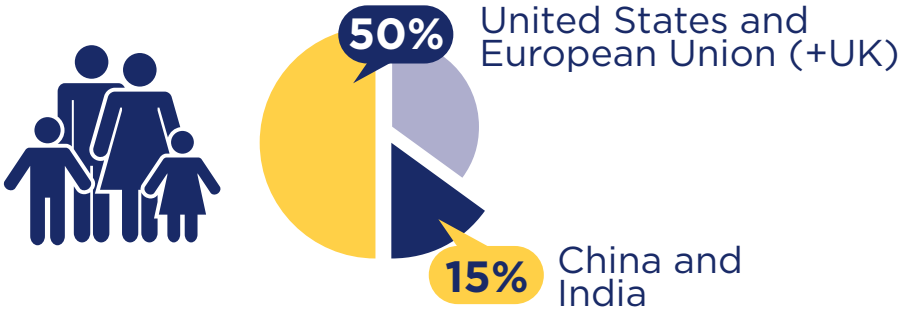


**2020 estimate, 2021 forecast.*
Data as of March 2021.
Sources: International Monetary Fund; U.S. Bureau of Economic Analysis; Eurostat.

The U.S. economy declined by 3.5% in 2020, but steadily gained momentum in the second half of the year, and is expected to expand by 5.1% this year, according to estimates from the IMF. The U.S. economy will again outperform Europe this year, but there are plenty of soft spots in the United States, ranging from weak retail demand to a battered travel and leisure industry. Meanwhile, while manufacturing activity has rebounded, services activities remain weak, creating winners and losers across the economy. The stock market has propelled average household net worth to record highs in the United States, although nearly two-thirds of Americans live paycheck to paycheck. Unemployment levels have come down somewhat from last summer's highs, but the level of unemployment remains elevated among U.S. retail workers, women and Black Americans. All of the above is another way of saying that the U.S. economy, while exhibiting signs of resiliency, confronts plenty of cyclical and structural challenges, in addition to the herculean task of distributing vaccines to hundreds of millions of Americans.

The sooner vaccines can be distributed and administered across the United States and Europe, the sooner the transatlantic economy can heal. In the near-term, COVID-19 concerns will temper consumer spending on both sides of the Atlantic, although a second-half rebound in transatlantic spending is widely expected. This is key to the transatlantic outlook, notably for European companies. At $14 trillion, U.S. personal consumption remains one of the most potent economic forces in the world, accounting for nearly 30% of global personal consumption in 2019 – greater than that of the next five largest consuming markets in the world: China, Japan, Germany, the UK, and India. Since the U.S. consumer accounts for 70% of U.S. GDP, as goes the U.S. consumer, so goes the U.S. economy – and so go the earnings of those many European firms that sell more goods and services in the United States than in their home markets. Strong U.S. consumer spending positively spills over to Europe via rising sales of European affiliates in the United States and higher European exports.

Global personal consumption (2019)

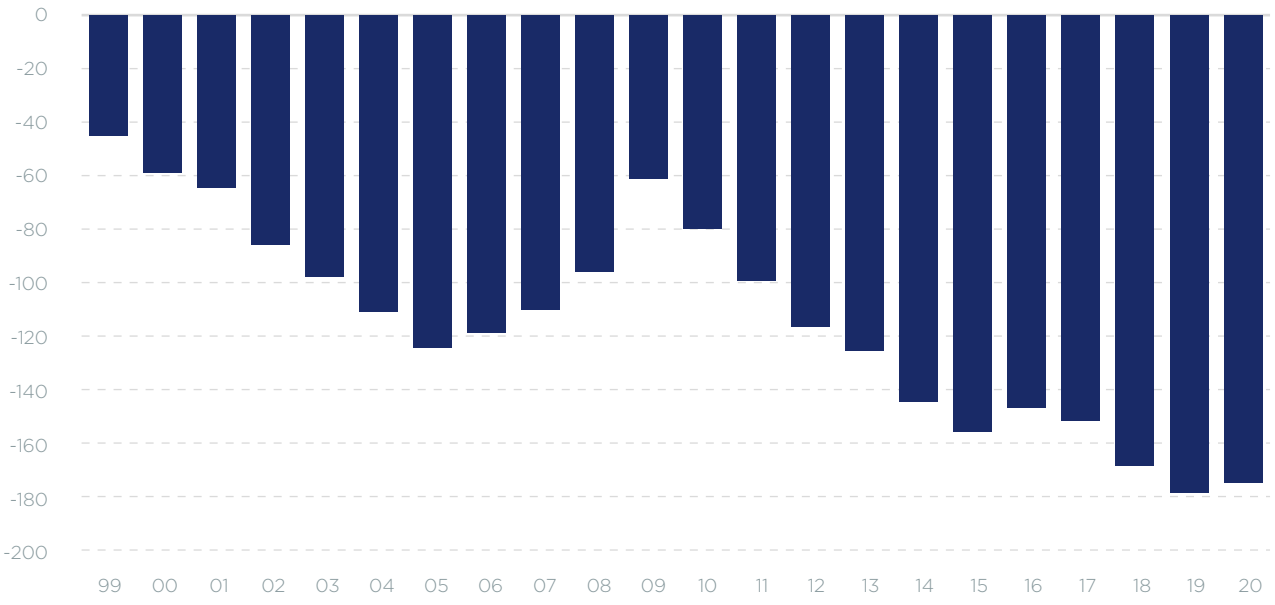


Combined, U.S. and European consumers accounted for half of world consumption in 2019, a fact that underscores the attractiveness of the transatlantic economy and reinforces a point we have made many times: despite all the talk around the rise of China, the United States and the EU still command the largest share of global consumption (50% combined in 2019 including the UK versus only 15% of China and India combined). At the end of the day, consumers in the United States and Europe are far wealthier (on a per capita basis) than their counterparts in China and India. As the pandemic passes, as vaccinations reach massive scale on both sides of the Atlantic, consumer spending will come back with a vengeance.

More spending means more transatlantic trade in 2021, following a dramatic drop in trade in 2020. U.S. goods exports to the EU in 2020 (including the UK) plunged by over 13%, while imports from the EU fell 10%. The upshot: a still sizable U.S. merchandise trade deficit with the EU (roughly $175 billion in 2020, including the UK). However, overall U.S.-European commercial interactions are far more balanced if one includes services and digital economy considerations, as we explain in Chapters Two and Four. In addition, as transatlantic economic activity revives this year, bilateral trade flows will rebound as well, although America's outsized trade deficit with the EU will remain an irritant to Washington.

We also expect the transatlantic employment picture to improve gradually this year, following historic declines in 2020. Jobs markets in both the United States and Europe are slowly set to improve. A normalized transatlantic jobs market is not expected until the vaccine has been widely distributed on both sides of the ocean and services activities rebound from the depths of recession. Entering this year, the jobless rate in the United States stood at 6.3% in January 2021, down from its peak of 14.8% in April

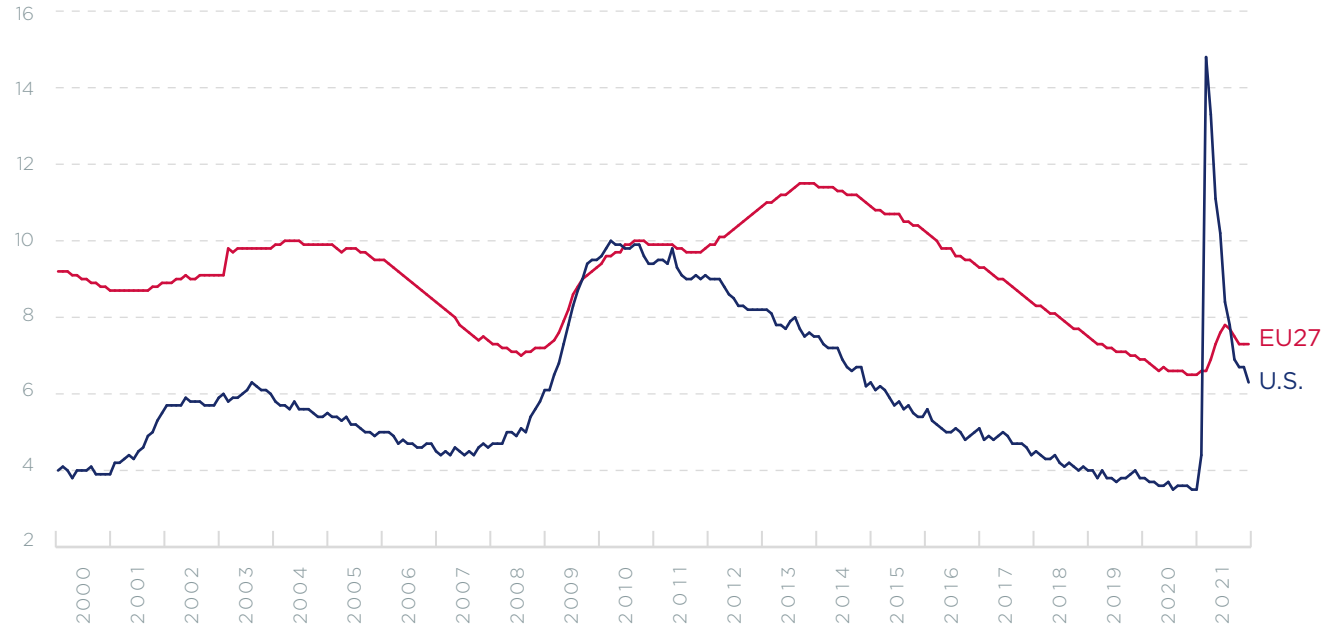
Table 3 U.S. Merchandise Trade Balance with the EU (including the UK) (Billions of $)



Source: United States Census Bureau.
Data as of February 2021

Transatlantic unemployment rate

Table 4 **U.S. vs. EU Unemployment Rate** Harmonized Unemployment Rate, Monthly %



Source: OECD.
Data through January 2021. EU excludes the UK.

2020, but up from a cyclical low of 3.5% in February 2020. The jobless rate of the EU27 was 7.3% in January 2021, but this figure masks widely divergent rates across the continent. In January, the jobless rate was 16% in Spain, versus an unemployment rate of just 4.6% in Germany, 3.6% in the Netherlands, and 3.1% in Poland. Structural unemployment among EU youth remains a critical challenge, just as women and minority unemployment rates remain well above the national average in the United States. The key point is this: employment prospects will improve this year due to the massive fiscal and monetary stimulus on both sides of the pond. However, structural unemployment will remain a key policy challenge again this year for all parties.

The bottom line: the transatlantic economy, led by the United States, is on the mend but many cyclical and structural challenges remain. The year begins, however, with the U.S. and EU economies on divergent growth paths, which could generate additional obstacles to transatlantic cooperation. Meanwhile, while U.S.-EU relations are poised to heal, the feel-good moment could fade if both parties fail to find common ground on dealing with China, Russia, Iran, data privacy, trade, and a host of other sticky and divisive issues.

New U.S.-EU Possibilities

U.S.-European political relations are also poised to recover after four years of tumult, uncertainty, and antagonism. Joe Biden has underscored that Europe "remains America's indispensable partner of first resort" and "the cornerstone of our engagement with the world." These sentiments, which have been echoed by European leaders, offer a rare and potentially fleeting opportunity to reinvigorate and

recast the transatlantic partnership to address the unparalleled damage wrought by the coronavirus, fissures that have opened up within and between our societies, daunting climate and energy challenges, the promise and the perils of swift and often disruptive technological innovation, and revisionist assaults on our principles and our institutions.

The key to a more effective relationship is to recognize that the United States and Europe are more than foreign policy partners. U.S. relations with the EU, its member states, and non-EU European allies and partners comprise some of the most complex and multi-layered economic, diplomatic, societal and security connections that either partner has on the planet. In a world of deepening global connections, the transatlantic relationship remains the thickest weave in the web. Networks of interdependence across the Atlantic have become so dense that they transcend "foreign" relations and reach deeply into our societies. Far-reaching opportunities for transatlantic cooperation extend to interrelated issues of health, resilience, climate and energy, digital transformation, scientific and technological innovation, better jobs and sustainable growth. Almost all are rooted in the dense ties that bind the transatlantic economy.

Economics and Trade

The economic damage wrought by COVID-19, together with the ongoing climate and energy transitions, and the challenges posed by China's rise, compel the United States and Europe to focus transatlantic economic cooperation squarely on creating jobs, boosting sustainable growth, and protecting our values by ensuring that North Atlantic countries are rule-makers rather than rule-takers.

Given current economic uncertainties and lingering tensions over tariffs and digital issues, there is understandable temptation to keep transatlantic trade negotiations in the deep freeze. Yet if the United States and the EU prove unable to resolve bilateral frictions and better the terms of their own extensive commercial relationship, it will be difficult to find common ground on other issues. Unresolved issues are more likely to fester than remain frozen. Washington and Brussels will be distracted and diminished by their trade squabbles as China rises. The WTO could be at risk. Economic anxieties and political prejudices will be exacerbated. The result would be the triumph of lowest-common-denominator standards for the health, safety and welfare of Americans and Europeans alike. Standing still means losing ground.

In the current climate, the two parties might consider improving their regulatory cooperation. Sectors that show promise for U.S.- EU agreement include: automotive safety regulations; unique identification of medical devices; fiber names and labelling, safety requirements, and conformity assessment procedures in the textiles sector; cosmetics; pesticides; chemicals; information and communications technology; engineering; and technical barriers to trade. The U.S.-EU High Level Regulatory Cooperation Forum (HLRCF), established in 2005, could be revived to allow regulators to oversee such cooperation. They should consider forging a Standards Bridge that could help small- and medium-sized enterprises, and to find ways to align positions within international standard setting bodies.

The parties should separate regulatory cooperation from bilateral market access negotiations. Once progress is made on economic recovery and clearing away bilateral irritants, the parties should seek a transatlantic zero tariff agreement that would eliminate all duties on traded goods and services. That effort should exclude sanitary and phytosanitary (SPS) measures and investor-state dispute settlement (ISDS) provisions.

Third, they should intensify North Atlantic cooperation in research, development and innovation. Transatlantic partnership in these areas is essential to the future development of such leading-edge sectors as AI, biotechnology, and clean energy.

Fourth, the parties should work together to reform the WTO, by restoring dispute settlement by reforming the Appellate Body, intensifying U.S.-EU-Japan work on level playing field issues like subsidies and disciplines on state-owned enterprises, and advancing WTO negotiations on e-commerce, as well as the Trade in Health and Trade and Climate initiatives. The EU's new Trade Policy Review points to a convergence of views across the Atlantic around both the problems and potential solutions at the WTO.

The two parties would do well to consider the EU's offer of an EU-U.S. Trade and Technology Council. Such a Council could be useful if it brings strategic thinking back into the economic relationship. This was the original vision for the Transatlantic Economic Council (TEC), the cabinet-level body formed in 2007. A reinvigorated Council should include the economic policy principals on both sides, chaired at the Vice President level, with only strategic issues on its agenda.

Climate and Energy

U.S.-EU cooperation will be fundamental to ensuring the success of the climate and energy transitions underway. Because these transformations are so fundamental to each of our societies, they must be grounded in extensive stakeholder engagement on each side of the Atlantic. Initiatives must go beyond formal U.S.-EU channels and individual national government actions to engage regional, state and local actors, NGOs, and the private sector. Ultimately, businesses will be charged with making the investments, creating the markets and implementing the technologies needed to transform the energy sector. As we show in Chapter Five, U.S. and European firms are deeply embedded in each other's traditional and renewable energy markets – through trade, foreign investment, cross-border financing, and collaboration in research and development.

The two parties might consider reenergizing and revamping the U.S.-EU Energy Council as a U.S.-EU Climate and Energy Council. This Council would serve as an overarching platform for transatlantic climate and energy work, including on such priorities as forging pathways to global net zero emissions, improving energy efficiency and security, advancing renewable energy deployment, reducing methane emissions, designing sustainable finance and climate risk mechanisms, mobilizing resources for climate action in the developing world, and working on clean and circular technologies, such as renewables, grid-scale energy storage, batteries, clean hydrogen, and carbon capture, storage and utilization.

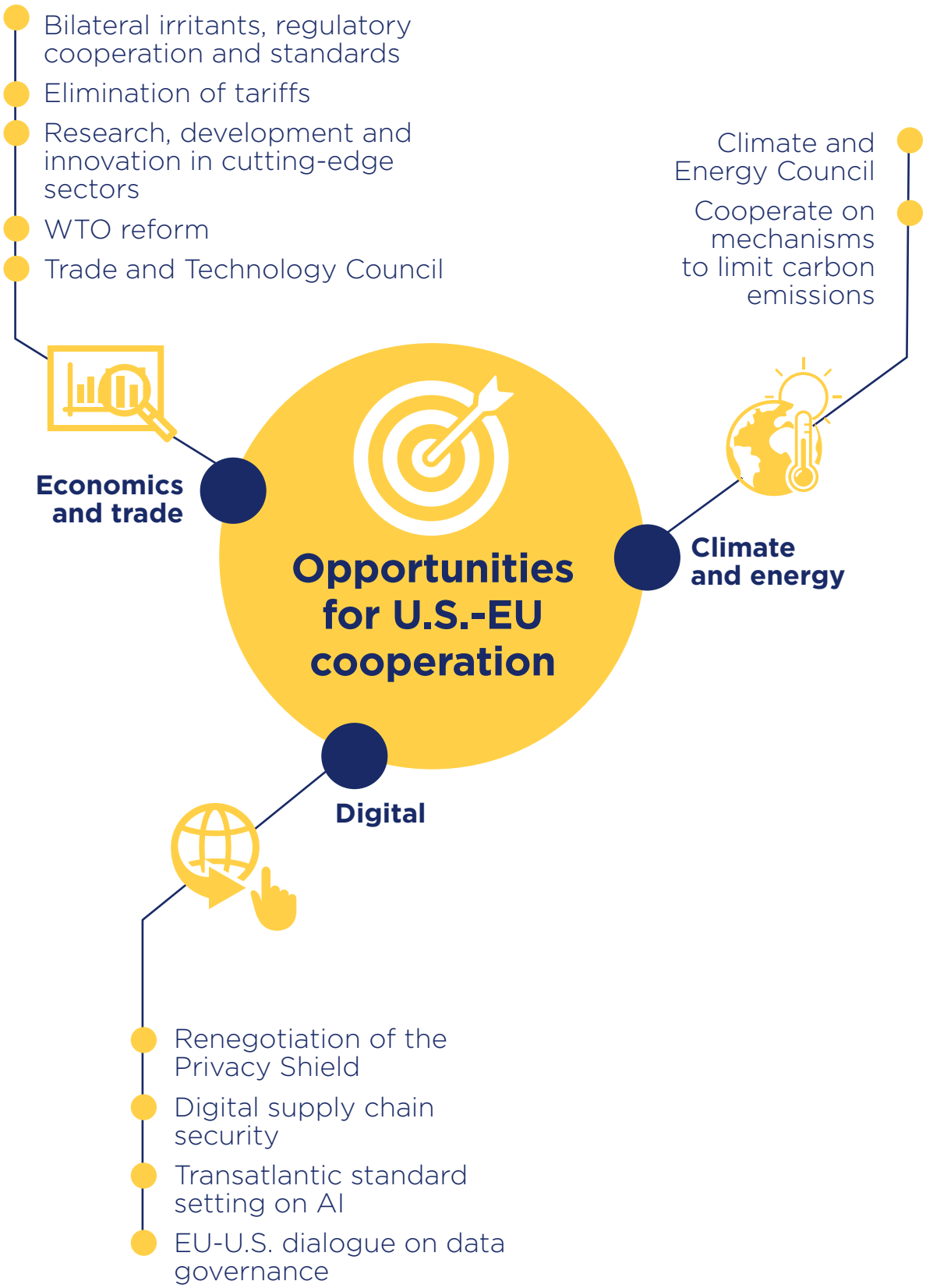
The most immediate challenge will be U.S.-EU consultations on carbon border adjustment mechanisms (CBAMs)[5] – taxes on imported goods based on their attributed carbon emissions – given that the European Commission plans to unveil its own CBAM proposal by summer 2021. Because the EU and the United States are each other's largest commercial partners, driven by significant mutual investments forming dense interlinkages across both economies, it will be important for the parties to work together to devise WTO-compatible CBAMs. Failure to do so could lead to additional trade tensions at a time when neither economy can afford them.

A Digital Agenda

The EU has offered to develop with the United States a "transatlantic technology space" that "should form the backbone of a wider coalition of like-minded democracies with a shared vision on tech governance and a shared commitment to defend it."[6] Prospects for such an initiative must be assessed against a series of digital disconnects that have roiled U.S.-EU relations in recent years. These include differences over privacy rules, taxes, antitrust laws, efforts to address dis- and misinformation, contrasting approaches to 5G security, and the EU's ambition to strengthen its "technological sovereignty," which aims in part to reduce European dependence on U.S.-based companies. In addition, the European Commission has advanced major initiatives through its Digital Services Act and Digital Markets Act that could create additional complications for U.S. investors and the new U.S. administration alike.

The two parties will need to resolve disputes surrounding taxation of digital services, potentially via ongoing negotiations at the OECD. They also need to address the July 2020 ruling of the Court of Justice of the European Union (CJEU) invalidating the U.S.-EU Privacy Shield framework that regulated some transatlantic flows of personal data for commercial purposes. The European Commission and the U.S. Department of Commerce are in the midst of renegotiating the Privacy Shield. Over the long term, however, an international agreement governing the rights of governments to access privately held commercial data for law enforcement purposes will be needed.

Despite these irritants, there are sufficient complementarities in U.S. and EU approaches to warrant intensified efforts towards a more forward-looking approach to digital issues. These could include taking up the EU's offer to intensify cooperation on digital supply chain security, and to work on a transatlantic AI agreement to set a blueprint for regional and global standards aligned with our values that can facilitate free data flow with trust. The two parties might consider an EU-U.S. Dialogue on Data Governance to address differences over data governance and flows; platform regulation and antitrust law; online content and the protection of democracy against dis- and misinformation; and governance of the future Internet. Not working together on these issues leaves the field open for non-democratic actors to set global standards instead.


Bilateral irritants, regulatory cooperation and standards
Elimination of tariffs
Research, development and innovation in cutting-edge sectors
WTO reform
Trade and Technology Council
Economics and trade
Climate and Energy Council
Cooperate on mechanisms to limit carbon emissions
Climate and energy
Opportunities for U.S.-EU cooperation
Digital
Renegotiation of the Privacy Shield
Digital supply chain security
Transatlantic standard setting on AI
EU-U.S. dialogue on data governance

Box 1.1 No Exit From Brexit

The United Kingdom left the European Union formally on January 31, 2020, but after an 11-month transition period the new UK-EU relationship truly began on January 1, 2021. Brexit is a defining moment for Britain's relations with the rest of Europe, even perhaps for its future as a united kingdom of England, Wales, Scotland, and Northern Ireland. It will affect its strategic partnership with the United States and many countries around the globe. It is also significant for the EU. Just to take one example, having lost the UK, EU capital markets have now shrunk from just over a fifth of global activity to just 13%, the same size as China.

On Christmas Eve, 2020, the UK and the EU concluded a Trade and Cooperation Agreement (TCA) regulating their future trading relationship. The deal provides tariff- and quota-free trade in goods between the two sides, which is more than the EU has offered any other advanced economy. The price was UK agreement not to undercut EU labor and environment standards and a commitment not to provide excessive subsidies to the private sector.

Although tariff-free, goods trade now faces a hard customs and regulatory border between the EU and the UK. UK and EU firms cannot assume that they can sell their goods in the other's market simply because those products have been approved by their own respective regulators. Extra red tape could cost British businesses around $23 billion a year and EU-based businesses about $19 billion, according to estimates from law firm Clifford Chance.[7] Notably, the tensions at the border are likely to get worse before they get better: initial UK grace periods for customs and sanitary checks on imports will end in the coming months, subjecting even more trade to potential delays.

The deal treats Northern Ireland, which is part of the UK, as within the EU customs area to prevent the need for a hard border on the island of Ireland, but requires checks on goods going from Britain to Northern Ireland, essentially creating a customs border in the middle of the Irish Sea.

Fisheries negotiations were contentious. The deal creates a five-and-a-half-year transition period during which EU fishing rights in UK waters ($730 million per year) will be reduced by one quarter, with British quotas increased by a corresponding amount. After the transition, access will depend on annual negotiations, such as those the EU already has with Norway.

In February 2021 the European Commission made a provisional determination – still requiring approval by EU data protection authorities and member states – that the UK appeared to offer "essentially equivalent" data protection standards to the EU. The Commission signaled, however, that it would impose "clear and strict" checks on the UK's handling of personal data, and would review the decision every four years. The ruling could be annulled should London be deemed to have departed from EU privacy standards. It could also prove vulnerable to legal challenges at the European Court of Justice.[8]

The movement of people has been constrained. Britons and EU citizens no longer have the right to go to the other's territory to work and live there on the same basis as the country's own citizens. Piecemeal visa-waiver arrangements and national right-to-work rules are now in force. UK professional services providers, such as doctors, engineers and architects, have lost their ability to automatically work in the EU; they must have their qualifications recognized in each EU member state where they want to work.[9]

Significantly, the TCA does not include meaningful provisions for trade in services, which make up some 80% of the British economy. The UK has granted temporary permission to EU firms offering a range of financial services to UK clients, but the EU has done the same only for clearing and settlement of some financial assets through UK exchanges, because a sudden loss of access would threaten the stability of the financial system. London handles about 90% of all deals in clearing

houses, which prevent defaults from igniting chain reactions across markets. The EU has made clear, however, that it expects banks to move their euro-denominated trades into the bloc by mid-2022.[10]

Beyond these specific arrangements, the City of London and UK-based financial institutions have lost automatic access to the EU's single market, even though the UK has agreed to recognize EU-based financial institutions operating in the UK.[11] Major UK institutions have sought work-arounds by establishing EU-domiciled subsidiaries, but UK-EU financial flows are significantly less seamless than before.

The impact has already been dramatic. In January 2021, €6.5 billion in deals shifted immediately from the UK to the EU. Amsterdam surpassed London as Europe's largest share trading center as it recorded a fourfold increase in average traded shares per day, rising to €9.2 billion, and London lost half of its daily average value of traded shares, down to €8.6 billion. Amsterdam has also picked up activity in swaps and sovereign debt markets that typically used to take place in London. Even before January 2021, EY estimated banks had shifted €1.6 trillion in assets and sovereign debt trading to cities such as Frankfurt, Amsterdam, and Milan that would typically have taken place on venues in London. More than £4 billion, or $5.3 billion, of insurance premium income in 2019 that would typically be handled in London was written in new hubs such as Brussels.[12]

As of this writing, the two parties are discussing a memorandum of understanding on financial services that potentially could include mutual recognition of each other's rules as "equivalent," which would allow the financial industry to trade across the UK-EU border. There are no guarantees, however, and the stakes are high: Britain sells roughly £30 billion, or $40 billion, of financial services to the EU each year. It ran a surplus of £18 billion, or $24 billion, on trade in financial and other services with the EU in 2019, but a deficit of £97 billion, or $129 billion, on trade in goods.[13]

EY further estimates that about 10,000 City jobs – 4% of the total – have either been shifted to various EU cities such as Dublin, Luxembourg, Frankfurt, Paris and Amsterdam, or been displaced by firms choosing to add new roles there rather than London. Still, while some jobs have left, others have moved in. Bovill, a regulatory consultancy, found that more than 1,400 EU-based companies have applied for permission to operate in the UK after Brexit.[14]

Despite these hiccups, financial services remain one of the UK's key industries, and London remains Europe's main financial center and a dominant force in global finance. The City accounts for 43% of the turnover in the $6.6 trillion-a-day foreign exchange market and half of the daily $6.5 trillion traded in interest rate derivatives. Portfolio managers in London oversee about £8.5 trillion, or $11.3 trillion, in assets for savers in funds and mandates, making the UK the primary investment management center in Europe and the second-largest globally after the United States.

Nonetheless, Brexit's difficulties have exacerbated the pandemic-induced challenges facing companies on both sides of the English Channel, as real EU GDP dropped by 6.2%, and the UK's headline GDP fell by 9.9%, in 2020. The immediate cost to the UK of lost access to the EU has been estimated at about 1% of national income.[15] Over 15 years, Brexit will leave Britain facing a further 4% loss of potential gross domestic product compared to an alternative baseline of remaining an EU member, according to the UK's Office for Budget Responsibility.[16] Moreover, since so little was determined by the time the UK left the EU, the two parties are certain to be engaged in continuous negotiations, much like the EU and Switzerland have done for decades. However those talks may evolve, there will be no exit from Brexit. Denis MacShane, a former UK minister for Europe, calls it "Brexiternity."[17]

Box 1.2 Boeing vs. Airbus is not America vs. Europe

In March 2021 the United States, the EU and the UK began to turn a first page in their efforts to repair relations by suspending for four months tariffs the U.S. and the European partners had imposed on each other related to their sixteen-year dispute over government subsidies to Boeing Co. and Airbus SE. The tariff war was jeopardizing thousands of jobs on both sides of the Atlantic at a time when the pandemic is wreaking havoc on the airline industry. Dueling tariffs on additional industries were penalizing communities that have little to do with aerospace. It was distracting Washington and European capitals from China's far larger subsidy challenge. If the parties are serious about fully turning the page, they will use the tariff cease-fire to settle the Boeing-Airbus dispute once and for all.

This transatlantic tiff centers on the WTO's determination that the U.S., the EU, and the UK all violated their trade commitments by subsidizing their domestic aerospace industries. Germany, France, Spain, and the UK provided Airbus with financial subsidies for aircraft development. Boeing profited from tax breaks offered by the U.S. state of Washington. The WTO has authorized the U.S. to retaliate by levying tariffs on up to $7.5 billion annually on EU goods imports, and has authorized the EU to charge duties of up to $4 billion annually on U.S. goods imports. Each has imposed tariffs on aircraft as well as on a range of unrelated agricultural and industrial products. Those tariffs remain in place until a settlement is reached.

This transatlantic row is curious in a number of ways. The first is that Airbus vs. Boeing has long become synonymous with Europe vs. America, when in fact the two aerospace industries are deeply intertwined with each other, and each is a major investor and job-supplier on the other side of the Atlantic.

Boeing directly employs thousands of Europeans across countries, just as Airbus employs thousands of Americans in 38 locations in 16 U.S. states. You will find European components on every Boeing aircraft. U.S.-based suppliers and producers account for 40% of the components that make up an average Airbus jet. Over the past three years, Boeing has spent over $28 billon on its European supply chain and Airbus has spent $50 billion on its U.S. supply chain.

Maintaining these jobs and investments at a time of pandemic-induced recession and massive challenges to the aviation industry is of common interest – and yet instead of seeking solutions, both sides had expanded their target lists to inflict collateral damage on unrelated industries and agricultural producers in each economy.

The negative ripple effects of these actions are evident when one considers that the Airbus plant in Mobile, Alabama supplies aircraft to major U.S. carriers such as Delta, JetBlue, and Spirit. Since various components for those U.S.-built planes – fuselage sections, wing and wing assemblies – come from other Airbus facilities in Europe, U.S. tariffs actually penalize these U.S. airlines, who pass those costs on to U.S. consumers through increased fares.

The second curiosity is that both sides have already changed their procedures so that both are close to WTO compliance. Washington state withdrew the tax advantages it had offered to Boeing. Airbus has modified the terms on two of eight instances of illegal launch aid it had received from various governments. Now that it has identified a solution, it should not be difficult to finalize new arrangements for the remaining cases. Instead of moving on, however, both sides are relitigating their treatment of past subsidies. The only winners here are the lawyers.

A third curiosity is that the United States and Europe are investing inordinate energy squabbling over subsidies and penalizing each other's cheese, wine, and whiskey industries at a time when both face a far more significant subsidy challenge from China.

According to estimates, Beijing has subsidized the Commercial Aircraft Corporation of China, known as COMAC, with up to $72.1 billion – far more than the estimated $22 billion in European subsidies for Airbus and the estimated $23 billion in U.S. subsidies for Boeing. What's more, Chinese subsidies for COMAC are continuing, even as the U.S. and the EU have wound down subsidies for their own domestic industries.

Washington and Brussels have been quick to cry foul. Their credibility is questionable, however, when together they have been identified as subsidizers-in-chief. Until they resolve their own dispute, they are unlikely to have much leverage with Beijing.

The Boeing-Airbus dispute is a squabble we literally cannot afford. Our aerospace industries are deeply entwined with each other and with broad sectors of our respective economies. We have a mutual interest in turning the page on the U.S.-European relationship and eliminating the economic drag these transatlantic tariffs have caused. We cannot effectively challenge China's use of industrial subsidies until we resolve our own industrial subsidy dispute. Resolving Boeing-Airbus quickly, in a way that leverages our mutual strengths, would truly be an artful deal.

Endnotes

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2 Johns Hopkins University, Bloomberg. Data represents first half of April 2020 versus second half of December 2020.
3 Cornerstone Macro Research, as of December 2020.
4 2020 Estimates are preliminary estimates from Eurostat as of February 2, 2021. Forecasts for 2021 are from the International Monetary Fund January 2021 World Economic Outlook Update.
5 In essence, this mechanism would place a carbon price on imports of certain goods from outside the EU to encourage countries to raise their climate ambition and reduce the risks of companies transferring production to places with less stringent emission rules (carbon leakage).
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14 Siobhan Riding, "Fund managers alarmed over EU push to lure London jobs," *Financial Times*, September 20, 2020; Clark, op. cit.; Jonathan Ford, "Future of the City: how London's reach will shrink after Brexit," *Financial Times*, December 9, 2020
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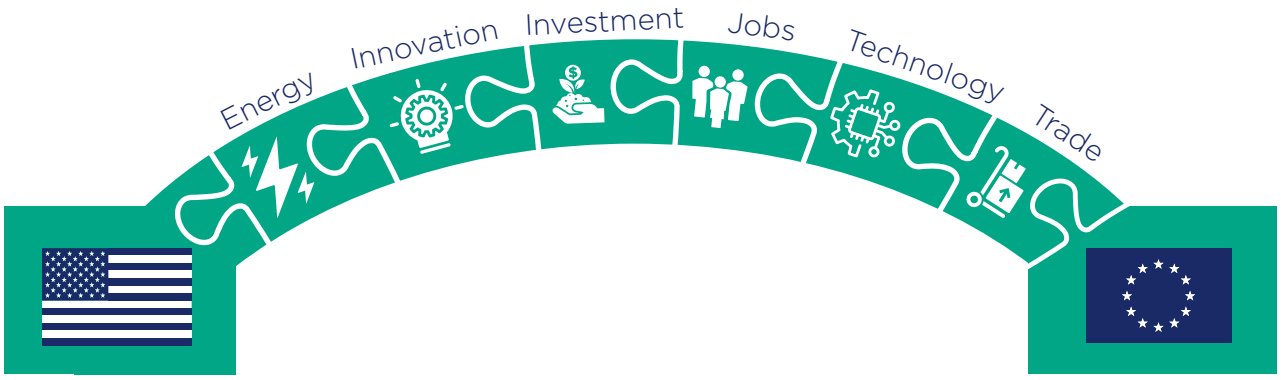
2

Jobs, Trade and Investment: Enduring Ties that Bind

Indiana

Czech Republic



The collapse in trade, investment, and jobs due to the coronavirus has been widespread, hitting all regions and many industries. As economies shut down, demand plunged, labor markets weakened, and the cross-border flows of goods, services, people, and investment collapsed. Even before the pandemic, however, global trade growth was decelerating. Foreign investment was also contracting on account of a global slowdown in economic activity, escalating trade tensions, rising protectionism, and recent U.S. tax changes that incentivized American firms to repatriate foreign profits.

After bottoming out in May and June 2020, transatlantic trade in goods quickly rebounded and is now close to pre-pandemic levels. Services trade, an increasingly important avenue for global commerce and for transatlantic commercial ties in particular, will take much longer to recover, and will depend on progress in vaccine distribution and the lifting of travel restrictions.

The economic damage from COVID-19 extends far beyond trade. Foreign affiliate sales, not trade, are the primary means by which U.S. and European firms deliver goods and services to foreign consumers. Multinational sales and investments, which have become essential to U.S. and European jobs and prosperity, witnessed a sharp decline in 2020 due to collapsing profits, heightened business uncertainty and an overall weakening of global demand. According to the United Nations, global FDI flows were down 42% in 2020, with severe declines in Europe and North America driving the downturn.

Yet even with the hit from the coronavirus and much talk of de-globalization, the United States and Europe remain deeply intertwined and embedded in each other's markets. Consumers and producers, workers and companies, citizens, and their governments on both sides of the Atlantic directly benefit from the deep integrative forces that bind the United States and Europe together.

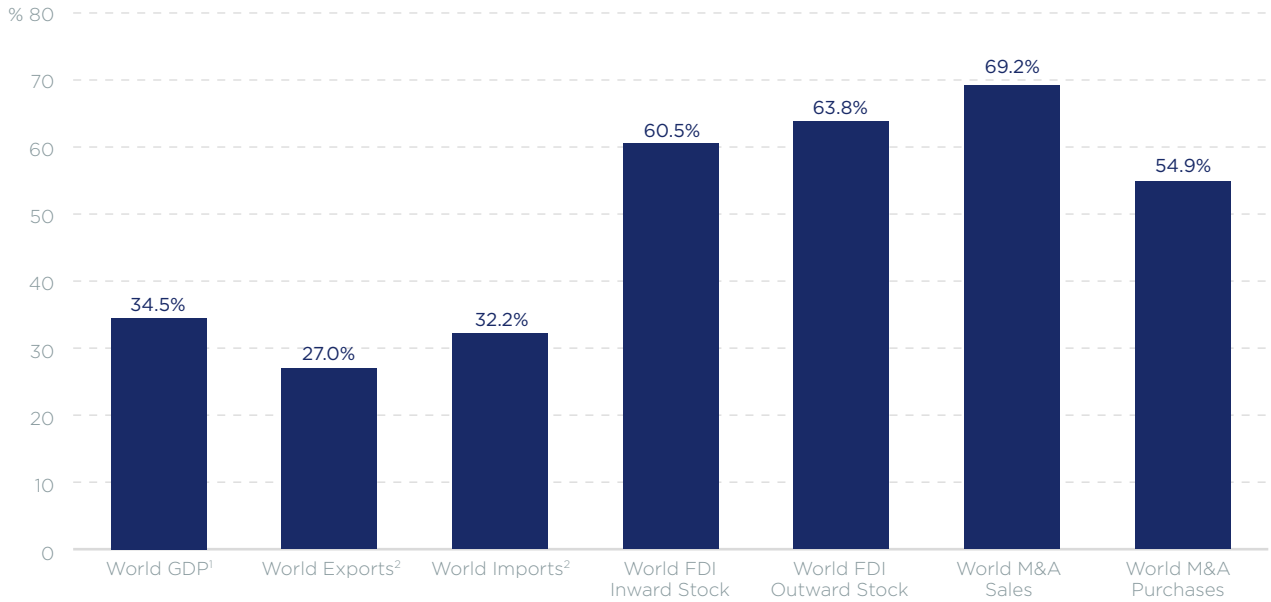
Indeed, despite the 2020 slowdown, the transatlantic economy remains the fulcrum of the global economy. The combined output of the United States and the EU27 plus close partners Switzerland, the UK, Iceland, and Norway accounted for roughly one-third of world GDP in terms of purchasing power parity in 2020 – higher than the combined output of the newly formed Regional Comprehensive Economic Partnership (RCEP) in Asia (30% of world GDP).

The transatlantic economy is not only larger than China and India in terms of GDP, it is significantly wealthier. Consumers in the United States and the EU easily outspend their counterparts in China and India. As mentioned in Chapter One, together the United States and the EU (including the UK) accounted for 50% of global personal consumption in 2019, versus a combined share of just 15% for China and India. Per capita incomes – a key metric of a nation's wealth – are far higher in the United States ($65,300), the EU27 ($35,000) and the UK ($42,300) than either China ($10,300) or India ($2,100).

Economic damage from COVID-19

- Trade in goods: quickly rebounded after a sharp decline
- Trade in services: big fall and long road to recovery
- Foreign affiliate sales: collapsing profits
- Heightened business uncertainty
- Weakening of global demand

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



Sources: UN, IMF, figures for 2019. 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.

In addition, the transatlantic economy is a repository of innovation and technological advancement, and at the forefront of global foreign direct investment (FDI) and global mergers and acquisitions (M&A) activity. Taken together, U.S. and European exports to the world (excluding intra-EU trade) accounted for 27% of global exports in 2019, the last year of complete data; combined imports represented 32% of the world total. Meanwhile, the United States and Europe together accounted for 61% of inward FDI stock and 64% of outward FDI stock. Each partner has built up the great majority of that stock in the other economy.

It is no surprise, therefore, that the largest commercial relationship in the world stretches across the Atlantic. Total transatlantic foreign affiliate sales were estimated at $6.2 trillion in 2019, easily ranking as the top commercial artery in the world on account of the thick investment ties between the two parties.

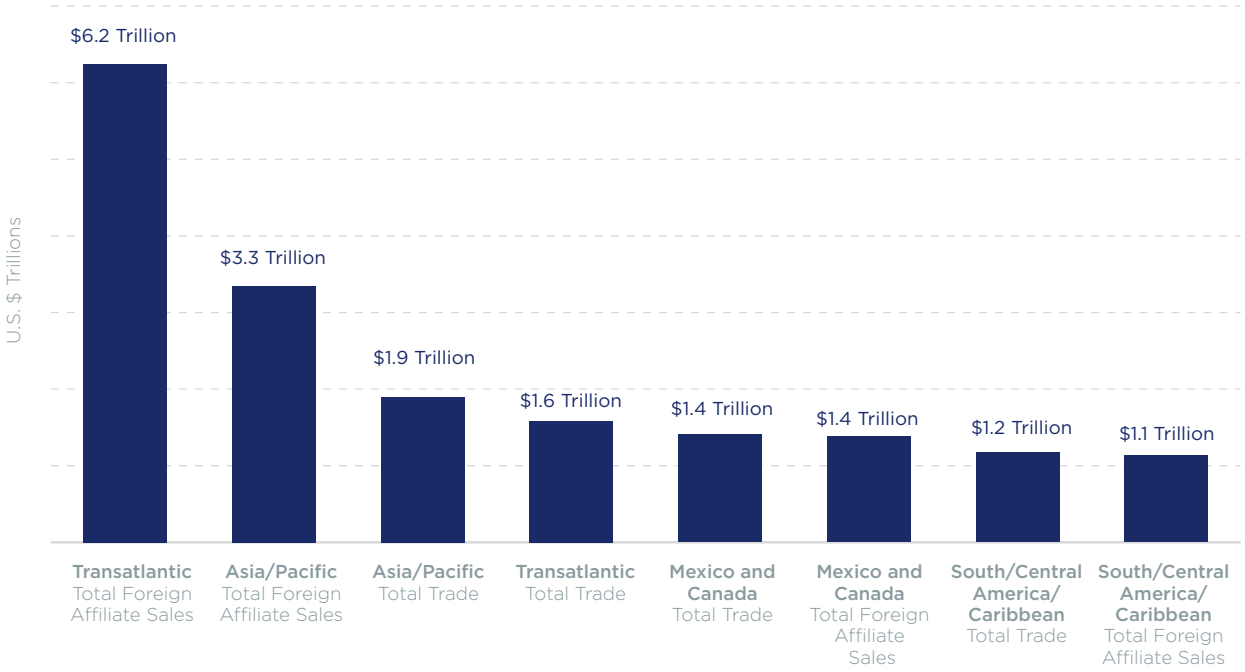
That said, the burgeoning middle class of the developing nations represents a new source of supply (labor) and demand (consumers) for U.S. and European firms. American and European firms are building out their presence in the developing nations, and for good reason. Economic growth rates are still above the global average in most of these 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 developed nations. China, for instance, is 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 connecting to the digital economy.

World GDP

34.5% U.S. and Europe

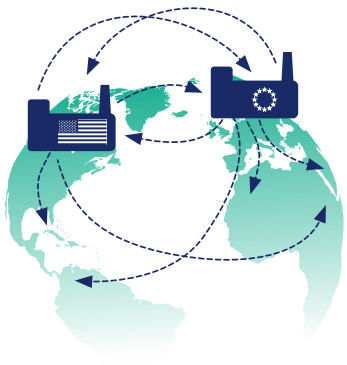
30% Regional Comprehensive Economic Partnership (RCEP)

Table 2 America's Major Commercial Arteries



Foreign Affiliate Sales: Estimates for 2019. Total Trade: Data for goods & services, 2019. South/Central America and Caribbean includes Mexico.
Source: Bureau of Economic Analysis.

What is often missing from this either-or picture, however, is the fact that many U.S. and European firms use each other's markets as a launchpad to 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 with Europe to be globally competitive when it comes to offering services in other parts of the world. Many U.S. multinationals also use their presence in stable and secure Europe to supply both goods and services to the burgeoning, but often volatile, markets of North Africa and the Middle East.



The transatlantic economy

A launchpad to the rest of the world for U.S. and European companies

The Ties That Bind – Quantifying the Transatlantic Economy

As we outline and emphasize each year in this annual survey, it is investment and the activities of foreign affiliates, not trade, that drives U.S.-European commerce. Understanding this dynamic is essential to understanding the enduring strength and importance of the transatlantic economy.

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. affiliates in Europe (an estimated $740 billion in 2019) and of European affiliates in the U.S. ($723 billion) was greater than the total gross domestic product of most countries. For example, combined transatlantic affiliate output – over $1.4 trillion – was larger than the output of such countries as Australia, Spain, Mexico or Indonesia.

Total output of foreign affiliates

(2019 estimate)

$740 billion
U.S. in Europe

$723 billion
Europe in the U.S.

U.S. affiliate output

(2018)

$720 bn
Europe

$386 bn
Asia-Pacific

By our estimation, European affiliate output in the United States rose 4.9% in 2019, while U.S. affiliate output in Europe increased 2.8%. We expect U.S. foreign affiliate output to decline in the near term, due to weaker economic conditions caused by the global pandemic. European affiliates operating in the United States also saw their output deteriorate in 2020, as stay-at-home orders and the shutdown of many services industries halted economic activity. We expect this activity to swiftly rebound after the pandemic.

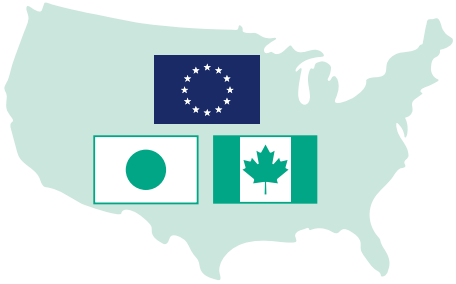
On a global basis, the aggregate output of U.S. foreign affiliates exceeded $1.5 trillion in 2019, with Europe (broadly defined)[1] accounting for around 49% of the total.

Looking at actual figures for 2018 from the Bureau of Economic Analysis, U.S. affiliate output in Europe ($720 billion) was roughly double the U.S. affiliate output in the entire Asia-Pacific region ($386 billion). Additionally, according to the latest figures from Eurostat, the value added of non-financial U.S. businesses in the EU28 (€490 billion in 2017) dwarfs the output of Japanese affiliates (€75 billion), Chinese affiliates (€27 billion) and other major affiliates based in Europe.[2]

In the United States, meanwhile, European companies are major economic producers, with British firms of notable importance. The value added of British companies in the United States reached an estimated $178 billion in 2019, about one-quarter of the European total. For the same year, output from German affiliates operating in the United States totaled $135 billion, or 19% of the European total.

In 2018, the last year of available data, European affiliates in the United States accounted for 61% of the roughly $1.1 trillion that U.S. affiliates of foreign multinationals contributed overall to U.S. aggregate production.

Beyond Europe, only Canada and Japan have a significant economic presence in the United States. Japanese affiliate output totaled $161 billion in 2018, the last year of available data, while Canadian affiliate output was $125 billion. And for all the hype about Chinese investments in the U.S., Chinese affiliate output in the U.S. amounted to only $16 billion.



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

U.S. foreign assets in Europe
$17.3 trillion
(2019 estimate)

of total U.S. foreign assets globally

2. Assets of Foreign Affiliates

Corporate America and Corporate Europe each have significant asset bases around the world, especially in each other's markets. According to the latest figures from the Bureau of Economic Analysis, U.S. foreign assets in Europe totaled $17.1 trillion in 2018, representing roughly 62% of the global total. For 2019, we estimate that U.S. foreign assets in Europe exceeded $17.3 trillion, close again to 60% of the global total. The largest share of U.S. assets in Europe was in the UK, which accounted for assets of $5.4 trillion, around 20% of the global total.

U.S. assets in the Netherlands (around $3 trillion) were the second largest in Europe in 2018, but were down 6.8% from the prior year. 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.

Meanwhile, America's asset base in Germany ($905 billion in 2018) was about 30% larger than its asset base in all of South America. America's assets in Ireland ($2.0 trillion in 2018) and Switzerland ($1.0 trillion) were each much larger than those in China ($466 billion).

As for foreign-owned assets in the United States, Europe's stakes are sizable and significant. Total assets of European affiliates in the United States were valued at roughly $8.1 trillion in 2018. The UK ranked first in Europe, followed by Germany, France, and Switzerland. In 2018, the last year of available data, European assets in the United States accounted for 55% of all assets held by foreign-owned corporations in the United States.

3. Affiliate Employment

U.S. and European foreign affiliates are a major source of employment for the 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.

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 2018 – a 30% increase. We estimate that U.S. affiliates in Europe employed 4.9 million workers in 2019, a 1.6% increase from the year before.

Table 3 The U.S. - European Employment Balance
Thousands of employees, 2019*, select countries

Country	U.S. Companies in Europe	European Companies in the U.S.	Employment Balance
Austria	47.6	29.1	-18.5
Belgium	126.9	67.9	-59.0
Czech Republic	79.8	0.1	-79.7
Denmark	45.3	42.0	-3.3
Finland	21.2	36.3	15.1
France	505.9	799.5	293.6
Germany	685.9	882.2	196.3
Greece	15.7	3.8	-12.0
Hungary	69.1	0.2	-68.9
Ireland	136.7	344.8	208.1
Italy	253.9	96.0	-157.9
Luxembourg	29.1	20.0	-9.2
Netherlands	266.8	563.7	296.9
Norway	43.1	8.1	-35.0
Poland	207.2	1.0	-206.2
Portugal	32.4	1.0	-31.4
Romania	77.2	0.0	-77.2
Spain	178.6	92.7	-85.9
Sweden	75.3	234.8	159.6
Switzerland	101.9	490.4	388.6
United Kingdom	1,487.5	1,302.8	-184.6
Europe	**4,869.7**	**5,036.6**	**166.9**

Note: Employment balance "+" favors the United States
Source: Bureau of Economic Analysis.
**2019 Estimates. Majority-owned bank and non-bank affiliates.*

While aggregate employment levels continue to rise modestly, manufacturing employment has plateaued since 2000. U.S affiliate manufacturing employment in Europe totaled 1.9 million in 2000, on par with the levels of 2018. However, while the overall number has stayed roughly the same, the country composition has changed, with more investment shifting to lower-cost locales like Poland and Hungary versus high-cost economies like the UK and France. The largest employment declines were reported in the UK, with the total manufacturing work force falling from 431,000 in 2000 to 293,000 in 2018. U.S.

U.S. foreign affiliate employment in Europe

4.9 million
workers
(2019 estimate)

European foreign affiliate employment in the U.S.

5 million
workers
(2019 estimate)

manufacturing employment in France dropped from 249,000 to 195,000. U.S. manufacturing employment in Germany has registered far less decline – from 388,000 in 2000 to 362,000 in 2018. Poland continues to be a significant winner, with U.S. affiliate manufacturing employment growing more than 2.5 times, from 51,000 in 2000 to over 131,000 in 2018.

On a global basis, U.S. majority-owned affiliates (including banks and non-bank affiliates) employed 14.4 million workers in 2018, with about one-third of these workers living in Europe. Europe's share of U.S. affiliate manufacturing employment is slightly larger at 34%, although this share is down from 40% in 2009. U.S. overseas capacity has been expanding at a faster pace in emerging markets than 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.

Indeed, the latest annual data on U.S. manufacturing employment indicates that American companies reshoring jobs to the U.S. in 2020 created more jobs than FDI for the first time in seven years. According to the Reshoring Initiative, the estimated number of manufacturing jobs created by greenfield investment was roughly 42,000, compared to 69,000 reshored jobs. Digital innovations also mean companies can now do some things from home that they used to do abroad. Additionally, the 2017 overhaul of the U.S. corporate tax code, which lowered America's tax rate below the rates of many European countries, has spurred more investment to come home or stay in the United States – more on that in Chapter Five.

Most employees of U.S. majority-owned firms in Europe work in the UK, Germany or France. These firms are, on balance, hiring more people in services activities than in manufacturing. The latter accounted for just 38% of total U.S. foreign affiliate employment in Europe in 2018. The key industry in terms of manufacturing employment was transportation equipment, with U.S. affiliates employing nearly 336,000 workers, followed by chemicals (283,000). Wholesale employment was among the largest sources of services-related employment, which includes employment in such activities as logistics, trade, insurance, and other related functions.

Although services employment among U.S. affiliates has grown at a faster pace than manufacturing employment over the past decade, U.S. affiliates employed more manufacturing workers in Europe in 2018 (1.9 million) than in 1990 (1.6 million). This reflects the EU enlargement process, which offered both U.S. and European companies 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 of such skilled talent in the world.

Combined, the transatlantic workforce directly employed by U.S. and European foreign affiliates in 2018 was roughly 9.7 million strong, up roughly 2% from the year before. Yet, affiliate employment growth in the United States in 2018 far outpaced growth of U.S. affiliates in Europe. In 2018, the latest year of available data, the U.S.-based workforce of European companies increased by 4.1%. On the other side of the Atlantic, U.S. firms increased their European employment base by just 0.4%. This caused the employment balance to shift to favor the U.S. for the first time in 16 years – meaning that European companies now directly employ more Americans than U.S. companies employ Europeans.

Based on the latest figures, European majority-owned foreign affiliates directly employed 4.9 million U.S. workers in 2018 – some 194,000 more workers than in 2017. In 2018, the top five European employers in the United States were the UK (1.3 million, up 56,400 from 2017), Germany (860,700, up 44,900 from 2017), France (780,000, up 35,600 from 2017), the Netherlands (550,000, down 7,200 from 2017), and Switzerland (478,500, up 21,000 from 2017). European firms employed roughly two-thirds of all U.S. workers on the payrolls of majority-owned foreign affiliates in 2018.

In 2019, modest gains in employment were most likely achieved on both sides of the pond, with employment levels in the United States again rising at a faster pace than in Europe, according to estimates. For 2019 we estimate U.S. affiliates based in Europe directly employed about 4.9 million European workers, and European affiliates based in the United States directly employed about 5 million Americans. 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 or local suppliers. Trade-related employment is sizable in many U.S. states and many European nations.

Employment growth rates likely turned negative in 2020 as real growth and demand plummeted in the wake of the coronavirus recession. Employment in Europe was relatively more resilient, due to more frequent use of subsidized furlough programs. Between March and December 2020, the U.S. unemployment rate averaged 9.0%, while in the EU the average was 7.3%.

Despite the setback, direct and indirect employment remain 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 has rapidly advanced its R&D capabilities in areas such as artificial intelligence, quantum computing, space exploration, cybersecurity, life sciences, electric vehicles, supercomputing, semiconductors, and 5G. An important goal of China's 14th Five-Year Plan (2021-2025) is to make China a global leader in innovation and increase self-sufficiency in key technologies.

While governments and domestic corporations are the main drivers of R&D spending, foreign affiliates of multinationals are also significant contributors. In fact, foreign affiliate R&D has become more prominent in recent 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.

R&D spending of foreign affiliates
(2018)

$33 billion
U.S. in Europe

$45 billion
Europe in the U.S.

Table 4 The Top 20 R&D Spenders

		R&D Spending			
2019	Company	2019 (€ billion)	Change from 2018	Country	Industry
1	Alphabet	23.2	24%	United States	Software & Computer Services
2	Microsoft	17.2	14%	United States	Software & Computer Services
3	Huawei	16.7	31%	China	Technology Hardware & Equipment
4	Samsung	15.5	8%	S. Korea	Electronic & Electrical Equipment
5	Apple	14.4	14%	United States	Technology Hardware & Equipment
6	Volkswagen	14.3	5%	Germany	Automobiles & Parts
7	Facebook	12.1	32%	United States	Software & Computer Services
8	Intel	11.9	-1%	United States	Technology Hardware & Equipment
9	Roche	10.8	6%	Switzerland	Pharmaceuticals & Biotechnology
10	Johnson & Johnson	10.1	5%	United States	Pharmaceuticals & Biotechnology
11	Daimler	9.6	7%	Germany	Automobiles & Parts
12	Toyota Motor	9.1	6%	Japan	Automobiles & Parts
13	Merck U.S.	8.2	-4%	United States	Pharmaceuticals & Biotechnology
14	Novartis	7.7	-5%	Switzerland	Pharmaceuticals & Biotechnology
15	Gilead Sciences	7.4	98%	United States	Pharmaceuticals & Biotechnology
16	Pfizer	7.4	6%	United States	Pharmaceuticals & Biotechnology
17	Honda Motor	6.8	0%	Japan	Automobiles & Parts
18	Ford Motor	6.6	-10%	United States	Automobiles & Parts
19	BMW	6.4	-7%	Germany	Automobiles & Parts
20	Robert Bosch	6.2	1%	Germany	Automobiles & Parts
		221.6	**10.3%**		

Source: The 2020 EU Industrial R&D Investment Scoreboard. Data as of December 2020.
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.

Bilateral U.S.-EU flows in R&D are the most intense between any two international partners. In 2018, the last year of available data, U.S. affiliates spent $33 billion on research and development in Europe, relatively unchanged from the prior year. On a global basis, Europe accounted for roughly 56% of total U.S. R&D conducted abroad by affiliates in 2018, down slightly from 2017. R&D expenditures by U.S. affiliates were the greatest in the UK ($6.7 billion), Germany ($6.3 billion), Switzerland ($5.4 billion), Ireland ($3.4 billion), France ($2.1 billion), Belgium ($1.8 billion) and the Netherlands ($1.6 billion). These seven nations accounted for roughly 83% of U.S. spending on R&D in Europe in 2018.

In the United States, meanwhile, expenditures on R&D performed by majority-owned foreign affiliates totaled $66.9 billion in 2018. As in previous years, a sizable share of this R&D spending – $45.1 billion, over two-thirds of the total – emanated from firms in 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 pharmaceuticals & medicine (34% of the total), autos (14% of the total) and professional & scientific services (10% of the total).

On a country basis, German-owned affiliates were the second largest source of R&D in the United States in 2018, spending some $10.0 billion – just behind Japan affiliate R&D spending of $10.9 billion. Swiss firms accounted for 21% of total European R&D spending, or $9.6 billion. British firms accounted for 15% of European R&D spending, or $6.7 billion. As Table 4 highlights, some of the world's most innovative companies which invest the most in R&D are domiciled in the United States and Europe.

5. Intra-firm Trade of Foreign Affiliates

The two main modes of international commerce – 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. Intrafirm or related party-trade occurs when BMW or Siemens of Germany sends parts to BMW of South Carolina or Siemens of North Carolina; when Lafarge or Michelin sends intermediate components to its Midwest American plants, or when Caterpillar or 3M ships components from Illinois or Minnesota to affiliates in Poland or the UK.

Table 5 Related Party Trade, 2019

Country	U.S. Imports: "Related Party Trade" as % of Total	U.S. Exports: "Related Party Trade" as % of Total
European Union (incl. UK)	62.9	38.7
Germany	69.5	37.1
France	47.7	32.4
Ireland	87.0	37.0
Netherlands	70.3	56.1
UK	54.3	32.4

Source: U.S. Census Bureau.
Data as of January 2021.

The tight linkages between European parent companies and their U.S. affiliates are reflected in the fact that roughly 63% of U.S. imports from the European Union consisted of related-party trade in 2019, the last year of available data. That is much higher than related-party imports from the Asia-Pacific region (37%) and well above the global average (49%). The percentage was even higher in the case of Ireland (87%), the Netherlands (70%) and Germany (70%).

Meanwhile, about 39% of U.S. exports to Europe in 2019 represented related-party trade, but the percentage is much higher for some nations. For instance, more than half of total U.S. exports to the Netherlands (56%) were classified as related-party trade. The comparable figure for Germany was 37% and 32% for France.

6. Foreign Affiliate Sales

U.S. majority-owned foreign affiliate sales on a global basis (goods and services) totaled an estimated $7.0 trillion in 2019. Total U.S. exports, by contrast, were $2.5 trillion in 2019. This gap underscores the primacy of foreign affiliate sales over U.S. exports.

As usual, Europe accounted for the bulk of U.S. affiliate sales in 2019 – about half of the global total. We estimate that U.S. foreign affiliate sales in Europe totaled $3.4 trillion, up 3.2% from the prior year. By comparison, sales of U.S. affiliates in Asia were just $1.9 trillion, about half the value of sales conducted in Europe in 2019. Affiliate sales in the UK (an estimated $724 billion) were more than double total sales in South America. Sales in Germany ($385 billion) were more than double the 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 2019, for instance, we estimate that majority-owned European affiliate sales in the United States ($2.8 trillion) were more than triple U.S. imports from Europe ($852 billion). By country, sales of British firms were the largest ($714 billion) in 2019, followed by Germany ($555 billion), and the Netherlands ($410 billion), according to estimates. For virtually all countries in Europe, foreign affiliate sales were easily in excess of their exports to the U.S. in 2019.

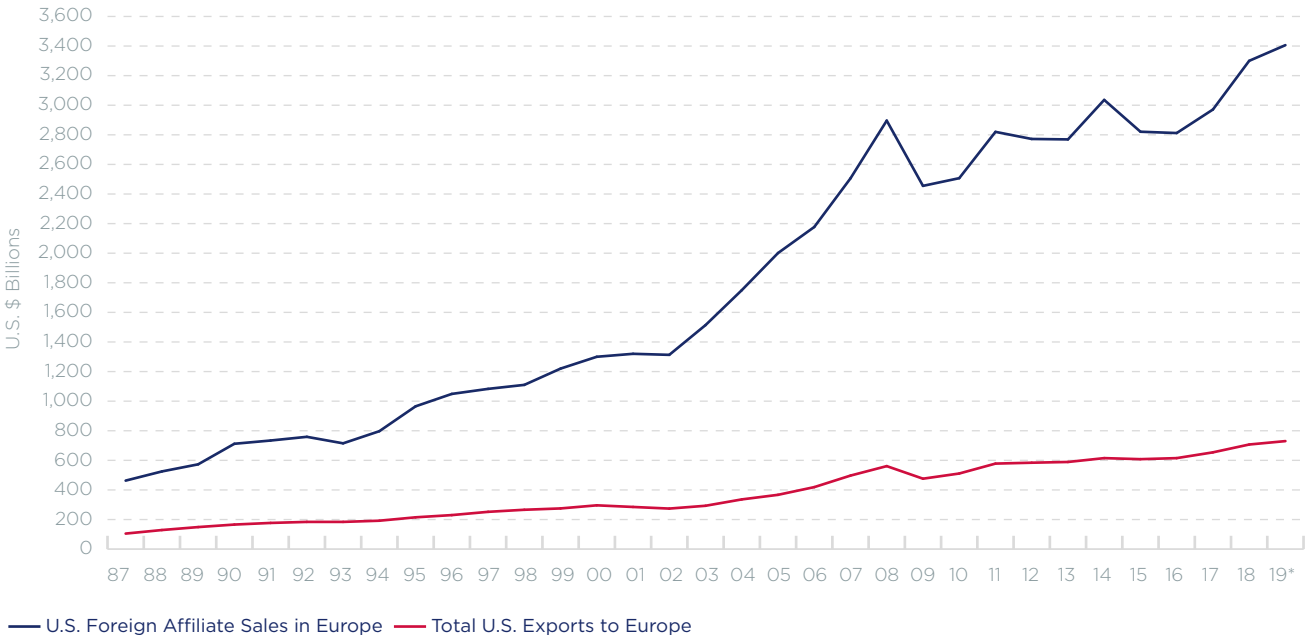
Foreign affiliate sales

(2019 estimate)

$3.4 trillion
U.S. in Europe

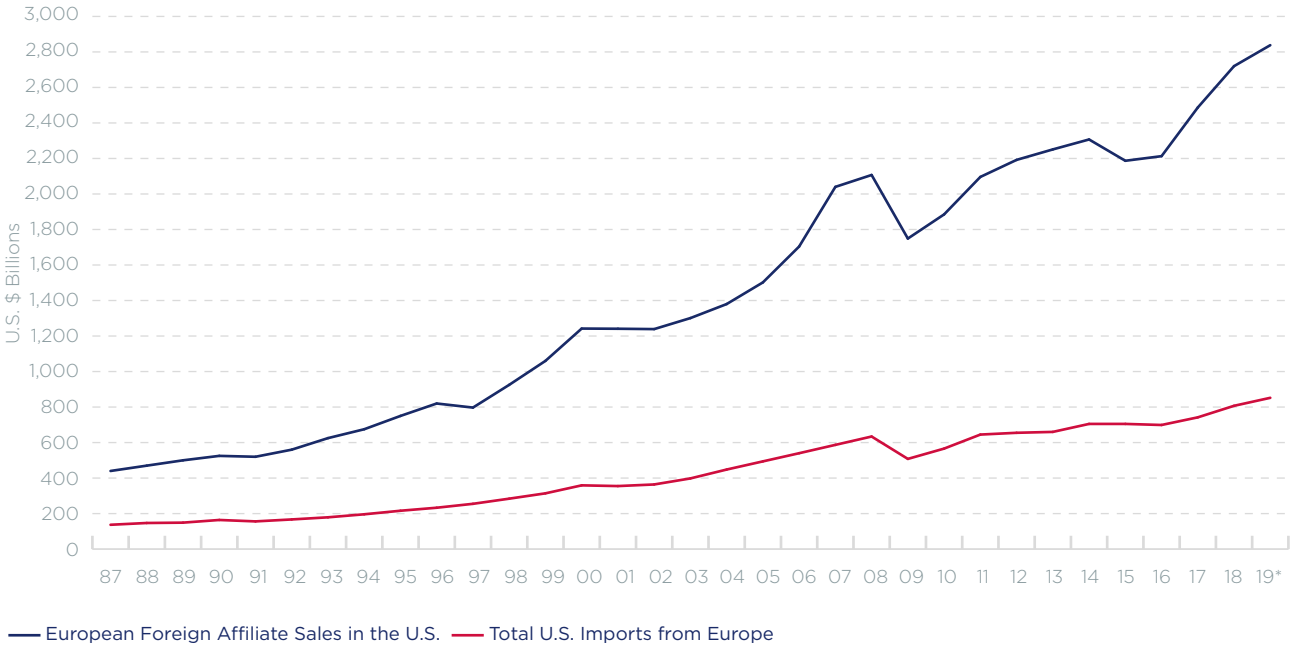
$2.8 trillion
Europe in the U.S.

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 - 2019.
**Foreign Affiliate Sales: Estimates for 2019.*

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 - 2019.
**Foreign Affiliate Sales: Estimates for 2019.*

7. Foreign Affiliate Profits

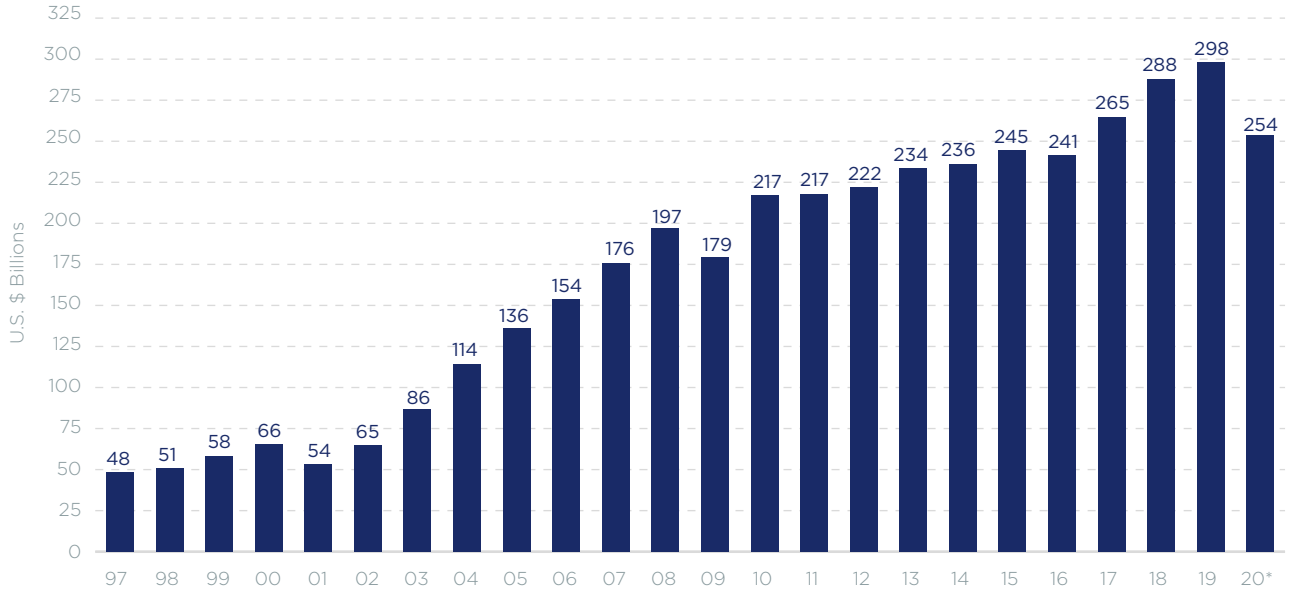
Prior to the coronavirus outbreak and global recession, transatlantic profit growth had been healthy, hitting new highs in 2019. However, as businesses shut down and companies suffered major losses, profits sunk in the second quarter of 2020, dragging down the full year figures. By our estimates, U.S. affiliate income earned in Europe fell 15% in 2020 to $254 billion. This figure for 2020 was still more than 40% larger than the depressed levels of 2009, when affiliate income earned in Europe plunged to $179 billion.

Europe remains an especially important market to U.S. multinationals, accounting for roughly 55% of U.S. global foreign affiliate income in the first nine months of 2020. By comparison, U.S. affiliate income from China and India in 2019 ($17 billion), the last year of full data, was a fraction of what U.S. affiliates earned/reported in either the Netherlands ($84 billion), Ireland ($63 billion), or the United Kingdom ($57 billion).

The other side of transatlantic profits – European affiliate income earned in the United States – suffered even greater losses in 2020, based on three quarters of data. After rising to the second highest amount on record in 2019, we estimate that full year affiliate income earned in the United States by European firms dropped by 32% in 2020 to $91 billion.

The United States remains the most important market in the world in terms of earnings for many European firms. Multinationals based in Germany, the United Kingdom, and Switzerland earned the most profits in the U.S. in 2020, however, profits in these countries were down roughly 40% from the same period a year earlier.

Table 8 **U.S. Earnings in Europe Hit New Highs in 2019, Prior to COVID-19** (U.S. foreign affiliate income earned in Europe)



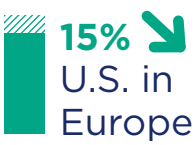
Source: Bureau of Economic Analysis.
**Data for 2020 is author's estimate.*

Foreign affiliate profits (2020 estimate)

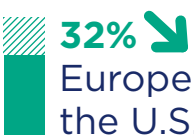
$254 billion
U.S. in Europe

$91 billion
Europe in the U.S.

Dropped by

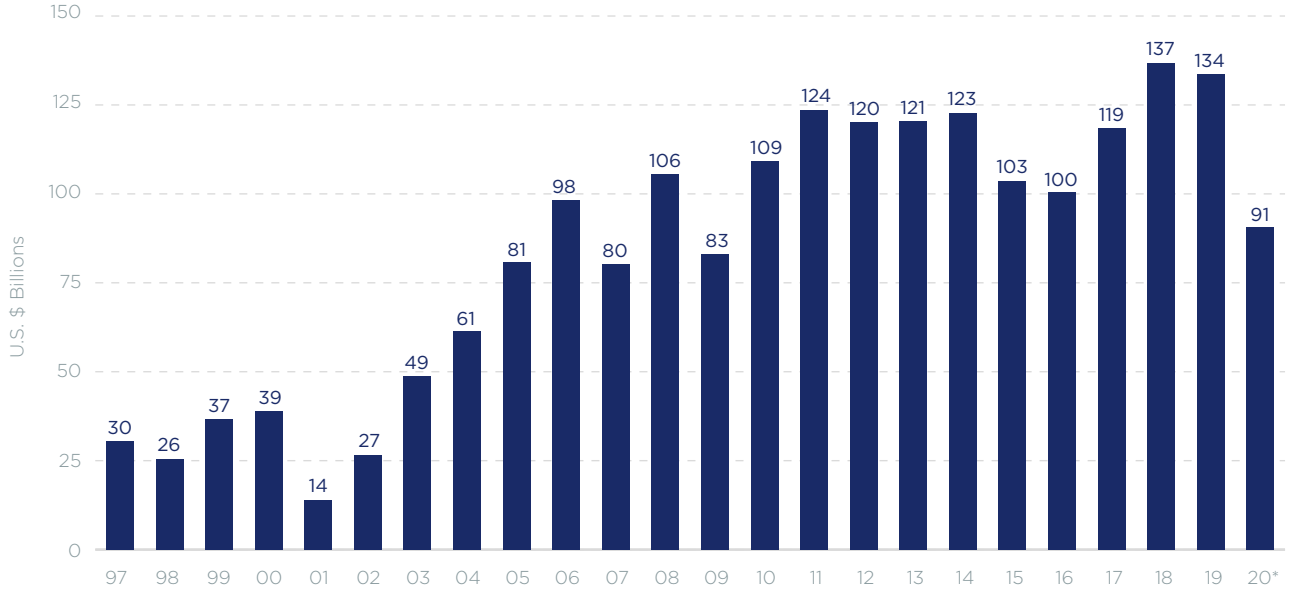


15% ↘
U.S. in Europe



32% ↘
Europe in the U.S.

Table 9 European Affiliate Earnings in the U.S. Slump to Decade-Low Amid COVID-19 Recession
(Foreign affiliate income earned in the U.S.)



Source: Bureau of Economic Analysis.
**Data for 2020 is author's estimate.*

8. Transatlantic Services

The global economic downturn in 2020 was heavily concentrated in services activities, with consumer expenditures for food services, accommodation, transportation, health services and recreation falling sharply due to COVID-19 restrictions. In the United States, severely weak personal consumption in the services industry was the main driver of the annual 3.5% contraction in U.S. GDP, contributing 3.44 percentage points of the total decline. Last year, demand for personal goods expenditures rose by $150 billion in the United States, a larger increase than in the prior year; however personal consumption of services sunk by $545 billion in 2020.

Across the Atlantic, Europe's service-driven economy also suffered from a significant pullback in consumer spending in contact-intensive sectors such as hotels, restaurants, travel, and administrative and support services. These are also key sectors for transatlantic trade in services, which overall witnessed a 20% decline in the first three quarters of 2020, compared with the same period a year ago.[3]

Excluding the effects from the pandemic, trade in services has become an increasingly important aspect of the transatlantic economic relationship, with the United States and Europe the two leading services economies in the world. Deep transatlantic connections in services industries, provided by mutual investment flows, are the foundation for the global competitiveness of U.S. and European services companies. In 2019, Europe made up 39% of total U.S. services exports and 42% of total U.S. services imports.

U.S. services exports to Europe reached a record $345 billion in 2019. Services exports (or receipts) have been fueled by a number of services-related activities such as travel, education and financial services. In 2019, the United States registered a $100 billion trade surplus in services with Europe, versus a $223 billion trade deficit in goods.

U.S. services trade by category is represented in Table 10 below. Four of the top ten export markets for total U.S. services in 2019 were in Europe. The UK ranked first, followed by Ireland (ranked 4th), Switzerland (6th), and Germany (7th). Of the top ten service providers to the United States in 2019, five were European states, with the UK again ranking first, Ireland third, Germany fourth, Switzerland seventh, and France ninth.

The global economic downturn in 2020 was heavily concentrated in **services activities**

Table 10 Top Markets for U.S. Services Trade (Billion of $), 2019

U.S. Services Exports

Rank	Total Services		Travel		Other Business		Financial		IP Charges		Transport		Telecom/Info	
1	UK	78.3	China	29.0	Ireland	28.6	UK	18.9	Ireland	17.8	Japan	8.5	Canada	6.0
2	Canada	67.7	Canada	16.9	Switzerland	20.0	Canada	8.5	Switzerland	17.2	Canada	8.4	UK	5.3
3	Ireland	57.5	Mexico	15.3	UK	16.8	Japan	5.0	China	8.1	UK	7.8	Japan	4.0
4	China	56.5	India	13.2	Canada	15.2	China	4.8	Canada	7.5	China	5.5	Ireland	3.4
5	Japan	50.1	UK	12.2	Singapore	13.6	Ireland	4.7	Japan	6.9	Germany	5.4	Brazil	3.4
6	Switzerland	46.8	Japan	8.8	Germany	10.8	Luxembourg	4.6	UK	6.3	S. Korea	4.2	Switzerland	3.0
7	Germany	36.6	Brazil	8.3	Japan	10.1	Australia	3.5	Netherlands	5.3	France	3.5	Australia	2.5
8	Mexico	32.9	S. Korea	7.4	Netherlands	5.9	Germany	3.5	Germany	5.2	Mexico	3.2	Germany	2.3
9	Brazil	24.6	Australia	7.0	France	4.6	Mexico	3.2	Hong Kong	4.7	Brazil	2.7	Mexico	2.1
10	India	24.3	Germany	5.8	China	4.1	Brazil	2.9	S. Korea	4.2	Hong Kong	2.4	India	1.8
	Total	**875.8**	**Total**	**193.3**	**Total**	**189.4**	**Total**	**135.7**	**Total**	**117.4**	**Total**	**91.1**	**Total**	**55.7**

U.S. Services Imports

Rank	Total Services		Travel		Other Business		Financial		IP Charges		Transport		Telecom/Info	
1	UK	62.3	Mexico	18.9	UK	15.3	UK	12.3	Japan	9.7	Japan	9.5	India	15.6
2	Canada	38.6	Canada	9.2	India	8.9	Canada	3.0	Germany	7.0	Germany	8.3	Ireland	6.6
3	Japan	35.8	UK	9.1	Canada	8.5	Japan	2.1	Switzerland	5.3	UK	8.1	Canada	4.9
4	Germany	34.9	Italy	7.8	Ireland	8.0	Hong Kong	1.7	UK	4.3	France	6.3	UK	3.3
5	Mexico	29.8	France	5.4	Germany	7.2	France	1.5	France	2.8	Canada	5.9	Philippines	1.4
6	India	29.7	Spain	4.3	China	7.2	Singapore	1.4	Ireland	2.3	China	5.7	Netherlands	0.9
7	Switzerland	25.0	China	3.7	Switzerland	6.8	China	1.1	Canada	2.0	Taiwan	5.1	Mexico	0.9
8	Ireland	23.2	Japan	3.6	Netherlands	6.0	Australia	1.0	Netherlands	1.2	Mexico	4.9	Germany	0.8
9	France	20.4	Germany	3.3	Singapore	4.9	Germany	0.9	India	1.2	Hong Kong	4.6	Switzerland	0.7
10	China	20.1	India	2.6	Japan	3.8	Switzerland	0.7	Mexico	0.8	S. Korea	4.1	Japan	0.5
	Total	**588.4**	**Total**	**134.6**	**Total**	**113.6**	**Total**	**40.4**	**Total**	**42.7**	**Total**	**107.5**	**Total**	**43.7**

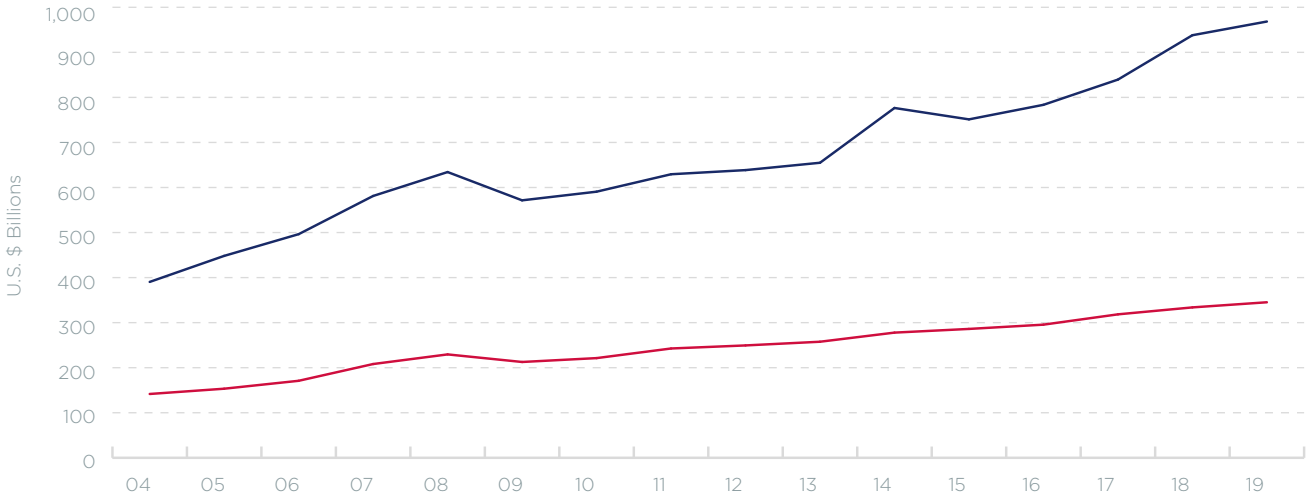
Source: Bureau of Economic Analysis.
Data as of January 2021.

In terms of transport services, the top five export markets in 2018, in ranked order, were Japan, the UK, Canada, China, and Germany. The UK ranked as the largest market for exports of financial services and second in telecommunications, computer and information services, after Canada. Ireland was the top export market for U.S. trade in intellectual property and other business services, representing 15% of total receipts in each category.

As for U.S. services imports from Europe, figures for 2019 were also at all-time highs. U.S. services imports from Europe totaled $245 billion, up over 40% from the depressed levels of 2009. The UK, Germany, Switzerland, Ireland, France, and Italy all rank as top services exporters to the United States.

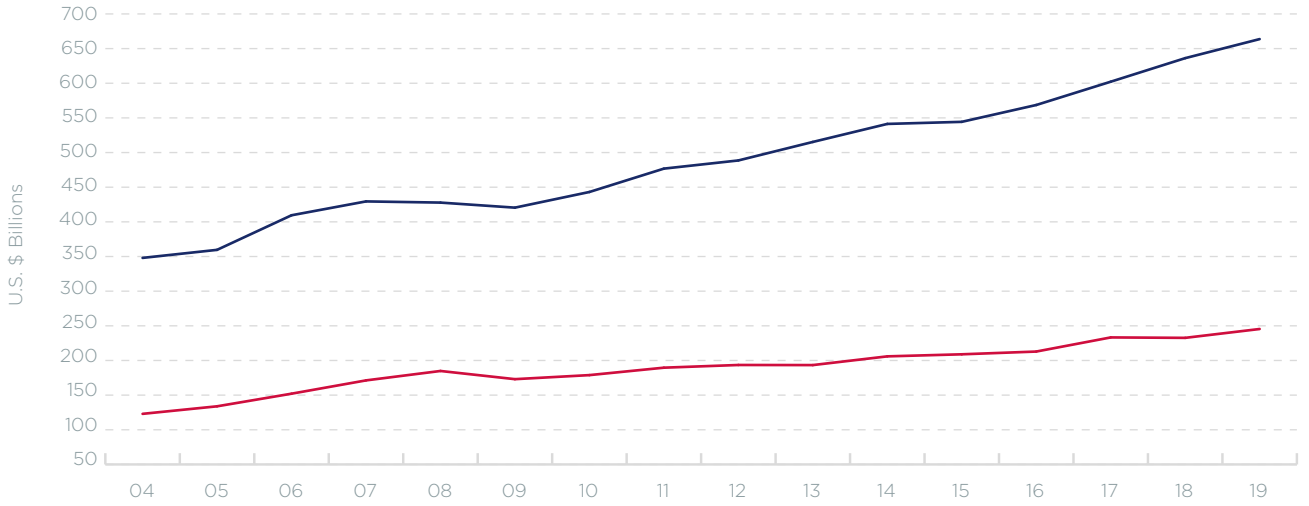
In terms of exports of travel to the United States, countries in Southern Europe have the largest exposure to U.S. residents traveling abroad. In Portugal, travel makes up 72% of the country's total services exports to the United States. The share for Croatia is 71%, Spain 55%, Greece 58%, and Italy 65%. In total, Europe made up 32% of U.S. trade in travel and transport in 2019.

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 2019.

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 2019.

The 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 also become the overwhelming mode of delivery in a rather short period of time. Worldwide affiliate sales of U.S. services more than doubled in the years from 2005 to 2018.

Sales of services of U.S. foreign affiliates in Europe surged in 2018, rising 12% to $938 billion. By comparison, U.S. services exports to Europe in 2018 totaled $334 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.

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

The UK made up 28% of all U.S. affiliate services sales in Europe; affiliate sales totaled $267 billion in the UK, a figure greater than total affiliate sales in South and Central America ($124 billion), Africa ($14 billion), or the Middle East ($22 billion). Affiliate sales of services in Ireland remain quite large – $165 billion in 2018 – and reflect strong U.S-Irish foreign investment ties with leading U.S. internet, software, and social media leaders. Europe accounted for roughly 55% of total global U.S. affiliate service sales.

We estimate that sales of services of U.S. affiliates in Europe rose by around 3%, to $968 billion in 2019. U.S. services exports to Europe for the same year were $345 billion.

U.S. affiliate sales of services in Europe continue to exceed sales of services by U.S. affiliates of European firms. In 2018, the last year of complete data, European affiliate services sales in the United States totaled $636 billion, about 32% below comparable sales of U.S. affiliates in Europe. That said, European affiliates are the key provider of affiliate services in the United States. Foreign affiliate sales of services in the U.S. totaled $1.2 trillion in 2018, with European firms accounting for 54% of the total. Within Europe, British affiliates lead in terms of affiliate sales of services in the United States ($161 billion), followed closely by Germany ($151 billion).

We estimate that European affiliate services sales in the United States totaled $664 billion in 2019, well above U.S. services imports from Europe ($245 billion) in the same year. The difference between affiliate sales and services imports reflects the ever-widening presence of European service leaders in the U.S. economy.

Table 13 America's FDI Roots in Europe (Billions of $)

Industry	U.S. FDI to Europe	Europe's % of Total U.S. FDI
European Total, all industries	3,572	60%
Manufacturing	477	53%

Note: Historic-cost basis, 2019.
Source: Bureau of Economic Analysis.

Table 14 Europe's FDI Roots in the U.S. (Billions of $)

Industry	U.S. FDI from Europe	Europe's % of Total U.S. FDI
Total from Europe, all industries	2,871	64%
Manufacturing	1,318	74%

Note: Historic-cost basis, 2019.
Source: Bureau of Economic Analysis.

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. The eight variables just highlighted underscore the depth and breadth of the transatlantic commercial relationship.

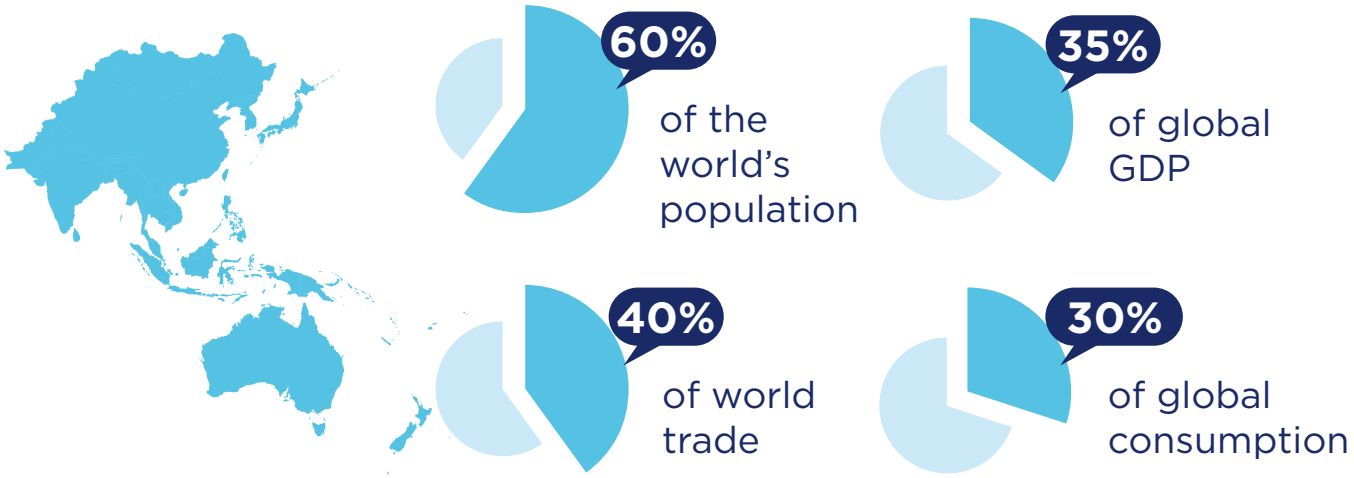
Endnotes

1 See Notes on Terms, Data and Sources in the back of the study for complete definition of broader Europe.
2 Data for 2017 is latest available. Value added measured at factor cost. Excludes financial and insurance businesses. Data may differ from U.S. Bureau of Economic Analysis data due to differences in measurement methodology.
3 Transatlantic services trade is defined here as total exports of services from the U.S. to the EU (including the UK), and the total imports of services from the EU (including the UK) to the U.S.

3

The United States, Europe and China: Different Now, But Changing Again

Asia-Pacific region and the world



When we issued our first report on the transatlantic economy almost two decades ago, the world was a simpler place. Global commercial ties rested squarely on the shoulders of the United States and Europe. Asia, collectively, was an important node of the global economy, but more or less followed the rule-setting global standards of the transatlantic partnership. At the time, Asia's three largest economies – Japan, China and India – did not pull much global weight. Japan's economy was entering yet another "lost decade." China's global integration was shallow and underdeveloped. India remained too poor to cause global ripples. The transatlantic partnership led. The rest of the world, Asia included, followed.

Two decades on, things have changed. The Asia-Pacific region, which accounts for more than 60% of the world's population, now accounts for roughly 40% of world trade, 35% of global GDP and 30% of global personal consumption.[1] It is a region of great wealth ($40,200 per capita income in Japan), great poverty ($2,100 per capita income in India), and continued rivalries. Yet some countries across this vast space have forged pathbreaking economic ties, first in 2018 via the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), a free trade agreement between seven Asian countries and Canada, Mexico, Chile and Peru; and in December 2020 via the Regional Comprehensive Economic Partnership (RCEP), now the world's largest trading bloc, encompassing ten countries of Southeast Asia, plus South Korea, Japan, Australia, New Zealand, and China.

Perhaps the most profound change is China's transformation from bit player to global heavyweight. China has become a manufacturing juggernaut, a superpower in global trade, a significant exporter of capital, and a world leader in a number of cutting-edge industries, from quantum computing to life sciences. Its $15 trillion economy is second in size only to that of the United States.

On a per-capita basis, of course, China still has far to go. Per-capita GDP in China ($10,262 in 2019) significantly lags that of the United States ($65,298) and EU member states ($34,919 on average). Household consumption as a share of GDP is still by far the lowest of any major economy.

Nonetheless, China's impressive economic strides, together with the sheer scale of its immense population and the huge sweep of its resource and related needs, have made China a global heavyweight. Like other rising great powers in history, China wants to match its economic stature with more global influence – in the Asia-Pacific, the Middle East, Africa, Latin America, Eurasia and Europe. It seeks a larger voice in multilateral institutions like the United Nations, the International Monetary Fund, and the World Health Organization. It is constructing alternative regional organizations such as the Asian Infrastructure Investment Bank and has advanced a new type of "connectivity politics" via its Belt and Road Initiative. It is challenging basic norms of the rules-based international order and attempting to define new technical standards in a host of international bodies. It has ignored international legal rulings that have questioned its assertions of territorial and maritime sovereignty. All of this has raised fears of the so-called "Thucydides trap" – a scenario where a rising star (China) and an established power (the United States) end up, like Athens and Sparta, at war.

Politics and Profits

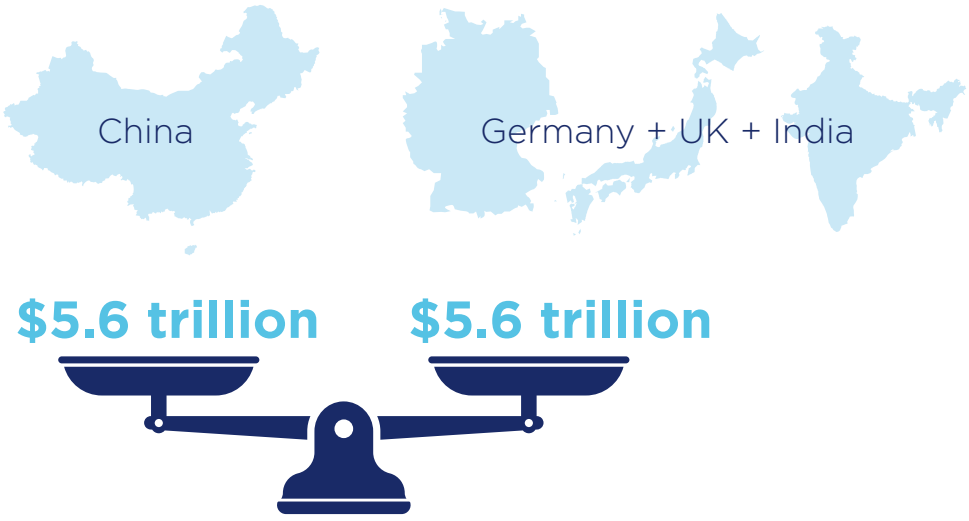
For most of this century, China's relations with the United States, Europe, and Asian democracies ebbed and flowed between cooperation and competition. Tensions would flare up, but never burned too hot or too long. That has changed in recent years, spiked in particular by antagonism between Washington and Beijing. While the COVID-19 pandemic pushed U.S.-China relations over the edge, the split between the two parties was years in the making. Even before the election of Donald Trump – the most aggressive, get-tough-with-China president in modern times – bilateral relations were adrift and fraying at the seams. Tensions have long been stoked by the hollowing out of the U.S. manufacturing base, with U.S. politicians on both sides of the aisle faulting China's unfair trade practices for the decimation of U.S. jobs and incomes. America's ever-expanding trade deficit with China has been a perennial sore spot for various U.S. administrations for years. Also undermining relations: Beijing's state-sponsored policies like "indigenous innovation," "Made in China 2025," "civil-military fusion," its treatment of Uighur and other minorities, efforts to export its brand of digital illiberalism, its anti-democratic crackdown in Hong Kong, and efforts to bully non-compliant actors.

European countries share many of these U.S. concerns. They too are frustrated by Beijing's cybertheft and disruption activities, its assaults on intellectual property, its efforts to pressure companies into technology transfer arrangements, market-distorting subsidies, shutting out non-Chinese digital companies from the Chinese market, restrictions on foreign investments in services, agriculture and other high-tech sectors, poor implementation of its WTO obligations, and its overcapacity in steel and potentially autos, robotics and other sectors of the economy. They too are wary of investments by state-owned Chinese firms in strategic infrastructure and technologies in Europe, the United States, and other countries. Europe also shares U.S. concerns about China's human rights abuses.

Nonetheless, for most of the past decade, many European countries have preferred to look at China primarily through the prism of economic opportunity – a lucrative market for German carmakers and French and Italian luxury goods companies, and a potential source of capital for hard-pressed countries in central and eastern Europe.

Despite China's transgressions on trade agreements and investment protocols, many countries and companies preferred profits to politics. As a result, China has emerged as one of the largest and most dynamic consumer markets in the world, underpinning global automakers, food and beverage firms, technology and financial leaders, aerospace firms, airlines, and many other enterprises. General Motors now sells more vehicles in China than in the United States; the same holds true for Germany's premier automakers like BMW and Mercedes Benz. Pick virtually any sector – luxury goods, fitness apparel, fast food – and there is a good chance that China rivals the United States as the top market in the world, due to its burgeoning middle class consumer base. China accounted for a staggering 27% ($5.59 trillion) of total consumer spending of developing nations in 2019. That is almost equivalent to the combined annual consumer spending of Germany, the UK and India ($5.58 trillion).

Consumer spending (2019)



Trade in goods and services (2020)

Commerce Is More Than Trade, and Trade is More Than Flows of Goods

China's rise has translated into burgeoning trade in goods, including with Europe. According to figures from the IMF, EU28 goods exports to China expanded at a compounded annual rate of 13.2% between 2000 and 2019, compared to 4.5% annual growth in exports to the United States. EU28 goods imports from China, meanwhile, rose 10.7% over the same time period, while U.S. goods imports expanded by just 2.7%.

These numbers have reinforced a fairly widespread – yet incorrect – view that China has become Europe's top commercial partner, reinforced by a February 2021 report by Eurostat, the EU's statistical agency, that EU27 goods trade with China in 2020 totaled €586 billion, compared to €555 billion in EU27 trade with the United States. That is a significant change from 2019, when EU27 trade with the United States was €617 billion, whereas EU27 goods trade with China was €561 billion.[2]

Trade between countries, however, doesn't just consist of trade in goods. It also includes trade in services, which the Eurostat report did not include. Services trade has been growing faster than goods trade. More European and American jobs depend on services than on goods, and the United States remains the EU's top services trade partner.

While final numbers for trade in services are not yet available for the full year 2020, we do have data for the first three quarters of the year. Trade in services between the EU and the United States during that period was €296.3 billion – five times more than the trade in services between the EU and China, which totaled €53.3 billion.[3]

If we annualize those figures to estimate the EU's total trade in goods and services for 2020, we find that EU27-China trade in goods and services likely totaled €657 billion in 2020, while EU27-U.S. trade was €950 billion – 40% higher.[4]

In short, if you look at overall trade flows and not just one kind of flow, it is clear that the EU's largest trading partner is actually the United States, as it has been for decades.

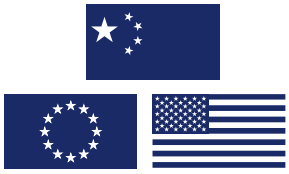
The Two-Lane Highway vs. the Twelve-Lane *Autobahn*

Just as trade is more than just flows of goods, international commerce is more than just trade. Reducing complex commercial ties to one metric – trade in goods – ignores the importance not only of services, but a host of additional economic ties that bind the EU and the United States in far deeper ways than those that bind either to China.[5]

U.S. and European commercial ties with China are akin to a two-lane highway, whereas their commercial ties with each other are more like a twelve-lane *Autobahn*.

The highways to and from China are full of goods. They are busy, and they are crowded. Any type of accident on a two-lane highway can really snarl traffic – as we saw when supply chains were disrupted by the pandemic and by the U.S.-China tariff war.

Alongside the highway are narrow bike lanes for services. The EU and China have been busy trying to build a new lane on their highway – an investment path that they believe could unsnarl some of that traffic and add to their overall connections. Despite the EU-China Comprehensive Agreement on Investment inked in December 2020, however, that investment lane remains a construction site, as opposition has arisen in some member states and in the European Parliament, which ultimately have to sign off on a final deal. Road construction on that deal is likely to continue through 2021.



The ties that bind the EU to the United States are much thicker and far deeper than those that bind either to China

The commercial highway connecting the EU with the United States, in contrast, looks more like a twelve-lane *Autobahn*. Not only are there fewer speed limits and an even wider lane for goods, there are additional lanes for services, investment streams, and sales of companies on each side of the Atlantic. The transatlantic digital lanes carry 75% of global digital content. The innovation lanes hosting research and development flows are the most intense between any two international partners. The jobs lanes provide employment for 16 million Europeans and Americans.

We show throughout this report that on each of these metrics, the ties that bind the EU to the United States are much thicker and far deeper than those that bind either to China.

Share of the EU's total outward FDI position globally

(2018)

U.S.
32%

China
2.5%

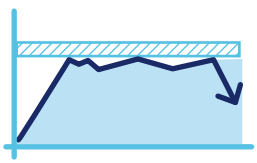
The U.S. accounted for 32% of the EU's total outward FDI position globally in 2018, whereas China accounted for just 2.5% of the total. Total European stock in the United States of $2.9 trillion in 2019 was more than three times the level of comparable investment from Asia. Germany's total FDI stock in the United States totaled $373 billion in 2019. Chinese FDI stock in the United States was only one-tenth of that total ($37 billion).

Europe's role vis-à-vis the United States is very similar. Measured on an historic cost basis, the total stock of U.S. FDI in Europe was $3.6 trillion in 2019 – 60% of America's total global investment position and almost four times U.S. investment in the Asia-Pacific region. U.S. FDI in the UK in 2019 was seven times more than such investment in China. Equivalent U.S. investment in Germany was 1.3 times more than in China.

When flows from holding companies are removed, Europe still accounted for over half of total U.S. FDI outflows globally and more than double the share to Asia over the past decade through 2019.

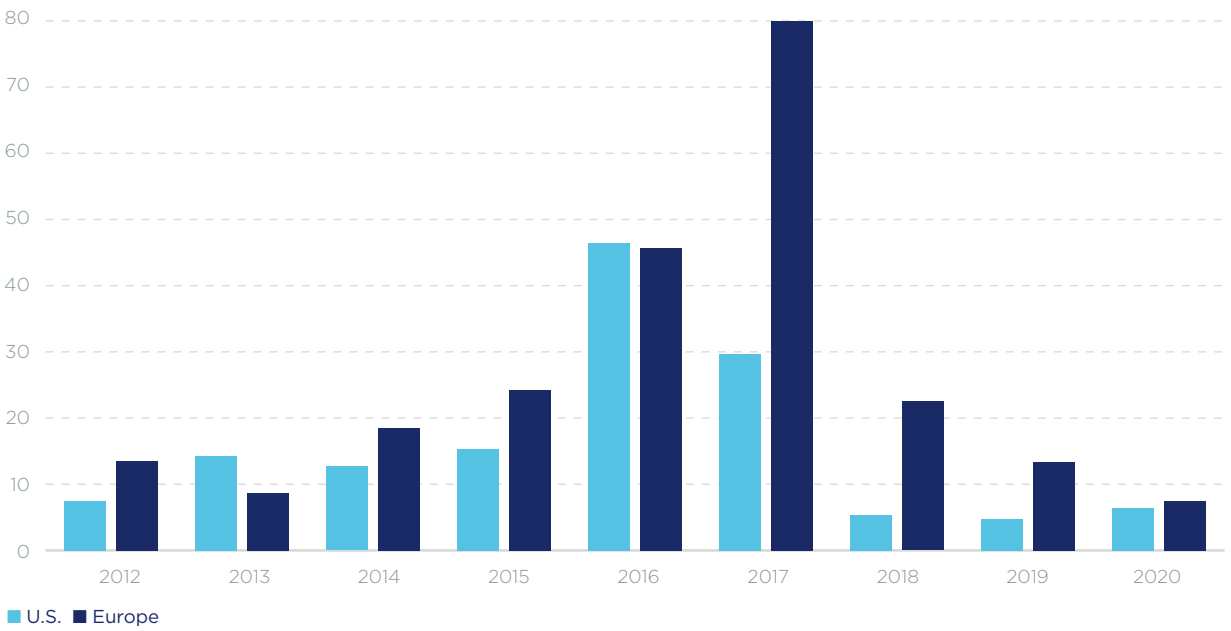
In the first three quarters of 2020, U.S. companies invested $55 billion in Europe, seven times more than what Chinese firms invested in Europe. And despite the pandemic-induced recession, U.S. companies in 2020 earned an estimated $254 billion from their operations in Europe – 23 times what they earned from operations in China.

Deep and thickening transatlantic investment ties contrast starkly with FDI coming to each continent from China. For some years Chinese FDI in both the United States and Europe soared from a relatively low base. However, Chinese investment is now plummeting on both continents due to bilateral commercial tensions and tighter U.S. and European scrutiny of such investments (Table 1). Chinese investment flows to the United States rose slightly to approximately $6.4 billion last year, although Chinese FDI in Europe fell by 44% to $7.5 billion. Relatively low Chinese FDI, in turn, generates relatively few U.S. and European jobs. Mutual flows of investment across the Atlantic, in contrast, provide directly for close to 10 million jobs.



Chinese investment is now plummeting in both the EU and the U.S. due to bilateral commercial tensions and tighter investment screening

Table 1. Value of Completed Chinese FDI Transactions in Europe vs. U.S. ($ Billions)



Data represents greenfield investments and acquisitions that result in significant ownership control (>10% of equity) in the U.S. and Europe, excludes divestitures. Europe includes EU28 plus Norway, Switzerland, Iceland, Liechtenstein.
Source: Rhodium Group; Baker McKenzie.
Data as of January 2021.

The digital revolution has further enhanced the importance of the transatlantic economy in comparison with U.S. and European ties to China. U.S. exports of digitally-enabled services to Europe in 2019 were double equivalent exports to the entire Asia-Pacific region, and EU exports of digitally-enabled services to the United States alone were greater than equivalent exports to Asia and Oceania.

Despite the tremendous political and economic headwinds that have buffeted the transatlantic relationship in recent years, the United States and the EU remain each other's most important trading partners and each other's most significant commercial markets – bar none.

At the end of the day, U.S. and European multinationals make their living on the other side of the Atlantic, rather than across the Pacific. As one CEO said to us, "we are positioning ourselves for China. But at the moment, we are earning our money in Europe." U.S. affiliate income in Europe during the first nine months of 2020 of $180 billion was 25 times more than U.S. affiliate income in China ($7.1 billion) and roughly 55% of all U.S. global foreign affiliate income. We estimate that income of European affiliates in the United States in 2020 fell 32% to $91 billion, but that was after hitting a near-record level of $134 billion in 2019 – far more than European affiliate income in China and in Asia overall.

Foreign affiliate income (Q1-Q3 2020)

$180 billion
U.S. affiliate income in Europe

25X

$7.1 billion
U.S. affiliate income in China

All of these facts run counter to the fashionable narrative that U.S. and European companies prefer China or other lower-cost nations to developed markets. The reality is different, for several reasons. First, investing in Europe or the United States is relatively easy, while investing in China remains difficult because of onerous restrictions on foreign ownership and forced technology transfer rules, not to mention heavily subsidized competition from state-owned and state-controlled Chinese companies. Moreover, investors can trust the legal systems and transparent regulatory models in the United States and across Europe. Not so in China.

Second, growth prospects in China have slowed not only because of the coronavirus but because Beijing has shifted toward more consumption- and services-led growth and away from export- and investment-driven growth.

Third, in addition to being two huge markets, the United States and Europe are wealthy, which is correlated with highly skilled labor, rising per capita incomes, innovation, and world class R&D infrastructure, among other things. Together the United States and Europe account for half of global consumption, and gaining access to wealthy consumers is among the primary reasons why U.S. and European firms invest in each other's markets.

Rethinking Global Supply Chains

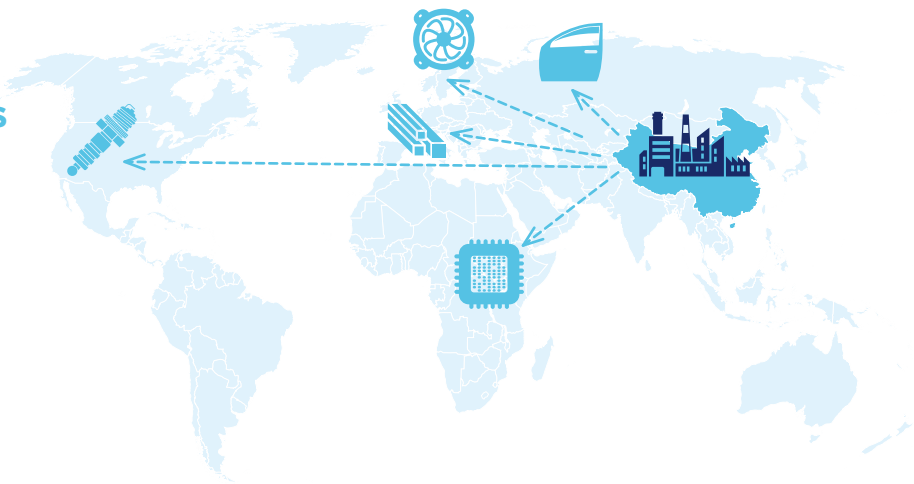
Most Western companies are in China because they seek to expand their presence in the Chinese domestic market, not because China is a cog in their extended global supply chains. Nonetheless, about 20% of global trade in manufacturing intermediate products used in supply chains now originates in China, up from 4% in 2002. Chinese manufacturing is essential to many global supply chains, especially those related to precision instruments, machinery, automotive and communication equipment, but also other key industries such as pharmaceuticals.[6]

China's key role was painfully driven home when Beijing locked down its economy in late January 2020. As factories were shuttered across the country, the ripple effects were felt far and wide. Governments and major companies were confronted with the prospect that many global supply chains had become too complex, too far from home, and above all else, too China-centric.

China's Hubei province, the original epicenter of the pandemic, is an auto manufacturing hub. When it shut down, auto supply shortages quickly appeared across Asia, Europe and the United States. Shortages of key electronic parts and components swiftly emerged, penalizing some of the largest technology companies in the world. Apple, reflecting its dependence on China as a key supplier and assembler of iPhones, cut its sales expectations following China's lockdown. Textile and apparel designers were denied their seasonal supply of products as Chinese factories went quiet. Most distressing was that Chinese-produced medical supplies, ranging from masks and ventilators to critical pharmaceutical ingredients, dried up in the world's greatest hour of need.[7]

In the pre-COVID-19 world, little concern or attention was paid to the fact that China was producing half of the world's medical masks, that nearly three-quarters of blood thinners imported by Italy were sourced from China, that Japan relied on China for 60% of its total imports of antibodies, or that China accounted for 40% of Germany's, Italy's and France's imports of antibodies. According to the U.S. Commerce Department, 95% of ibuprofen, 91% of hydrocortisone, 70% of acetaminophen, 45% of penicillin, and 40% of heparin imported into the United States in 2018 came from China.[8]

20% of global trade in manufacturing intermediate products used in supply chains originates in China, up from 4% in 2002.



Why companies are reorganizing their global supply chains

Negative impact of too much concentration and complexity highlighted by COVID-19

Environment, social and governance factors prioritized by investors

Data security and privacy concerns

Technological progress and digital innovations

Changing cost considerations (labor and production)

These dependencies in specific areas do not mean, however, that China has suddenly come to dominate critical supply chains. According to the WTO, Germany is the largest exporter of medical goods worldwide ($136 billion in 2017, latest available) followed by the United States as the second largest exporter of medical goods worldwide, with exports of $116 billion. The United States is the world's second largest exporter of ventilators, trailing only Singapore, and the third largest exporter of personal protective equipment.

The top sources of U.S. imports of medical products are Ireland ($26 billion), Germany ($16 billion), and Switzerland ($13 billion). China comes in fourth place at $12.5 billion, or half Ireland's figure.

Census data on U.S. imports (2019) confirm that China's role in pharmaceutical manufacturing has been exaggerated. China isn't even among the top 15 sources of U.S. imports of vaccines or finished pharmaceutical products (FPPs), and it accounts for 9% of U.S. imports of antibiotics (active pharmaceutical ingredients (APIs) and FPPs). China was the source for 15% of U.S. imports of APIs and just 4% of U.S. imports of all pharmaceutical products last year.

In addition to robust domestic manufacturing in the pharmaceutical sector, the United States draws on a diverse array of suppliers to mitigate possible supply chain risks. According to U.S. Census data, Ireland (21%), Germany (13%), and Switzerland (12%) are the top sources of U.S. pharmaceutical imports. Ten additional countries (eight in Europe plus India and Japan) account for between 3% and 6% each.

Nonetheless, the pandemic and its ripple effects generated disruptions across both China-centric and transatlantic supply chains. In the end, 950 of *Fortune*'s top 1000 companies reported supply chain disruptions in 2020. Firms across the world were forced to re-evaluate how and where to organize their global operations. Not only did they realize that some of their supply chains had become too concentrated, the pandemic laid bare the uncomfortable fact that these interconnected webs had also become so complicated and opaque that even the companies involved did not fully understand where intermediate components and critical materials essential to their products came from.[9]

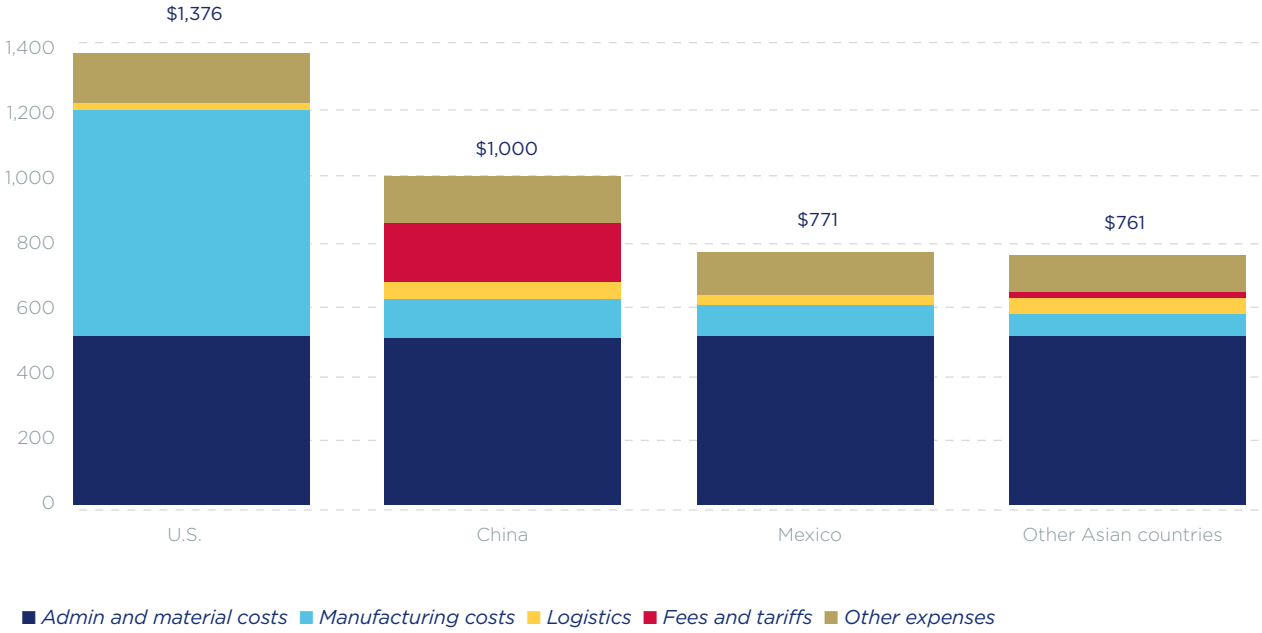
Even before the pandemic hit, countries and companies were reconsidering the pros and cons of allowing China to become "the factory of the world." Fears have grown that making equipment in China might put data security and privacy at risk. National security, already a concern, has become a priority. Japan set aside $2.2 billion to help and encourage Japanese firms to relocate from China. The UK government launched "Project Defend" to examine how to reduce reliance on China. Similar motivations shaped the EU's package of post-pandemic recovery spending. Just weeks after taking office, the Biden administration launched a 100-day review of ways to mitigate U.S. dependencies on supply chains involving semiconductors, electric vehicle batteries, rare earth metals and medical products, to be followed by a deeper one-year review of a broader sectors such as defense, public health, biological preparedness, information and communications technology, transportation, energy and food production.

Changing cost considerations have also caused rethinking. One reason why China became such a critical cog in global supply chains was its competitive cost of labor and production. That advantage is disappearing, to the benefit of Mexico and southeast Asian countries (Table 2). In 1990, China had an average monthly wage of $55. By 2018, that increased to $990 – three times higher than in Vietnam and nearly double that in Mexico. The result: footwear, accessories, toy and furniture manufacturers began moving out of China more than a decade ago. More than 83% of North American businesses and about 90% of European firms have announced plans to relocate at least part of their supply chains away from China.[10]

Environmental, social, and governance (ESG) considerations are also causing a rethink of China-centered supply chains. Investors are starting to signal that they are likely to give greater weight to the ESG scores of large companies.

Table 2. China's Disappearing Cost Advantage

Cost of making a hypothetical product, selected countries ($)



The hypothetical product is produced in China at a total cost of $1,000. The manufacturing cost is 10% of the cost of goods sold and the logistics cost is 5%.
Source: PwC; The Financial Times.

Finally, as we note in Chapter Three, technological progress and digital innovations are challenging old assumptions that supply-chain resiliency can be achieved only at the cost of efficiency. [11]

All of these considerations were already underway before 2020. The pandemic rendered each of them more acute. Companies and countries around the world are looking to redefine the terms of their interdependence. In some cases, this is leading to new strategies of diversification. Others are taking a more extreme step, which they call decoupling.[12]

The new landscape is likely to be very different than before the pandemic, as the one-world, hyper-globalization model of just-in-time supply chains built around hyper-efficient cross-border trade in tasks, which enabled China to become the world's factory, is reshuffled into a different type of globalization – that is, a globalization built around less complex and opaque, and more resilient and robust supply chains framed by China/Southeast Asia on the one hand, and the United States and Europe on the other. These changes are evident across a number of critical industries, from foodstuffs, pharmaceuticals and semiconductors to medical equipment, critical materials and defense-related supply chains. All told, McKinsey estimates that as much as $4.6 trillion in trade flows may be rebalanced across geographies in coming years.[13]

1 Asia here is defined as the entire Asia-Pacific region, including South Asia and developed Asia and Oceania countries including Japan, Australia and New Zealand.
2 Eurostat, "Euro area international trade in goods surplus €29.2 bn," February 15, 2021, https://ec.europa.eu/eurostat/documents/portlet_file_entry/2995521/6-15022021-BP-EN.pdf/e8b971dd-7b51-752b-2253-7fdb1786f4d9.
3 Eurostat, balance of payments database, https://ec.europa.eu/eurostat/web/balance-of-payments/data/database.
4 U.S. goods trade with the EU28 in 2020 ($757 billion) was also much larger than U.S. goods trade with China ($560 billion).
5 Unfortunately, a number of public agencies in Europe make the mistake of reducing overall trade to just trade in goods. The German Federal Statistical Office, for instance, consistently proclaims that China is Germany's top trading partner, even though those claims are patently false if one looks at overall German-China trade, not just trade in goods.
6 UNCTAD, "Global trade impact of the coronavirus (COVID-19) epidemic," March 4, 2020, https://unctad.org/en/PublicationsLibrary/ditcinf2020d1.pdf.
7 See Jon Emont and Chuin-Wei Yap, "Companies That Got Out of China Before Coronavirus Are Still Tangled in Its Supply Chains," *Wall Street Journal*, March 8, 2020.
8 Keith Bradsher and Liz Alderman, "The World Needs Masks. China Makes Them, but Has Been Hoarding Them," *New York Times*, April 2, 2020; Daniel F. Runde and Sundar R. Ramanujam, "Global Economy – Recovery with Resilience: Diversifying Supply Chains to Reduce Risk in the Global Economy," CSIS, https://www.csis.org/analysis/recovery-resilience-diversifying-supply-chains-reduce-risk-global-economy.
9 Nathaniel Taplin and Charley, "If Coronavirus-Stricken China Can't Export Medicine, the World Is in Trouble," *Wall Street Journal*, March 4, 2020; Martijn Rasser, "Pandemic Problem: America's Supply Chains are Dangerously Brittle," *National Interest*, March 17, 2020, https://nationalinterest.org/feature/pandemic-problem-americas-supply-chains-are-dangerously-brittle-134022.
10 Kathrin Hille, "The great uncoupling: one supply chain for China, one for everywhere else," *Financial Times*, October 6, 2020; Kathrin Hille, "China's share of global exports falls in supply chains rethink," *Financial Times*, August 17, 2020; Runde and Ramanujam, op. cit.
11 See also McKinsey, "Risk, resilience, and rebalancing in global value chains," August 6, 2020, https://www.mckinsey.com/business-functions/operations/our-insights/risk-resilience-and-rebalancing-in-global-value-chains.
12 Torsten Riecke, "Resilience and decoupling in the era of great power competition," MERICS, August 20, 2020, https://merics.org/en/report/resilience-and-decoupling-era-great-power-competition.
13 McKinsey, "Reimagining industrial supply chains," August 11, 2020, https://www.mckinsey.com/industries/advanced-electronics/our-insights/reimagining-industrial-supply-chains; Hille, "The great uncoupling," op. cit.

4

The Digital Acceleration

Florida

Spain

The COVID-19 pandemic has further accelerated the digitalization of the transatlantic and global economies, even as it has upended the world's way of living, working and playing. Some industries have been devasted while others have grown more resilient by fast-tracking their digital transformation. Many digital pioneers experienced a gold rush as online spending surged and virtual conferencing, learning and gaming all skyrocketed. Analysts estimate the crisis has sped up the adoption of a wide range of digital technologies by at least two years.[1]

Digital tools powered an unprecedented worldwide sharing of gene sequencing data to track and treat SARS-CoV-2, the virus that causes the COVID-19 disease. The first breakthrough vaccine was a triumph of transatlantic collaboration between Germany's BioNTech and U.S.-based Pfizer. The speed at which the vaccine was developed was an amazing feat of science that was reliant on barrier-breaking synergies between digital and medical advances, and not possible for any previous pandemic.[2]

When the pandemic subsides, more government services will be online and more people will work and learn more flexibly. Digital shopping, virtual fitness, and online courses are all likely to become regular fixtures of societies across the Atlantic and beyond. Digital companies will grow into new areas of business and play an even larger role in our lives than they do now. Between 2020 and 2023 companies are expected to spend $6.8 trillion on digital transformation. By the end of 2021, 60% of global GDP will be digitized.[3]

The numbers continue to astound. This year, humans will generate 74 zettabytes of data – 840 million times the Internet's size in 1997.[4] More than 5.22 billion people now use mobile phones. 4.66 billion are now online. We now spend almost as much time online as we do asleep. Nearly half a billion people began to use social media in 2020, taking the global total to 4.2. billion people who will spend a total of 3.7 trillion hours on social media in 2021 – equivalent to more than 420 million years of combined human existence.[5]

The digital economy is not just connecting billions of people to each other, it is connecting them to billions of things, and it is connecting those billions of things to each other as well.[6] Cisco estimates that 500 billion devices will be connected to the Internet by 2030.[7] This has prompted former Cisco Chairman John Chambers to predict that the globe is already moving beyond the Internet of Things (IoT) to what he calls "the Internet of Everything: the penetration of the World Wide Web into the everyday aspects of our lives."[8]

For the transatlantic economy a number of digital transformations bear watching.

First, as companies and countries in North America and Europe have become more digitized and connected, they have also become more vulnerable to cyberattack and disruption. Cyberattacks spiked during COVID-19, including surreptitious efforts to gain data from scientific and medical research organizations, the World Health Organization, the European Medicines Agency, along with companies, contact-tracing applications, and hospitals in North America, Europe and around the world.[9] Data theft, cyber-espionage, supply-chain attacks, ransomware efforts and spear-phishing scams all rose sharply over the past year. This growing threat landscape has added additional burdens to organizations grappling with business continuity, travel lockdowns, remote working, and generally struggling to stay afloat. It is fueling a cybersecurity market that is expected to grow to nearly $250 billion by 2023.[10]

Second, the pandemic has spurred the further digitalization and internationalization of small- and medium-sized enterprises (SMEs). While in general SMEs tend to lag behind larger firms in terms of digital

The crisis has sped the adoption of a wide range of digital technologies by **at least two years**

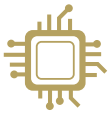
60%

of global GDP will be digitized by the end of 2021

Digital transformations impacting the transatlantic economy

Rise of cyberattacks

Growth of online payments and shopping



Digitization and internationalization of SMEs

Advent of the connected factory

adoption, many SMEs turned to online platforms during COVID-19 to gain efficiencies and access to new markets, sourcing channels and a multitude of digital networks offering e-commerce sales, teleworking capabilities and more. Digital platforms have been a lifeline to restaurant owners who saw their non-delivery sales vanish during lockdowns. Market estimates suggest that the food delivery industry is set to double its 2018 value of $85 billion by 2025. Moreover, the OECD reports that digitalization is "the key strategic means" for SMEs to reach international markets by lowering trade costs and easing access across borders. There is substantial opportunity through further internationalization. According to Eurostat, less than half of small businesses with e-commerce sales sell in other EU countries and an even lower share sell outside of the EU. A similar trend can be observed for medium-sized firms selling via e-commerce: half sell in other EU countries and less than a third sell outside of the EU.[11]

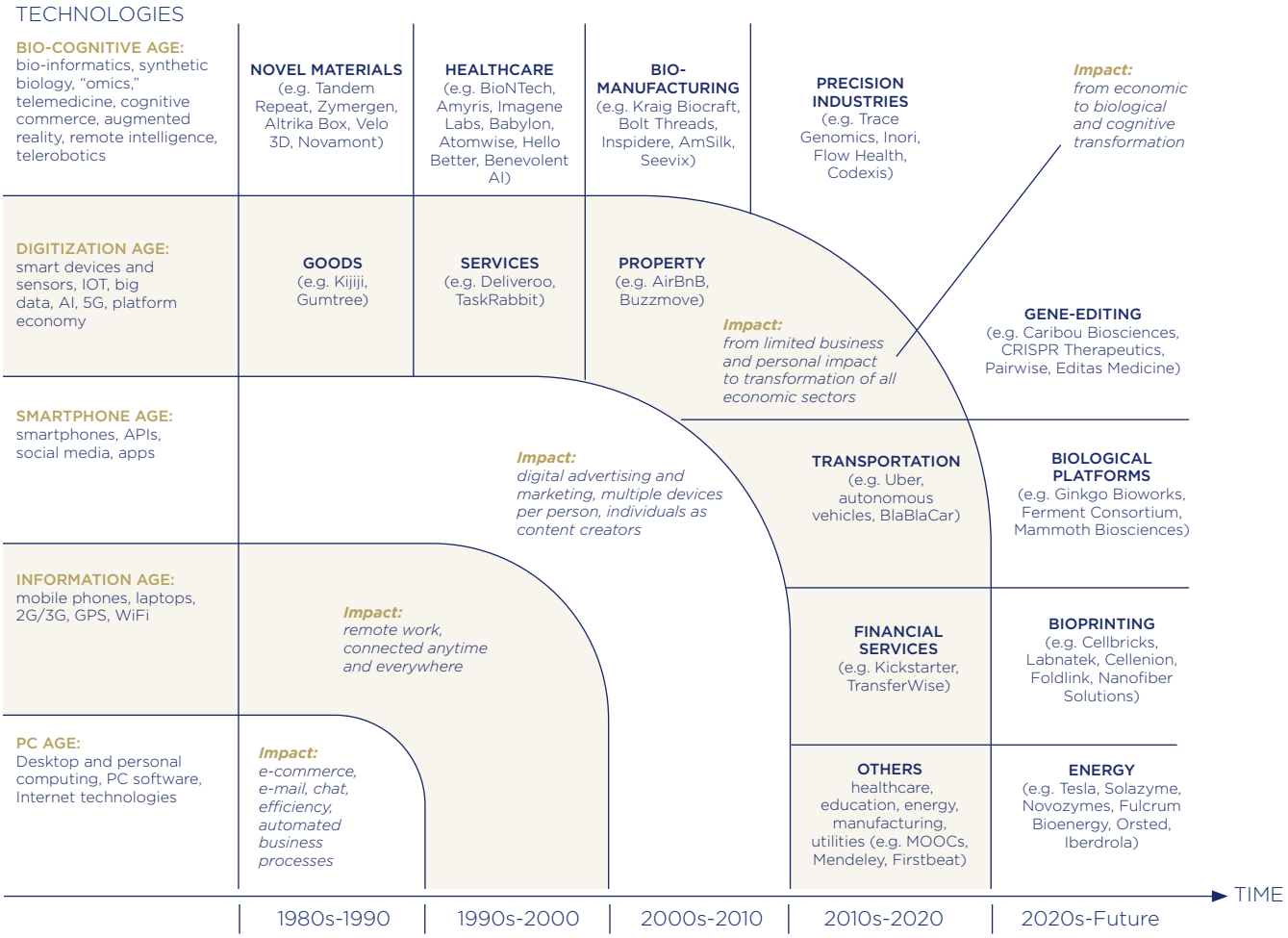
Third, the pandemic accelerated an ongoing transformation in the way people spend and move their money. More than 40% of the world's adult population uses the Internet to pay bills or shop online.[12] FinTech, a combination of technology and financial services, holds promise for deploying funds more nimbly to places and people in need. The consumer-oriented FinTech market alone is expected to reach $11.2 trillion in transaction value by 2024. Digital payments account for the largest segment of that market, with a transaction value of $4.9 trillion in 2020 that is expected to reach $8.4 trillion by 2024. China and the United States lead this market, with Europe struggling. For instance, while cash is still king in Germany, mobile payments in China (such as Alipay and WeChat Pay) have already all but replaced cash.[13]

Germany and other advanced manufacturing countries are likely to fare much better when it comes to another new frontier: the advent of the connected factory. It is estimated that smart factories will have delivered over $500 billion in value, and increased overall manufacturing productivity by a factor of seven, over the past five years. Their potential is enhanced by 3D technologies such as 3D printing, 3D visualization and 3D configuration. These digital innovations are changing how products are designed, manufactured, used and serviced. Mass production is shifting to mass customization. Product-based manufacturing models are increasingly complemented by product-as-a-service models. Extended trade-in-task supply chains are evolving into smarter, connected and more resilient systems. Lower-cost countries, such as China, are no longer the automatic first choice for manufacturing facilities, as producers build capacities closer to their customers and seek to avoid bottlenecks and chokepoints.[14]

Entering the Bio-Cognitive Age

Even as we grapple with the advances and challenges of the "Digital Age," some pathfinders are already charting new revolutionary advances in quantum physics, biology, nanotechnology, behavioral and cognitive sciences and artificial intelligence (AI).[15] In previous surveys we used Table 1 to herald the possibilities. Now we are able to give this chart greater detail, as this new age has already arrived, due to scientific breakthroughs and to the cascading changes wrought by the pandemic. New industries are appearing, led by pioneering companies on both sides of the Atlantic.

Table 1 The Expanding Digital Frontier



Sources: GSMA Intelligence; McKinsey Global Institute; Author's own estimates

The pandemic has been a major accelerant of the biological revolution. The pace of scientific research into SARS-CoV-2 has been extraordinary, even when compared to the work that accompanied the SARS epidemic in 2002–03. Scientists mapped the virus genome in weeks rather than months. Less than six months after the discovery of the virus, 161 vaccine and therapy candidates were in the research-and-development pipeline. Now multiple vaccines are available and many more are in development. The breakthrough of successful mRNA vaccines promises to pave the way for a new generation of products.[16]

By 2025, 40% of the datasphere will be in health – the largest of any sector or industry. This explosion of genetic and health data – and increasing abilities to process it – hold significant potential for scientific and medical achievement worldwide. Telemedicine, telepresence, and telesurgery are transforming medical techniques and generating greater cross-border trade in healthcare services.[17]

Synthetic biology, a field that uses biology as a manufacturing platform, has emerged as a foundational element of the $4 trillion bioeconomy. The market for goods and services related to synthetic biology is expected to reach $15 billion by 2025. McKinsey estimates that insights derived from biological data could account for more than half of economic potential in the next decade. Looking farther out, it suggests that as much as 60% of the physical inputs to the global economy could, in principle, be produced biologically. Attaining that full potential is a long way off, yet even modest progress could transform economies, societies, and our lives, including what we eat and wear, the medicines we take, the fuels we use, and how we construct our physical world.[18]

Changing the Nature of Trade

Digitalization is not just changing the scale, scope and speed of trade, it is changing its very nature.

Many services sectors that were once non-tradable – because they had to be delivered face-to-face – have become highly tradable – because they can now be delivered over long distances.[19] Digitalization even blurs the distinction between trade in goods and services. Automakers are now also services providers; online retailers are now also manufacturers. 3D-printing generates products that are a mix of goods and services.[20] Digitalization increases the importance of data flows and intellectual property. It has boosted trade in software design over trade in final products.[21] It offers alternative means of payment and finance. It has lowered shipping and customs processing times and reduced the cost of creating, copying and accessing text, video content and music, while enhancing our ability to access goods and services without owning them.[22]

How Prepared are Europe and the United States for Digital Transformation?

The 2020 Network Readiness Index measures how prepared countries are to leverage the opportunities offered by technological innovation. It does so by looking at the state of technology infrastructure, the ability of individuals, businesses and governments to use information and communications technologies (ICT) productively, how conducive the national environment is for a country's participation in the network economy, and the economic, social, and human impact of a country's participation in the network economy. Based on these metrics, Europe and the United States represent nine of the top ten countries in the world when it comes to technology readiness and adoption (Table 2). Singapore was the lone Asian country in the top ten. The Republic of Korea ranked 14th, Japan 15th, and China 40th.[23]

Digital Globalization: Still Uneven

"Digital globalization" evokes the image of a seamless global marketplace in which unbridled data flows drive goods, services and money across national boundaries without friction. Reality is different. Digital connections are "thicker" between some continents and "thinner" between others – and they are "thickest" between the United States and Europe. Researchers and firms on each side of the Atlantic have been the vanguard of the digital economy. The transatlantic region is the fulcrum of global digital connectivity. North America and Europe generate approximately 75% of digital content for internet users worldwide. U.S. and European cities (Frankfurt, London, Amsterdam, Paris, Stockholm, Miami, Marseille, New York) represent the world's foremost hubs for international communication and data exchange.[24]

Our understanding of the full impact of the digital economy is limited by our inability to measure it. Not only is there is no widely accepted definition of the digital economy, governments simply don't have good data about data. In addition, while many digital services are considered "free," they clearly have value to both producer and consumer. This value is difficult to calculate and none of this is counted in official economic measures.[25]

Failing standard measurements, we have devised five metrics through which we can see more clearly the importance of transatlantic digital connections. These metrics are not mutually exclusive; they are better understood as different lenses through which one can better understand the transatlantic digital economy.

Table 2. **Top Ten Network-Ready Countries, 2020**

Country	NRI Rank	Technology	People	Governance	Impact
Sweden	1	2	4	4	3
Denmark	2	5	1	2	5
Singapore	3	10	5	13	1
Netherlands	4	3	9	3	4
Switzerland	5	1	13	10	2
Finland	6	9	3	5	9
Norway	7	11	8	1	6
United States	8	4	7	8	14
Germany	9	7	12	12	7
United Kingdom	10	8	14	14	10

Source: Soumitra Dutta and Bruno Lanvin, eds., The Network Readiness Index 2020: Accelerating Digital Transformation in a post-COVID Global Economy (Washington, DC: Portulans Institute, 2020), https://networkreadinessindex.org/wp-content/uploads/2020/10/NRI-2020-Final-Report-October2020.pdf.

1. Digital Services and Digitally-Enabled Services

The digital economy is dominated by services, which accounted for over 90% of total U.S. digital economy current-dollar value added in 2017.[26] Two metrics offer us a clearer picture of transatlantic connections in digital services. A narrow view can be had by looking at cross-border ICT services, or digital services as shorthand, which are services used to facilitate information processing and communication.[27] A broader view can be taken by looking at digitally-enabled services: services that can be, but not necessarily are, delivered remotely over ICT networks. These include digital services as well as "activities that can be specified, performed, delivered, evaluated and consumed electronically."[28] Identifying potentially ICT-enabled services does not tell us with certainty whether the services are actually traded digitally.[29] But the U.S. Commerce Department notes that "these service categories are the ones in which digital technologies present the most opportunity to transform the relationship between buyer and seller from the traditional in-person delivery mode to a digital one,"[30] which means a digital transaction is likely and thus can offer a rough indication of the potential for digital trade.[31]

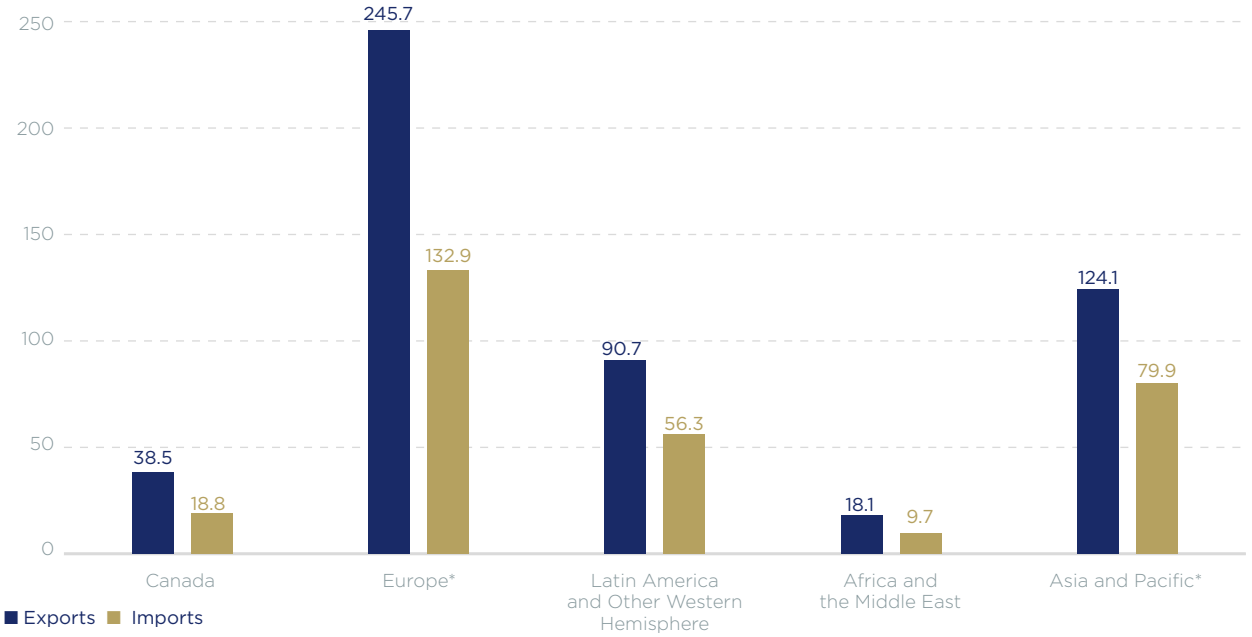
In 2018, the latest year of available data, digitally-enabled services exports amounted to $2.9 trillion, half of total global services exports. Business services exports were by far the largest category, with a global value of $1.2 trillion.[32]

Digitally-enabled services are not just exported directly, they are used in manufacturing and to produce goods and services for export. Over half of digitally-enabled services imported by the United States from the European Union is used to produce U.S. products for export, and vice versa, thus generating an additional value-added effect on trade that is not easily captured in standard metrics.[33] According to the OECD, the top global hubs for imports and exports of digitally deliverable services are the United States, Germany, Ireland, the Netherlands, France and the UK.[34]

In 2019, digitally-enabled services accounted for 59% of all U.S. services exports, 50% of all services imports, and 76% of the U.S. global surplus in trade in services (Table 7).

In 2019 the United States registered a $219.9 billion trade surplus in digitally-enabled services with the world. Its main commercial partner was Europe, to which it exported over $245 billion in digitally-enabled services and from which it imported an estimated $133 billion, generating a trade surplus with Europe in this area of over $112 billion. U.S. exports of digitally-enabled services to Europe were about 2.7 times greater than U.S. digitally-enabled services exports to Latin America, and roughly double U.S. digitally-enabled services exports to the entire Asia-Pacific region (Table 3).

Table 3 U.S. Trade in Digitally-Enabled Services by Major Area, 2019 ($Billions)



**Europe imports of ICT are author's estimates. Actual data for ICT imports in 2019 have been suppressed to avoid disclosure of individual company data.*
Source: Bureau of Economic Analysis, Trade in Potentially ICT-Enabled Services Database.
Data as of July 2020.

The 27 EU member states collectively exported €1.1 trillion in digitally-enabled services to countries both inside and outside the EU in 2019.[35] EU27 imports of digitally-enabled services were also €1.1 trillion in 2019. Excluding intra-EU trade, EU member states exported €585 billion and imported €622 billion in digitally-enabled services, resulting in a deficit of €37 billion for these services (See Table 3 and Table 4).

Digitally-enabled services represented 55% of all EU services exports to non-EU countries and 63% of all EU services imports from non-EU countries.

In 2019 the United States accounted for 22% of the EU27's digitally-enabled services exports to non-EU countries, and 27% of EU digitally-enabled services imports from non-EU countries.[36] The United States purchased €130 billion, according to Eurostat data for 2019, making it one of the largest consumers of EU digitally-enabled services exports.

European countries with the largest estimated value of digitally-enabled services exports were the UK (€261 billion), Ireland (€177 billion), Germany (€173 billion), and the Netherlands (€160 billion).

On the other side of the equation, EU27 member states imported €1.1 trillion in digitally-enabled services, according to 2019 data from Eurostat. 42% originated from other EU27 member states (See Table 4). Another 16% (€167 billion) came from the United States – making it the largest supplier of these services – and 11% came from the UK.

Table 4 Destination of EU27 Exports of Digitally-Enabled Services, 2019 (€Billions)

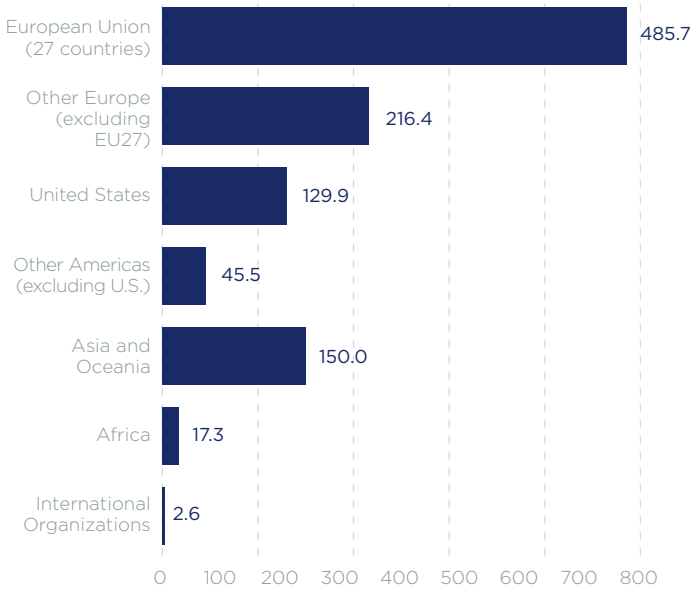
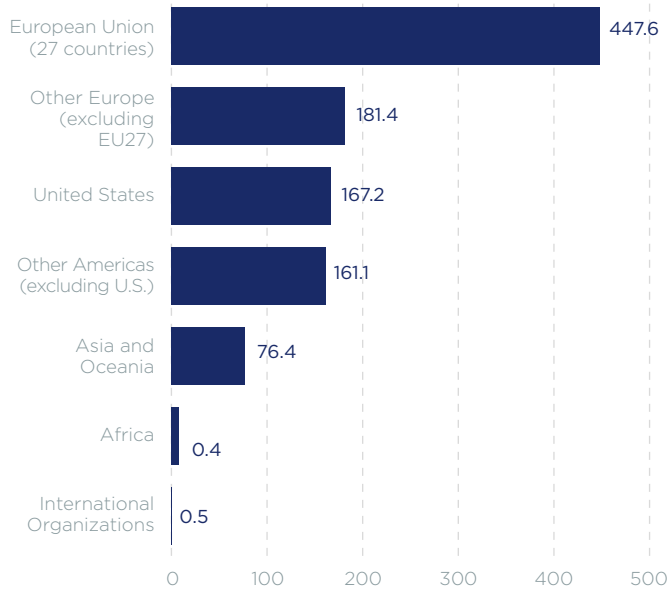


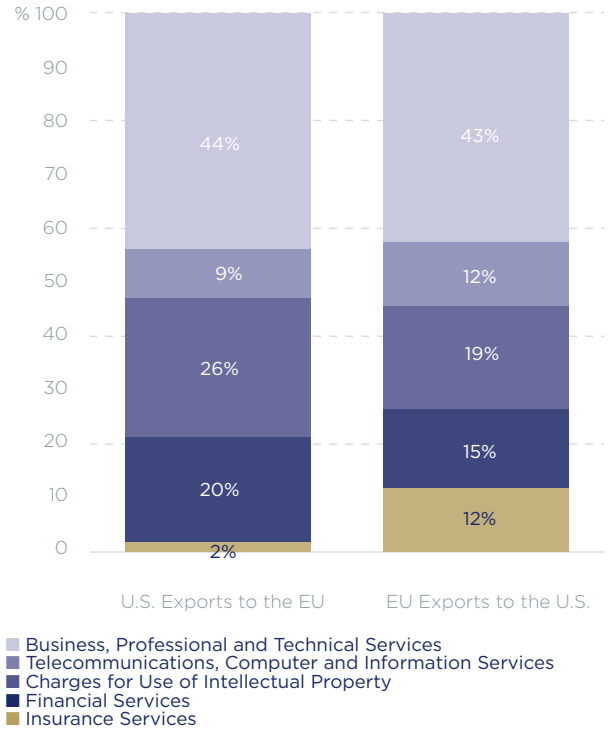
Table 5 Origin of EU27 Imports of Digitally-Enabled Services, 2019 (€Billions)



Note: Digitally-Enabled Services includes finance; insurance; IP charges; telecommunications, computer, information services; R&D services; professional and managemet services; architectural, engineering, scientific and other techhnical services; and select other business services. Asia includes Middle East countries. Data on EU28 exports and imports of services by product is not available from Eurostat for the year 2019.
Source: Eurostat. Data as of March 2021.

Table 6 categorizes U.S.-EU digitally-enabled services trade into five sectors. For both economies, the most important exports are represented by business, professional and technical services, which accounted for 43% of digitally-enabled services exports from the EU to the United States and 44% of digitally-enabled services exports from the United States to the EU in 2019. The second most important category consists of intellectual property, including royalties and license fees, most of which are paid on industrial processes and software, underscoring how integral such transatlantic inputs are to production processes in each economy.[37] Financial services comprise the third largest digitally-enabled services export category.

Table 6 U.S.-EU Digitally Enabled Services Trade by Sector, 2019



Share of Business, Professional and Technical Services in EU exports is based on authors' estimates. Data had been supressed to avoid disclosure of individual company data.
Sources: U.S. Bureau of Economic Analysis.
Data as of July 2020.

Digitally-Enabled Services Supplied Through Foreign Affiliates

The digital economy has transformed the way trade in both goods and services is conducted across the Atlantic and around the world. Even more important, however, is the delivery of digital services by U.S. and European foreign affiliates – another indicator reinforcing the importance of foreign direct investment, rather than trade, as the major driver of transatlantic commerce. U.S. services supplied by affiliates abroad were $1.704 trillion, roughly double global U.S. services exports of $875.83 billion. Moreover, half of all services supplied by U.S. affiliates abroad are digitally-enabled (Table 7).

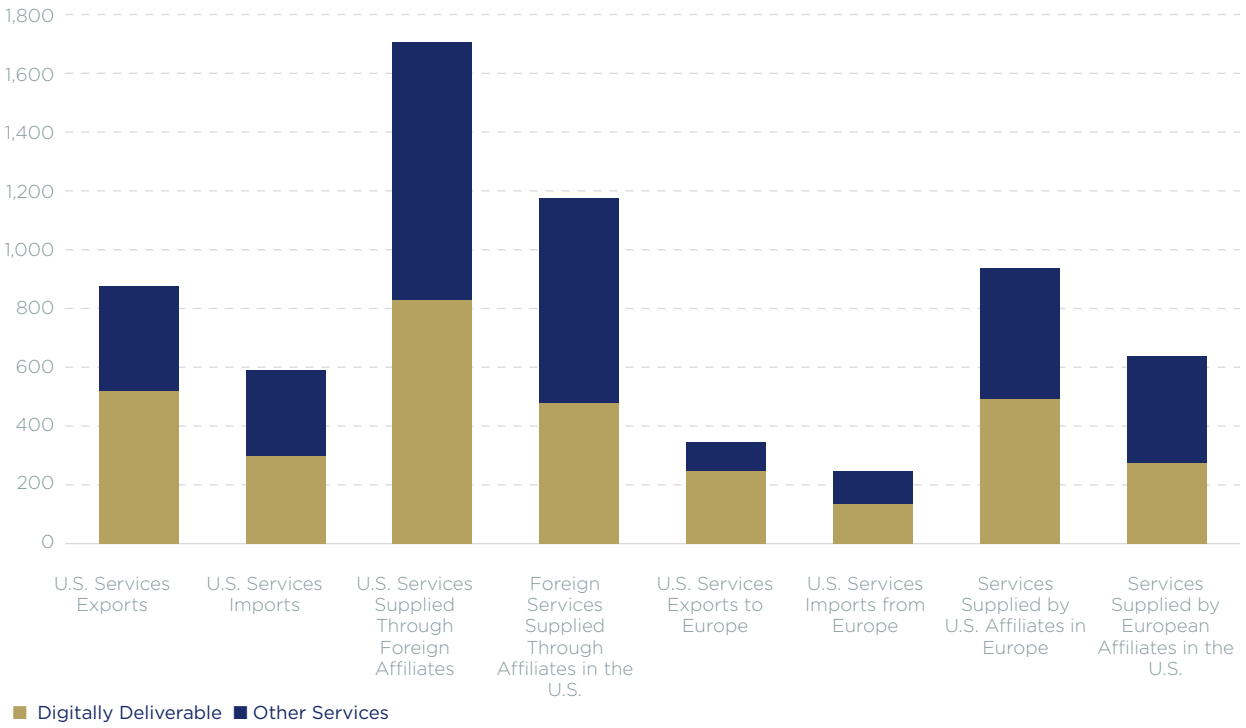
Table 7 underscores the relative importance of digitally-enabled services supplied by affiliates of U.S. companies located in Europe and affiliates of European companies in the United States, versus U.S. and European exports of digitally-enabled services. 52% of the $938 billion in services provided in Europe by U.S. affiliates in 2018 was digitally-enabled. In 2018 U.S. affiliates in Europe supplied $490.51 billion in digitally-enabled services, whereas European affiliates in the United States supplied $273.78 billion in digitally-enabled services. Digitally-enabled services supplied by U.S. affiliates in Europe were almost double U.S. digitally-enabled exports to Europe, and digitally-enabled services supplied by European affiliates in the United States were double European digitally-enabled exports to the United States.

Digitally-enabled services supplied by affiliates
(2018)

$490 billion
U.S. affiliates in Europe

$274 billion
European affiliates in the U.S.

Table 7 Digitally-Enabled Services Trade and Services Supplied through Affiliates* ($Billions)



**Trade data are for 2019. Affiliate data are for 2018, the latest available year.*
Source: U.S. Bureau of Economic Analysis.
Data as of October 2020.

The significant presence of leading U.S. service and technology leaders in Europe underscores Europe's position as the major market for U.S. digital goods and services. Table 8 underscores this dynamic. In 2018, Europe accounted for 69% of the $289.6 billion in total global information services supplied abroad by U.S. multinational corporations through their majority-owned foreign affiliates. This is not surprising given the massive in-country presence of U.S. firms throughout Europe, with outward U.S. FDI stock in information overwhelmingly positioned in Europe. U.S. overseas direct investment in the "information" industry in the UK alone, for instance, was more than double such investment in the entire Western Hemisphere outside the United States, and 33 times such investment in China. Equivalent U.S. investment in Germany was four times more than in China.[38]

Table 8 Information Services Supplied Abroad by U.S. Multinational Corporations through their MOFAs ($Millions)

Country	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Canada	3,595	4,140	3,971	5,996	6,316	7,135	7,595	7,401	8,487	8,342	9,161	8,991	9,454
Europe	67,270	76,156	85,450	84,117	96,310	110,525	119,123	120,796	157,811	162,409	175,105	174,396	201,161
France	4,045	3,794	4,475	4,713	4,582	5,013	4,768	5,258	6,085	5,894	5,927	6,265	6,989
Germany	5,260	6,031	6,104	6,456	7,143	7,798	7,970	10,599	12,018	11,191	11,394	12,589	13,517
Netherlands	5,925	8,152	9,980	8,674	8,719	9,313	10,196	9,117	12,686	13,590	13,938	16,617	19,667
Switzerland	2,871	2,527	3,197	3,747	4,034	4,419	5,243	4,778	(D)	5,452	5,435	5,404	5,728
United Kingdom	33,512	35,711	31,479	29,906	24,941	26,446	25,996	23,876	30,228	33,512	35,854	37,684	38,268
Latin America and Other Western Hemisphere	7,255	10,845	13,165	13,798	17,578	20,943	21,887	21,751	22,457	20,672	20,320	21,698	23,272
Australia	5,722	6,365	6,369	5,961	6,852	6,960	5,531	7,735	7,045	6,266	6,431	7,018	8,349
Japan	3,447	(D)	6,224	7,856	4,575	4,828	5,204	5,807	7,796	7,821	11,252	9,856	11,378
China	n/a	n/a	n/a	1,252	1,633	1,627	1,581	1,656	3,016	2,675	2,726	3,250	3,599
Other Asia-Pacific and MENA Countries	5,217	(D)	(D)	7,623	8,582	10,320	11,663	14,226	33,461	36,891	36,293	30,498	32,416
TOTAL	**92,507**	**(D)**	**(D)**	**126,603**	**141,846**	**162,338**	**172,583**	**179,372**	**240,073**	**245,076**	**261,288**	**255,707**	**289,629**

MOFA: Majority-owned foreign affiliate.
(D) indicates that the data in the cell have been suppressed to avoid disclosure of data of individual companies.
Source: Bureau of Economic Analysis.

2. E-Commerce

Electronic commerce offers a second window into transatlantic digital connections and complements our lens of digitally-enabled services. E-commerce, which had already been registering double-digit growth in recent years, simply skyrocketed during the pandemic, generating what The Economist called "the biggest shopping revolution in the West since malls and supermarkets conquered suburbia 50 years ago."[39] Online shopping for food and personal care exceeded $400 billion in revenues in 2020, up by more than 40% from 2019. Other sectors took a hit, however: online revenues for travel, mobility and accommodation slumped by more than 50%, a drop of well over half a trillion dollars in annual consumer spending.[40]

When exploring the importance of e-commerce for the transatlantic economy, we again run into some definitional and data challenges. Most estimates of e-commerce do not distinguish whether such commerce is domestic or international. In addition, many metrics do not make it clear whether they cover all modes of e-commerce or only the leading indicators of business-to-business (B2B) and business-to-consumer (B2C) e-commerce. Finally, there are no official data on the value of cross-border e-commerce sales broken down by mode; official statistics on e-commerce are sparse and usually based on surveys rather than on real data.[41]

Nonetheless, we can evaluate and compare many different estimates and surveys that have been conducted. According to UNCTAD, global e-commerce was worth $25.6 trillion in 2018 – equivalent to 30% of global gross domestic product.[42]

When most people hear the term "e-commerce," they think of consumers buying things from businesses via websites, social networks, crowdsourcing platforms, or mobile apps. These business-to-consumer transactions (B2C), however, pale in comparison to business-to-business (B2B) e-commerce. In 2018 B2B e-commerce accounted for 83% ($21 trillion) of the total value of global e-commerce, almost five times larger than business-to-consumer (B2C) transactions ($4.4 trillion).[43]

While B2B e-commerce accounts for the bulk of global e-commerce, most B2B e-commerce does not cross a border. Most B2B e-commerce users are manufacturers or wholesalers who are dependent on physically moving goods, and often heavy freight; the lack of freight digitalization ultimately poses a barrier to cross-border B2B e-commerce. The sheer

volume of B2B e-commerce, however, means it still is the most important component of cross-border e-commerce sales. By 2023 cross-border B2B commerce is expected to account for two-thirds ($1.78 trillion) and cross-border B2C commerce for one-third ($920 billion) of an overall global cross-border e-commerce market of $2.7 trillion.[44]

Including all types of e-commerce, the United States is the top market in the world; online sales there are 2.6 times higher than in Japan and 3.8 times higher than in China. North America and Europe account for six of the top 10 e-commerce countries (Table 9). China has the largest number of internet buyers at 610 million; its large B2C e-commerce market reflects its billion-plus population. China is underweight, however, when it comes to B2B e-commerce. China's e-commerce activities as a share of GDP (17%) are also the lowest among the world's top e-commerce countries.

When it comes to cross-border B2C e-commerce sales, China and the United States lead in terms of total value, but the UK leads in terms of B2C e-commerce as a share of overall goods exports (8.2%) and overall B2C e-commerce sales (15%) (Table 10). Germany, France and Italy also record higher shares of cross-border sales as a share of overall B2C e-commerce activities. For some smaller European countries, the shares are even higher, for instance Belgium (30%), Ireland (27%), and Austria (18%).[45]

Table 9. Top 10 Countries by E-Commerce Sales

Rank	Economy	Total ($ billion)	As % of GDP	B2B ($ billion)	%) of all e-commerce	B2C ($ billion)
1	United States	8,640	42	7,542	87	1,098
2	Japan	3,280	66	3,117	95	163
3	China	2,304	17	943	41	1,361
4	Korea (Rep.)	1,364	84	1,263	93	102
5	United Kingdom	918	32	652	71	266
6	France	807	29	687	85	121
7	Germany	722	18	620	86	101
8	Italy	394	19	362	92	32
9	Australia	348	24	326	94	21
10	Spain	333	23	261	78	72
	Top 10 Total	*19,110*	*35*	*15,772*	*83*	*3,338*
	World	**25,648**	**30**	**21,258**		**$4,390**

Source: UNCTAD. Data for 2018, latest available. B2B: Business-to-Business. B2C: Business-to-Consumer. .

Table 10. Cross-Border B2C Sales of Top Ten Merchandise Exporters

Rank	Economy	Total ($ billion)	As % of merchandise exports	% of B2C
1	China	100	4.0	7.3
2	United States	85	5.1	7.8
3	United Kingdom	40	8.2	15.0
4	Hong Kong	35	6.2	13.1
5	Japan	21	2.9	12.2
6	Germany	15	1.0	14.9
7	France	12	2.0	10.6
8	Italy	4	0.8	13.9
9	Korea (Rep.)	3	0.5	3.2
10	Netherlands	1	0.2	4.4
	Top 10 Total	*317*	*3.2*	*9.6*
	World	**404**	**2.1**	

Source: UNCTAD. Data for 2018, latest available B2C: Business-to-Consumer.

3. The Platform Economy

Platform companies that connect individuals and companies directly to each other to trade products and services continue to reshape the U.S. and European economies, as well as the commercial connections between them. Platforms have swiftly become a prominent business model in the transatlantic digital economy, both by matching supply and demand in real time and at unprecedented scale, and by connecting code and content producers to develop applications and software such as operating systems or technology standards.[46]

The OECD reports that the COVID-19 pandemic has caused a surge in the use of online platforms in OECD and G20 countries, but that this surge has been very uneven across sectors and countries. Online platforms in areas where activities could be pursued without physical proximity (e.g. mobile payments, online marketplaces, restaurant delivery) saw a rise in traffic above 20%. In other areas, however, where physical proximity is needed to consume the service being provided (e.g. accommodation, restaurant booking and transport), platform use declined sharply (-70%). The uneven use of online platforms across countries and regions is also a result of differences in access to digital infrastructure.[47]

According to Forrester, online marketplaces will account for 67% of global e-commerce sales by 2022.[48] While they have become known primarily for business-to-consumer (B2C) e-commerce, they are beginning to impact the far larger business-to-business (B2B) e-commerce market. Digital B2B platforms are likely to transform the Industrial Internet of Things (IIoT) by rendering data and information from countless sensors and smart devices usable, thus accelerating the digitalization of industry. Countries with a strong industrial base, such as Germany, stand to profit.

Platforms have also supercharged consumer-to-consumer (C2C) e-commerce (also known as peer-to-peer or P2P e-commerce), such as online distance work, music and video streaming, medical equipment and healthcare, retail, legal services, human resources and food delivery. At the same time, in 2020 the pandemic disrupted key segments of this model, such as home and car sharing.

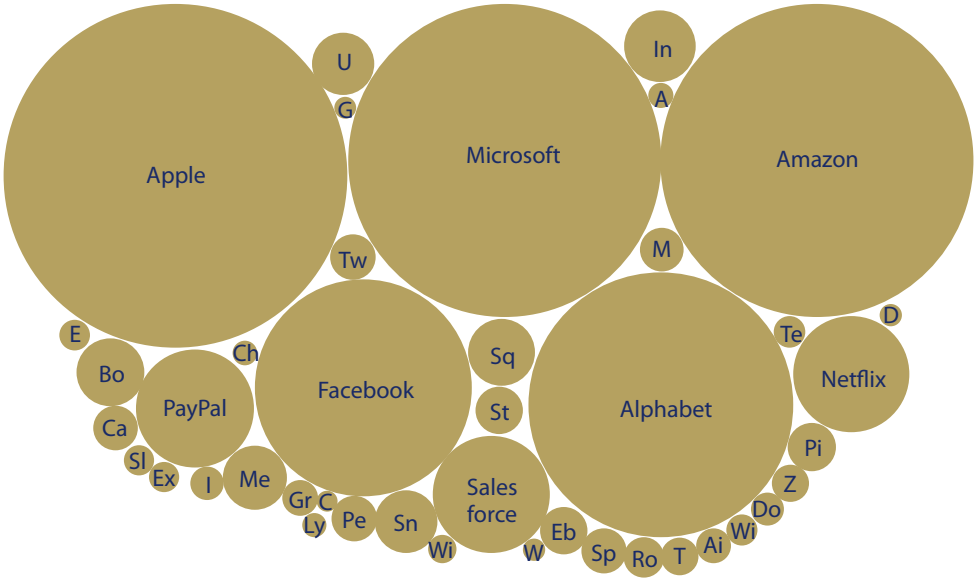
The total market value attributed to platform economics was estimated at $7 trillion in late 2018. It is projected to expand to around $60 trillion by 2025, or nearly one-third of all global commerce.

U.S. companies are leading platforms, although they are not alone. Next are firms from China, like Alibaba's AliExpress, which is among the fastest growing online marketplaces in Europe. European companies account for a marginal share of the market capitalization of the world's top digital platforms, and on average they are markedly smaller than their U.S. and Chinese counterparts (Table 11). This is causing considerable anxiety in European capitals that Europe is missing the platform revolution.

Despite the EU's effort to create a Digital Single Market, the European market remains relatively fragmented in terms of languages, consumer preferences and rules and regulations, which makes it much harder to achieve the kind of scale that platform companies have achieved in the large continental markets of the United States or China. There is also a more risk-averse culture that makes it generally harder to secure funding for potentially chancy bets on unproven technologies.[49]

Table 11 **Geographical Distribution of the Top Global Platforms.** Based on MarketCap/last-known venture round valuation. Overall top 100 value $12.6 trillion. (October 2020)

America



Airbnb
Alteryx
Booking
Carvana
Compass
Chegg
Doordash
Dropbox
Ebay
Etsy
Expedia
Grainger
Grubhub
Instacart
Intuit
Lyft
Match
MercadoLibre
Uber
Peloton
Pinterest
Roku
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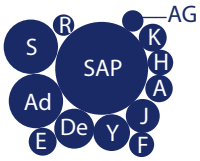
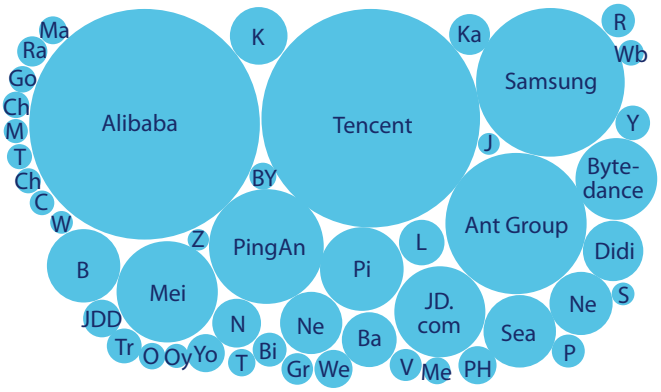
Splunk
Square
Stripe
Teladoc
Twilio
Twitter
Wikipedia
Wish
Zillow

Europe



Adevinta
Adyen
Autotrader **G.**
Delivery Hero
Edenred
Hellofresh
Farfetch
Klarna
Revolut
Spotify
Just Eat T.
Yandex

Asia-Pacific



Africa

Baidu
Beike
Bilibili
BYJU
Chehaoduo
Coupang
Didi Chuxing
Go-Jek
Grab
JD Digits
Joyy
Kakao
Kuaishou
Lufax
Manbang
Meicai
Meituan
Naver
Netease
Ola
OYO
Paytm
Pinduoduo
PingAn Health
Rakuten
Rea
Sea Group
Sensetime
Tokopedia
Trip.com
VipShop
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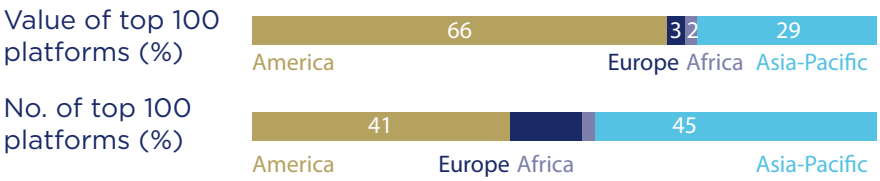
Weibo
YonYou



Sources: UNCTAD; Holger Schmidt, Hamidreza Hosseini, https://www.netzoekonom.de/plattform-oekonomie/.

Netzoekonom.de I TU Darmstadt I Ecodynamics.io I Platform-Index.com

Online marketplaces generated 59% ($94 billion) of the overall cross-border e-commerce market turnover of $160 billion in the EU and UK in 2019. U.S. platform companies accounted for six of the top ten marketplaces in Europe; Amazon accounted for a quarter of the market. Marketplaces with European capital, led by Vinted, G2A, Farfetch and Zalando, represented 11% of the market (Table 12). In our 2020 report we offered examples of successful European cross-border marketplaces that show how companies can achieve success even from relatively small home economies. It is expected that in 2025, marketplaces will represent 65% of cross-border online sales in Europe.[50]

Table 12 Top Ten Cross-Border Marketplaces Operating in Europe

1.	Amazon (US)
2.	eBay (US)
3.	AliExpress (China)
4.	Etsy (US)
5.	Discogs (US)
6.	Wish (US)
7.	Vinted (Lithuania)
8.	G2A (Poland)
9.	Farfetch (UK)
10.	Bandcamp (US)

Source: Cross-Border Commerce Europe, "Top 100 Cross-Border Marketplaces Europe. An Annual Analysis of the Best Global Cross-Border Platforms Operating in Europe, EU 28 Including UK," September 24, 2020, https://www.cbcommerce.eu/press-releases/press-release-top-100-cross-border-marketplaces-europe-an-annual-analysis-of-the-best-global-cross-border-platforms-operating-in-europe-eu-28-including-uk/.

4. Cross-Border Data Flows

Another way to understand transatlantic digital connections is to appreciate the role of cross-border data flows, which not only contribute more to global growth than global trade in goods, they underpin and enable virtually every other kind of cross-border flow. By the end of this year, cross-border bandwidth is slated to be 400 times what it was in 2005. By that time, global Internet Protocol (IP) traffic, a proxy for data flows, is projected to reach 150,700 gigabytes (GB) per second, over 3 times more than three years ago.[51]

For most of the history of the Internet, transatlantic flows of data were the fastest and largest in the world.[52] That dominance is dissipating, however, as data flows diffuse and as companies face significant and growing legal uncertainty in transferring personal information out of the European Union. In July 2020 the Court of Justice of the European Union invalidated the Privacy Shield framework that enabled over 5,000 mostly small- and medium-sized enterprises to transfer personal data for commercial purposes. The Court and European privacy regulators have raised concerning questions about other data transfer tools, including standard contractual clauses, which are used by the majority of companies sending personal information out of Europe.[53] This re-opened transatlantic disputes over privacy protections, disrupted transatlantic data flows, and further chilled the transatlantic economy, as prominent European officials called explicitly for data localization.[54]

According to Nikkei, the Chinese mainland and Hong Kong, the telecommunications gateway to the mainland, together account for 23% of the world's data.[55] That is almost double that of the United States (Table 13). In part because of China's burgeoning mobile payments platforms and its Belt and Road infrastructure initiatives, Chinese data flows are growing substantially with other Asian countries, which accounted for more than half of data flows in and out of China in 2019. The U.S. share of data flows in and out of China fell from 45% in 2001 to 25% in 2019.

Table 13 Countries with the Most Cross-Border Data, 2001-2019

2001	Rank	2019
United States	1	China/Hong Kong
United Kingdom	2	United States
Germany	3	United Kingdom
France	4	India
Japan	5	Singapore
China/Hong Kong	6	Brazil
Brazil	7	Vietnam
Russia	8	Russia
Singapore	9	Germany
India	10	France

Source: Nikkei Asia, November 25, 2020, https://vdata.nikkei.com/en/newsgraphics/splinternet/.

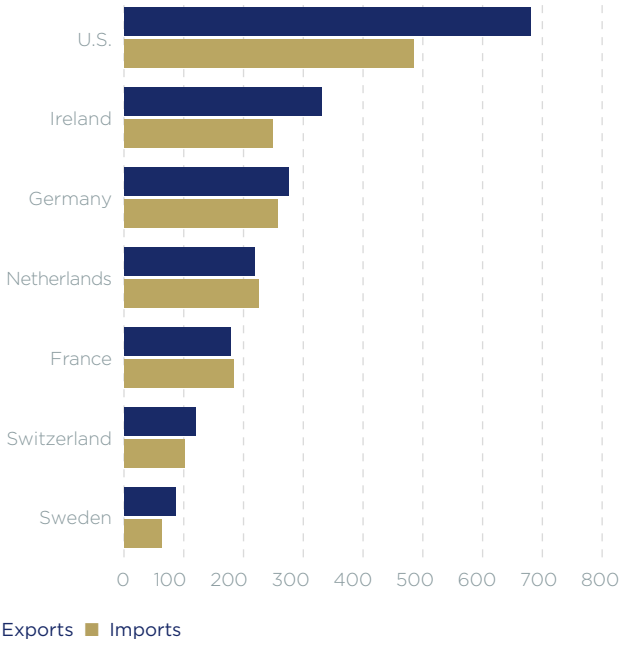
Global data flows now contribute more to global growth than global trade in goods

Data flows are not necessarily a proxy for commercial links, since data traffic is not always related to commercial transactions.[56] Knowing the volume of data flows does not necessarily provide insight on the economic value of their content. The Bureau of Economic Analysis puts it succinctly: "Streaming a video might be of relatively little monetary value but use several gigabytes of data, while a financial transaction could be worth millions of dollars but use little data."[57]

In addition, commercial transactions do not always accompany data, and data do not always accompany commercial transactions. For instance, multinational companies often send valuable, but non-monetized, data to their affiliates.[58] User-generated content on blogs and on YouTube drives very high volumes of internet traffic both within countries and across borders, but consumers pay for very little of this content. Since it does not involve a monetary transaction, the significant value that this content generates does not show up in economic or trade statistics but instead reveals itself as "consumer surplus." McKinsey estimates that this "consumer surplus" from the United States and Europe alone is close to €250 billion ($266.4 billion) each year.[59]

In other words, data flows are commercially significant, yet their extent, as well as their commercial value, are hard to measure and are in constant flux. The OECD has devised metrics to determine the most active countries when it comes to delivering products across borders through data flows, as opposed to considering all transactions facilitated through data flows. It has determined that the United States is a major hub for international trade in products delivered through data flows, and that France, Germany, India, Ireland, the Netherlands, Switzerland, and the United Kingdom also feature heavily in trade underpinned by data, all ahead of China.[60]

Table 14 International Trade Underpinned by Data Flows, Top Countries ($Billions)



Note: Trade underpinned by data flows includes four categories: (1) "ISIC J production", or trade in products produced by firms classified in ISIC section J (Information and Communication); (2) "ISIC J products," or trade in the products mainly associated with firms classified in ISIC section J but including production by firms classified in other sectors; (3) "Digitally deliverable services," or "potentially ICT-enabled products" per UNCTAD (2015); and (4) "Digitisable products," or products within the WTO HS commodity classification per Banga (2019). UK is not included due to differing data calculations, but OECD indicates the UK also ranks among the top traders in this category. Source: OECD, Perpectives on the Value of Data and Data Flows, December 2020.

5. Digital Hubs and Spokes: The Hardware of the Transatlantic Digital Economy[61]

Kleyerstrasse 90 is the address of an unassuming five-story building in Frankfurt am Main, Germany. It is also the busiest network node in the world, a "carrier hotel" data center where California-based Equinix rents equipment, space, and bandwidth to customers connected to every continent.[62]

Kleyerstrasse 90 is emblematic of the role that European and U.S. cities play as major cross-border digital hubs. Europe is the global leader, with tremendous connected international capacity. Frankfurt, London, Amsterdam and Paris substantially outpace North American and Asian cities (Table 15). Frankfurt's connected capacity, for instance, is over

three times greater than that of Los Angeles and almost five times greater than that of Singapore, the Asian leader. Marseille, France has become a major hub for traffic between Europe, Africa and the Middle East. The United States accounts for about 40% and Europe for an additional 35% of so-called colocation data centers. Each hosts more data centers than Asia, Africa, the Middle East and Latin America combined.[63]

Table 15 Highest Capacity International Internet Hub Cities

City	2020 Bandwidth (Tbps)
Frankfurt, Germany	110.6
London, UK	74.8
Amsterdam, Netherlands	71.2
Paris, France	67.9
Singapore, Singapore	56.3
Hong Kong, China	33.8
Stockholm, Sweden	32.0
Miami, U.S.	30.9
Marseille, France	28.8
Los Angeles, U.S.	25.2

Domestic routes omitted.
Source: Telegeography, The State of the Network 2021, https://www2.telegeography.com/hubfs/assets/Ebooks/state-of-the-network-2021.pdf.

These digital hubs are connected to digital spokes – the undersea fiber optic cables that transmit 95% of all intercontinental telecommunication traffic.[64] These cables serve as an additional proxy for the ties that bind continents. They show clearly that the transatlantic data seaway is the busiest in the world. Submarine cables in the Atlantic already carry 55% more data than transpacific routes, and 40% more data than between the United States and Latin America. Telegeography estimates a compound annual growth rate of 38% in transatlantic capacity until 2025. 8 new transatlantic cables will be needed by 2027 just to keep up with expected increases in demand, compared to 4 for intra-Asian routes, 3 for transpacific routes, and just one for U.S.-Latin American routes.[65] Military agencies also build submarine cables, yet those do not appear on public maps. Suffice it to say that if such connections are also considered, transatlantic submarine cables are even more dense than commonly depicted.[66]

Demand for international bandwidth is doubling every two years. All the stay-at-home activity induced by COVID-19 boosted average international internet traffic by 48%,[67] although plans to build out further submarine cable infrastructures lapsed, as cable ships logged months of inactivity.

The EU is building out its subsea cable infrastructure. The Ella Link from Sima, Portugal to Fortaleza, Brazil, is slated to come online in the first half of this year. Portugal is using its term at the helm of the European Council in the first half of 2021 to push for a pan-European investment plan to roll out additional submarine data connections in the Mediterranean, the North Sea, and with other continents. The initiative is prompted in part to alleviate potential chokepoints when it comes to European reliance on transcontinental data flows. A good deal of data to and from the United States from Europe, for instance, traverses the UK first. With the UK no longer in the EU, some are concerned that data flows could be subjected to additional legal restrictions. European connections to East Africa and Asia rely almost exclusively on cables crossing Egypt and the Red Sea, giving Telecom Egypt significant leverage in global data traffic that could be reduced via new cable routes. European interest in greater diversification is also prompted by concerns about undue reliance on Chinese carriers and the need to address the potential susceptibility of Europe's subsea networks to cyberespionage and interference.[68]

The new surge in transatlantic capacity, however, is being driven by private networks, mainly providers of content and cloud services, which have displaced national telecommunication carriers as the major investors in subsea cables and the largest source of used international bandwidth. Content providers keen on getting closer to customers and achieving economies of scale are quickly pushing the digital frontier. Rather than rely on leasing arrangements with backbone providers, they see advantages in owning these cable networks themselves as they anticipate continuing massive growth in bandwidth needs. Their densest connections are between North America and Europe. In 2006 backbone providers accounted for over 80% of international bandwidth. By 2019, content providers were accounting for 64% of used international bandwidth globally and a whopping 90% on transatlantic routes.[69]

Bypassing the Internet

The rise of private content providers as drivers of submarine cable traffic is related to yet another significant yet little understood phenomenon shaping the transatlantic digital economy: more and more companies are working to bypass the public internet as a place to do business in favor of private channels that can facilitate the direct electronic exchange of data among companies. Businesses are moving their computing from centralized data centers to more distributed locations. Analysts estimate that more than 50% of enterprise-generated data will be created and processed outside centralized data centers or cloud by 2023.[70]

This move is exponentially increasing demand for "interconnection" – private digital data exchange between businesses – and is another fundamental driver behind the proliferation of transatlantic cable systems.[71]

Private interconnection bandwidth is not only distinct from public internet traffic, it is slated to grow much more quickly and become much larger. Equinix projects that interconnection traffic – direct, private connections that bypass the public Internet – will see a three-year compound annual growth rate (CAGR) of 45%. This far exceeds the expected CAGR of global Internet traffic.[72]

It is unlikely that the public Internet is doomed, since it is such a pervasive force in most people's lives and a key to digitally-delivered services, e-commerce and the platform economy. Yet private interconnection is rising alongside the public Internet as a powerful vehicle for business. And as we have shown here, its deepest links are across the Atlantic.[73]

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5

The 50 U.S. States: European-Related Jobs, Trade and Investment

U.S. personal savings rate soared

7.5% (2019) → **16.3%** (2020)

FDI inflows dropped by almost

50%

in the U.S. in 2020

Despite various potential headwinds and uncertainties surrounding the coronavirus outlook, many factors point to continued economic recovery and more favorable conditions for European companies in the United States in the year ahead. Foreign direct investment flows, driven by cross-border mergers and acquisitions (M&A), should rebound in the next year. The jobs recovery will continue, albeit at a more gradual pace. And pent-up consumer demand is expected to drive personal consumption higher in the second half of the year, especially in the services sector.

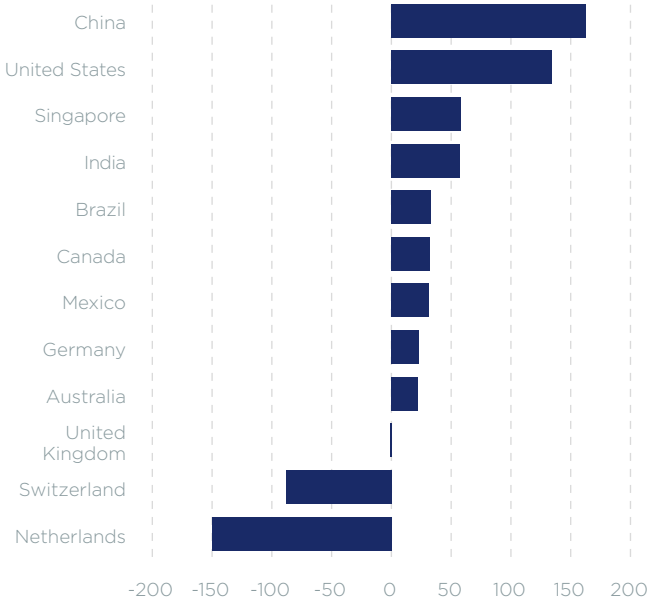
Last year, despite the COVID-19 induced recession, U.S. personal incomes increased, and consumer balance sheets strengthened, due to massive stimulus from the federal government. These economic relief measures, which included stimulus checks to low- and middle-income consumers, expanded unemployment benefits, and forbearance on mortgage and student loans caused the personal savings rate to soar from 7.5% in 2019 to 16.3% in 2020. In April 2020, the U.S. savings rate reached its highest level on record, at 34% of disposable personal income. In the aggregate, personal income increased by $1.2 trillion, or 6.3%, in 2020 – the highest percent increase in 15 years. High savings and rising incomes have led to a quick recovery in consumer spending, especially in durable goods. Services spending has lagged behind but should be unleashed as vaccine distribution picks up across the United States.

Looking at structural drivers, we expect a more benign trade environment, reduced business uncertainty, and increased appetite for massive fiscal and monetary stimulus programs to support a strong U.S. economic recovery in 2021 and beyond. In addition, the lowered corporate tax rate should continue to drive investments into the United States in the near to medium term.

In 2020, the U.S. economy contracted by 3.5% in real terms, the largest annual decline in 74 years. The annualized decline in the second quarter of the year of -31.4% was the largest on record. It was followed in the next quarter by the sharpest-ever quarterly increase of 33.4%. According to forecasts from the IMF, U.S. growth is expected to rebound to 5.1% in 2021 and slow to 2.5% by 2022. These forecasts are highly volatile, however, and could vary depending on the trajectory of the virus, progress in vaccine production and distribution, and the effectiveness of fiscal and monetary stimulus.

According to the latest figures from the UN, foreign direct investment (FDI) inflows to both the United States and Europe were severely impacted by the global recession. In the United States, FDI inflows dropped by almost 50%, due to large declines in investments from German, British and Japanese companies. Cross-border M&A of U.S. assets to companies abroad fell 41%, with much of the decline concentrated in the primary sector. Despite the turbulence, the United States remains one of the most attractive countries in the world for foreign direct investment. In 2020, the U.S. attracted $134 billion of inflows, ranking second place in terms of FDI after China ($163 billion) (Table 1). Prior to 2020, the United States had ranked number one in the world for FDI inflows for the last 14 years.

Table 1 FDI Inflows in 2020, Select Countries
($Billions)



Source: United Nations Conference on Trade and Development (UNCTAD).
Data are preliminary estimates as of January 2021.

The U.S. economy contracted by

3.5%

in 2020

Drivers of a strong U.S. economic recovery in 2021 and beyond

- FDI flows
- Job creation
- Higher consumer spending
- Better trade environment
- Reduced business uncertainty
- Large fiscal and monetary stimulus programs

Table 2 Cumulative Investment Inflows 2000-2019 Rankings

Rank	Country	Cumulative Flows (Billions of U.S. $)	Percent of World Total
1	United States	4,491.3	16.6%
2	China	1,982.8	7.3%
3	United Kingdom	1,693.5	6.3%
4	Hong Kong	1,382.1	5.1%
5	Netherlands	992.2	3.7%
6	Brazil	921.7	3.4%
7	Germany	903.0	3.3%
8	Singapore	875.6	3.2%
9	Canada	850.5	3.1%
10	Australia	698.5	2.6%

Source: United Nations Conference on Trade and Development (UNCTAD).
Data as of June 2020.

As Table 2 depicts, no country has attracted more FDI this century than the United States, taking in $4.5 trillion cumulatively since 2000, more than the total for the next two countries (China and the UK) combined. Multiple factors underpin America's dominance in foreign investment flows. First, the U.S. market is a critical destination for multinational companies looking to access a large and wealthy consumer base, with a population of roughly 330 million and per capita income of $65,000.

Second, the United States boasts a hyper-competitive and dynamic economy, ranking second place in the World Economic Forum's latest Global Competitiveness rankings. This competitiveness is driven by strong institutions, advanced technological readiness, world-class universities, a strong capacity and culture of entrepreneurship, and a dense web of university-industry collaboration in research and development (R&D). The ability to attract R&D from companies abroad is important to the innovative culture of the U.S. economy. R&D performed by affiliates of foreign companies accounts for 15.2% of total R&D conducted by all businesses in the United States. European companies account for two-thirds of that foreign-funded R&D in the United States.

Jobs directly supported by European companies in the U.S. (2019)
5 million

Additionally, European companies investing in the United States gain access to a desired pool of skilled, flexible, and productive labor. We estimate that U.S. jobs supported directly by affiliates of foreign companies totaled 8 million in 2019, or about 6% of total private industry employment in the United States. European companies accounted for 63% of that figure, or 5 million jobs.

Meanwhile, transparent rule of law, sophisticated accounting, auditing, and reporting standards, secure access to credit, ease of entrepreneurship, and respect for intellectual property rights have all contributed to the stable and supportive business environment in the United States.

Europe's Stakes in the United States

European firms maintained their dominant foreign investment position in the United States in 2020. In the first three quarters of the year, FDI inflows from Europe represented over 60% of total U.S. inflows. These inflows, however, are down considerably from the prior year. Annualizing data for the first nine months of last year, U.S. FDI inflows from Europe are estimated to come in at $81 billion in 2020 versus $120 billion in 2019.

The presence of European affiliates in many states and communities across the United States has helped to **improve America's job picture**

Throughout Europe, the net change in investment flows to the United States in 2020 was mixed, with some countries posting strong growth in FDI flows, while others saw a pullback. Swiss investment flows to the United States grew 190% in the first three quarters of the year, while flows from Italy and Finland were almost four times the amount of flows received during the first three quarters of 2019. By contrast, U.S. inflows from Germany, Ireland, Spain, Sweden, and the UK were all lower in the first three quarters of 2020 than the same period a year ago.

In terms of the outlook for 2021, we expect cross-border M&A activity to drive the rebound in FDI in 2021, while investments in new assets (or "greenfield projects") take longer to adjust. Business disruptions and uncertainty caused by COVID-19 led to a dramatic drop in transatlantic M&A flows in the beginning of the year; however, deal activity quickly rebounded back to pre-crisis levels by June 2020. From June 2020 through January 2021, M&A announcements between the United States and Europe averaged $60 billion a month, almost double the monthly volume during the same period a year earlier.

By contrast, the recovery in greenfield FDI will be more gradual. According to UNCTAD estimates, the number of announced greenfield projects globally declined by 35% in 2020, a sign that global FDI growth in 2021 is likely to remain subdued. FDI announcements in sectors such as autos, hotels & tourism, real estate, and oil & gas were the most harmed by the pandemic. On the other hand, sectors such as telecommunications, semiconductors, consumer products and biotechnology saw FDI announcements increase in 2020. Renewable energy is another sector that should benefit from the transatlantic economic recovery (See Box 5.1).

European firms should continue to drive the FDI recovery. UK firms were the largest source of greenfield foreign investment projects in 18 U.S. states during the ten-year period from October 2010-September 2020. German companies led in 11 states, followed by Canadian companies in 10 states and Japanese companies in 7.

Despite the overall year-over-year decline in investment flows, Europe continues to have an outsized investment presence in the United States, as reflected by its FDI position, which is a more stable metric of foreign investment in the United States. In terms of foreign capital stock in the United States, Europe again leads the way. The region accounted for 64% of the total $4.5 trillion of foreign capital sunk in the United States as of 2019. Total European investment stock in the United States of $2.9 trillion was over three times the level of comparable investment from Asia.

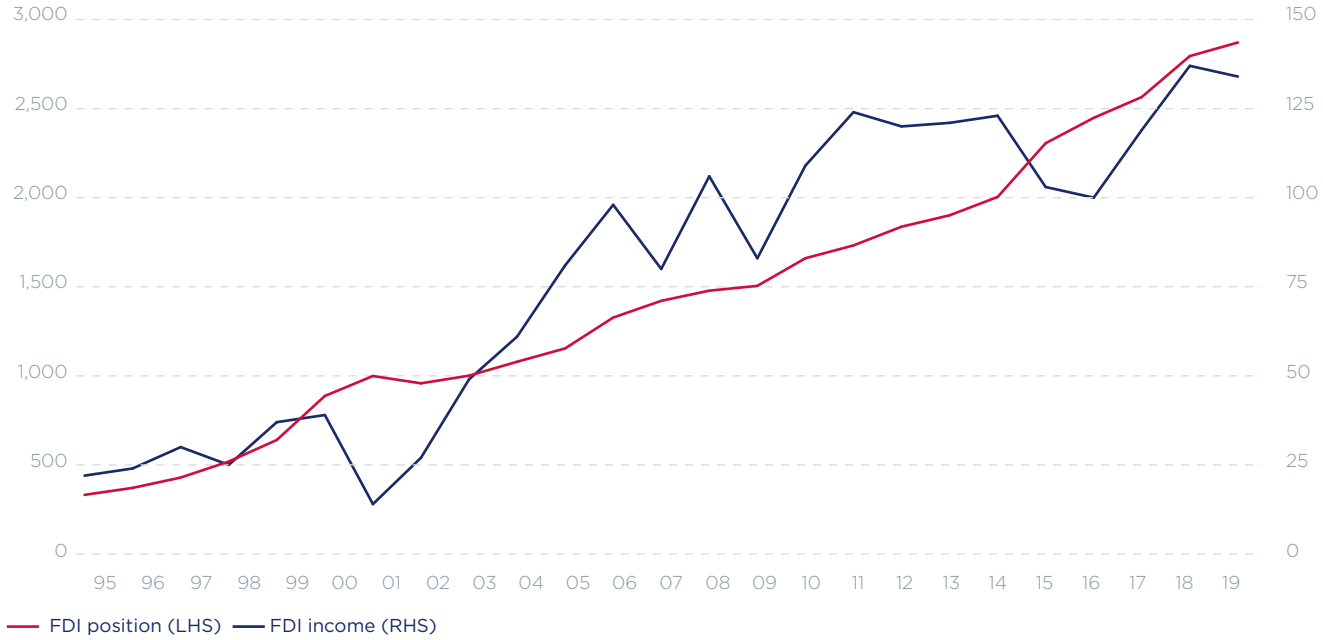
The United Kingdom remains by far the largest European investor in the United States, based on FDI on a historic cost basis, with total FDI stock in the United States totaling $505 billion in 2019. The Netherlands ranked second in Europe ($487 billion), followed by Germany ($372 billion) and Switzerland ($301 billion). Many firms from these countries are just as embedded in the U.S. economy as in their own home markets.

Whether Swiss pharmaceutical corporations, German auto manufacturers or British services providers, European firms' commercial links to America have driven corporate sales and profits higher in recent decades. In 2019, European firms earned $134 billion in the United States – the second highest amount on record, though profits plunged in 2020 due to the global pandemic. Through the first nine months of 2020 European affiliate income earned in the United States totaled $65 billion. In spite of the pandemic, Austria, Denmark, Finland, and France actually saw their investment income in the United States increase in the first nine months of 2020, compared to the same period in 2019. Taking the long view, affiliate earning levels for most European firms are significantly higher today than they were at the start of the century. As European firms have built out their U.S. operations, the payoff has been rising affiliate earnings in one of the largest markets in the world.

Total European FDI stock in the U.S.
$2.9 trillion
(2019)

64%
of total FDI in the U.S.

Table 3 European Foreign Direct Investment and Income Earned in the United States (Billions of U.S. $)



Sources: Bureau of Economic Analysis.
Data as of January 2021.

Table 3 highlights this connection between European investment in the United States and European affiliate earnings. The two metrics are highly correlated – the greater the earnings, the greater the likelihood of more capital investment, and the more investment, the greater the upside for potential earnings and affiliate income. The bottom line is that Europe's investment stakes in the United States have paid handsome dividends over the years, notably since the Great Recession, given the growth differential between the United States and Europe.

Europe's Stakes in America's 50 States

European firms can be found in all 50 states, and in all economic sectors – manufacturing and services alike. The employment impact of European firms in the United States is quite significant. Table 4 provides a snapshot of state employment supported directly by European affiliates across the United States. It is important to note that the chart represents only those jobs that have been directly created by European investment, and thus underestimates the true impact on U.S. jobs of America's commercial ties to Europe. Jobs tied to exports and imports of goods and services are not included, nor are many other jobs created indirectly through suppliers or distribution networks and related activities.

In 2018, the latest year of available data, all of the top 20 states measured by European affiliate employment increased hiring. Of these states, Michigan, Virginia, and Texas had the largest growth rates of European affiliate employment in 2018.

Table 4 Ranking of Top 20 States by Jobs Supported Directly by European Investment
(Thousands of employees)

U.S. State	2016	2017	2018
California	430.7	468.6	490.7
Texas	366.0	376.2	401.5
New York	345.1	341.1	357.4
Illinois	234.2	236.5	240.3
Pennsylvania	222.5	225.9	232.9
Florida	217.2	216.9	229.5
New Jersey	193.3	199.7	204.5
Michigan	159.3	188.2	203.3
North Carolina	187.5	194.4	199.2
Ohio	155.7	166.4	172.8
Massachusetts	159.6	163.5	167
Georgia	141.3	153.5	162.3
Virginia	134.7	142.6	153.1
Indiana	115.6	121.5	126.4
Tennessee	100.3	108.1	113.5
South Carolina	98.3	106.9	110.3
Minnesota	75.4	92.7	94.6
Missouri	78.1	86.6	89.6
Maryland	91.6	87.7	88.7
Connecticut	81.6	83.2	87.9

Source: Bureau of Economic Analysis.
Data as of January 2021.

European affiliate earnings in the U.S. $134 billion (2019)

But profits plunged to $65 billion in the first nine months of 2020

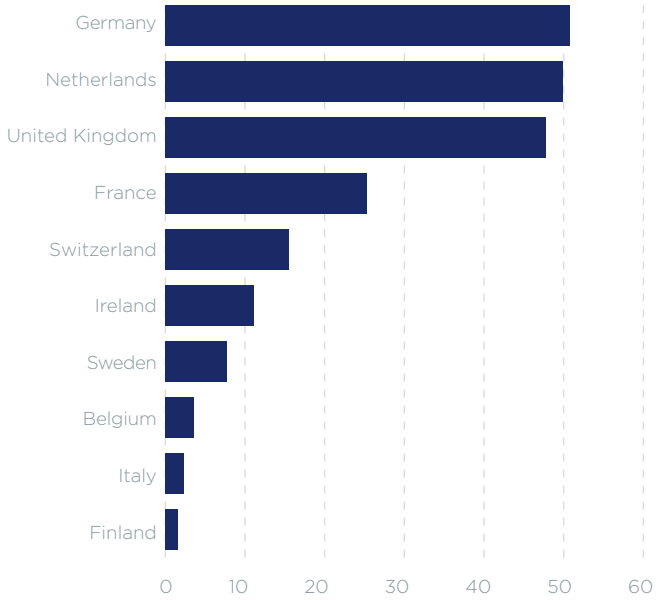
UK firms were the largest sources of onshored jobs in 22 U.S. states. Japanese companies led in 11 states, Canadian companies in 9, Dutch companies in 3, German companies in 3, and French companies were the leading source of onshored jobs in 2 states.

Europe is by far the largest source of FDI in the manufacturing industry, with European companies representing 74% of the total inward investment position in the United States. Within the manufacturing industry, the U.S. chemicals sector was the biggest recipient of European investment ($592 billion), followed by transportation equipment ($271 billion). In terms of European affiliate employment, the retail trade industry employed the most workers (567,000 jobs in 2018) while European companies in chemicals manufacturing, transportation equipment manufacturing, wholesale trade, and professional, scientific, and technical services were also important contributors to U.S. jobs.

In general, the presence of European affiliates in many states and communities across the United States has helped to improve America's job picture. The more European firms embed in local communities around the nation, the more they tend to generate jobs and income for U.S. workers, increase sales for local suppliers and businesses, expand revenues for local communities, and encourage capital investment and R&D expenditures for the United States.

Deep investment ties with Europe have also boosted U.S. trade. Table 5 illustrates the export potential of European affiliates operating in the United States. As a point of reference, in any given year, foreign affiliates based in the United States and exporting from there typically account for one-fourth of total U.S. merchandise exports. The bulk of these exports are intra-firm trade, or trade between the affiliate and its parent company. In 2018, the last year of available data, U.S. exports shipped by all majority-owned foreign affiliates totaled $395 billion, with European affiliates accounting for 57% of the total. German companies exported more than $50 billion in exports made in the U.S.A.

Table 5 **Exports of Goods Shipped by European Companies Operating in the United States**
($Billions)



Source: Bureau of Economic Analysis. Data for 2018.

Wholesale trade, transportation equipment, and chemical manufactures represented the largest categories of exports by affiliates to markets outside the United States. In the end, the more European affiliates export from the United States, the higher the number of jobs for U.S. workers and the greater the U.S. export figures.

Every U.S. state maintains cross-border ties with Europe, with various European countries key export markets for many U.S. states, a dynamic that creates and generates growth in the United States. Table 6 ranks the top 20 state goods exporters to Europe in 2019. Texas ranked number one, followed by California, New York, and South Carolina. Overall exports to Europe were up 3% in 2019 and have doubled in value since 2000.

Top 3 states
European affiliate jobs

Texas California New York

Europe accounts for **74% of total FDI in the U.S. manufacturing industry**

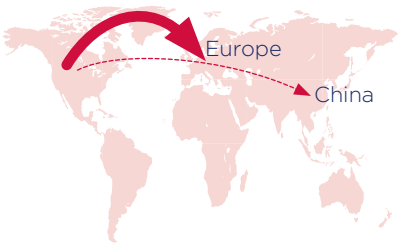
Table 6 Ranking of Top 20 U.S. States Total Goods Exports to Europe, by Value ($Billions)

U.S. State	2019	2000	% Change from 2000	% Change from 2018
Texas	52.5	12.3	328%	16%
California	38.9	27.9	40%	6%
New York	26.1	15.3	70%	-12%
South Carolina	12.5	2.8	347%	25%
Pennsylvania	12.4	4.7	165%	11%
Louisiana	12.3	3.3	273%	-2%
Kentucky	11.8	3.1	285%	5%
Illinois	11.5	7.3	57%	-12%
Georgia	11.3	4.0	186%	10%
New Jersey	11.3	6.4	77%	4%
Washington	11.1	13.1	-15%	-31%
Utah	11.0	1.3	719%	56%
Massachusetts	10.9	8.0	36%	13%
Florida	10.4	3.9	168%	-7%
North Carolina	9.6	4.6	107%	7%
Indiana	9.6	3.1	204%	0%
Ohio	9.5	5.0	88%	-3%
Michigan	8.3	5.0	65%	3%
Connecticut	8.2	3.5	134%	-13%
Tennessee	6.8	2.7	153%	-2%
U.S. Total	**381.7**	**187.4**	**104%**	**3%**

Source: Foreign Trade Division, U.S. Census Bureau.
Data as of January 2021.

U.S. merchandise exports to Europe are still more than triple U.S. exports to China, as shown in Table 7. Forty-eight of the fifty U.S. states exported more to Europe than China; only New Mexico and Oregon exported more goods to China than to Europe in 2019.

In addition, while these figures are significant, they actually underestimate Europe's importance as an export destination for U.S. states because they do not include U.S. state exports of services. This is an additional source of jobs and incomes for U.S. workers, with most U.S. jobs tied to services. Europe is by far the most important market in the world for U.S. services, and the United States consistently records a services trade surplus with Europe. Suffice it to say that if services exports were added to goods exports by state, the European market becomes even more important.



48/50

states **export more goods to Europe** than to China
(2019)

Table 7 U.S. State Exports of Goods to Europe and China, 2019 ($Millions)

U.S. State	Europe	China
Alabama	6,606	2,317
Alaska	1,176	855
Arizona	4,828	1,087
Arkansas	1,645	191
California	38,929	15,848
Colorado	1,814	524
Connecticut	8,183	1,262
Delaware	1,450	464
Florida	10,444	1,361
Georgia	11,320	2,365
Hawaii	25	21
Idaho	409	209
Illinois	11,510	2,915
Indiana	9,559	2,022
Iowa	2,517	760
Kansas	2,552	553
Kentucky	11,801	2,098
Louisiana	12,264	4,929
Maine	446	134
Maryland	4,943	529
Massachusetts	10,877	2,370
Michigan	8,318	3,240
Minnesota	5,112	2,125
Mississippi	2,095	457
Missouri	2,437	598
Montana	280	96
Nebraska	933	341
Nevada	2,613	514
New Hampshire	2,621	294
New Jersey	11,272	1,834
New Mexico	308	803
New York	26,102	2,850
North Carolina	9,573	3,250
North Dakota	254	19
Ohio	9,456	3,240
Oklahoma	1,423	212
Oregon	2,715	7,193
Pennsylvania	12,396	2,544
Rhode Island	900	156
South Carolina	12,474	6,495
South Dakota	160	75
Tennessee	6,836	2,096
Texas	52,517	10,922
Utah	10,991	575
Vermont	457	187
Virginia	5,298	1,196
Washington	11,095	8,987
West Virginia	1,918	373
Wisconsin	4,426	1,373
Wyoming	52	24
Total United States	**381,656**	**106,447**

Source: U.S. Census Bureau, Foreign Trade Division.
Data as of January 2021.

Appendix A highlights European-related jobs, trade, and investment for each of the 50 states.

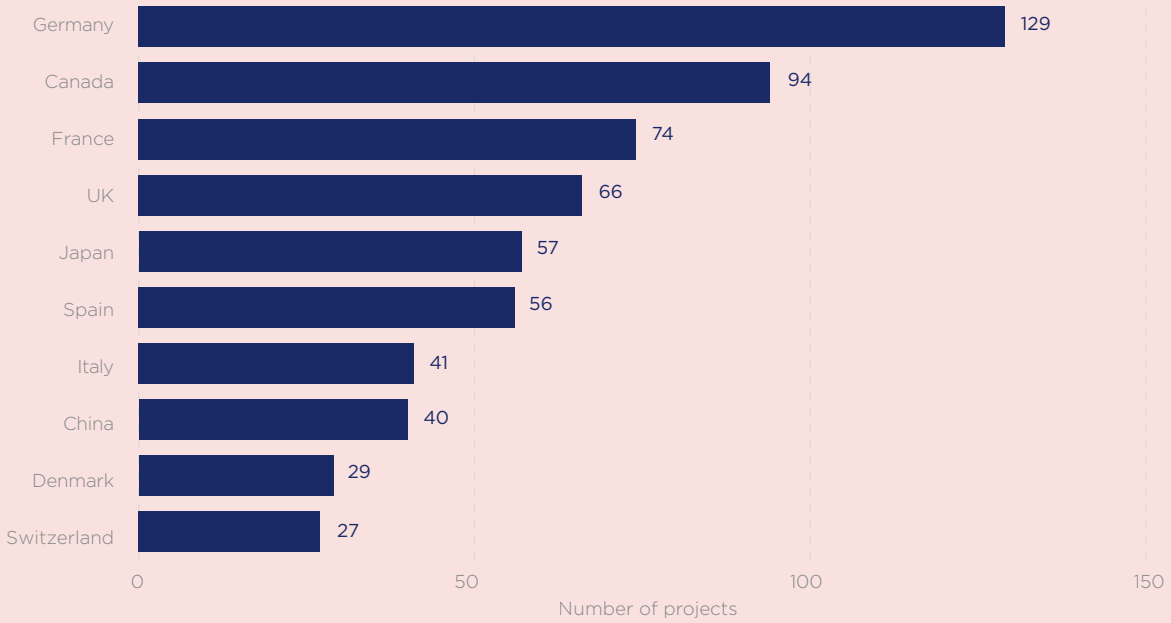
Box 4.1. The Transatlantic Energy Economy

U.S. and European firms are deeply embedded in each other's traditional and renewable energy markets – through trade, foreign investment, cross-border financing, and collaboration in research and development.

Over the years, foreign companies have invested roughly $400 billion in U.S. energy-related industries.[1] In 2018, FDI in the U.S. energy industry directly supported 173,500 U.S. jobs, contributed $1.2 billion in R&D and generated $5.7 billion in U.S. exports.[2] European companies have been among the largest investors, and German companies by far are the leading source of foreign direct investment in the U.S. energy economy. Over the past decade, German firms were behind about 16% of the 830 greenfield investment projects in the U.S. energy sector (Table 8). Other notable European investors include France (9%), the UK (8%), and Spain (7%).

Table 8 Top Sources of Inward FDI in U.S. Energy

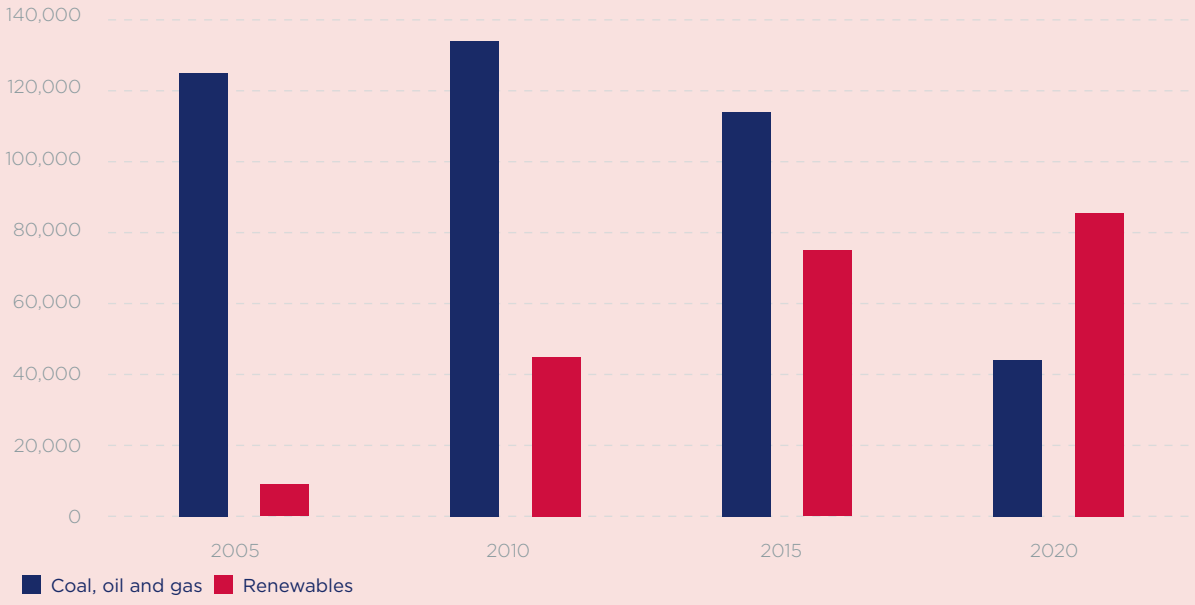
830 Total Announced Greenfield Projects, October 2010 - September 2020



Source: SelectUSA, U.S. Department of Commerce. Data as of November 2020.

In particular, renewable energy has become an increasingly important sector in terms of FDI. As shown in Table 9, renewable energy projects outpaced traditional energy investments in 2020 for the first time in history. Despite the coronavirus recession, renewable energy investments proved to be relatively resilient during 2020. According to the Financial Times' investment monitor, fDi Markets, renewable energy FDI fell 11% in 2020, versus an overall 40% drop in FDI across all industries. "Greenfield investment" (or investment in new assets) in the coal, oil and gas industries, meanwhile, dropped by over 62% in 2020. The United States and the U.K were the top countries for renewable energy FDI announcements, while wind and solar were the top sectors. The fastest growing region was Europe, with greenfield FDI into European renewable projects rising by 70% last year, driven by the UK, France, Poland, Portugal, Italy and Ireland.

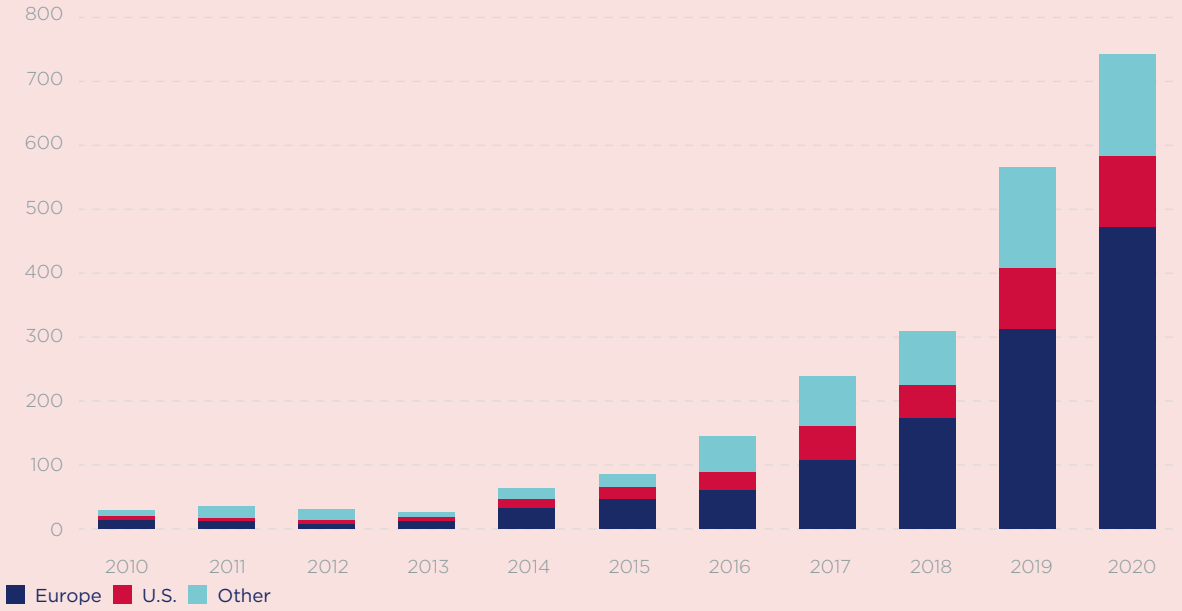
Table 9 **Renewables vs. Traditional Energy Investment**
Announced Greenfield FDI (Millions $)



Source: Financial Times, fDi Markets.
Data as of February 2021.

Growing interest in sustainable investing has been a key area of support for the sector. According to data from Bloomberg, social, sustainability and green bond issuance surged 31% in 2020 to $742 billion (Table 10). These include debt issued for social projects, such as job support, as well as for environmental causes. Sales of green bonds last year rose 13% to $304 billion. Europe and the United States made up over 80% of all green bonds issued in 2020, and 78% of all sustainable debt issuance.

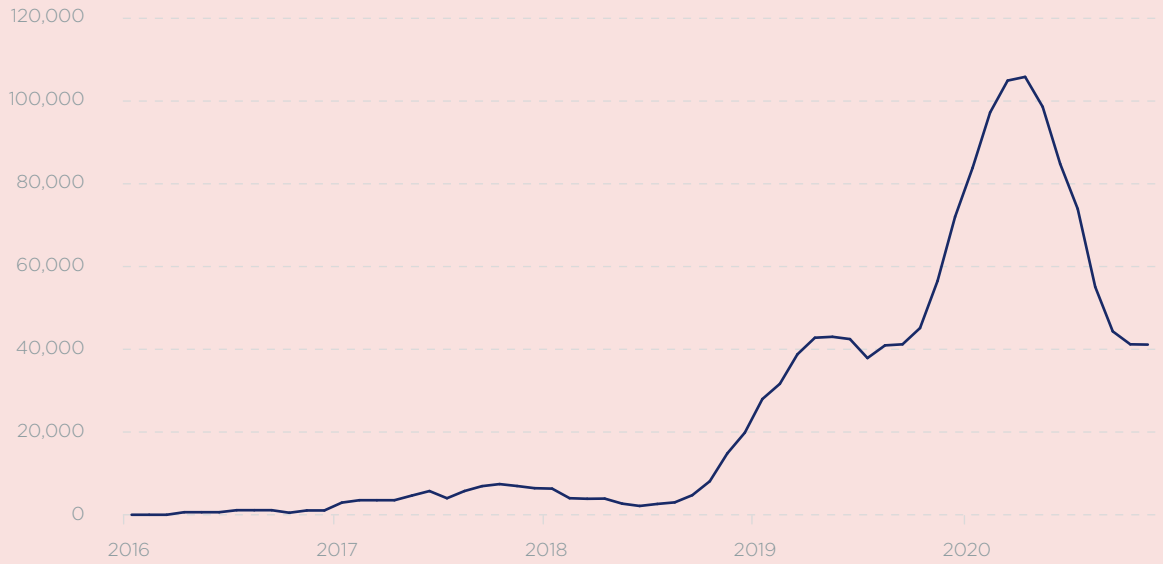
Table 10 **Sustainable Debt Issuance Hits Record High in 2020**
Global Sustainable Debt Issuance (Billions $)



Data includes sales of green, social and sustainability bonds, sustainability-linked bonds, green loans, and sustainability-linked loans.
Source: Bloomberg New Energy Finance.
Data as of January 2021.

In terms of international trade, U.S. energy exports slumped in 2020 on account of the pandemic-induced slowdown in global travel. That said, U.S.-EU trade in energy products is still much higher today than a few years ago. Rising domestic and foreign investments in the U.S. energy economy, as well as a liberalization of energy trade policy, have helped propel the United States to become a top producer and exporter of energy. Monthly liquefied natural gas (LNG) exports from the United States to Europe dipped in 2020, but still averaged 65 billion cubic feet for the year, up from 57 billion cubic feet in 2019 (See Table 11).

Table 11 U.S. Liquefied Natural Gas (LNG) Exports to the UK and EU Countries
Million Cubic Feet (6 month moving average)

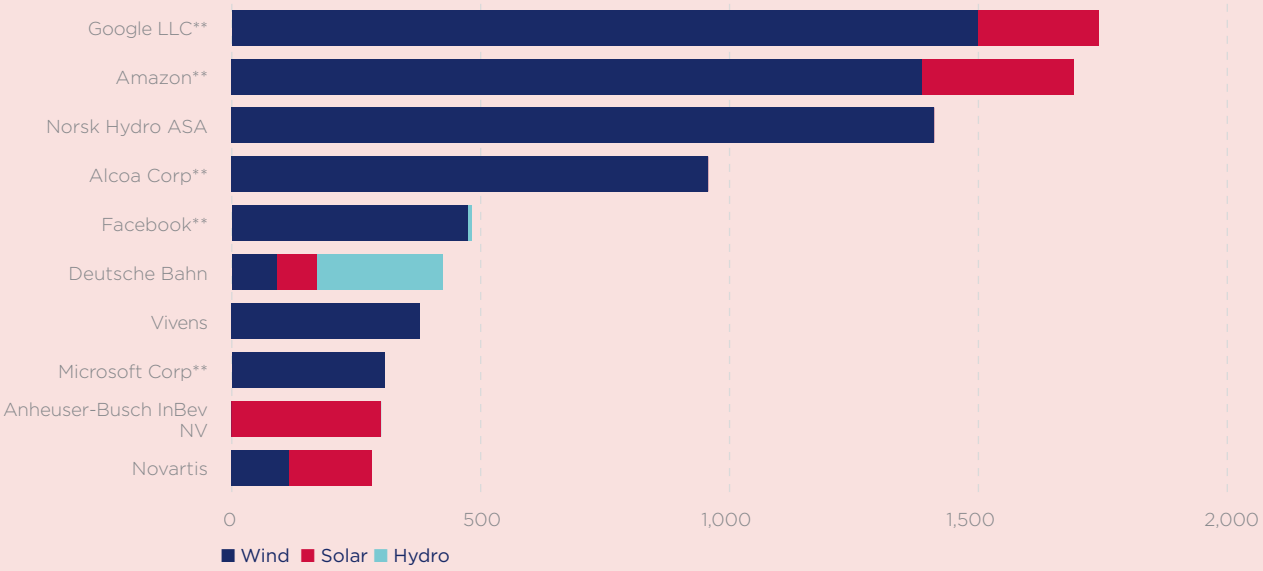


Source: U.S. Energy Information Administration.
Data as of February 2021.

U.S. and European companies will be critical to the development of a cleaner energy future. The EU's ambitious European Green Deal outlines a wide set of initiatives ranging from the de-carbonization of the energy sector, development of cleaner modes of transport, renovation of buildings to reduce energy use, and investments in the circular economy. The plan will require trillions of euros in investments to achieve the ambitious target of making the continent climate neutral by 2050. More recently, policymakers in the EU reached an agreement in November for a €1.8 trillion package from 2021-2027 to "rebuild a greener, more digital and more resilient Europe."[3] According to data tracked by Rhodium Group, stimulus spending commitments for "green" initiatives made up 15% of total COVID-19 stimulus announced by the EU and its member states' governments in 2020.[4]

Largely unnoticed by media and politicians, U.S. companies in Europe have become a driving force for Europe's green revolution, especially through the addition of wind and solar capacity on the continent. Since 2007, U.S. companies have been responsible for more than half of the long-term renewable energy agreements in Europe. As shown by Table 12, U.S. companies account for four of the top five purchasers of solar and wind capacity in Europe.

Table 12 Top Purchasers of Renewable Energy in Europe, 2007-2020 (Megawatts)

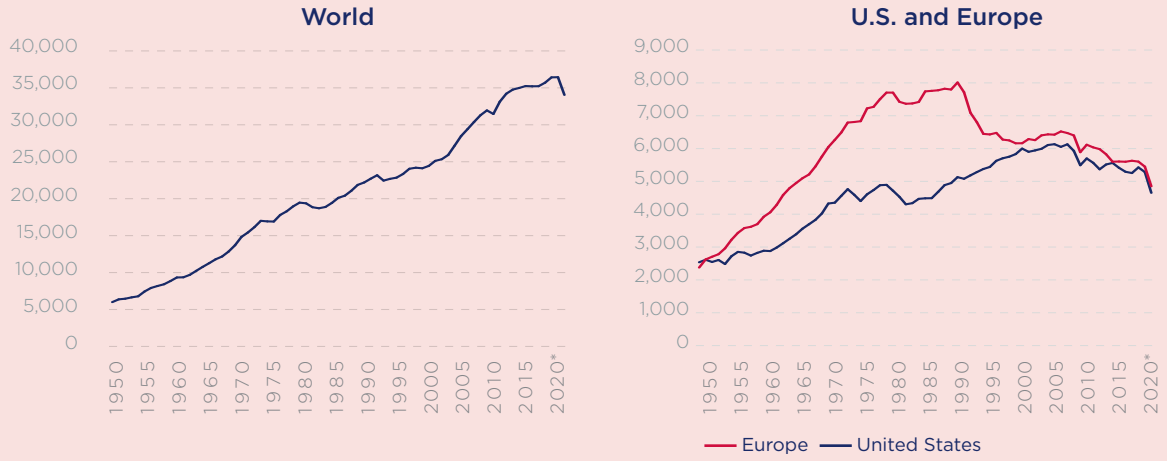


*** Companies with asterisks are U.S. companies*
Source: Bloomberg New Energy Finance.
Data as of January 2021.

Meanwhile, in the U.S., the new administration has made climate change a top priority, moving to rejoin the Paris Climate Accord in early 2021. Future stimulus plans in the U.S. are likely to be focused on rebuilding jobs through sustainable infrastructure development and clean energy. According to the U.S. Energy Information Administration, the renewables share of electricity generation in the United States is estimated to increase from 21% today to 42% by 2050.[5]

Supporting the discovery of future green technologies, government budgets for energy research, development, and demonstration (RD&D) in the United States and Europe were $17 billion in 2019, according to the International Energy Agency – about double the amount spent in China. Business-funded R&D has also become an increasingly important source of R&D in the United States and Europe. A dynamic and innovative private sector should continue to drive investments and innovations in renewable energy R&D over the coming decade.

Table 13 Total CO_2 emissions (MMtons CO_2): Transatlantic Economy vs. the World



**Global Carbon Project estimates for 2020.*
Sources: Our World in Data; Global Carbon Project.
Data as of 2021.

Endnotes

1 Bureau of Economic Analysis, total inward foreign direct investment position on a historic cost basis in 2019 in petroleum and related industries, and electric power generation transmission and distribution.
2 SelectUSA, https://www.selectusa.gov/servlet/servlet.FileDownload?file=015t00000001nSg
3 European Commission, Recovery Plan for Europe, https://ec.europa.eu/info/strategy/recovery-plan-europe_en
4 Rhodium Group, "2020 Green Stimulus Spending in the World's Largest Economies," February 4, 2021.
5 U.S. Energy Information Administration, Today in Energy, February 8, 2021.

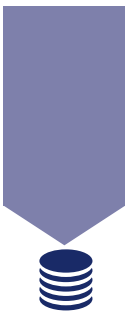
6

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

California

Italy

Europe experienced **its sharpest recession since WWII**



-6.6% in 2020

-4.5% during the 2009 global financial crisis

In 2020, the European economy experienced its sharpest recession in the post-WWII era due to the global pandemic's effect on some of the region's most prominent industries. According to initial estimates from Eurostat, euro area GDP fell 6.6% on an annual basis, versus a 4.5% drop during the 2009 global financial crisis. The UK economy was especially hard hit by the coronavirus, contracting by 9.9% in 2020. A large portion of economic activity in European countries depends on the services sector and, particularly, areas such as accommodation, food and beverage, transport, travel, and culture and recreational activities. European economies highly exposed to these services industries saw the some of the greatest economic declines in 2020. For example, in Spain tourism represents 11.8% of GDP and 13.5% of total employment; its GDP contracted by 11%. Similarly, the economies of Portugal, France, and Italy all rely heavily on tourism, and as a result have been more severely impacted by border closings, government lockdowns and social distancing measures. Germany, which depends to a greater extent on manufacturing, saw a smaller GDP decline of 4.9%, also in part because it deployed massive government support to keep the economy on track as much as possible.

According to the latest figures from the UN, foreign direct investment (FDI) inflows to both the United States and Europe were severely impacted by the global recession. Global FDI flows to Europe entirely evaporated, down from $344 billion in 2019 to roughly $0 in 2020. These sharp swings in global FDI to Europe, however, were mainly driven by large divestments and negative intra-company loans in the Netherlands and Switzerland (-$150 billion and -$88 billion FDI flows respectively). Given their one-off nature, we expect the recent investment declines to be temporary. FDI inflows to Europe should bounce back to positive territory in 2021, however they could continue to be relatively weak until the pandemic uncertainty subsides.

Notwithstanding the recent cyclical slowdown and economic risks, Europe remains one of the most attractive regions of the world for U.S. foreign direct investment. 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. FDI in Europe was $3.6 trillion in 2019, or 60% of the total U.S. global investment position. This is almost four times the amount of comparable U.S. investment in the Asia-Pacific region.

Global FDI flows to Europe evaporated:
from $344 billion in 2019 to roughly $0 in 2020
(expected to be temporary)

Total U.S. FDI stock in Europe
$3.6 trillion
(2019)

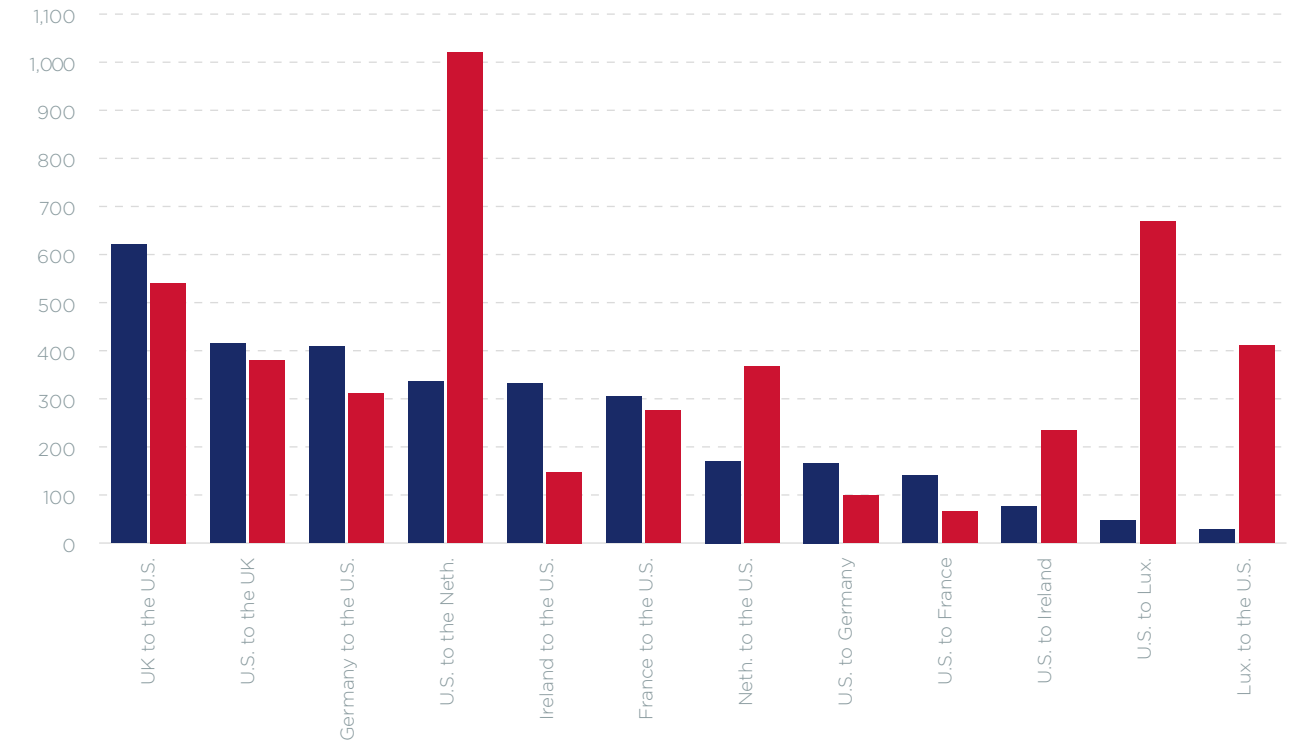
60%
of U.S. global investment

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.[1] Similarly, "real FDI" links from Germany to the United States are considerably higher than official statistics might indicate. All told, they estimate "real FDI" bilateral links from Germany to the United States to top $400 billion, whereas official statistics put that figure closer to $300 billion.[2] 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)



Data for 2017, latest available. Real FDI position: Captures links between ultimate investors and real investments.
Source: 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.[3] 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 estimate 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 are 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 apply to U.S. FDI in Europe.

In the aggregate, about 54% of America's total FDI position in Europe was allocated to non-bank holding companies in 2019, meaning that less than half of the $3.6 trillion is 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 amounts to $1.6 trillion – a much smaller figure but still more than 2.5 times larger than total U.S. investment in the Asia-Pacific region (FDI stock of $635 billion excluding holding companies).

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

U.S. holding companies have been playing an important role in the rise of U.S.-Europe FDI over the years. This has generated considerable political and media attention and is important to understand in order to get a full picture of transatlantic commercial linkages. As of 2019, the last year of available data, nonbank holding companies accounted for $2.8 trillion, or about 47% of the global U.S. outward FDI position of approximately $6 trillion, and 54% of total U.S. FDI stock in the European Union.

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."

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

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 2019, U.S. FDI flows to holding companies in Europe were negative (-$47 billion), as U.S. companies repatriated a large amount of accumulated foreign earnings. This negative outflow from holding companies nearly offset the positive FDI flows of $56 billion to all other industries in Europe, whether it be manufacturing and wholesale trade or finance and information services. Due to these outflows, U.S. FDI to Europe in 2019 was just $8 billion, down significantly from average outflows prior to U.S. tax reform.

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 top destination of choice among U.S. firms even after the figures are adjusted. Between 2009 and 2019, 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, 2009-2019
(% of Total)

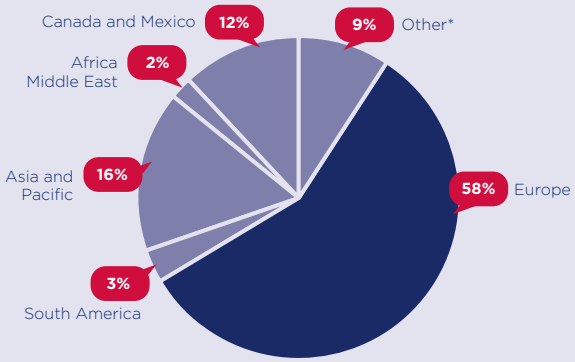
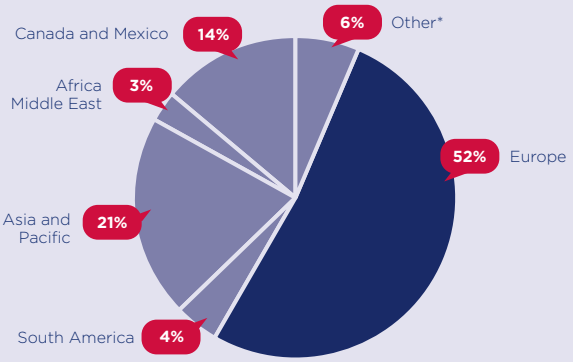


Table 2b U.S. FDI Outflows Excluding Flows to Nonbank Holding Companies, 2009-2019
(% of Total)



**Includes Central America (excluding Mexico) and Other Western Hemisphere.*
Source: Bureau of Economic Analysis.
Data as of January 2021.

In terms of annual flows of FDI from the United States, Europe has historically attracted more than half of U.S. investment each year. This trend reversed in 2018 and 2019 due to a major tax overhaul in the United States, which encouraged U.S. companies to bring home foreign capital at lower tax rates (See Box 5.2).

Due to these large-scale repatriations of accumulated foreign earnings by U.S. multinational companies, U.S. FDI outflows to Europe were negative or near zero over the two-year period from 2018-2019. In the first three quarters of 2020, however, U.S. FDI outflows to Europe increased to $55 billion, once again accounting for roughly half of U.S. global outflows.

By contrast, U.S. outflows to the Asia-Pacific region during the first three quarters of 2020 declined sharply to $8 billion, compared to $44 billion during the same period in 2019. Total U.S. global FDI outflows were $101 billion during the first three quarters of 2020, compared to $53 billion during the same period a year earlier. The recovery in U.S. FDI outflows in 2020 was largely due to Ireland, where strong negative outflows during the first three quarters of 2019 (-$82 billion) turned positive for the first three quarters of 2020 (+$29 billion).

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

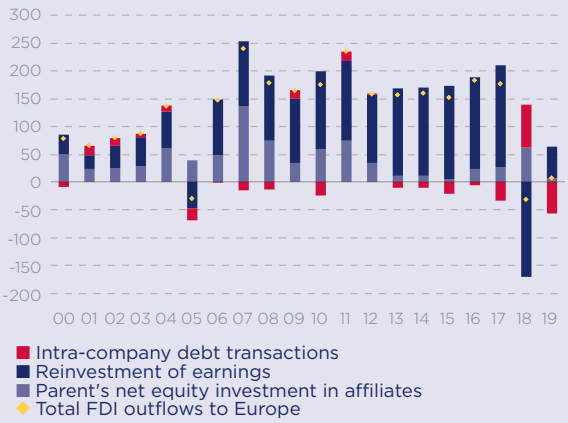
In December 2017, the United States passed the "Tax Cuts and Jobs Act," which included several changes to the U.S. taxation of international profits. An important provision of the tax reform bill, which had a material impact on U.S. international investment flows, was the reduced tax rate on U.S. firms' 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.

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.

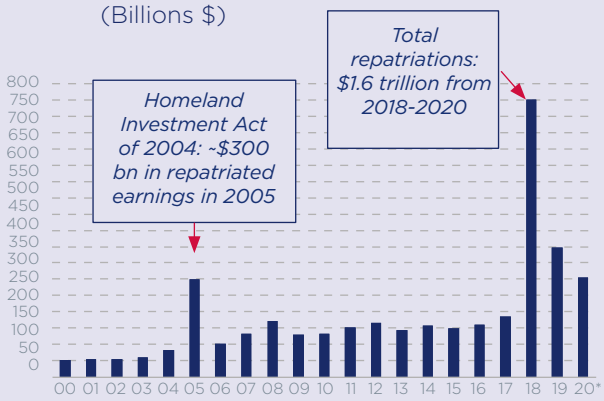
In the first three years after the change in the U.S. corporate tax code, U.S. repatriations of global earnings are estimated to have totaled approximately $1.6 trillion, or about half of the estimated $3 trillion in funds stockpiled overseas at the end of 2017 (Table 3b). While these repatriations suppressed 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 2021.

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



**2020 estimate based on three quarters of data.*
Source: U.S. Bureau of Economic Analysis.
Data as of January 2021.

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, 2.5%, 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 of $, (-) inflows)

	1990-1999		2000-2009		2010-3Q2020	
Country	$ Aggregate Total	% of Total Europe	$ Aggregate Total	% of Total Europe	$ Aggregate Total	% of Total Europe
Europe	465,337		1,149,810		1,433,510	
Austria	2,908	0.6%	501	0.0%	10,087	0.7%
Belgium	12,028	2.6%	40,120	3.5%	31,925	2.2%
Czech Republic	155	0.0%	1,941	0.2%	4,672	0.3%
Denmark	2,798	0.6%	5,782	0.5%	11,682	0.8%
Finland	1,485	0.3%	1,598	0.1%	289	0.0%
France	29,063	6.2%	42,963	3.7%	19,888	1.4%
Germany	31,817	6.8%	60,363	5.2%	35,949	2.5%
Greece	413	0.1%	943	0.1%	-79	0.0%
Hungary	2,929	0.6%	1,376	0.1%	1,584	0.1%
Ireland	21,369	4.6%	115,085	10.0%	241,994	16.9%
Italy	13,825	3.0%	26,462	2.3%	15,818	1.1%
Luxembourg	15,912	3.4%	126,989	11.0%	311,249	21.7%
Netherlands	70,770	15.2%	295,889	25.7%	315,063	22.0%
Norway	4,198	0.9%	4,997	0.4%	7,160	0.5%
Poland	2,681	0.6%	4,699	0.4%	3,302	0.2%
Portugal	1,993	0.4%	2,212	0.2%	861	0.1%
Russia	1,555	0.3%	11,289	1.0%	-503	0.0%
Spain	11,745	2.5%	28,371	2.5%	15,171	1.1%
Sweden	10,783	2.3%	16,974	1.5%	-767	-0.1%
Switzerland	32,485	7.0%	97,869	8.5%	126,292	8.8%
Turkey	1,741	0.4%	5,994	0.5%	7,079	0.5%
United Kingdom	175,219	37.7%	237,906	20.7%	281,011	19.6%
Other	17,465	2.6%	19,487	1.4%	-6,222	-0.4%

Source: Bureau of Economic Analysis.
Data as of January 2021.

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. Ireland is the number one platform for U.S. affiliates in the world to reach foreign customers, with U.S. multinationals using the country's favorable tax policies and strategic location to access the larger European market. Switzerland, ranked second, remains a key export platform and pan-regional distribution hub for U.S. firms.

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

	1982		1990		2000		2018	
Rank	Country	Value	Country	Value	Country	Value	Country	Value
1	United Kingdom	33,500	United Kingdom	51,350	United Kingdom	94,712	**Ireland**	**351,842**
2	Switzerland	27,712	Canada	46,933	Canada	94,296	Switzerland	299,475
3	Canada	25,169	Germany	41,853	Germany	69,522	Singapore	286,866
4	Germany	19,117	Switzerland	38,937	Netherlands	67,852	United Kingdom	209,625
5	Netherlands	15,224	Netherlands	33,285	Singapore	56,961	Netherlands	181,382
6	Belgium	11,924	France	24,782	Switzerland	56,562	Canada	157,476
7	Singapore	11,579	Belgium	21,359	**Ireland**	**51,139**	Germany	128,911
8	France	11,255	Singapore	15,074	Mexico	37,407	Belgium	112,588
9	Indonesia	8,289	Hong Kong	9,951	France	35,797	Mexico	101,679
10	Hong Kong	4,474	Italy	9,562	Belgium	32,010	Hong Kong	89,906
11	Italy	3,993	**Ireland**	**9,469**	Hong Kong	22,470	China	73,353
12	Australia	3,710	Spain	7,179	Malaysia	16,013	France	60,089
13	**Ireland**	**2,842**	Japan	7,066	Sweden	15,736	Australia	38,233
14	United Arab Emirates	2,610	Australia	6,336	Italy	14,370	Luxembourg	35,042
15	Brazil	2,325	Mexico	5,869	Spain	12,928	Italy	33,131
16	Japan	2,248	Indonesia	5,431	Japan	11,845	Brazil	33,119
17	Malaysia	2,046	Brazil	3,803	Australia	9,370	India	32,554
18	Panama	1,662	Norway	3,565	Brazil	8,987	Spain	30,212
19	Spain	1,635	Malaysia	3,559	China	7,831	Japan	28,180
20	Mexico	1,158	Nigeria	2,641	Norway	6,238	Malaysia	24,946
	All Country Total	252,274	All Country Total	398,873	All Country Total	857,907	All Country Total	2,721,519

Source: Bureau of Economic Analysis.
Data as of January 2021.
**Destination = affiliate sales to third markets and sales to U.S. for majority-owned foreign affiliates.*

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 exit from the EU may further solidify Ireland's spot as the number one location for U.S. affiliate exports. Increased barriers to trade, including regulatory checks and rules of origin requirements, 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 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.

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 22.3% of world output in 2020 – slightly lower than the U.S. share (24.8%) but greater than that of China (17.2%). Based on purchasing power parity figures, Europe's share was greater than that of the United States but less than that of China in 2020.

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.

Table 6 Cumulative U.S. FDI Outflows ($Millions)

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%
Q1-Q3 2020	101,259	54,909	54.2%

Source: Bureau of Economic Analysis.
Data as of January 2021.

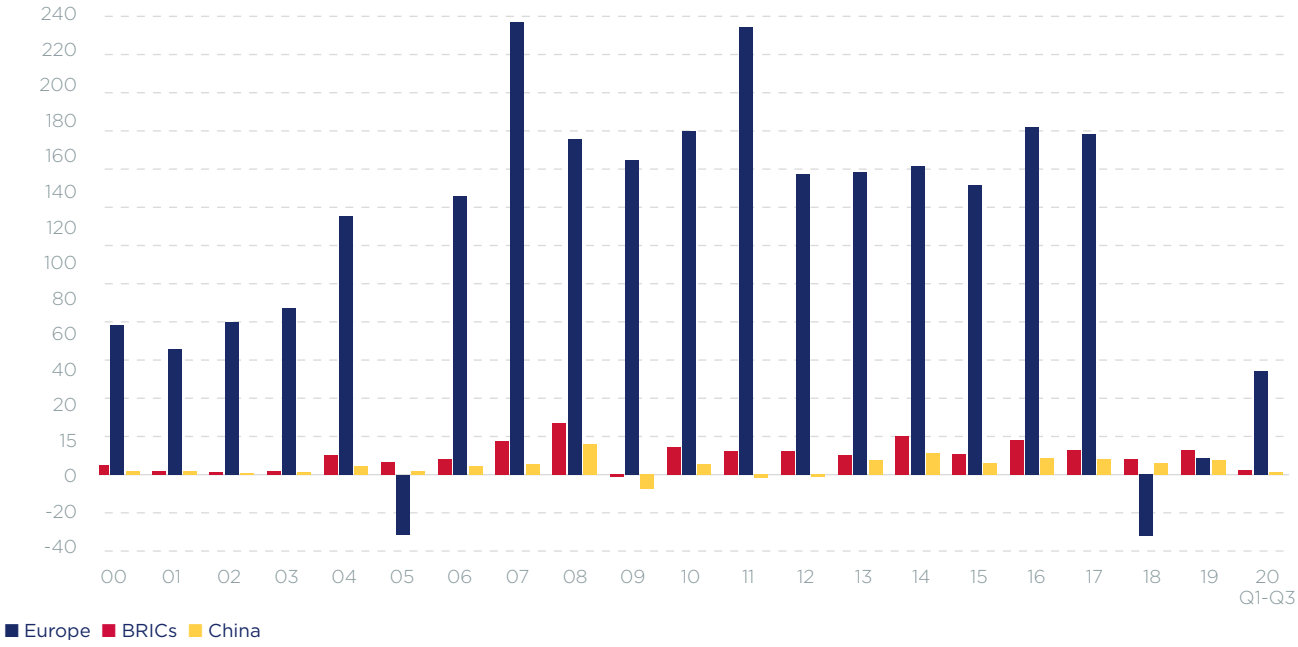
Even after adjusting for FDI flows related to holding companies, Europe remains the favored destination of U.S. firms. This runs counter to the fashionable narrative that Corporate America prefers low-cost nations in Asia, Latin America and Africa to developed markets like Europe.

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 during 2018 and 2019 due to tax reform, investment in Europe in the first three quarters of 2020 started to pick up. FDI outflows to Europe were $54 billion for the first three quarters of the year, compared with just $1.2 billion in flows to China and $2.1 billion in flows to the BRICs.

57.3%

Europe's share of U.S. FDI during the last decade

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



**Europe does not include flows to Russia. BRICs = Brazil, Russia, India and China.*
Source: Bureau of Economic Analysis.
Data as of January 2021.

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, 15 of the 25 wealthiest nations in the world are European. Per capita income levels in Europe are significantly greater than those in India and China, and all of Africa. China's per capita income of just $10,262 in 2019 is well below the per capita income levels of Switzerland ($81,994), the Netherlands ($52,331), Finland ($48,783), Germany ($46,445), and the European Union average of around $35,000. Meanwhile, India's per capita GDP was just $2,100 in 2019, according to figures from the World Bank.

Wealth, in turn, drives consumption. The EU (including the UK) accounted for about 20% of total global personal consumption expenditures in 2019, 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, and 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 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.

According to the latest rankings of global competitiveness from the World Economic Forum, six European countries were ranked among the top ten most competitive economies in the world. As shown in Table 8, over half of the top 30 most competitive economies are European countries. That said, Europe's competitiveness is hardly homogenous. Some nations did not even score in the top fifty – Romania ranked 51st, Greece ranked 59th, and Croatia ranked 63rd in the 2019 survey. Updated rankings for 2020 were not available this year due to COVID-19 uncertainties.

Table 8 European Economies are Among the Most Competitive in the World

Global Competitiveness Index 2019 Rankings	
Rank	**Country**
1	Singapore
2	United States
3	Hong Kong
4	**Netherlands**
5	**Switzerland**
6	Japan
7	**Germany**
8	**Sweden**
9	**United Kingdom**
10	**Denmark**
11	**Finland**
12	Taiwan
13	South Korea
14	Canada
15	**France**
16	Australia
17	**Norway**
18	**Luxembourg**
19	New Zealand
20	Israel
21	**Austria**
22	**Belgium**
23	**Spain**
24	**Ireland**
25	United Arab Emirates
26	**Iceland**
27	Malaysia
28	China
29	Qatar
30	**Italy**

Source: World Economic Forum, Global Competitiveness Report 2019.

The spread between the Netherlands, in fourth place, and Croatia underscores the divergent competitiveness of the EU and highlights the fact that member states exhibit various competitive strengths and weaknesses. Greece received low marks for its property rights and financial stability, which stand in contrast to Finland's strong protection of property rights, macroeconomic stability and transparent institutions or Germany's strong innovation capability and healthy debt dynamics. Belgium was rated positively for macroeconomic stability and utility infrastructure; France was highlighted for its research and development capabilities as well as its high life expectancy. Switzerland ranked first across several variables, including workforce skills, broadband internet subscriptions and government policy stability. In other words, the various countries of Europe offer specific micro capabilities and competencies that are relatively lacking in the United States and critical to the global success of U.S. firms.

Finally, Europe continues to be a world leader when it comes to innovation and knowledge-based activities. According to the Global Innovation Index for 2020, nine 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, 16 of the top 30 science & technology clusters, ranked by S&T intensity, are located Europe, 11 in North America, and only 3 are in Asia.

Table 9 Global Innovation Index 2020

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

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

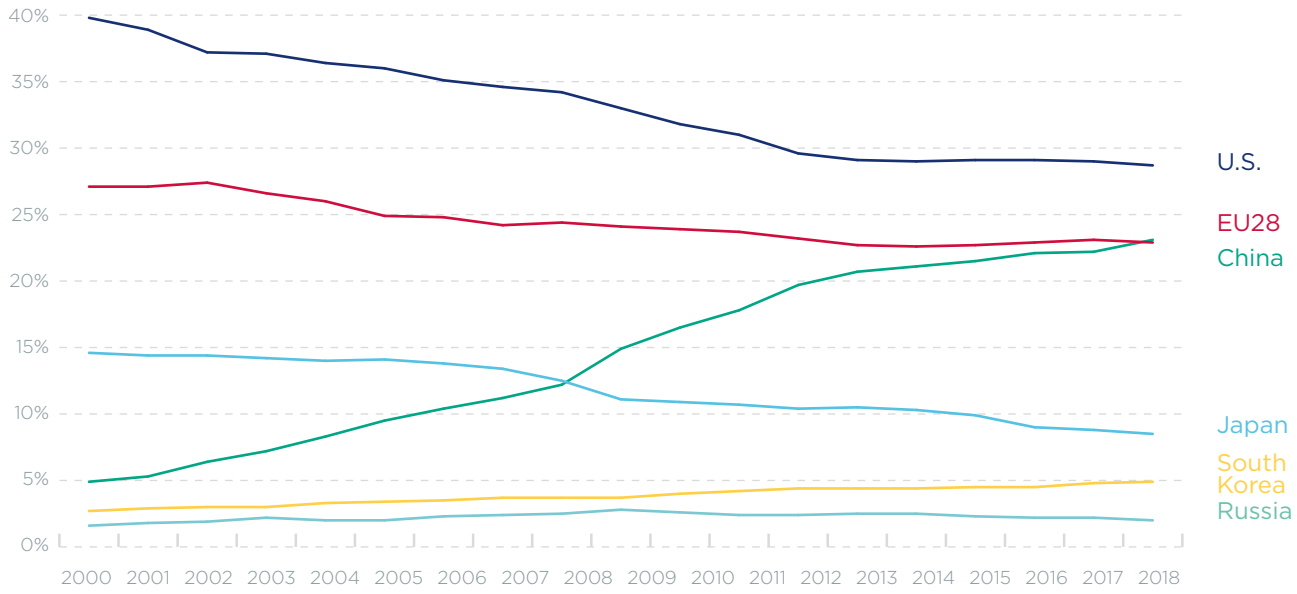
Source: Cornell University, INSEAD, and the World Intellectual Property Organization, Global Innovation Index 2020. Data as of 2020.

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

Since R&D expenditures are a key driver of value-added growth, it is interesting to note that EU-based organizations accounted for about one-fifth of total global R&D in 2018 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 U.S. as the top R&D spender in the world (Table 10). According to R&D Magazine's updated 2020 Global R&D Funding forecast, R&D expenditures should fall 4% globally and 7% in Europe, mainly due to a drop in corporate revenues caused by the global pandemic.

Sweden, Switzerland, Austria, Denmark and Germany 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 2018, larger than that of the United States (2.8%) and China (2.1%). As shown in Table 11, a large part of the R&D funding in these countries comes from businesses.

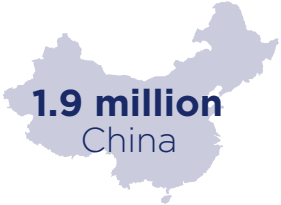
Table 10 **Global R&D Expenditures and the Rise of China** (% of Total)



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 other non-OECD EU countries.
Source: OECD.
Data as of January 2021.

Number of researchers hosted
(2018)

2.1 million
EU



1.9 million
China

1.5 million
U.S.

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.

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, 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 housed 2.1 million researchers in 2018 versus 1.5 million in the United States and 1.9 million in China, according to OECD estimates.

Finally, Europe is home to one of the most educated workforces in the world. The share of the working age population with a bachelor's degree or higher in Ireland is the highest in the OECD, at 51%. The comparable figures for Luxembourg, Switzerland, Lithuania, Iceland, Belgium, and the Netherlands are all higher than that of the United States (currently 38%).

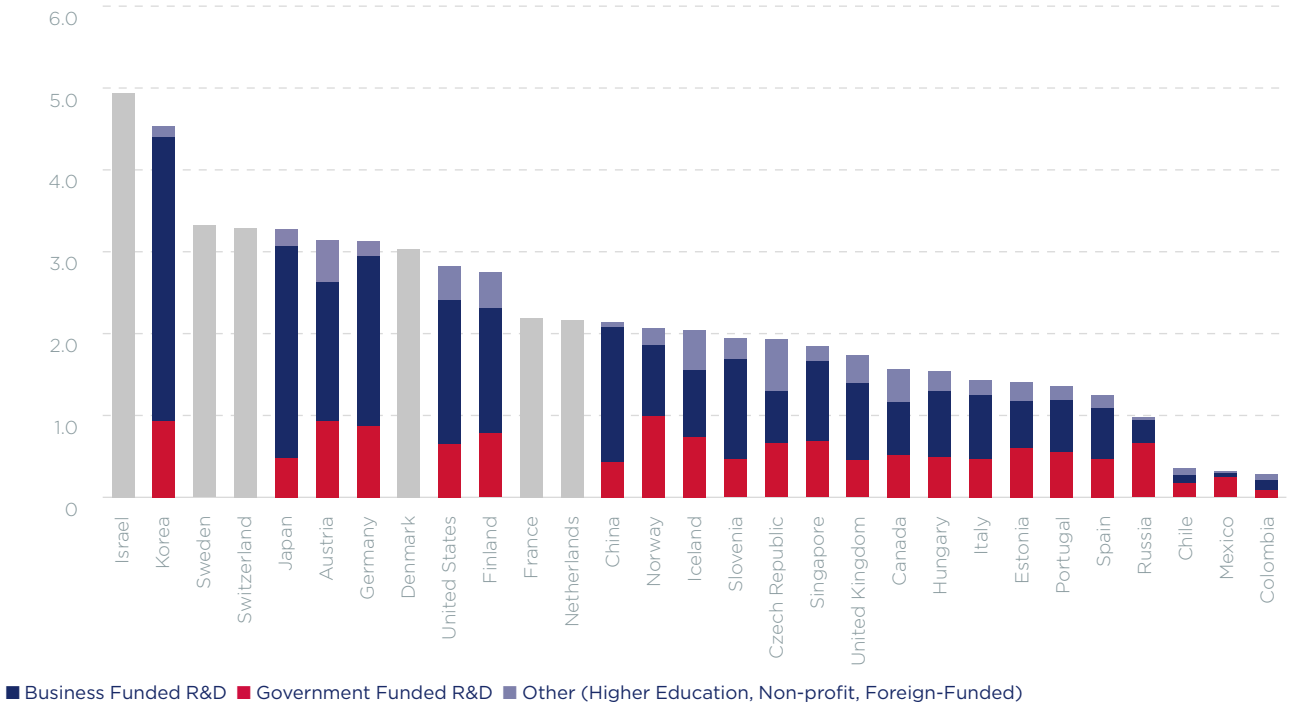
While U.S. universities remain a top destination for foreign students, the UK, Germany and France are also notable attractions. In the end, Europe remains among the most competitive regions in the world in terms of science and technology capabilities. The U.S. National Science Board has explicitly recognized 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.

Despite the latest trade frictions between the two regions, Europe is expected to remain a critical and indispensable geographic node in the global operations of U.S. companies. U.S. companies 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.

Table 11 Annual R&D Spending (% of GDP)



Gray bars indicate that R&D breakdown is not available at the sector level.
Source: OECD. Data for 2018.

Endnotes

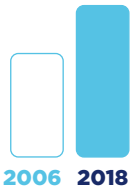
1 See Jannick Damgaard, Thomas Elkjaer, and Niels Johannesen, "The Rise of Phantom Investments," IMF Finance & Development, September 2019, https://www.imf.org/external/pubs/ft/fandd/2019/09/the-rise-of-phantom-FDI-in-tax-havens-damgaard.htm; and Jannick Damgaard, Thomas Elkjaer and Niels Johannesen, "What Is Real and What Is Not in the Global FDI Network?" IMF Working Paper WP/19/274, December 2, 2019.
2 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.
3 Ibid.

Appendix A

European Commerce and the 50 U.S. States:
A State-by-State Comparison

Alabama and Europe

Jobs



61,500
Since 2006: +19,400 (+46.1%)

European companies account for
51%
of foreign affiliate jobs

Employment within Alabama, 2018

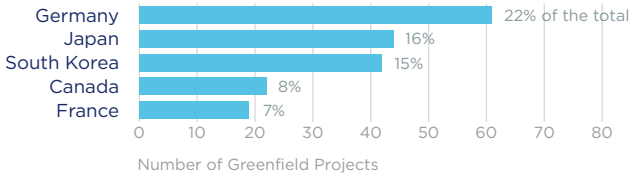
Country	Employment
Japan	22,200
United Kingdom	16,400
Germany	15,700
Canada	14,000
France	9,600

On a country basis, U.K. companies operating in Alabama represented 14% of total foreign affiliate employment in Alabama, with U.K. multinationals supporting approximately 4,800 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



278
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Alabama Goods Exports to Europe, 2019

$6.6 bn

65% of total exports from Alabama to Europe were transportation equipment, reflecting the state's linkages with European auto manufacturers.

Alabama Goods Imports from Europe, 2019

$7.2 bn

Transportation equipment and machinery manufactures were the top product imports from Europe.

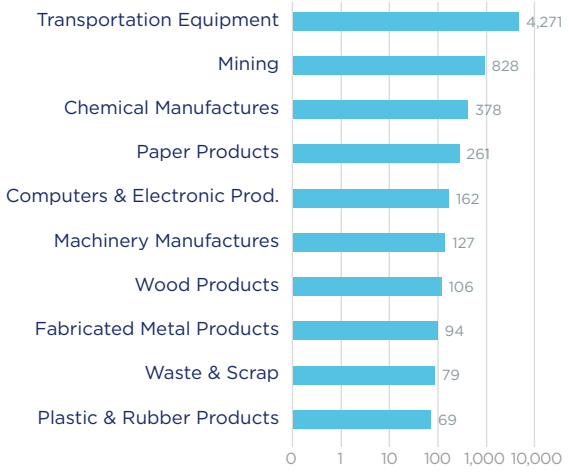
Top European Export Markets, 2019

Country	Exports ($ millions)
Germany	3,140
Belgium	565
France	499
Netherlands	460
Austria	381

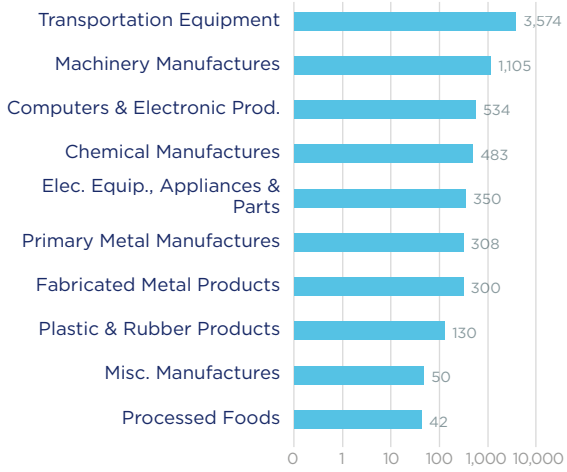
Top European Import Markets, 2019

Country	Imports ($ millions)
Germany	3,106
France	1,460
United Kingdom	588
Italy	235
Hungary	172

Top Ten Exports to Europe, 2019 ($ millions)



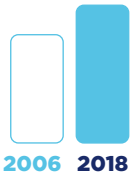
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Alaska and Europe

Jobs



6,300
Since 2006: +1,300 (+26.0%)

European companies account for
37%
of foreign affiliate jobs

Employment within Alaska, 2018

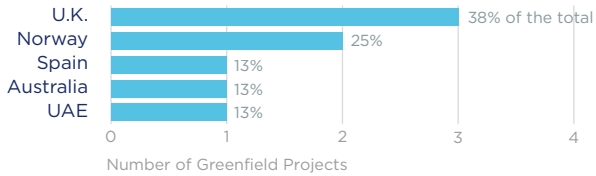
Country	Employment
Canada	5,200
United Kingdom	3,800
Japan	2,300
France	700
Germany	300

On a country basis, U.K. companies operating in Alaska represented 22% of total foreign affiliate employment in Alaska, with U.K. multinationals supporting approximately 500 fewer jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



8
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Alaska Goods Exports to Europe, 2019

$1.2 bn

The bulk of the state's exports consist of primary commodities.

Alaska Goods Imports from Europe, 2019

$172.8 m

Machinery made up about 23% of total Alaskan imports from Europe. Other large import categories from Europe include oil & gas, transportation equipment and computer & electronic products.

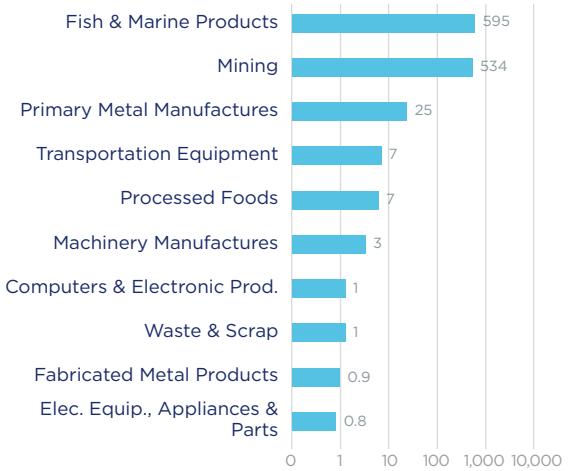
Top European Export Markets, 2019

Country	Exports ($ millions)
Netherlands	350
Germany	219
Spain	154
Belgium	124
France	77

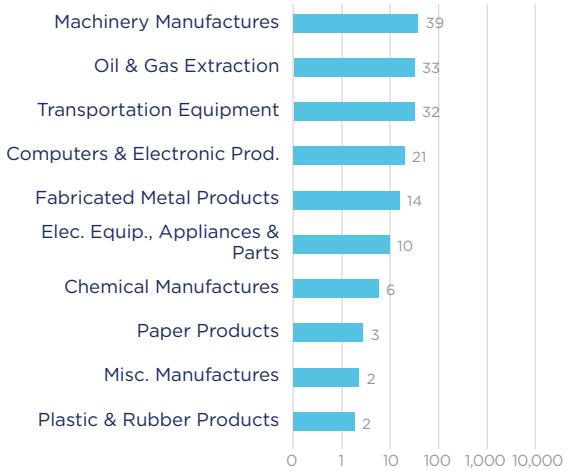
Top European Import Markets, 2019

Country	Imports ($ millions)
Russia	38
United Kingdom	32
Finland	26
Germany	19
Italy	8

Top Ten Exports to Europe, 2019 ($ millions)



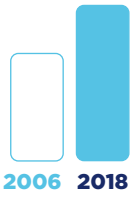
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Arizona and Europe

Jobs



68,900
Since 2006: +21,700 (+46.0%)

European companies account for
58%
of foreign affiliate jobs

Employment within Arizona, 2018

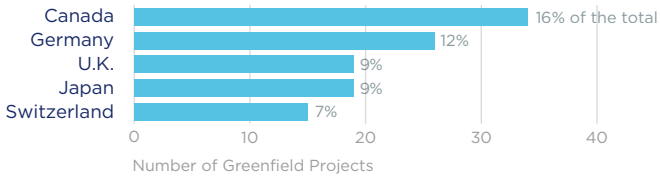
Country	Employment
Canada	20,600
United Kingdom	19,900
France	12,600
Japan	10,800
Germany	9,900

On a country basis, U.K. companies operating in Arizona represented 17% of total foreign affiliate employment in Arizona, with U.K. multinationals supporting approximately 6,800 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



213
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Arizona Goods Exports to Europe, 2019

$4.8 bn

Roughly one-third of the state's exports to Europe consist of transportation equipment.

Arizona Goods Imports from Europe, 2019

$4.6 bn

Arizona's largest merchandise imports from Europe were machinery and computers & electronic products, which combined represent about half of the state's total imports from Europe.

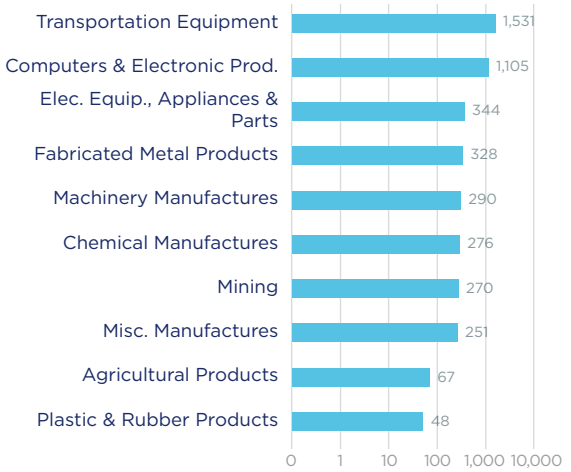
Top European Export Markets, 2019

Country	Exports ($ millions)
United Kingdom	831
Netherlands	783
Germany	744
France	682
Ireland	261

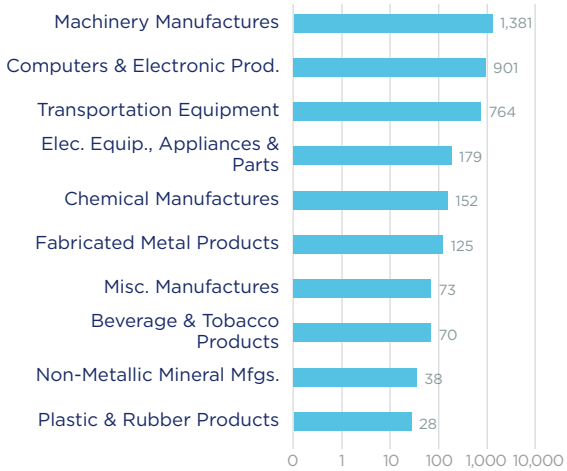
Top European Import Markets, 2019

Country	Imports ($ millions)
Netherlands	1,186
Germany	871
United Kingdom	652
France	454
Italy	334

Top Ten Exports to Europe, 2019 ($ millions)



Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Arkansas and Europe

Jobs

28,900
Since 2006: +5,200 (+21.9%)

European companies account for
60%
of foreign affiliate jobs

Employment within Arkansas, 2018

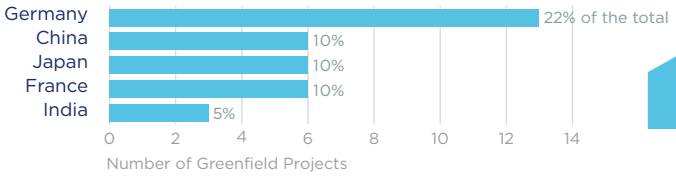
Country	Employment
Japan	6,500
United Kingdom	6,400
France	6,100
Switzerland	4,800
Canada	4,100

On a country basis, U.K. companies operating in Arkansas represented 13% of total foreign affiliate employment in Arkansas, with U.K. multinationals supporting approximately 2,700 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



59
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Arkansas Goods Exports to Europe, 2019

$1.6 bn

Transportation equipment made up 53% of exports to Europe in 2019.

Arkansas Goods Imports from Europe, 2019

$2.4 bn

Transportation equipment is the top imported product from Europe, representing 63% of total imports.

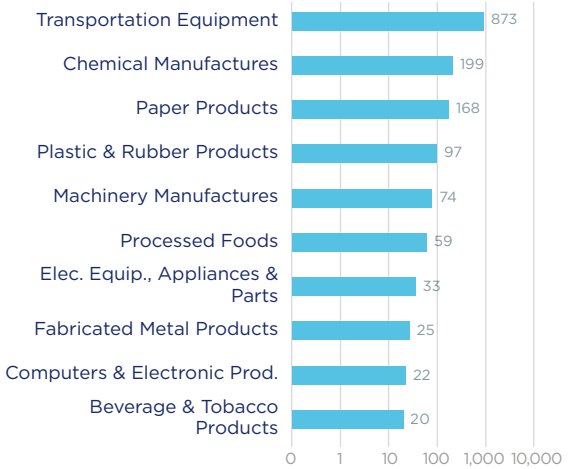
Top European Export Markets, 2019

Country	Exports ($ millions)
France	711
Belgium	152
United Kingdom	140
Germany	100
Netherlands	97

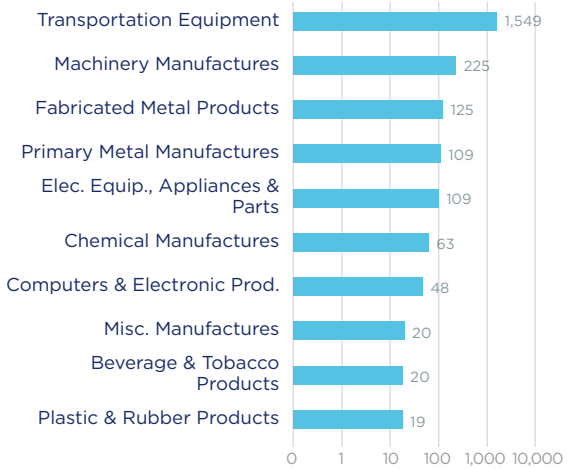
Top European Import Markets, 2019

Country	Imports ($ millions)
France	1,395
Germany	369
United Kingdom	145
Italy	129
Spain	54

Top Ten Exports to Europe, 2019 ($ millions)



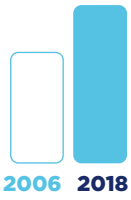
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

California and Europe

Jobs



490,700

Since 2006: +145,200 (+42.0%)

European companies account for **58%** of foreign affiliate jobs

Employment within California, 2018

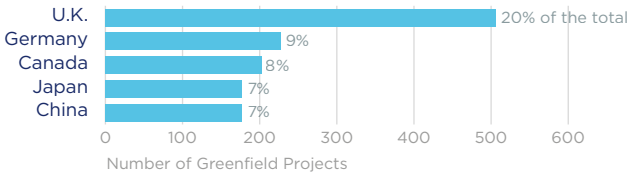
Country	Employment
United Kingdom	126,400
Japan	115,200
France	97,300
Germany	85,600
Canada	75,000

On a country basis, U.K. companies operating in California represented 15% of total foreign affiliate employment in California, with U.K. multinationals supporting approximately 41,900 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



2,532

Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

California Goods Exports to Europe, 2019

$38.9 bn

20% of California's exports to Europe in 2019 consisted of high-tech goods (computers & electronic products).

California Goods Imports from Europe, 2019

$45.3 bn

Transportation equipment was the top product import, representing 32% of the state's total imports from Europe.

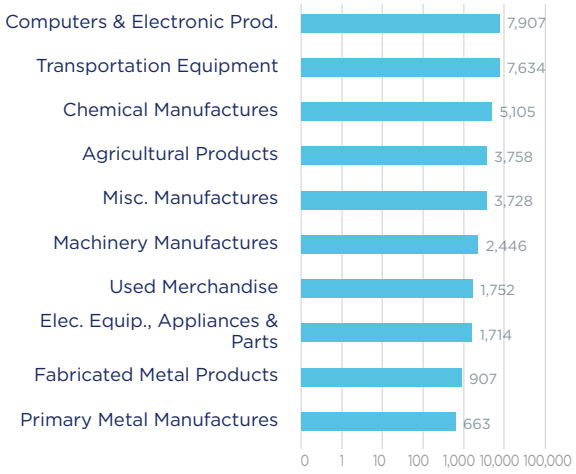
Top European Export Markets, 2019

Country	Exports ($ millions)
Germany	6,439
Netherlands	6,409
Belgium	6,341
United Kingdom	5,263
France	2,947

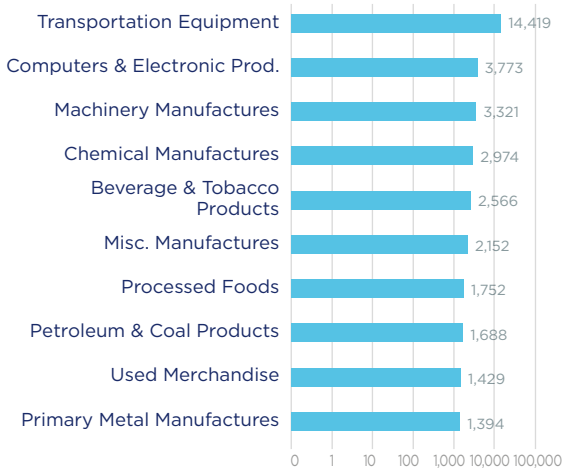
Top European Import Markets, 2019

Country	Imports ($ millions)
Germany	11,309
United Kingdom	6,259
France	4,819
Italy	4,155
Switzerland	2,506

Top Ten Exports to Europe, 2019 ($ millions)



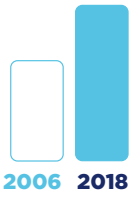
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Colorado and Europe

Jobs



72,900
Since 2006: +25,800 (+54.8%)

European companies account for
60%
of foreign affiliate jobs

Employment within Colorado, 2018

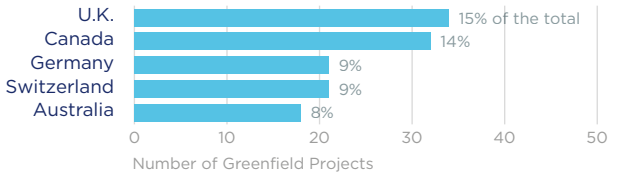
Country	Employment
United Kingdom	20,900
Canada	19,500
France	10,300
Germany	7,800
Japan	7,800

On a country basis, U.K. companies operating in Colorado represented 17% of total foreign affiliate employment in Colorado, with U.K. multinationals supporting approximately 7,700 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



229
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Colorado Goods Exports to Europe, 2019

$1.8 bn

About 22% of the state's exports to Europe consisted of high-tech goods (computers & electronic products) in 2019.

Colorado Goods Imports from Europe, 2019

$3.5 bn

Colorado's largest imports from Europe were machinery and transportation equipment.

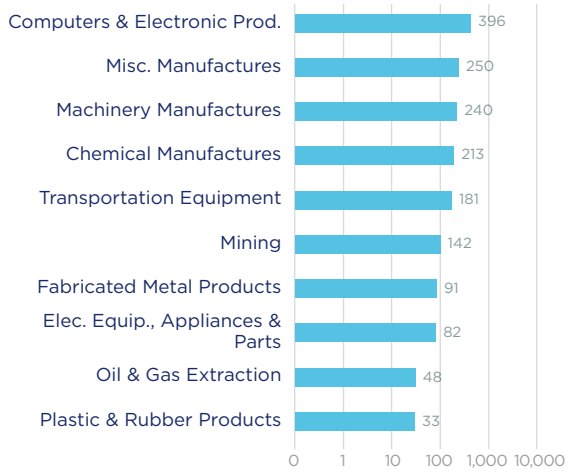
Top European Export Markets, 2019

Country	Exports ($ millions)
Netherlands	331
Germany	280
United Kingdom	243
Switzerland	201
France	170

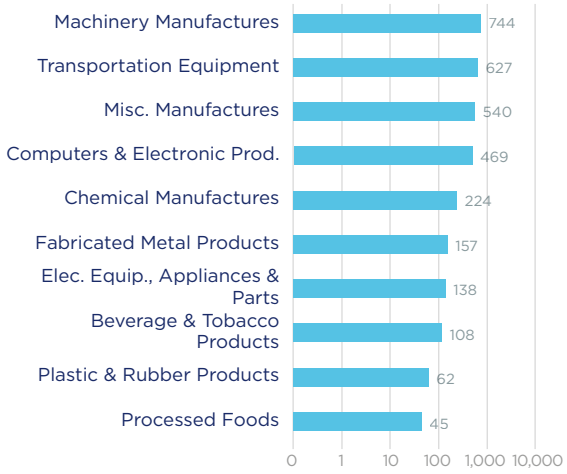
Top European Import Markets, 2019

Country	Imports ($ millions)
Switzerland	924
Germany	609
United Kingdom	256
Italy	231
France	227

Top Ten Exports to Europe, 2019 ($ millions)



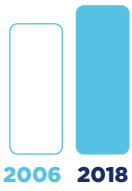
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Connecticut and Europe

Jobs



87,900
Since 2006: +10,600 (+13.7%)

European companies account for
76%
of foreign affiliate jobs

Employment within Connecticut, 2018

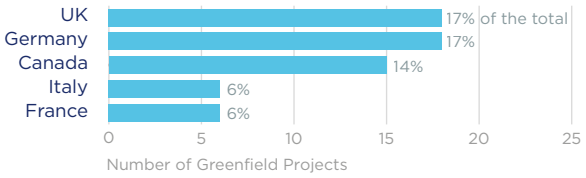
Country	Employment
United Kingdom	22,100
Netherlands	18,100
Germany	13,000
Japan	8,000
Switzerland	7,800

On a country basis, U.K. companies operating in Connecticut represented 19% of total foreign affiliate employment in Connecticut, with U.K. multinationals supporting approximately 3,600 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



106
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Connecticut Goods Exports to Europe, 2019

$8.2 bn

Exports are heavily skewed towards transportation equipment, which represent 58% of the state's total exports to Europe.

Connecticut Goods Imports from Europe, 2019

$7.0 bn

Machinery was Connecticut's main import from Europe, representing 17% of the state's total merchandise imports from Europe.

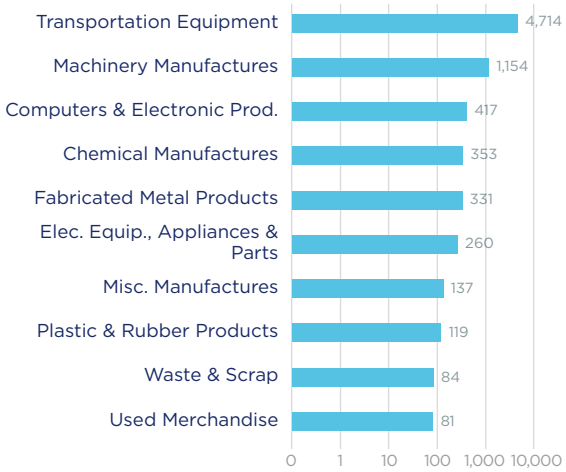
Top European Export Markets, 2019

Country	Exports ($ millions)
Germany	2,542
France	1,860
United Kingdom	1,452
Netherlands	775
Poland	228

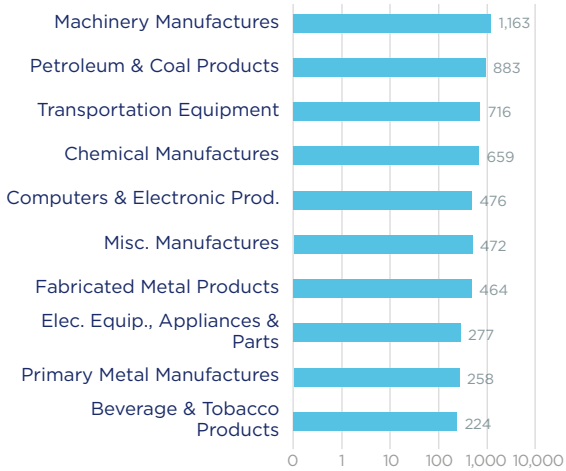
Top European Import Markets, 2019

Country	Imports ($ millions)
Germany	1,327
United Kingdom	1,216
France	838
Netherlands	792
Italy	490

Top Ten Exports to Europe, 2019 ($ millions)



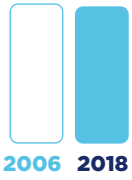
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Delaware and Europe

Jobs



18,300
Since 2006: -400
(-2.1%)

European companies account for
74%
of foreign affiliate jobs

Employment within Delaware, 2018

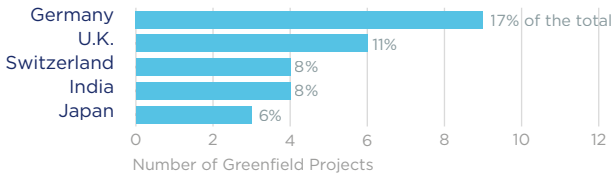
Country	Employment
United Kingdom	7,600
Germany	3,200
Canada	2,400
Netherlands	2,300
France	1,600

On a country basis, U.K. companies operating in Delaware represented 31% of total foreign affiliate employment in Delaware, with U.K. multinationals supporting approximately 1,800 fewer jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



52
Greenfield Projects
(October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Delaware Goods Exports to Europe, 2019

$1.4 bn

Chemicals are Delaware's primary export to Europe, representing half of the state's total exports.

Delaware Goods Imports from Europe, 2019

$5.0 bn

Chemicals are also Delaware's top import, also accounting for half of the state's total imports from Europe.

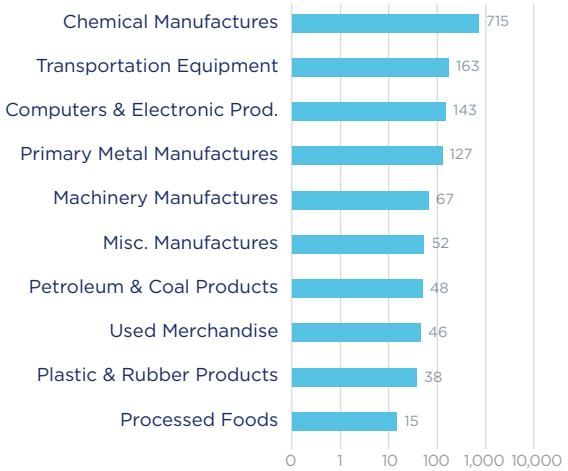
Top European Export Markets, 2019

Country	Exports ($ millions)
United Kingdom	542
Germany	224
Belgium	171
Switzerland	141
France	137

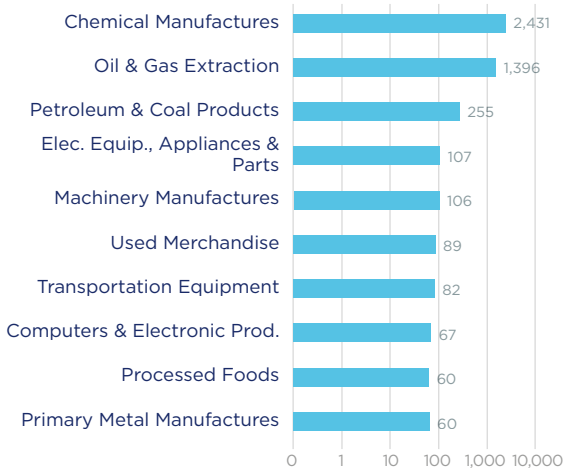
Top European Import Markets, 2019

Country	Imports ($ millions)
Switzerland	946
Russia	854
United Kingdom	596
France	451
Kazakhstan	334

Top Ten Exports to Europe, 2019 ($ millions)



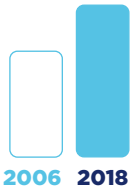
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Florida and Europe

Jobs



229,500
Since 2006: +69,200 (+43.2%)

European companies account for
64%
of foreign affiliate jobs

Employment within Florida, 2018

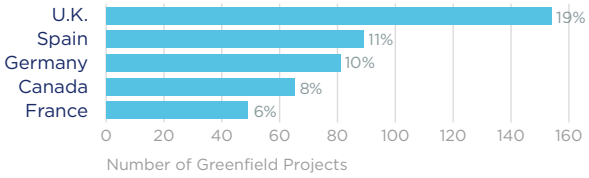
Country	Employment
United Kingdom	67,800
Canada	53,500
Germany	39,700
France	37,600
Switzerland	29,100

On a country basis, U.K. companies operating in Florida represented 19% of total foreign affiliate employment in Florida, with U.K. multinationals supporting approximately 26,200 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



809
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Florida Goods Exports to Europe, 2019

$10.4 bn

Transportation Equipment accounts for about 29% of Florida's total exports to Europe.

Florida Goods Imports from Europe, 2019

$22.7 bn

Florida's imports from Europe are concentrated in transportation equipment, representing a 24% share of the state's total imports from Europe in 2019.

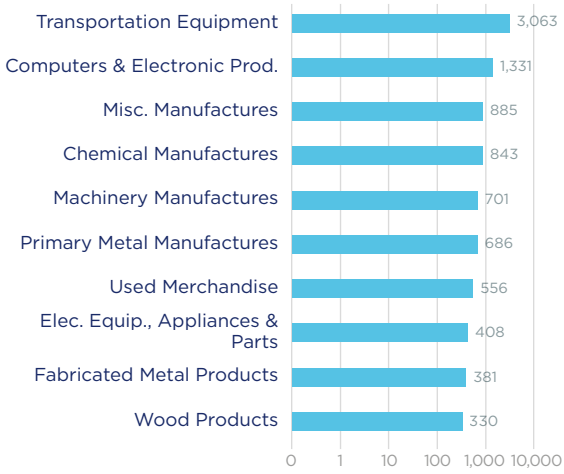
Top European Export Markets, 2019

Country	Exports ($ millions)
United Kingdom	1,894
Germany	1,830
Italy	1,280
Netherlands	1,016
France	843

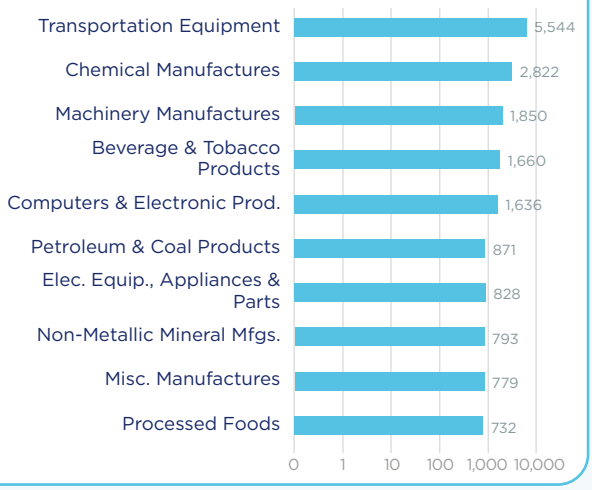
Top European Import Markets, 2019

Country	Imports ($ millions)
Germany	4,022
France	3,896
United Kingdom	2,770
Italy	2,355
Spain	1,482

Top Ten Exports to Europe, 2019 ($ millions)



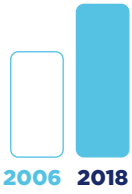
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Georgia and Europe

Jobs



162,300
Since 2006: +50,100 (+44.7%)

European companies account for
58%
of foreign affiliate jobs

Employment within Georgia, 2018

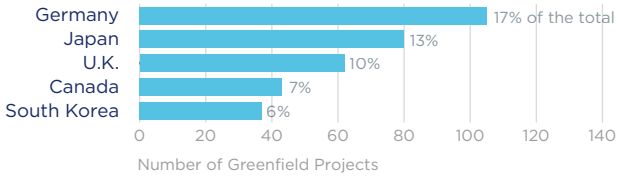
Country	Employment
Japan	37,900
United Kingdom	37,600
Canada	35,200
Germany	33,400
France	23,300

On a country basis, U.K. companies operating in Georgia represented 13% of total foreign affiliate employment in Georgia, with U.K. multinationals supporting approximately 14,300 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



615
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Georgia Goods Exports to Europe, 2019

$11.3 bn

Over 37% of Georgia's exports to Europe consist of transportation equipment.

Georgia Goods Imports from Europe, 2019

$29.5 bn

Transportation equipment, chemicals and machinery manufactures were the top product imports from Europe.

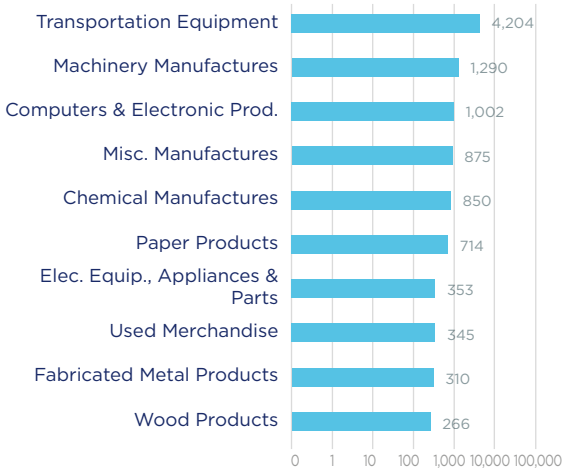
Top European Export Markets, 2019

Country	Exports ($ millions)
Germany	2,776
United Kingdom	1,540
Netherlands	1,332
Belgium	789
France	691

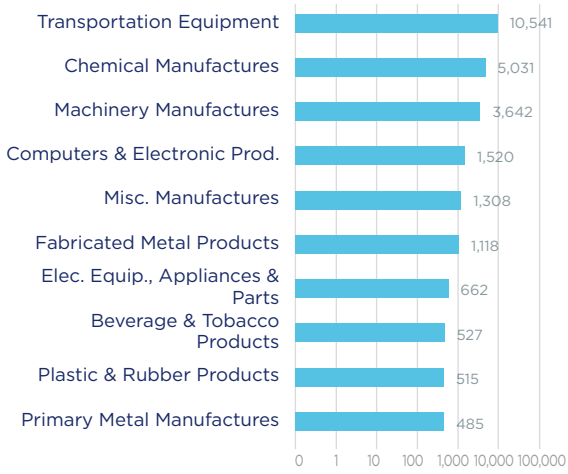
Top European Import Markets, 2019

Country	Imports ($ millions)
Germany	9,500
United Kingdom	5,495
France	2,684
Italy	2,091
Ireland	1,218

Top Ten Exports to Europe, 2019 ($ millions)



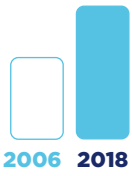
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Hawaii and Europe

Jobs



13,800
Since 2006: +5,300 (+62.4%)

European companies account for
35%
of foreign affiliate jobs

Employment within Hawaii, 2018

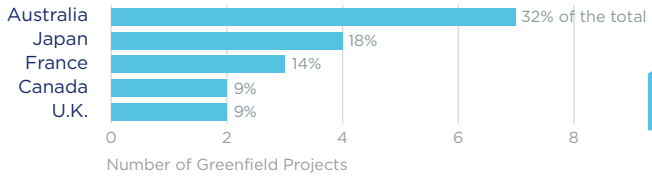
Country	Employment
Japan	19,400
France	3,800
United Kingdom	2,900
Germany	1,600
Canada	1,400

On a country basis, French companies operating in Hawaii represented 10% of total foreign affiliate employment in Hawaii, with French multinationals supporting approximately 600 fewer jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



22
Greenfield Projects (October 2010 - September 2020)

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Trade

Hawaii Goods Exports to Europe, 2019

$24.6 m

Transportation equipment and computer & electronic products led the way as top export categories.

Hawaii Goods Imports from Europe, 2019

$971.3 m

Hawaii's top European import category was oil & gas, which made up 60% of total imports in 2019, followed by transportation equipment.

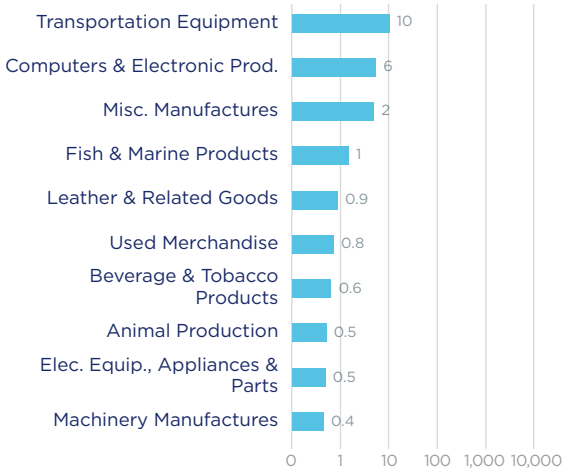
Top European Export Markets, 2019

Country	Exports ($ millions)
United Kingdom	10
Germany	3
Switzerland	2
Netherlands	2
France	2

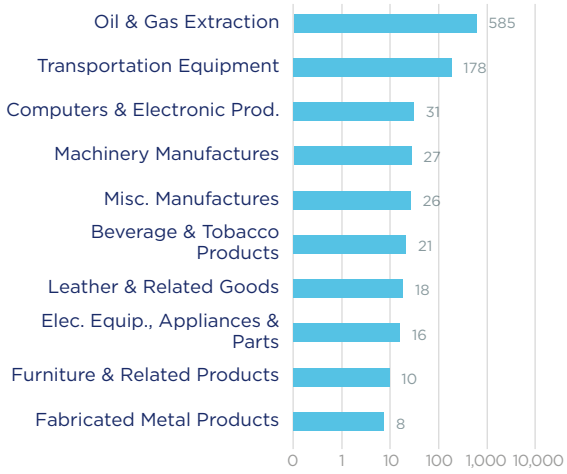
Top European Import Markets, 2019

Country	Imports ($ millions)
Russia	580
France	183
Italy	51
Germany	43
Switzerland	25

Top Ten Exports to Europe, 2019 ($ millions)



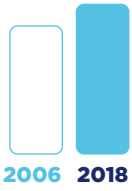
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Idaho and Europe

Jobs



12,500

Since 2006: +1,800 (+16.8%)

European companies account for

71%

of foreign affiliate jobs

Employment within Idaho, 2018

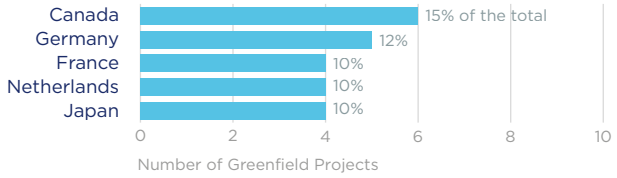
Country	Employment
Canada	3,200
France	2,800
Germany	2,500
United Kingdom	2,200
Switzerland	1,000

On a country basis, French companies operating in Idaho represented 16% of total foreign affiliate employment in Idaho, with French multinationals supporting approximately 100 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



40

Greenfield Projects (October 2010 - September 2020)

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Trade

Idaho Goods Exports to Europe, 2019

$409.3 m

Computers & electronic products made up almost one-third of total exports to Europe.

Idaho Goods Imports from Europe, 2019

$394.7 m

Computers & electronic products represented 37% of the state's total imports from Europe.

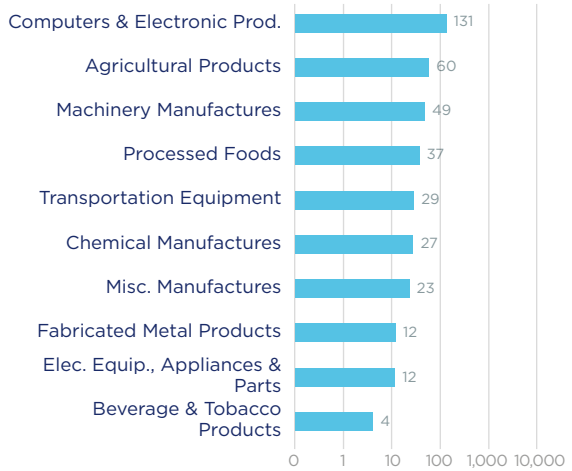
Top European Export Markets, 2019

Country	Exports ($ millions)
United Kingdom	111
Netherlands	91
Germany	49
Spain	26
France	20

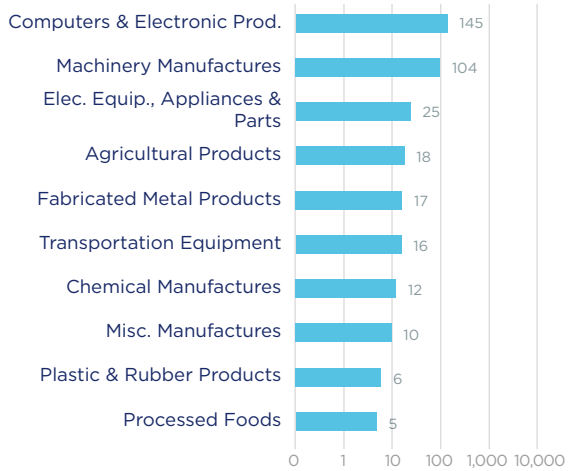
Top European Import Markets, 2019

Country	Imports ($ millions)
Germany	75
Italy	46
Greece	42
United Kingdom	34
Netherlands	34

Top Ten Exports to Europe, 2019 ($ millions)



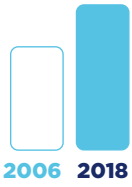
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Illinois and Europe

Jobs



240,300
Since 2006: +69,000 (+40.3%)

European companies account for
64%
of foreign affiliate jobs

Employment within Illinois, 2018

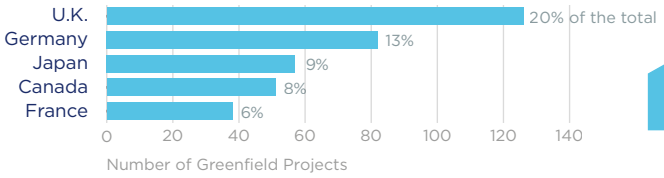
Country	Employment
United Kingdom	75,500
Germany	47,600
Japan	45,100
Canada	37,800
France	33,700

On a country basis, U.K. companies operating in Illinois represented 20% of total foreign affiliate employment in Illinois, with U.K. multinationals supporting approximately 24,600 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



632
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Illinois Goods Exports to Europe, 2019

$11.5 bn

Chemicals and machinery are top exports, followed by computers & electronic products and transportation equipment.

Illinois Goods Imports from Europe, 2019

$33.5 bn

Chemicals, transportation equipment, machinery and computers are also the state's top imports from Europe.

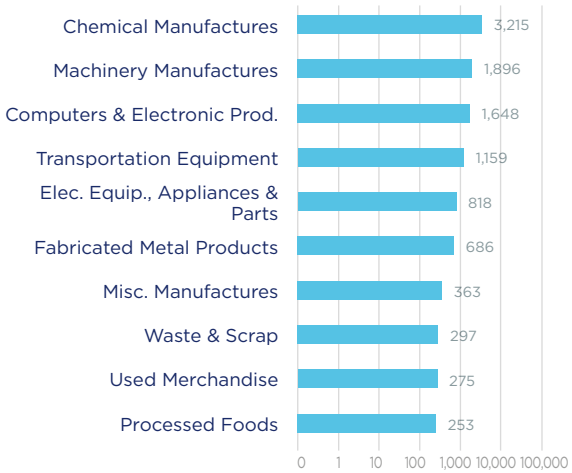
Top European Export Markets, 2019

Country	Exports ($ millions)
Germany	3,309
United Kingdom	1,632
Netherlands	1,199
Belgium	1,104
France	1,006

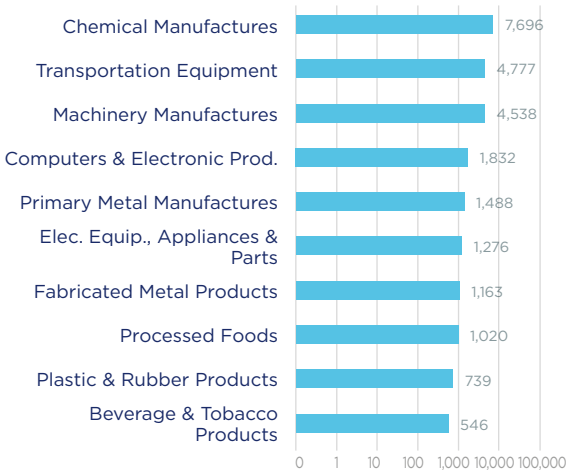
Top European Import Markets, 2019

Country	Imports ($ millions)
Germany	8,246
Netherlands	5,518
France	3,872
Italy	3,659
United Kingdom	3,047

Top Ten Exports to Europe, 2019 ($ millions)



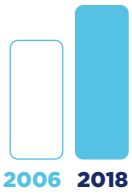
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Indiana and Europe

Jobs



126,400

Since 2006: +28,500 (+29.1%)

European companies account for **59%** of foreign affiliate jobs

Employment within Indiana, 2018

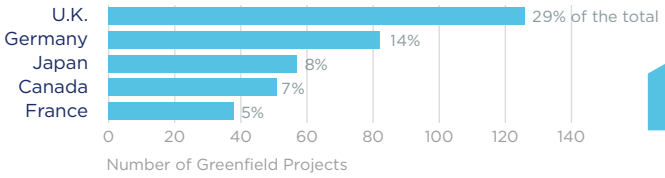
Country	Employment
Japan	57,500
United Kingdom	37,500
France	30,700
Germany	18,000
Canada	17,500

On a country basis, U.K. companies operating in Indiana represented 17% of total foreign affiliate employment in Indiana, with U.K. multinationals supporting approximately 5,900 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



414

Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Indiana Goods Exports to Europe, 2019

$9.6 bn

Trade in chemicals represented 43% of total exports.

Indiana Goods Imports from Europe, 2019

$29.2 bn

Chemicals were also the state's largest import from Europe, representing 63% of total imports.

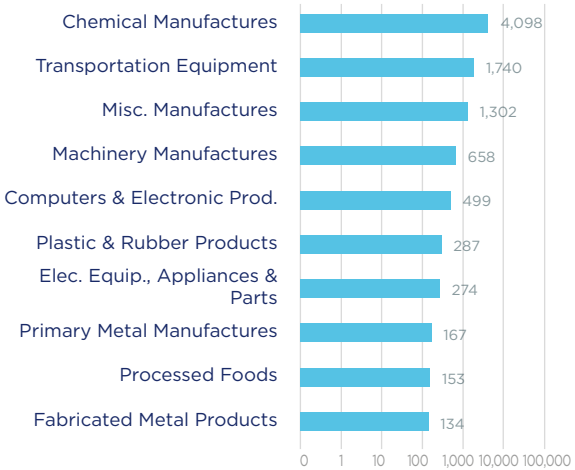
Top European Export Markets, 2019

Country	Exports ($ millions)
Germany	1,406
Netherlands	1,397
France	1,387
Italy	1,260
Belgium	1,129

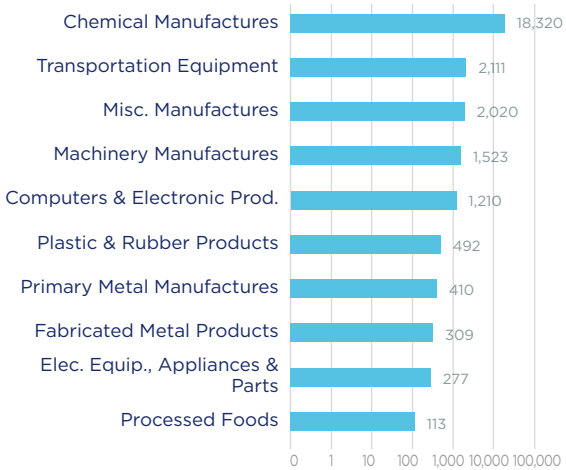
Top European Import Markets, 2019

Country	Imports ($ millions)
Ireland	9,175
Denmark	5,934
Germany	4,137
France	2,853
Switzerland	2,213

Top Ten Exports to Europe, 2019 ($ millions)



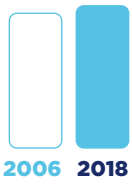
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Iowa and Europe

Jobs



34,200
Since 2006: +3,400 (+11.0%)

European companies account for
57%
of foreign affiliate jobs

Employment within Iowa, 2018

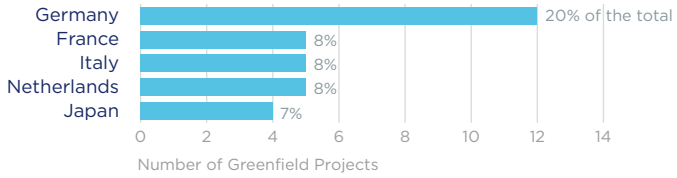
Country	Employment
United Kingdom	7,200
Germany	6,400
Netherlands	5,400
Japan	5,100
Canada	4,200

On a country basis, U.K. companies operating in Iowa represented 12% of total foreign affiliate employment in Iowa, with U.K. multinationals supporting approximately 900 fewer jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



60
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Iowa Goods Exports to Europe, 2019

$2.5 bn

Machinery manufactures accounted for 36% of total exports, or roughly $900 million. Chemicals, the second largest export category, represented less than half of that amount.

Iowa Goods Imports from Europe, 2019

$2.2 bn

Machinery manufactures and chemicals were also the top product imports from Europe.

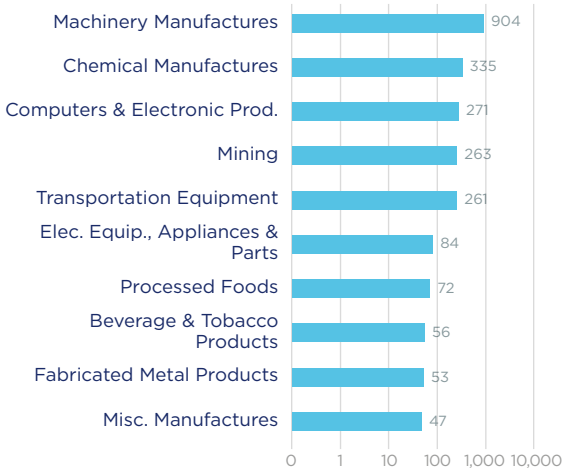
Top European Export Markets, 2019

Country	Exports ($ millions)
Germany	513
United Kingdom	315
Netherlands	302
France	284
Italy	126

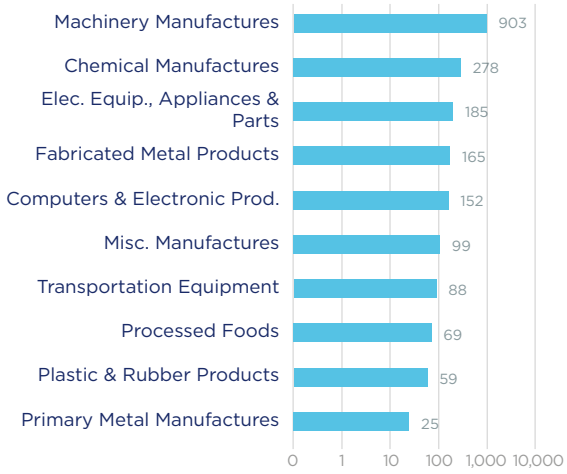
Top European Import Markets, 2019

Country	Imports ($ millions)
Germany	700
Italy	302
United Kingdom	178
France	133
Netherlands	128

Top Ten Exports to Europe, 2019 ($ millions)



Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Kansas and Europe

Jobs

37,200
Since 2006: +8,500 (+29.6%)

European companies account for
54%
of foreign affiliate jobs

Employment within Kansas, 2018

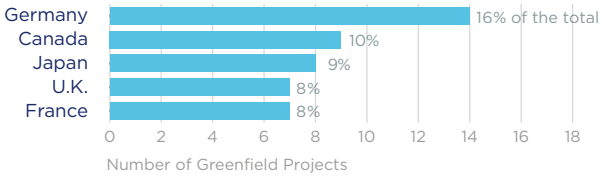
Country	Employment
Japan	11,500
Canada	9,300
United Kingdom	8,600
Switzerland	7,100
Germany	6,700

On a country basis, U.K. companies operating in Kansas represented 12% of total foreign affiliate employment in Kansas, with U.K. multinationals supporting approximately 2,800 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



89
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Kansas Goods Exports to Europe, 2019

$2.6 bn

Almost 75% of Kansas's exports to Europe was concentrated in four main export categories: transportation equipment, computer & electronic products, chemicals and machinery.

Kansas Goods Imports from Europe, 2019

$3.1 bn

Transportation equipment represented 28% of the state's total imports from Europe.

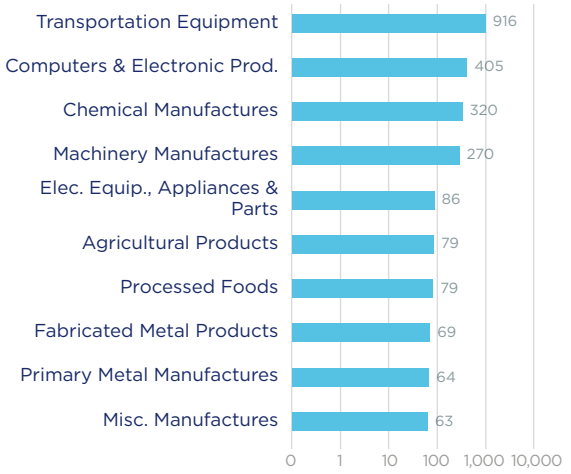
Top European Export Markets, 2019

Country	Exports ($ millions)
Germany	508
United Kingdom	463
France	234
Austria	154
Spain	152

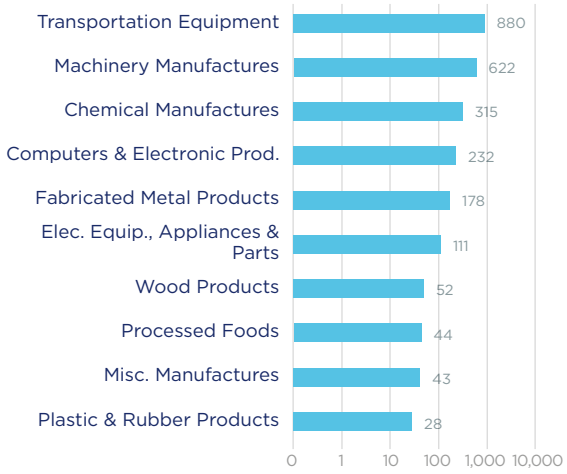
Top European Import Markets, 2019

Country	Imports ($ millions)
Germany	927
United Kingdom	513
Italy	326
France	296
Turkey	133

Top Ten Exports to Europe, 2019 ($ millions)



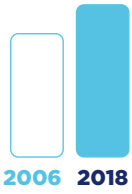
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Kentucky and Europe

Jobs



58,800
Since 2006: +11,100 (+23.3%)

European companies account for
43%
of foreign affiliate jobs

Employment within Kentucky, 2018

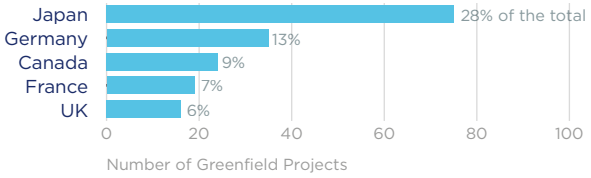
Country	Employment
Japan	43,700
Germany	16,900
France	12,000
Canada	10,500
United Kingdom	9,500

On a country basis, German companies operating in Kentucky represented 12% of total foreign affiliate employment in Kentucky, with German multinationals supporting approximately 7,400 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



268
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Kentucky Goods Exports to Europe, 2019

$11.8 bn

Reflecting the large presence of automobile manufacturers in the state, Kentucky's top export to Europe in 2019 was transportation equipment (65% of total exports).

Top European Export Markets, 2019

Country	Exports ($ millions)
United Kingdom	3,553
France	3,509
Germany	1,197
Netherlands	1,127
Austria	846

Kentucky Goods Imports from Europe, 2019

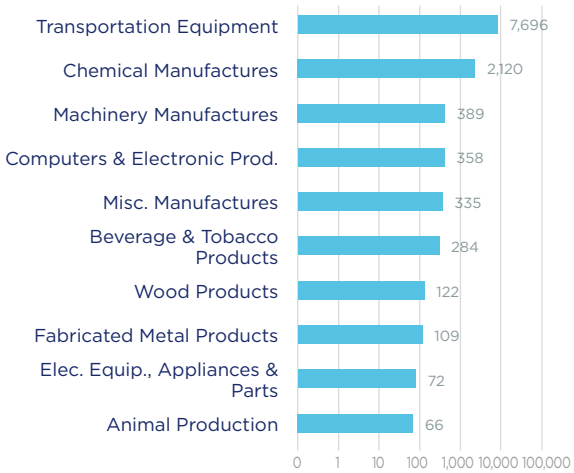
$23.0 bn

Chemical manufactures were the state's largest import, followed by transportation equipment.

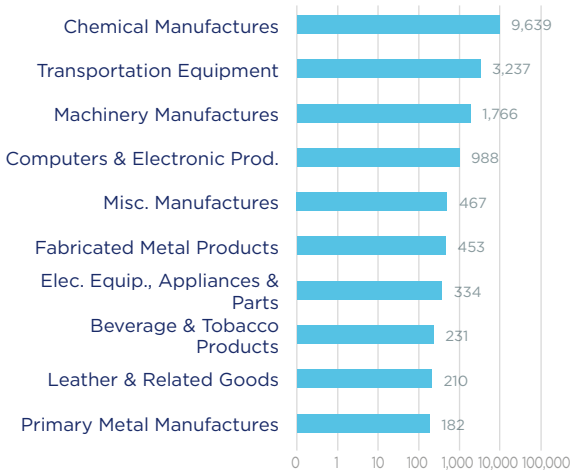
Top European Import Markets, 2019

Country	Imports ($ millions)
Switzerland	4,884
Ireland	4,262
Germany	3,098
France	2,600
Netherlands	1,750

Top Ten Exports to Europe, 2019 ($ millions)



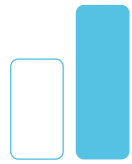
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Louisiana and Europe

Jobs



48,400

Since 2006: +16,800 (+53.2%)

European companies account for **63%** of foreign affiliate jobs

Employment within Louisiana, 2018

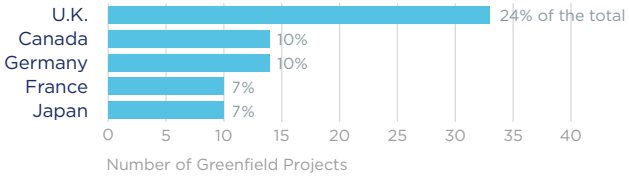
Country	Employment
United Kingdom	17,000
Canada	12,600
France	12,200
Germany	6,800
Netherlands	4,300

On a country basis, U.K. companies operating in Louisiana represented 22% of total foreign affiliate employment in Louisiana, with U.K. multinationals supporting approximately 5,400 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



137

Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Louisiana Goods Exports to Europe, 2019

$12.3 bn

The majority of the state's exports consist of a mix of energy, agricultural and chemical products.

Louisiana Goods Imports from Europe, 2019

$8.1 bn

Petroleum & coal products were Louisiana's top imported good from Europe.

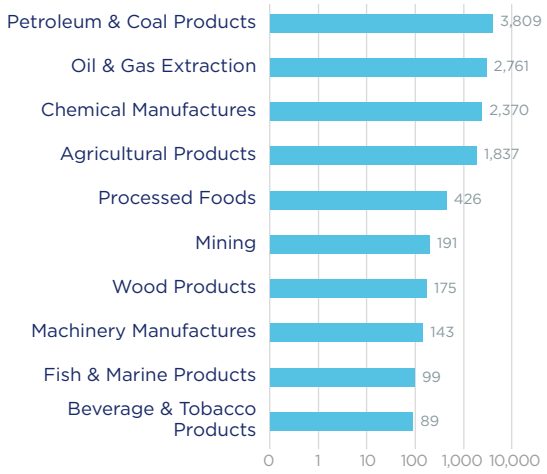
Top European Export Markets, 2019

Country	Exports ($ millions)
Netherlands	2,999
United Kingdom	1,928
Spain	1,783
Belgium	1,210
France	1,011

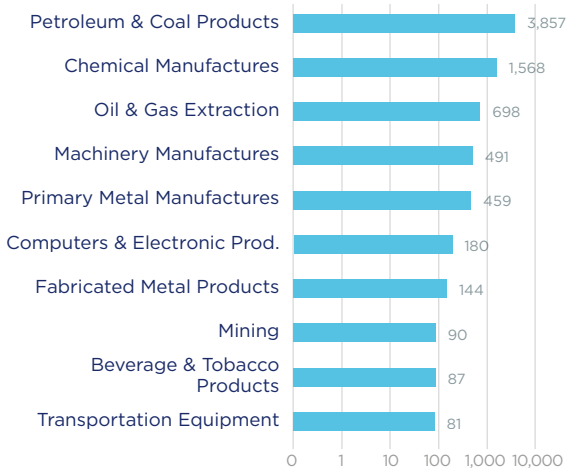
Top European Import Markets, 2019

Country	Imports ($ millions)
Russia	3,955
United Kingdom	600
Germany	599
Belgium	466
Norway	417

Top Ten Exports to Europe, 2019 ($ millions)



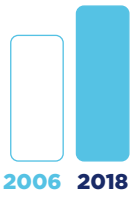
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Maine and Europe

Jobs



23,400
Since 2006: +4,400 (+23.2%)

European companies account for
64%
of foreign affiliate jobs

Employment within Maine, 2018

Country	Employment
Netherlands	17,500*
Canada	9,400
United Kingdom	2,600
Switzerland	2,500
Germany	1,700

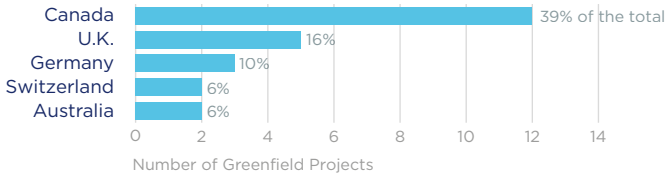
On a country basis, Dutch companies operating in Maine represented 48% of total foreign affiliate employment in Maine, with Dutch multinationals supporting approximately 17,400 more jobs in 2018 than in 2010.

*Netherlands employment data suppressed to avoid disclosure of individual company data. Range of 10,000 - 24,999 employees given.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



31
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Maine Goods Exports to Europe, 2019

$445.8 m

Paper products and transportation equipment are the state's top exports to Europe.

Maine Goods Imports from Europe, 2019

$720.1 m

Machinery manufactures represent 20% of Maine's total imports from Europe, followed by transportation equipment and petroleum & coal.

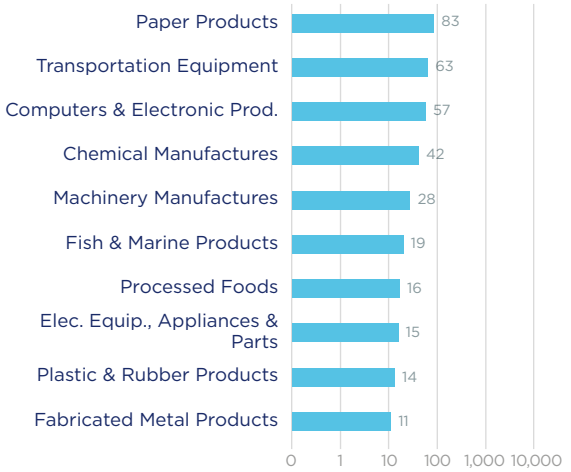
Top European Export Markets, 2019

Country	Exports ($ millions)
Italy	86
Netherlands	67
United Kingdom	64
Germany	58
Belgium	40

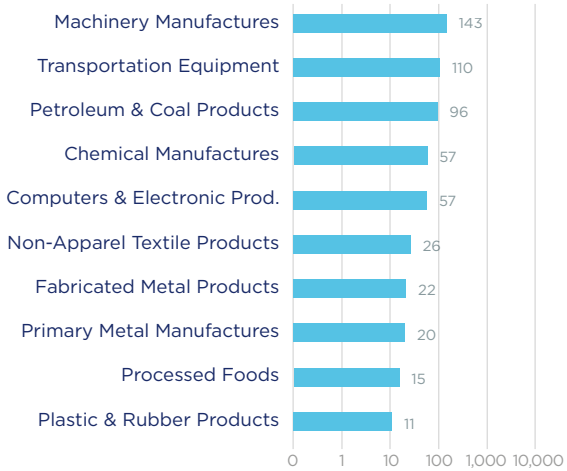
Top European Import Markets, 2019

Country	Imports ($ millions)
Germany	177
United Kingdom	91
Italy	58
Netherlands	52
France	51

Top Ten Exports to Europe, 2019 ($ millions)



Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Maryland and Europe

Jobs

88,700
Since 2006: +2,100 (+2.4%)

European companies account for
76%
of foreign affiliate jobs

Employment within Maryland, 2018

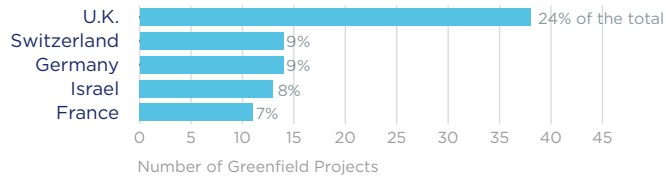
Country	Employment
United Kingdom	26,300
Netherlands	22,600
Canada	13,500
France	10,700
Germany	9,200

On a country basis, U.K. companies operating in Maryland represented 23% of total foreign affiliate employment in Maryland, with U.K. multinationals supporting approximately 8,400 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



157
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Maryland Goods Exports to Europe, 2019

$4.9 bn

The state's top exports are transportation equipment, chemicals, and metal products.

Maryland Goods Imports from Europe, 2019

$15.6 bn

Transportation equipment and machinery manufactures were the top product imports.

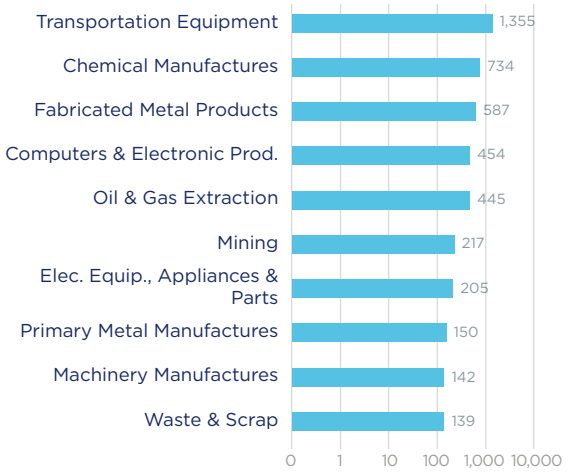
Top European Export Markets, 2019

Country	Exports ($ millions)
France	1,943
Netherlands	707
United Kingdom	550
Belgium	420
Germany	331

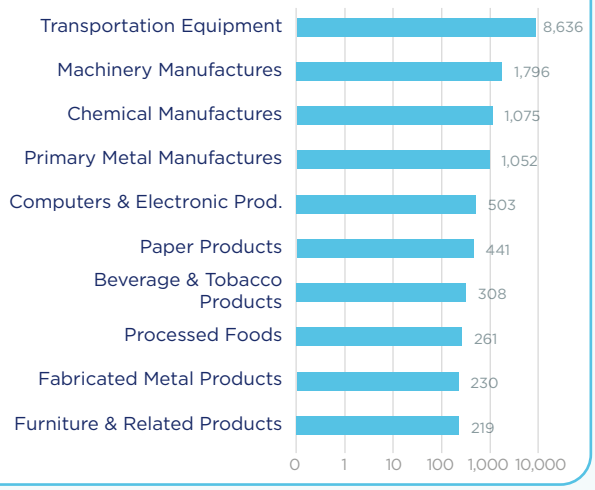
Top European Import Markets, 2019

Country	Imports ($ millions)
United Kingdom	4,402
Germany	4,372
Sweden	860
Italy	826
Finland	665

Top Ten Exports to Europe, 2019 ($ millions)



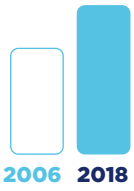
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Massachusetts and Europe

Jobs



167,000
Since 2006: +47,700 (+40.0%)

European companies account for
73%
of foreign affiliate jobs

Employment within Massachusetts, 2018

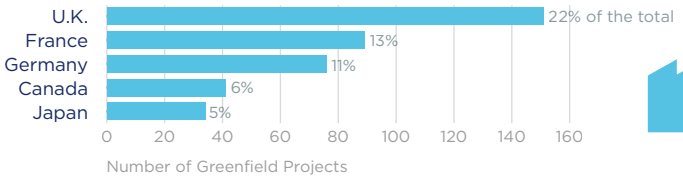
Country	Employment
United Kingdom	41,900
Netherlands	36,800
France	25,500
Canada	22,700
Germany	21,300

On a country basis, U.K. companies operating in Massachusetts represented 18% of total foreign affiliate employment in Massachusetts, with U.K. multinationals supporting approximately 3,600 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



668
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Massachusetts Goods Exports to Europe, 2019

$10.9 bn

Primary metal manufactures were the top export to Europe, followed by computers & electronic products and chemicals.

Massachusetts Goods Imports from Europe, 2019

$12.5 bn

Key imports from Europe include miscellaneous manufactured products, chemicals, and computer & electronic products.

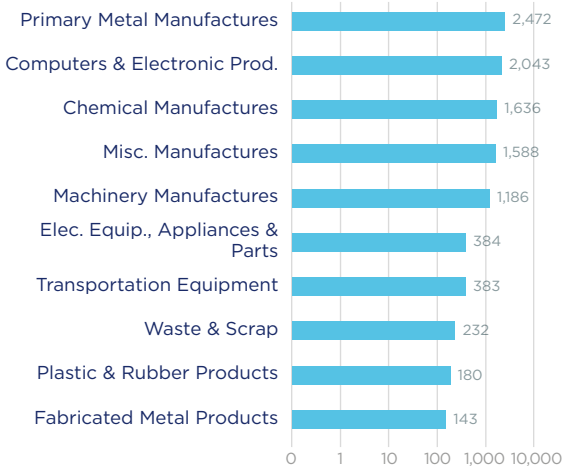
Top European Export Markets, 2019

Country	Exports ($ millions)
United Kingdom	2,743
Germany	1,834
Netherlands	1,329
Switzerland	1,092
Ireland	710

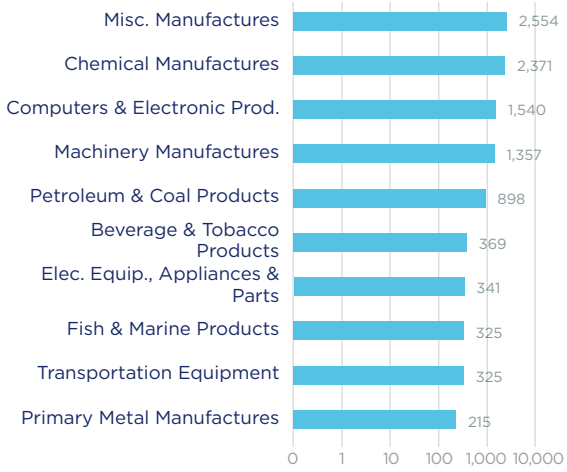
Top European Import Markets, 2019

Country	Imports ($ millions)
Ireland	2,233
Germany	1,958
Italy	1,898
United Kingdom	1,828
Switzerland	991

Top Ten Exports to Europe, 2019 ($ millions)



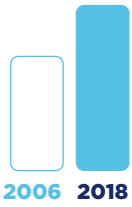
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Michigan and Europe

Jobs



203,300
Since 2006: +62,400 (+44.3%)

European companies account for
65%
of foreign affiliate jobs

Employment within Michigan, 2018

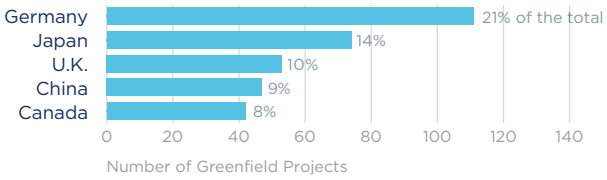
Country	Employment
Germany	53,400
United Kingdom	39,500
Netherlands	37,500*
Japan	34,000
Canada	31,800

On a country basis, German companies operating in Michigan represented 17% of total foreign affiliate employment in Michigan, with German multinationals supporting approximately 27,500 more jobs in 2018 than in 2010.
*Netherlands employment data suppressed to avoid disclosure of individual company data. Range of 25,000 - 49,999 employees given.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



527
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Michigan Goods Exports to Europe, 2019

$8.3 bn

Not surprisingly, transportation equipment is the largest exported product, representing 36% of the state's total exports to Europe.

Michigan Goods Imports from Europe, 2019

$13.3 bn

Imports from Europe mainly consist of transportation equipment and machinery.

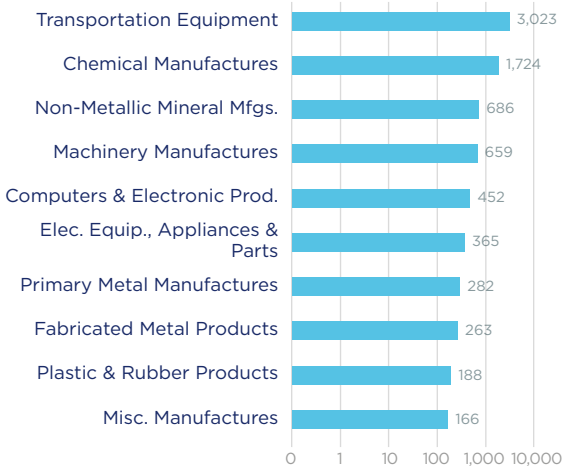
Top European Export Markets, 2019

Country	Exports ($ millions)
Germany	2,047
Italy	1,173
Belgium	928
United Kingdom	904
Spain	637

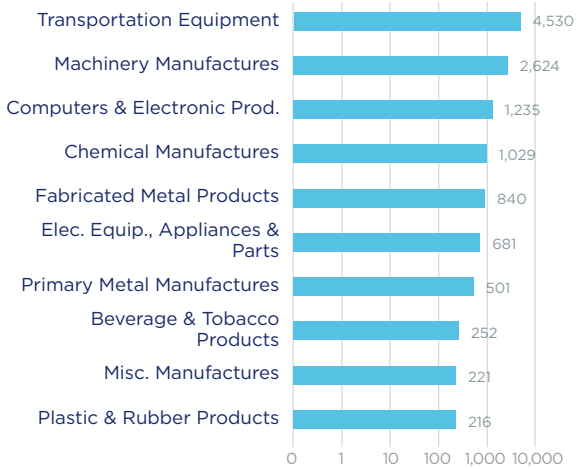
Top European Import Markets, 2019

Country	Imports ($ millions)
Germany	4,539
Italy	2,662
Spain	1,220
France	743
United Kingdom	686

Top Ten Exports to Europe, 2019 ($ millions)



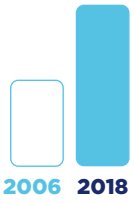
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Minnesota and Europe

Jobs



94,600
Since 2006: +43,900 (+86.6%)

European companies account for
64%
of foreign affiliate jobs

Employment within Minnesota, 2018

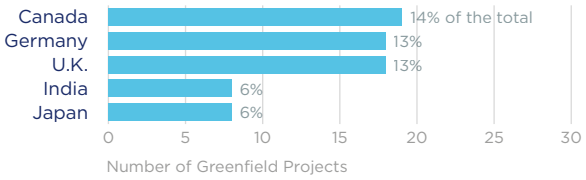
Country	Employment
Canada	25,400
Germany	21,400
United Kingdom	21,200
Japan	10,500
Switzerland	8,500

On a country basis, German companies operating in Minnesota represented 15% of total foreign affiliate employment in Minnesota, with German multinationals supporting approximately 12,000 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



135
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Minnesota Goods Exports to Europe, 2019

$5.1 bn

Computers & electronic products account for roughly one-quarter of Minnesota's exports to Europe.

Minnesota Goods Imports from Europe, 2019

$4.4 bn

Computers & electronic products were also the state's top import category from Europe.

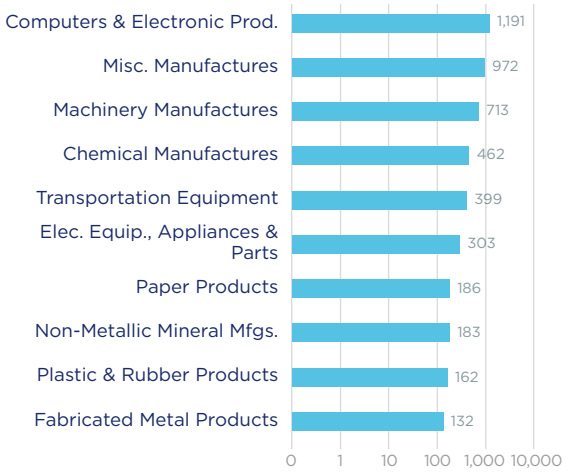
Top European Export Markets, 2019

Country	Exports ($ millions)
Germany	1,126
Belgium	609
United Kingdom	556
Ireland	482
France	454

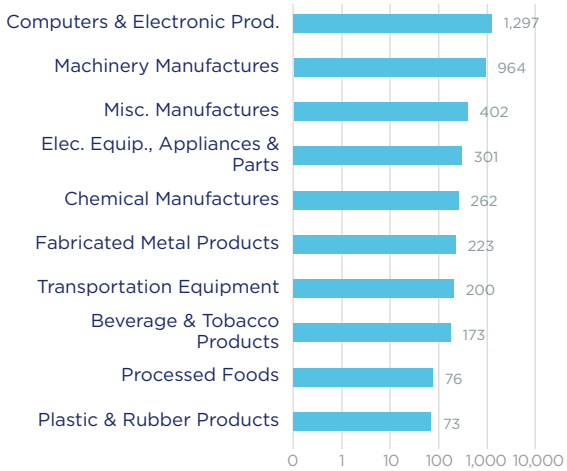
Top European Import Markets, 2019

Country	Imports ($ millions)
Germany	1,050
Ireland	1,013
Italy	452
United Kingdom	439
France	241

Top Ten Exports to Europe, 2019 ($ millions)



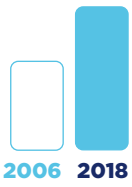
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Mississippi and Europe

Jobs



20,100
Since 2006: +7,600 (+60.8%)

European companies account for
51%
of foreign affiliate jobs

Employment within Mississippi, 2018

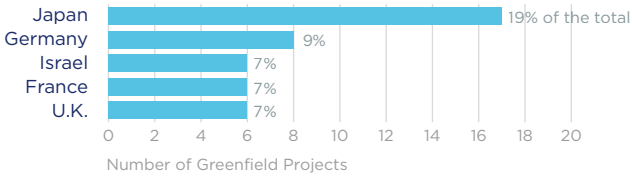
Country	Employment
Japan	10,300
France	4,900
United Kingdom	4,600
Germany	4,000
Canada	3,700

On a country basis, French companies operating in Mississippi represented 12% of total foreign affiliate employment in Mississippi, with French multinationals supporting approximately 2,800 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



89
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Mississippi Goods Exports to Europe, 2019

$2.1 bn

Miscellaneous manufactures represented about 24% of Mississippi's total exports to Europe in 2019. The next largest export category was petroleum & coal, also accounting for 24% of total exports.

Top European Export Markets, 2019

Country	Exports ($ millions)
Netherlands	531
Belgium	451
Germany	219
United Kingdom	159
Turkey	117

Mississippi Goods Imports from Europe, 2019

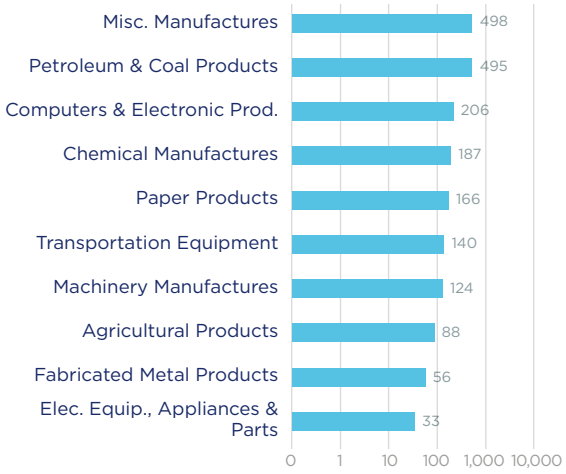
$3.9 bn

Imports from Europe were relatively diverse, with seven different product categories each accounting for over $200 million worth of European imports in 2019.

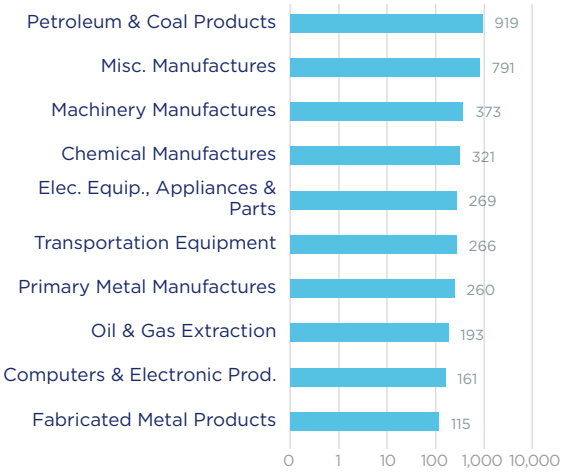
Top European Import Markets, 2019

Country	Imports ($ millions)
Germany	676
Belgium	566
Ireland	522
Russia	451
United Kingdom	372

Top Ten Exports to Europe, 2019 ($ millions)



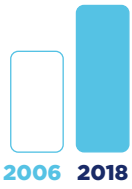
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Missouri and Europe

Jobs



89,600
Since 2006: +27,900 (+45.2%)

European companies account for
62%
of foreign affiliate jobs

Employment within Missouri, 2018

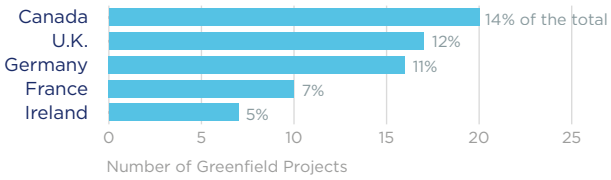
Country	Employment
United Kingdom	21,600
Germany	19,600
Japan	17,200
Canada	16,600
France	11,800

On a country basis, U.K. companies operating in Missouri represented 15% of total foreign affiliate employment in Missouri, with U.K. multinationals supporting approximately 4,200 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



142
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Missouri Goods Exports to Europe, 2019

$2.4 bn

The top exports to Europe from Missouri in 2019 were chemicals, machinery and computers & electronic products.

Missouri Goods Imports from Europe, 2019

$4.1 bn

Chemicals, machinery, and beverage & tobacco products were the top imported goods from Europe.

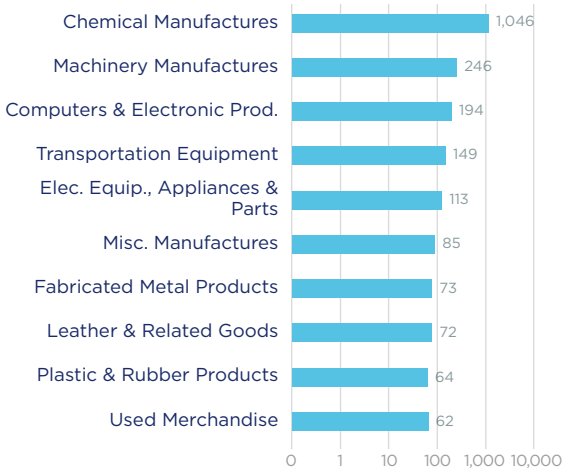
Top European Export Markets, 2019

Country	Exports ($ millions)
Germany	475
Belgium	345
United Kingdom	331
France	294
Netherlands	231

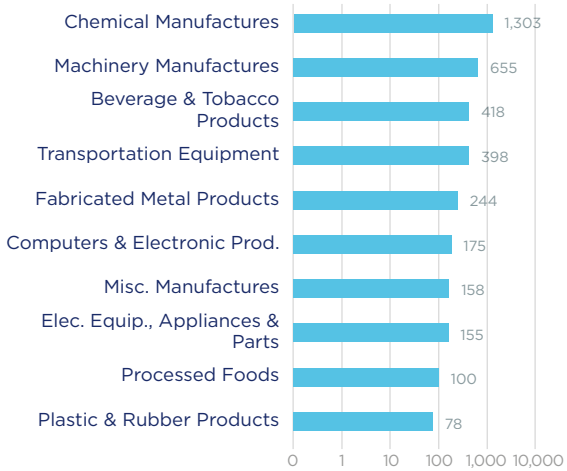
Top European Import Markets, 2019

Country	Imports ($ millions)
Germany	1,427
Belgium	391
Italy	361
United Kingdom	277
France	265

Top Ten Exports to Europe, 2019 ($ millions)



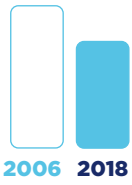
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Montana and Europe

Jobs



4,200

Since 2006: -1,400 (-25.0%)

European companies account for **46%** of foreign affiliate jobs

Employment within Montana, 2018

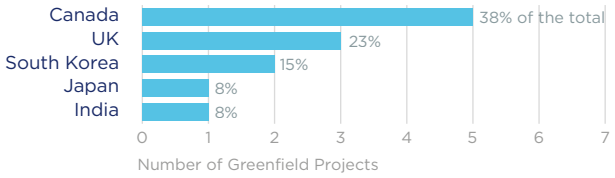
Country	Employment
United Kingdom	1,600
Canada	1,500
France	900
Japan	400
Germany	200

On a country basis, U.K. companies operating in Montana represented 18% of total foreign affiliate employment in Montana, with U.K. multinationals supporting approximately 500 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



13

Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Montana Goods Exports to Europe, 2019

$279.9 m

Exports are relatively small and skewed towards chemicals, machinery and waste & scrap.

Montana Goods Imports from Europe, 2019

$304.7 m

Montana's imports from Europe are also small and heavily concentrated in waste & scrap.

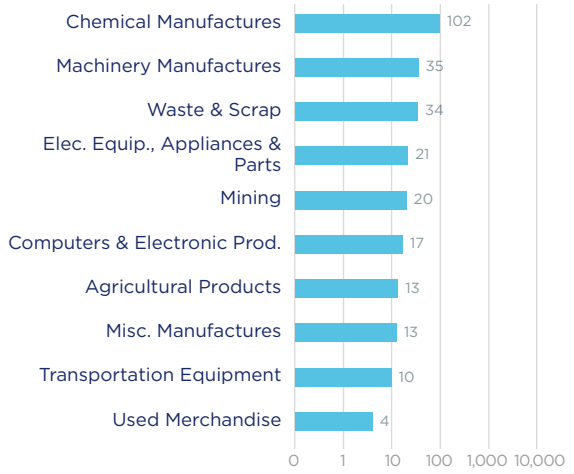
Top European Export Markets, 2019

Country	Exports ($ millions)
Belgium	110
United Kingdom	41
Germany	33
France	19
Netherlands	16

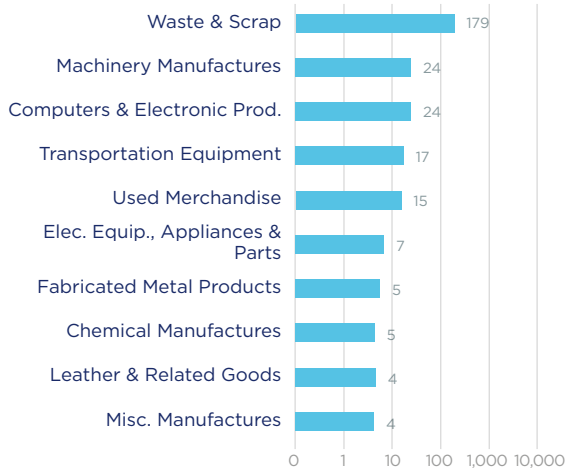
Top European Import Markets, 2019

Country	Imports ($ millions)
Germany	213
Switzerland	19
Italy	18
United Kingdom	11
France	10

Top Ten Exports to Europe, 2019 ($ millions)



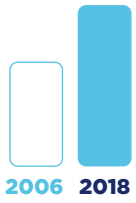
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Nebraska and Europe

Jobs



17,100
Since 2006: +6,000 (+54.1%)

European companies account for
49%
of foreign affiliate jobs

Employment within Nebraska, 2018

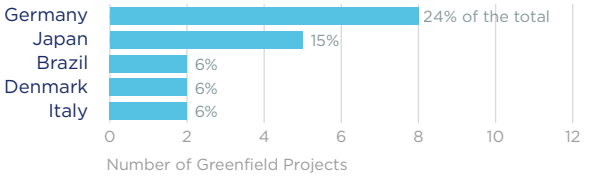
Country	Employment
Japan	5,800
United Kingdom	4,100
France	3,600
Germany	2,800
Canada	2,100

On a country basis, U.K. companies operating in Nebraska represented 12% of total foreign affiliate employment in Nebraska, with U.K. multinationals supporting approximately 1,500 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



33
Greenfield Projects (October 2010 - September 2020)

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Trade

Nebraska Goods Exports to Europe, 2019

$0.9 bn

The top exports to Europe consist of chemicals, machinery, and miscellaneous manufactures.

Nebraska Goods Imports from Europe, 2019

$1.1 bn

Chemicals represented over half of Nebraska's total imports from Europe in 2019.

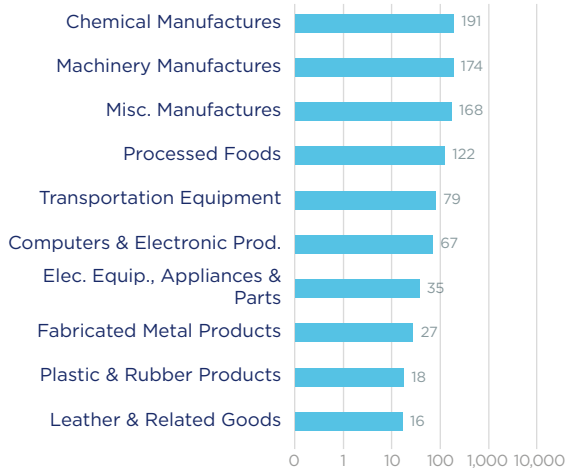
Top European Export Markets, 2019

Country	Exports ($ millions)
Germany	158
France	138
Netherlands	122
Belgium	85
United Kingdom	66

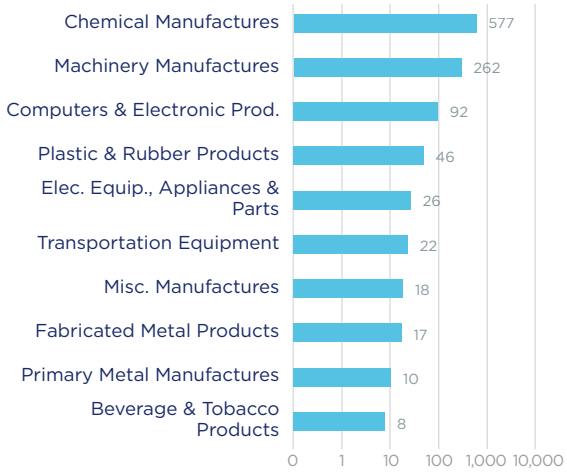
Top European Import Markets, 2019

Country	Imports ($ millions)
Switzerland	355
Germany	252
United Kingdom	159
France	82
Italy	56

Top Ten Exports to Europe, 2019 ($ millions)



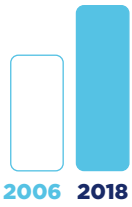
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Nevada and Europe

Jobs



29,800
Since 2006: +8,900 (+42.6%)

European companies account for
54%
of foreign affiliate jobs

Employment within Nevada, 2018

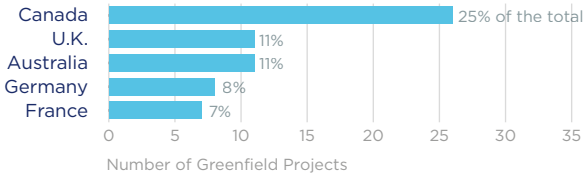
Country	Employment
Canada	9,500
France	8,500
United Kingdom	8,100
Japan	7,200
Germany	3,700

On a country basis, French companies operating in Nevada represented 15% of total foreign affiliate employment in Nevada, with French multinationals supporting approximately 5,100 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



103
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Nevada Goods Exports to Europe, 2019

$2.6 bn

Primary metal manufactures account for over half of Nevada's total exports to Europe.

Nevada Goods Imports from Europe, 2019

$1.8 bn

Imports from Europe to Nevada are diverse, ranging from transportation equipment to machinery to computers & electronics.

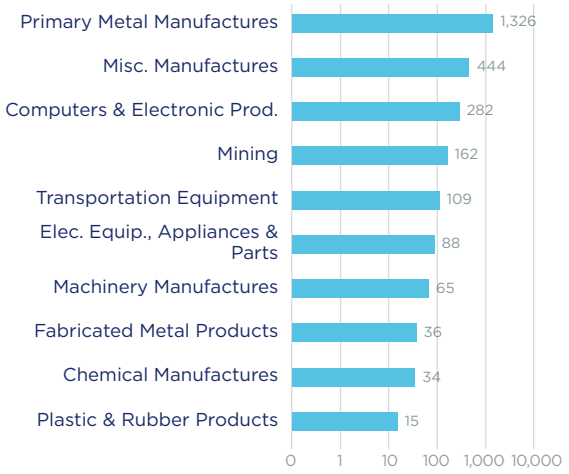
Top European Export Markets, 2019

Country	Exports ($ millions)
Switzerland	1,312
Germany	336
United Kingdom	207
Netherlands	122
Spain	119

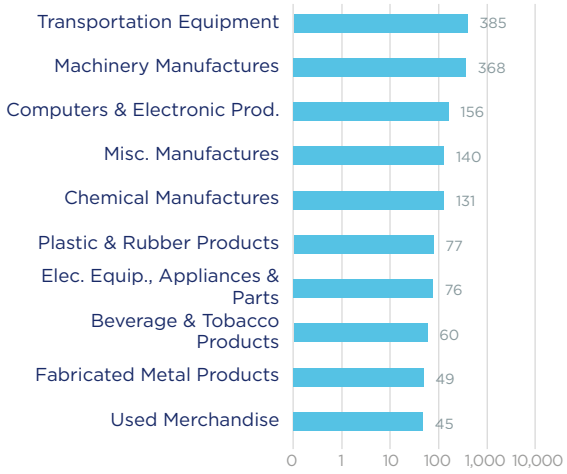
Top European Import Markets, 2019

Country	Imports ($ millions)
France	426
Germany	415
United Kingdom	179
Switzerland	158
Italy	116

Top Ten Exports to Europe, 2019 ($ millions)



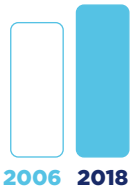
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

New Hampshire and Europe

Jobs



33,000
Since 2006: +3,800 (+13.0%)

European companies account for
70%
of foreign affiliate jobs

Employment within New Hampshire, 2018

Country	Employment
United Kingdom	11,900
Netherlands	7,500*
Canada	6,300
Japan	5,200
Switzerland	3,900

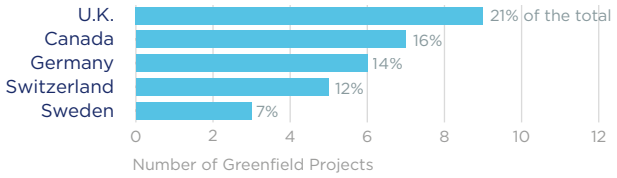
On a country basis, U.K. companies operating in New Hampshire represented 25% of total foreign affiliate employment in New Hampshire, with U.K. multinationals supporting approximately 1,600 more jobs in 2018 than in 2010.

*Netherlands employment data suppressed to avoid disclosure of individual company data. Range of 5,000 to 9,999 employees given.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



43
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

New Hampshire Goods Exports to Europe, 2019

$2.6 bn

Transportation equipment and chemicals were the top two exports to Europe from New Hampshire in 2019. Combined these two exports made up almost 60% of the state's total exports to Europe.

New Hampshire Goods Imports from Europe, 2019

$3.1 bn

Transportation equipment represented 40% of the state's total imports from Europe.

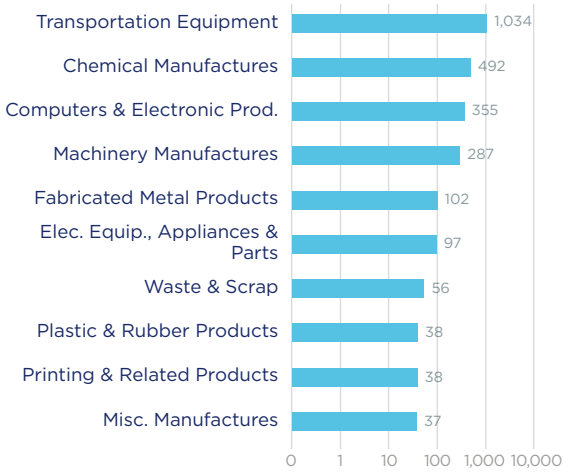
Top European Export Markets, 2019

Country	Exports ($ millions)
Germany	992
Ireland	484
Netherlands	211
France	211
United Kingdom	159

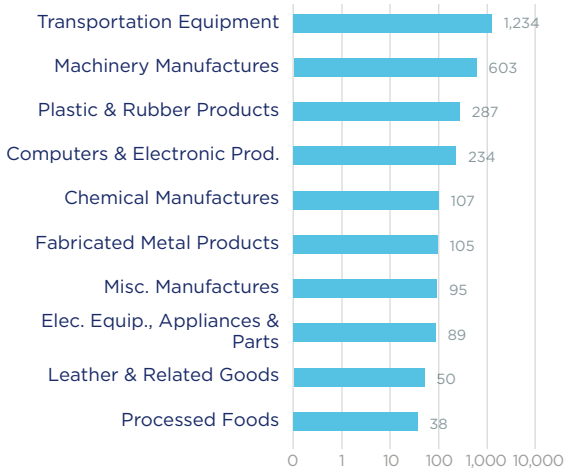
Top European Import Markets, 2019

Country	Imports ($ millions)
Poland	736
Germany	701
United Kingdom	277
Italy	255
Ireland	178

Top Ten Exports to Europe, 2019 ($ millions)



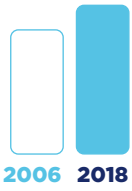
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

New Jersey and Europe

Jobs



204,500
Since 2006: +33,700 (+19.7%)

European companies account for
70%
of foreign affiliate jobs

Employment within New Jersey, 2018

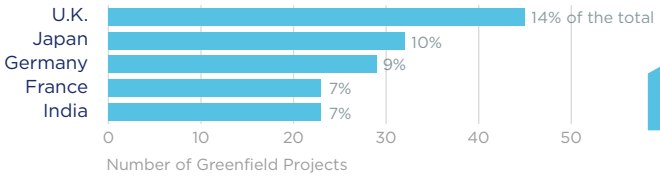
Country	Employment
France	46,200
United Kingdom	40,700
Switzerland	31,300
Germany	30,300
Canada	28,200

On a country basis, French companies operating in New Jersey represented 16% of total foreign affiliate employment in New Jersey, with French multinationals supporting approximately 16,600 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



322
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

New Jersey Goods Exports to Europe, 2019

$11.3 bn

Top exports consist of chemical manufactures and computers & electronic products.

New Jersey Goods Imports from Europe, 2019

$55.3 bn

About one-third of New Jersey's imports from Europe in 2019 was related to the chemicals industry.

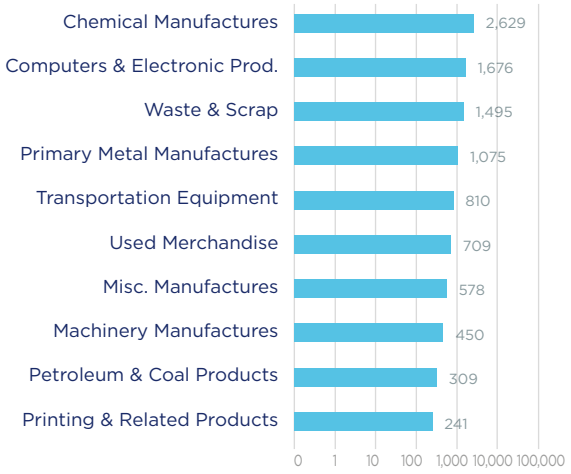
Top European Export Markets, 2019

Country	Exports ($ millions)
United Kingdom	2,543
Germany	1,547
Netherlands	1,350
France	1,049
Belgium	838

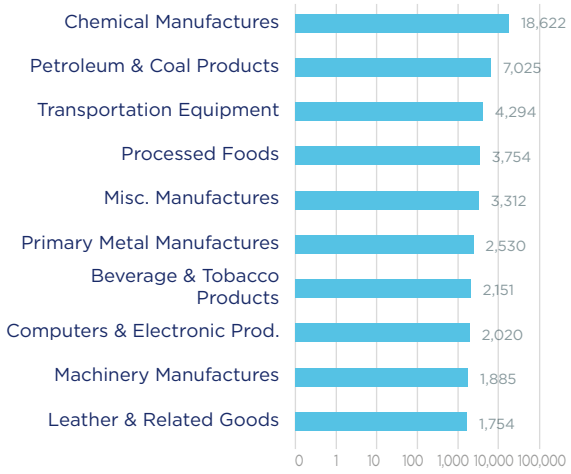
Top European Import Markets, 2019

Country	Imports ($ millions)
Germany	8,544
Italy	7,299
Switzerland	6,838
United Kingdom	5,007
France	4,341

Top Ten Exports to Europe, 2019 ($ millions)



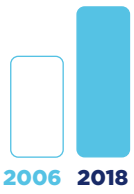
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

New Mexico and Europe

Jobs



11,600
Since 2006: +3,800 (+48.7%)

European companies account for
64%
of foreign affiliate jobs

Employment within New Mexico, 2018

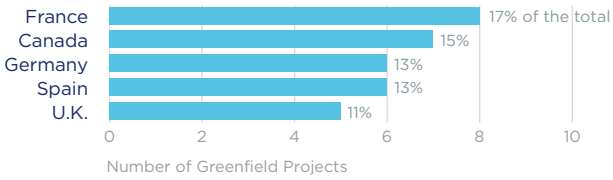
Country	Employment
Germany	3,000
Canada	2,800
United Kingdom	2,800
France	2,100
Japan	1,400

On a country basis, German companies operating in New Mexico represented 17% of total foreign affiliate employment in New Mexico, with German multinationals supporting approximately 300 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



46
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

New Mexico Goods Exports to Europe, 2019

$308.0 m

Exports are relatively small, with computers & electronic products, chemicals, and transportation equipment the largest export categories for New Mexico.

New Mexico Goods Imports from Europe, 2019

$489.3 m

Chemicals were the largest imported good from Europe, followed by computers & electronic products.

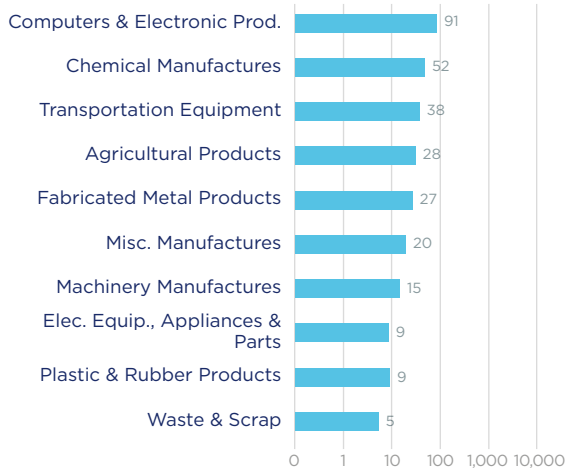
Top European Export Markets, 2019

Country	Exports ($ millions)
Germany	62
Ireland	46
Belgium	39
France	29
United Kingdom	29

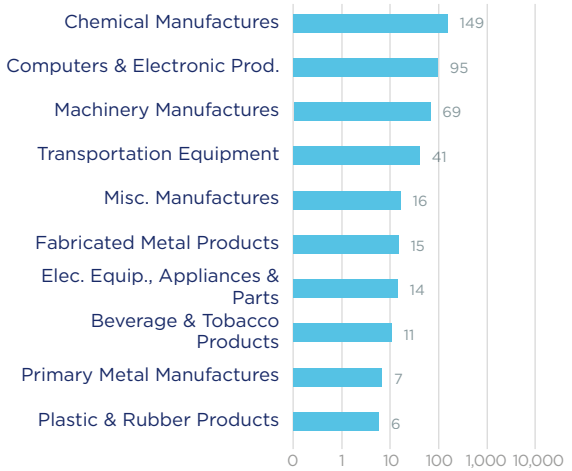
Top European Import Markets, 2019

Country	Imports ($ millions)
Switzerland	152
Germany	78
United Kingdom	68
Ireland	41
France	41

Top Ten Exports to Europe, 2019 ($ millions)



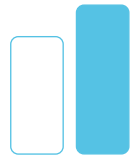
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

New York and Europe

Jobs



357,400
Since 2006: +75,300 (+26.7%)

European companies account for
69%
of foreign affiliate jobs

Employment within New York, 2018

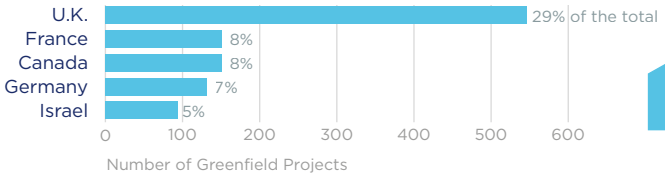
Country	Employment
United Kingdom	107,300
Canada	59,200
France	58,200
Germany	46,000
Japan	45,400

On a country basis, U.K. companies operating in New York represented 21% of total foreign affiliate employment in New York, with U.K. multinationals supporting approximately 18,100 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



1,887
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

New York Goods Exports to Europe, 2019

$26.1 bn

Miscellaneous manufactured products and used merchandise were the top goods exports to Europe.

New York Goods Imports from Europe, 2019

$45.4 bn

New York's imports from Europe are relatively diverse, ranging from used and miscellaneous merchandise to chemicals and computers.

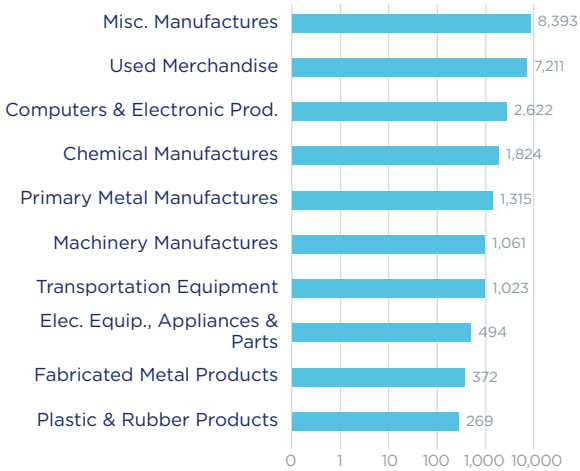
Top European Export Markets, 2019

Country	Exports ($ millions)
Switzerland	6,179
United Kingdom	5,315
Belgium	3,365
Germany	3,094
France	2,181

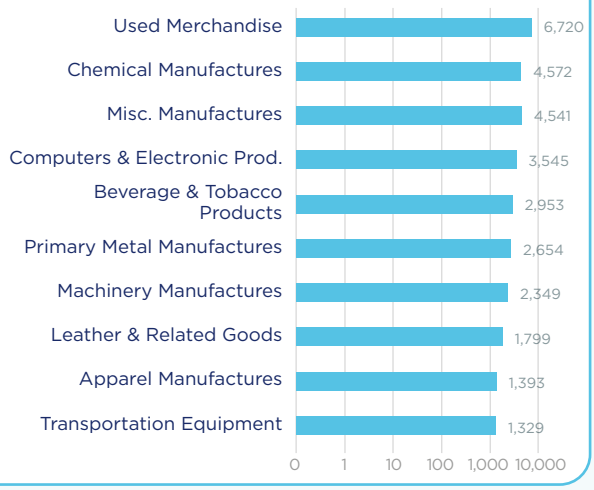
Top European Import Markets, 2019

Country	Imports ($ millions)
France	9,470
Switzerland	6,369
Germany	6,365
Italy	6,130
United Kingdom	5,502

Top Ten Exports to Europe, 2019 ($ millions)



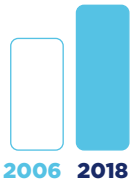
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

North Carolina and Europe

Jobs



199,200

Since 2006: +45,400 (+29.5%)

European companies account for **69%** of foreign affiliate jobs

Employment within North Carolina, 2018

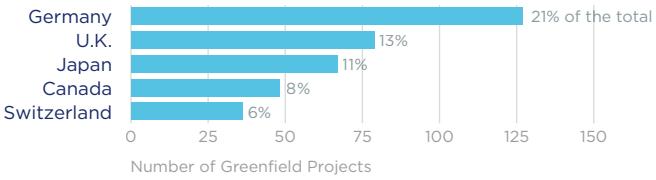
Country	Employment
Netherlands	43,300
Germany	42,400
United Kingdom	37,600
Japan	27,000
Canada	21,900

On a country basis, Dutch companies operating in North Carolina represented 15% of total foreign affiliate employment in North Carolina, with Dutch multinationals supporting approximately 36,400 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



606

Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

North Carolina Goods Exports to Europe, 2019

$9.6 bn

Chemical manufactures account for about 33% of total exports to Europe.

North Carolina Goods Imports from Europe, 2019

$20.6 bn

Imports from Europe mainly consist of chemicals, machinery and transportation equipment.

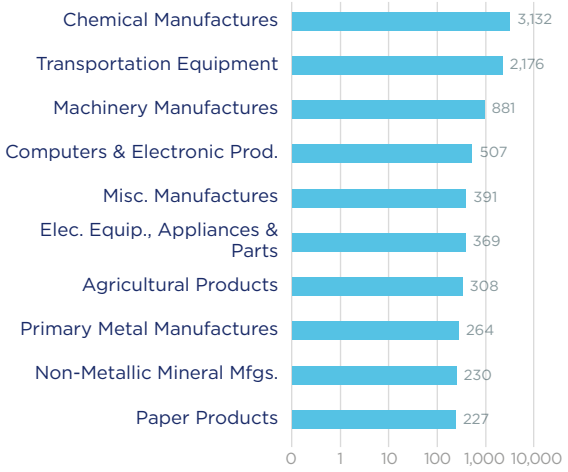
Top European Export Markets, 2019

Country	Exports ($ millions)
France	2,618
Netherlands	1,077
Germany	898
Belgium	896
United Kingdom	832

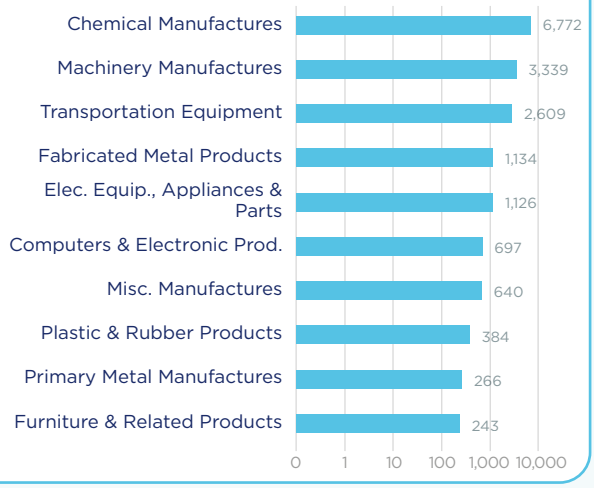
Top European Import Markets, 2019

Country	Imports ($ millions)
Germany	6,028
France	2,355
Ireland	2,302
Italy	1,806
United Kingdom	1,630

Top Ten Exports to Europe, 2019 ($ millions)



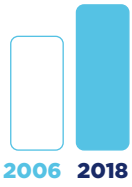
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

North Dakota and Europe

Jobs



5,100
Since 2006: +1,100 (+27.5%)

European companies account for
37%
of foreign affiliate jobs

Employment within North Dakota, 2018

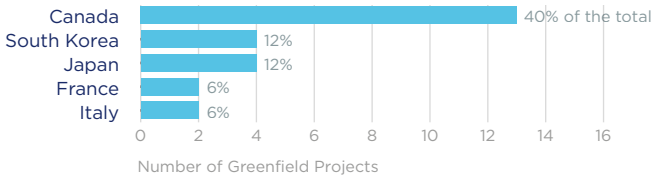
Country	Employment
Canada	1,800
United Kingdom	1,600
Japan	1,000
Netherlands	900
France	700

On a country basis, U.K. companies operating in North Dakota represented 12% of total foreign affiliate employment in North Dakota, with U.K. multinationals supporting approximately 1,000 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



33
Greenfield Projects (October 2010 - September 2020)

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Trade

North Dakota Goods Exports to Europe, 2019

$253.8 m

41% of the state's exports to Europe consist of machinery manufactures.

North Dakota Goods Imports from Europe, 2019

$322.2 m

Machinery is North Dakota's primary product import from Europe, representing about 54% of total imports.

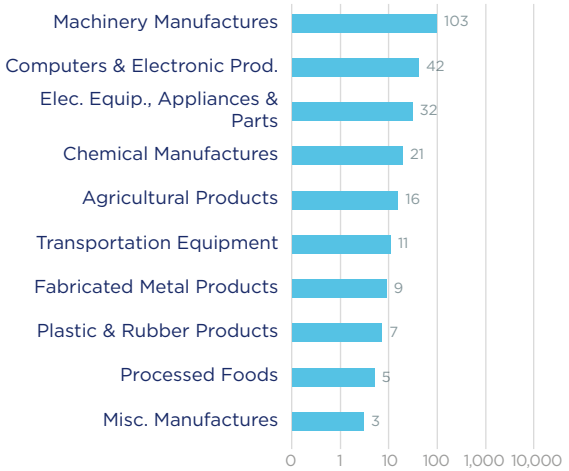
Top European Export Markets, 2019

Country	Exports ($ millions)
Germany	58
Czech Republic	27
United Kingdom	26
Russia	26
France	21

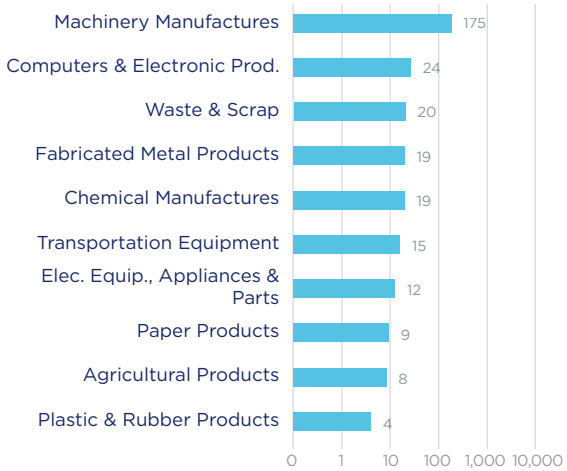
Top European Import Markets, 2019

Country	Imports ($ millions)
Germany	109
France	57
Italy	33
United Kingdom	30
Sweden	16

Top Ten Exports to Europe, 2019 ($ millions)



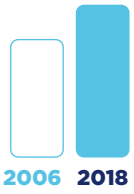
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Ohio and Europe

Jobs



172,800
Since 2006: +38,800 (+29.0%)

European companies account for
57%
of foreign affiliate jobs

Employment within Ohio, 2018

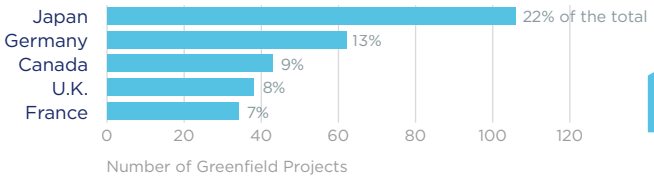
Country	Employment
Japan	70,100
United Kingdom	49,100
Germany	35,900
Canada	29,100
Switzerland	20,400

On a country basis, U.K. companies operating in Ohio represented 16% of total foreign affiliate employment in Ohio, with U.K. multinationals supporting approximately 12,500 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



480
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Ohio Goods Exports to Europe, 2019

$9.5 bn

Transportation equipment, chemicals and machinery are the state's top exports to Europe.

Ohio Goods Imports from Europe, 2019

$19.2 bn

Chemical manufactures make up 43% of Ohio's imports from Europe.

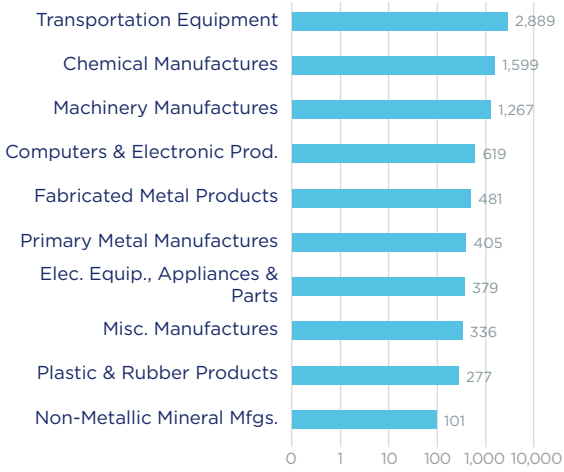
Top European Export Markets, 2019

Country	Exports ($ millions)
United Kingdom	2,198
France	1,487
Germany	1,440
Netherlands	940
Belgium	611

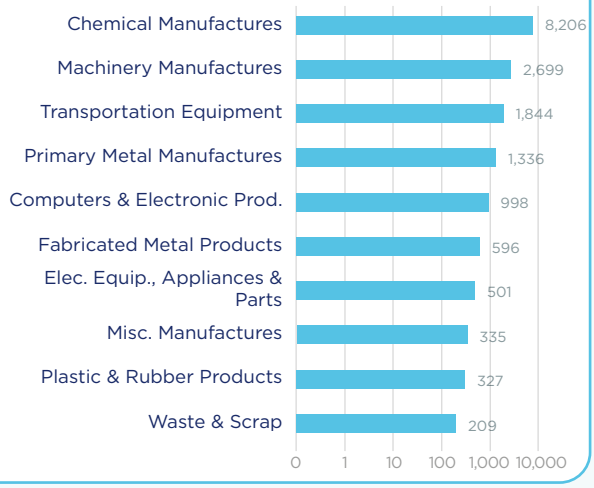
Top European Import Markets, 2019

Country	Imports ($ millions)
Germany	4,859
Ireland	4,256
Italy	2,073
France	1,491
United Kingdom	1,134

Top Ten Exports to Europe, 2019 ($ millions)



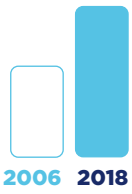
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Oklahoma and Europe

Jobs



35,500
Since 2006: +14,000 (+65.1%)

European companies account for
62%
of foreign affiliate jobs

Employment within Oklahoma, 2018

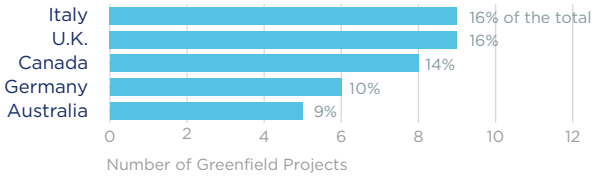
Country	Employment
United Kingdom	9,600
France	9,200
Canada	7,100
Japan	4,400
Switzerland	3,700

On a country basis, U.K. companies operating in Oklahoma represented 17% of total foreign affiliate employment in Oklahoma, with U.K. multinationals supporting approximately 3,800 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



58
Greenfield Projects (October 2010 - September 2020)

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Trade

Oklahoma Goods Exports to Europe, 2019

$1.4 bn

The top exports to Europe from Oklahoma include transportation equipment, computers and machinery.

Oklahoma Goods Imports from Europe, 2019

$1.5 bn

Machinery manufactures and transportation equipment are the top products imported from Europe.

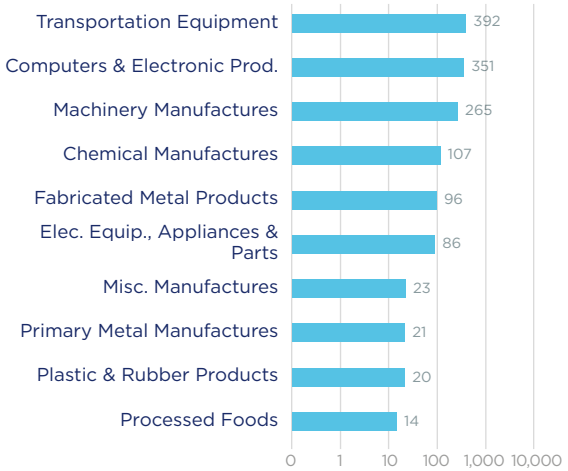
Top European Export Markets, 2019

Country	Exports ($ millions)
Germany	568
Netherlands	258
United Kingdom	200
France	61
Spain	51

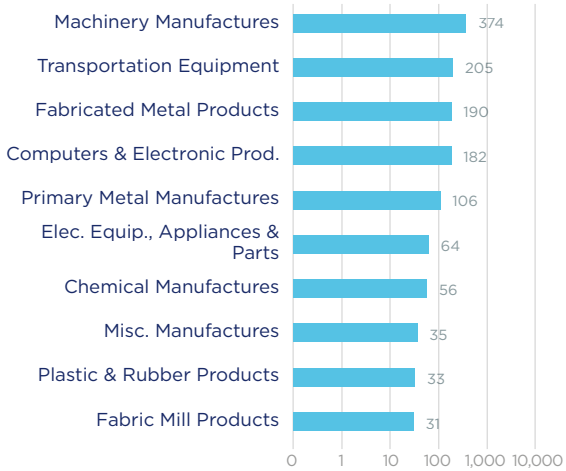
Top European Import Markets, 2019

Country	Imports ($ millions)
Germany	334
United Kingdom	257
Italy	218
France	153
Belgium	70

Top Ten Exports to Europe, 2019 ($ millions)



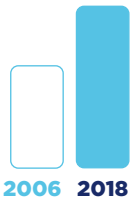
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; Foreign Trade Division, U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Oregon and Europe

Jobs



47,800
Since 2006: +17,500 (+57.8%)

European companies account for
67%
of foreign affiliate jobs

Employment within Oregon, 2018

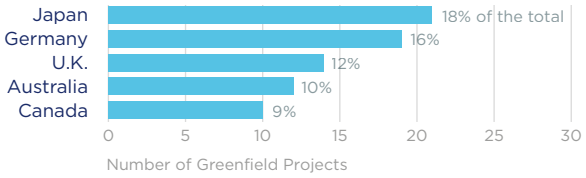
Country	Employment
United Kingdom	14,800
Japan	11,500
Germany	10,900
Switzerland	6,500
Canada	5,800

On a country basis, U.K. companies operating in Oregon represented 21% of total foreign affiliate employment in Oregon, with U.K. multinationals supporting approximately 6,500 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



116
Greenfield Projects (October 2010 - September 2020)

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Trade

Oregon Goods Exports to Europe, 2019

$2.7 bn

Roughly 30% of Oregon's exports to Europe consist of computers & electronic products.

Oregon Goods Imports from Europe, 2019

$4.1 bn

Computers & electronic products also represented roughly 30% of Oregon's total European imports.

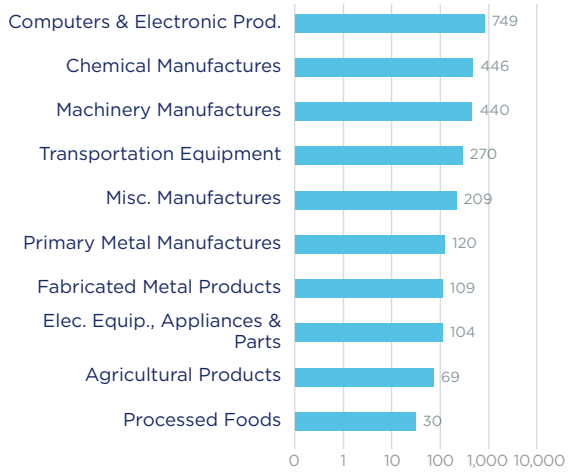
Top European Export Markets, 2019

Country	Exports ($ millions)
Germany	503
Switzerland	378
Netherlands	333
United Kingdom	276
France	191

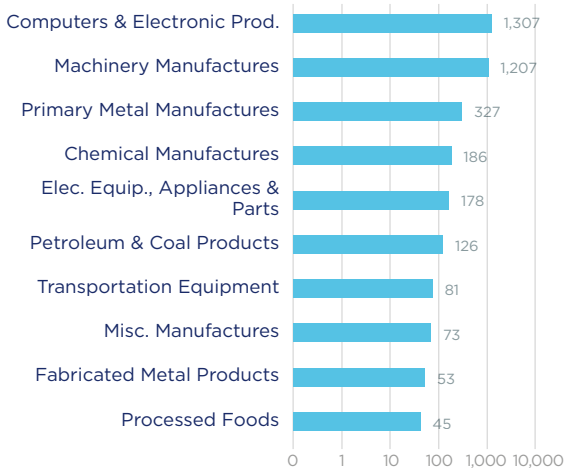
Top European Import Markets, 2019

Country	Imports ($ millions)
Netherlands	958
Ireland	941
Germany	775
Russia	281
Switzerland	187

Top Ten Exports to Europe, 2019 ($ millions)



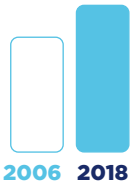
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Pennsylvania and Europe

Jobs



232,900
Since 2006: +50,400 (+27.6%)

European companies account for
73%
of foreign affiliate jobs

Employment within Pennsylvania, 2018

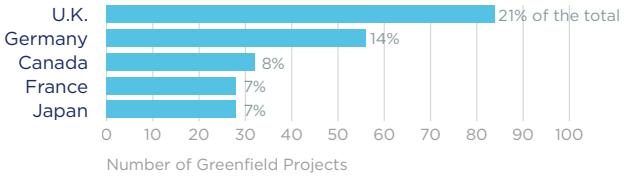
Country	Employment
United Kingdom	60,300
Netherlands	43,100
Germany	38,900
France	29,100
Canada	27,800

On a country basis, U.K. companies operating in Pennsylvania represented 19% of total foreign affiliate employment in Pennsylvania, with U.K. multinationals supporting approximately 7,700 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



402
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Pennsylvania Goods Exports to Europe, 2019

$12.4 bn

Chemicals and primary metals were the state's largest exports to Europe.

Pennsylvania Goods Imports from Europe, 2019

$36.9 bn

Imports are heavily concentrated, with chemicals making up over 56% of the state's total imports from Europe.

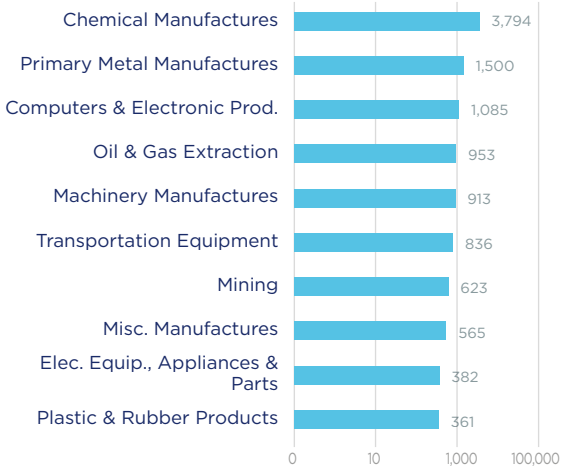
Top European Export Markets, 2019

Country	Exports ($ millions)
United Kingdom	2,433
Netherlands	1,822
Belgium	1,799
Germany	1,541
France	739

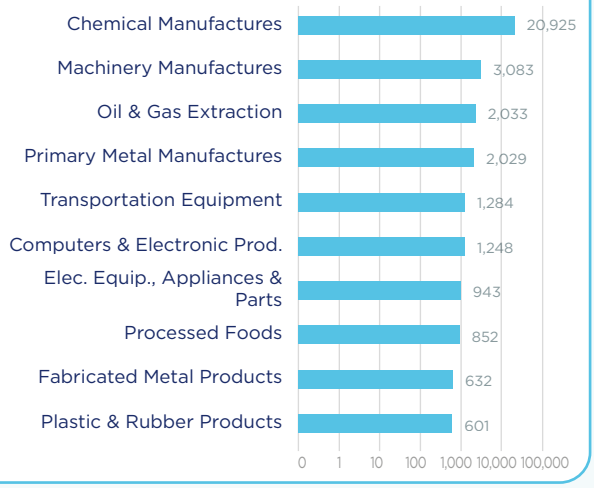
Top European Import Markets, 2019

Country	Imports ($ millions)
Switzerland	6,570
Germany	6,159
Italy	4,994
Belgium	4,869
United Kingdom	3,039

Top Ten Exports to Europe, 2019 ($ millions)



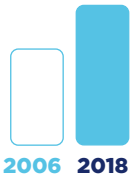
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Rhode Island and Europe

Jobs



20,900
Since 2006: +6,500 (+45.1%)

European companies account for
80%
of foreign affiliate jobs

Employment within Rhode Island, 2018

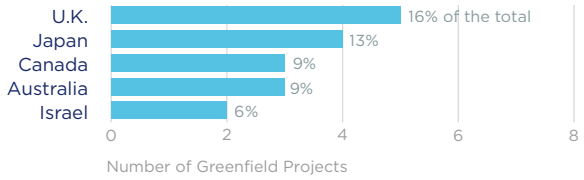
Country	Employment
France	4,700
United Kingdom	4,400
Netherlands	3,750*
Japan	2,100
Canada	1,700

On a country basis, French companies operating in Rhode Island represented 18% of total foreign affiliate employment in Rhode Island, with French multinationals supporting approximately 600 more jobs in 2018 than in 2010.
*Netherlands employment data suppressed to avoid disclosure of individual company data. Range of 2,500 - 4,999 employees given.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



32
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Rhode Island Goods Exports to Europe, 2019

$0.9 bn

Waste & scrap account for over 46% of exports to Europe.

Rhode Island Goods Imports from Europe, 2019

$5.2 bn

The top imported product from Europe is transportation equipment, which represents 68% of the state's total European imports.

Top European Export Markets, 2019

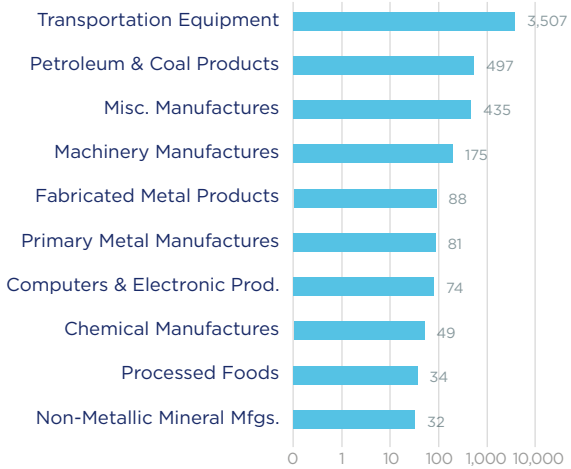
Country	Exports ($ millions)
Italy	192
Germany	141
Ireland	114
Turkey	112
Switzerland	92

Top European Import Markets, 2019

Country	Imports ($ millions)
Germany	2,208
Slovakia	974
United Kingdom	380
Ireland	367
Netherlands	243

Top Ten Exports to Europe, 2019 ($ millions)

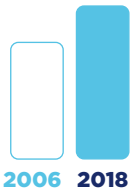
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

South Carolina and Europe

Jobs



110,300
Since 2006: +26,100 (+31.0%)

European companies account for
70%
of foreign affiliate jobs

Employment within South Carolina, 2018

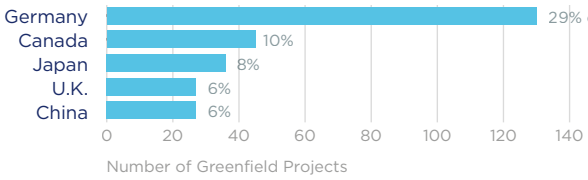
Country	Employment
Germany	35,300
France	26,200
Canada	18,000
Japan	16,300
United Kingdom	12,900

On a country basis, German companies operating in South Carolina represented 22% of total foreign affiliate employment in South Carolina, with German multinationals supporting approximately 16,000 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



449
Greenfield Projects (October 2010 - September 2020))

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

South Carolina Goods Exports to Europe, 2019

$12.5 bn

71% of the state's exports consist of transportation equipment, reflecting the state's deep linkages with European auto manufacturers.

South Carolina Goods Imports from Europe, 2019

$16.8 bn

Transportation equipment was also the top imported product from Europe, making up 24% of the state's total European imports.

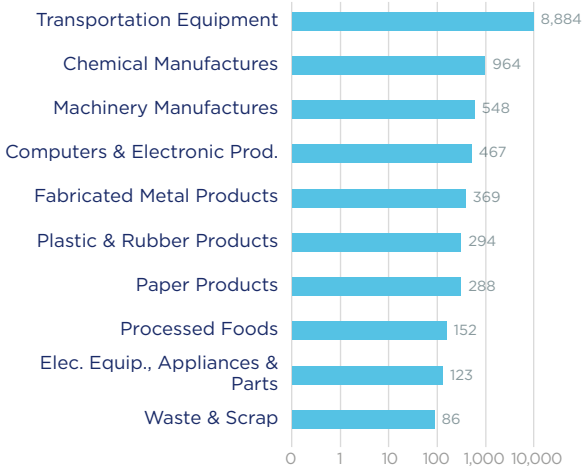
Top European Export Markets, 2019

Country	Exports ($ millions)
Germany	4,488
United Kingdom	2,069
Belgium	1,286
Netherlands	1,051
Spain	809

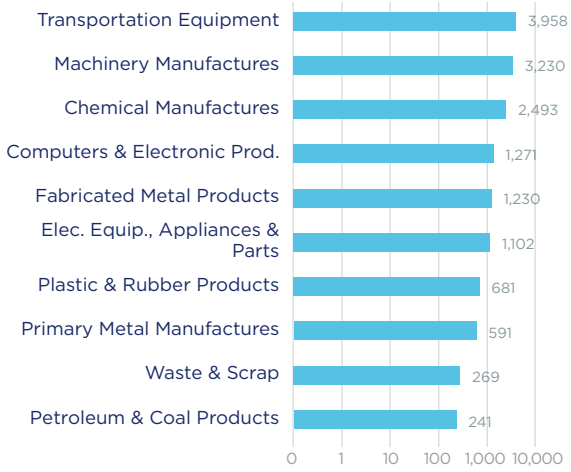
Top European Import Markets, 2019

Country	Imports ($ millions)
Germany	6,835
United Kingdom	1,248
France	972
Austria	950
Italy	834

Top Ten Exports to Europe, 2019 ($ millions)



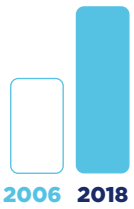
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

South Dakota and Europe

Jobs



5,600
Since 2006: +2,400 (+75.0%)

European companies account for
40%
of foreign affiliate jobs

Employment within South Dakota, 2018

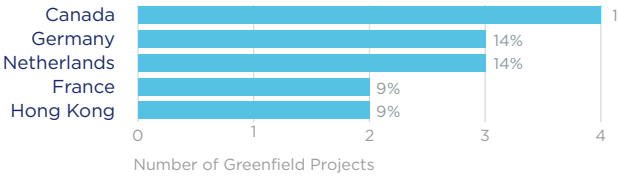
Country	Employment
Canada	2,800
United Kingdom	1,600
France	1,400
Germany	1,100
Switzerland	400

On a country basis, U.K. companies operating in South Dakota represented 11% of total foreign affiliate employment in South Dakota, with U.K. multinationals supporting approximately 100 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



22
Greenfield Projects (October 2010 - September 2020)

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Trade

South Dakota Goods Exports to Europe, 2019

$159.9 m

Machinery manufactures are the state's top export to Europe.

South Dakota Goods Imports from Europe, 2019

$165.1 m

Machinery manufactures, computers & electronic products, and processed foods make up the bulk of imports from Europe.

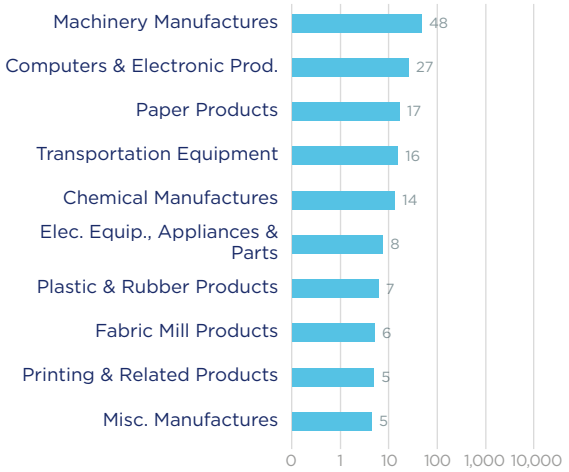
Top European Export Markets, 2019

Country	Exports ($ millions)
Germany	44
Belgium	31
United Kingdom	23
Ukraine	13
Netherlands	9

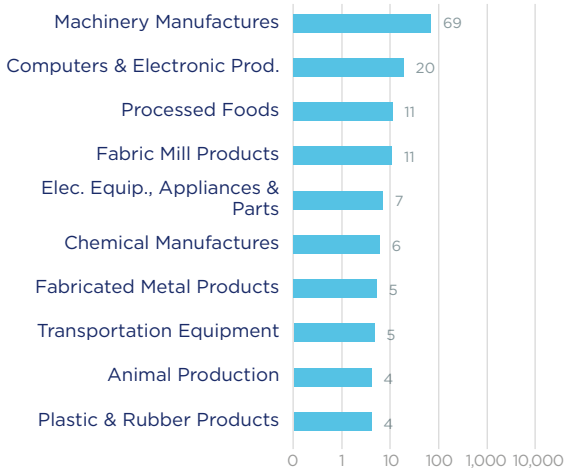
Top European Import Markets, 2019

Country	Imports ($ millions)
Germany	42
Italy	25
Netherlands	20
United Kingdom	12
Switzerland	9

Top Ten Exports to Europe, 2019 ($ millions)



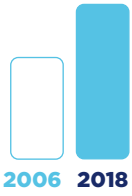
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Tennessee and Europe

Jobs



113,500
Since 2006: +38,800 (+51.9%)

European companies account for
57%
of foreign affiliate jobs

Employment within Tennessee, 2018

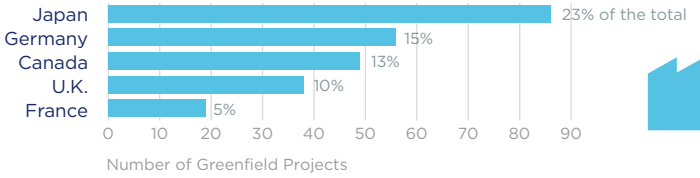
Country	Employment
Japan	47,500
United Kingdom	23,700
Germany	22,800
France	19,200
Canada	15,400

On a country basis, U.K. companies operating in Tennessee represented 12% of total foreign affiliate employment in Tennessee, with U.K. multinationals supporting approximately 3,800 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



376
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Tennessee Goods Exports to Europe, 2019

$6.8 bn

Miscellaneous manufactured goods and chemicals are the largest export categories to Europe.

Tennessee Goods Imports from Europe, 2019

$20.4 bn

Chemicals are the top imported good, comprising over half of the state's total imports from Europe.

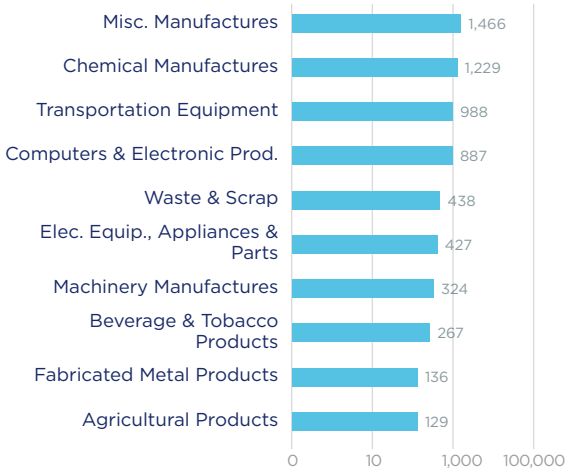
Top European Export Markets, 2019

Country	Exports ($ millions)
Netherlands	1,315
Germany	1,119
United Kingdom	1,010
Belgium	985
Italy	593

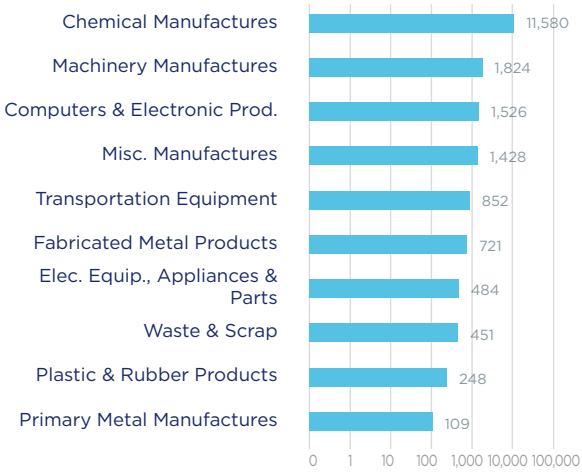
Top European Import Markets, 2019

Country	Imports ($ millions)
Ireland	7,813
Germany	4,023
United Kingdom	1,878
Italy	1,543
Switzerland	944

Top Ten Exports to Europe, 2019 ($ millions)



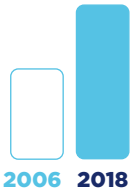
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Texas and Europe

Jobs



401,500

Since 2006: +165,600 (+70.2%)

European companies account for **60%** of foreign affiliate jobs

Employment within Texas, 2018

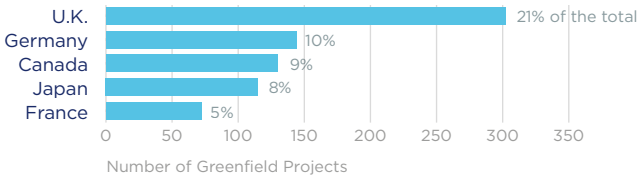
Country	Employment
United Kingdom	119,900
Japan	75,300
France	64,400
Germany	60,400
Canada	56,700

On a country basis, U.K. companies operating in Texas represented 18% of total foreign affiliate employment in Texas, with U.K. multinationals supporting approximately 49,300 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



1,440

Greenfield Projects (October 2010 - September 2020)

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Trade

Texas Goods Exports to Europe, 2019

$52.5 bn

Oil and gas exports to Europe have soared in recent years, due to the shale revolution in the Permian Basin and the opening up of U.S. export markets.

Top European Export Markets, 2019

Country	Exports ($ millions)
Netherlands	11,595
United Kingdom	9,618
France	4,678
Germany	4,535
Italy	4,109

Texas Goods Imports from Europe, 2019

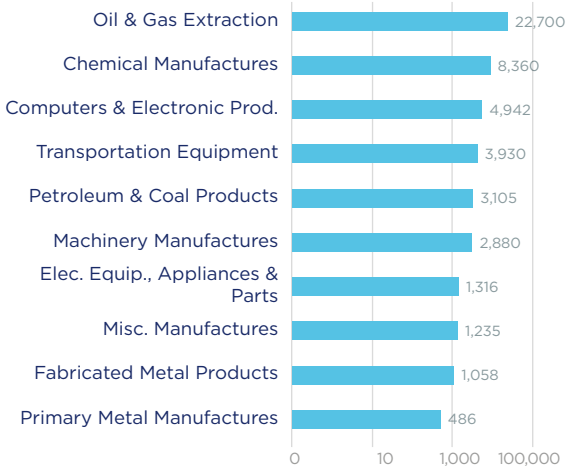
$42.9 bn

Transportation equipment and chemicals are the top product imports, though total imports are relatively diverse with petroleum & coal and machinery also key imports.

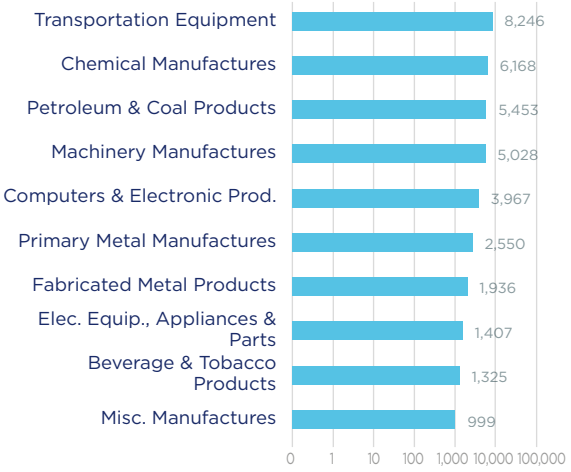
Top European Import Markets, 2019

Country	Imports ($ millions)
Germany	8,034
United Kingdom	5,502
Italy	3,931
Russia	3,880
France	3,306

Top Ten Exports to Europe, 2019 ($ millions)



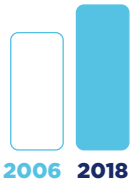
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Utah and Europe

Jobs



33,200
Since 2006: +6,300 (+23.4%)

European companies account for
66%
of foreign affiliate jobs

Employment within Utah, 2018

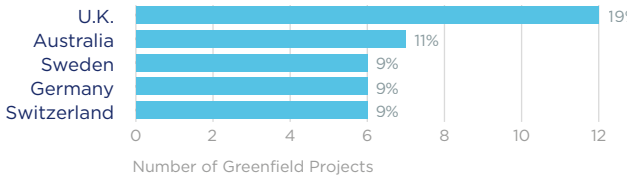
Country	Employment
United Kingdom	10,700
France	5,500
Germany	5,200
Switzerland	3,400
Canada	3,200

On a country basis, U.K. companies operating in Utah represented 21% of total foreign affiliate employment in Utah, with U.K. multinationals supporting approximately 4,900 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



67
Greenfield Projects (October 2010 - September 2020)

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Trade

Utah Goods Exports to Europe, 2019

$11.0 bn

Primary metals dominate the state's exports to Europe, representing over 80% of Utah's total exports.

Utah Goods Imports from Europe, 2019

$1.6 bn

Imports are much more diversified than exports. Machinery, computers & electronic products, and chemicals are the state's top imports from Europe.

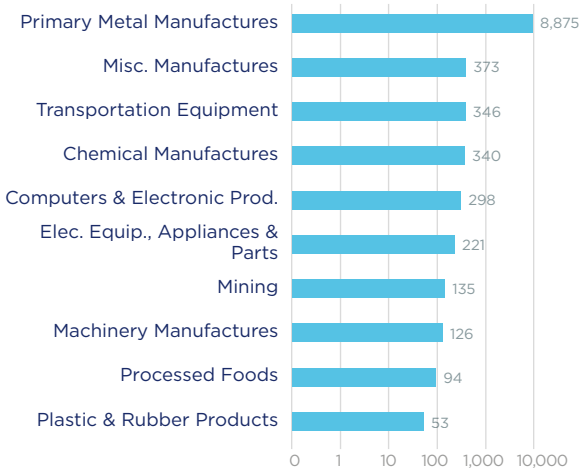
Top European Export Markets, 2019

Country	Exports ($ millions)
United Kingdom	8,752
Netherlands	486
Switzerland	403
Germany	401
France	215

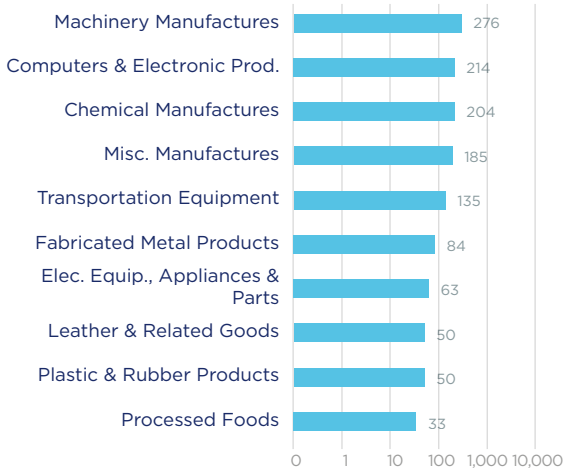
Top European Import Markets, 2019

Country	Imports ($ millions)
Germany	299
France	213
United Kingdom	141
Italy	134
Austria	118

Top Ten Exports to Europe, 2019 ($ millions)



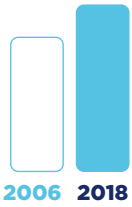
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Vermont and Europe

Jobs



8,300
Since 2006: +1,600 (+23.9%)

European companies account for
74%
of foreign affiliate jobs

Employment within Vermont, 2018

Country	Employment
Netherlands	3,750*
Canada	1,800
France	1,400
Switzerland	900
United Kingdom	750*

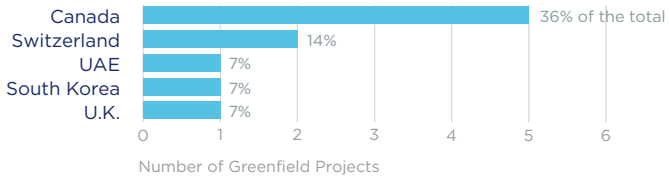
On a country basis, Dutch companies operating in Vermont represented 33% of total foreign affiliate employment in Vermont, with Dutch multinationals supporting approximately 3,250 more jobs in 2018 than in 2010.

*Netherlands and U.K. employment data suppressed to avoid disclosure of individual company data. Range of 2,500 - 4,999 employees given for the Netherlands; 500-999 employees for the U.K.)

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



14
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Vermont Goods Exports to Europe, 2019

$457.3 m

About 38% of exports consist of computers & electronic products.

Vermont Goods Imports from Europe, 2019

$437.0 m

Computers & electronics are also the state's top import from Europe, also representing roughly 38% of the total goods imported from Europe.

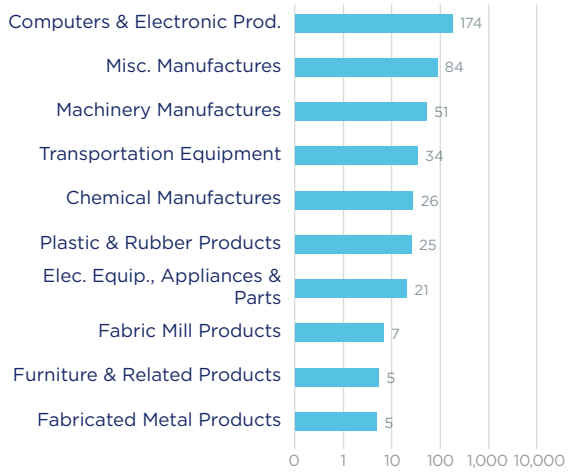
Top European Export Markets, 2019

Country	Exports ($ millions)
Germany	98
United Kingdom	94
Netherlands	84
France	48
Estonia	24

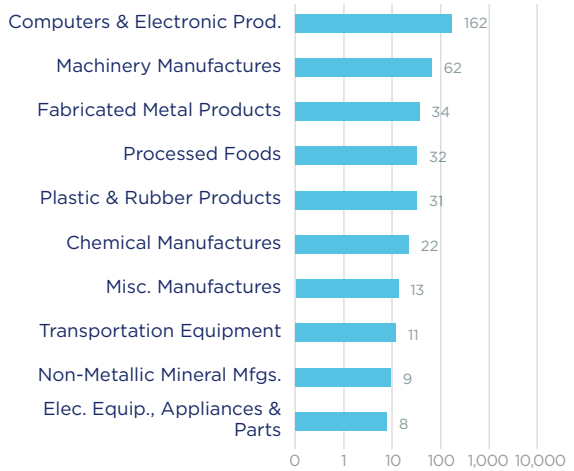
Top European Import Markets, 2019

Country	Imports ($ millions)
France	122
Germany	84
United Kingdom	41
Italy	30
Russia	27

Top Ten Exports to Europe, 2019 ($ millions)



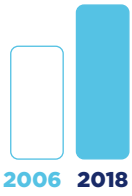
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Virginia and Europe

Jobs



153,100
Since 2006: +40,800 (+36.3%)

European companies account for
73%
of foreign affiliate jobs

Employment within Virginia, 2018

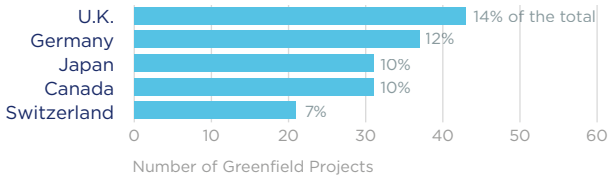
Country	Employment
United Kingdom	41,200
Netherlands	31,300
Germany	23,200
Canada	18,200
France	17,100

On a country basis, U.K. companies operating in Virginia represented 20% of total foreign affiliate employment in Virginia, with U.K. multinationals supporting approximately 12,900 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



307
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Virginia Goods Exports to Europe, 2019

$5.3 bn

Top exports include minerals & ores, chemicals, and transportation equipment.

Virginia Goods Imports from Europe, 2019

$9.1 bn

Machinery is the largest import from Europe, followed by transportation equipment, chemicals, and computers.

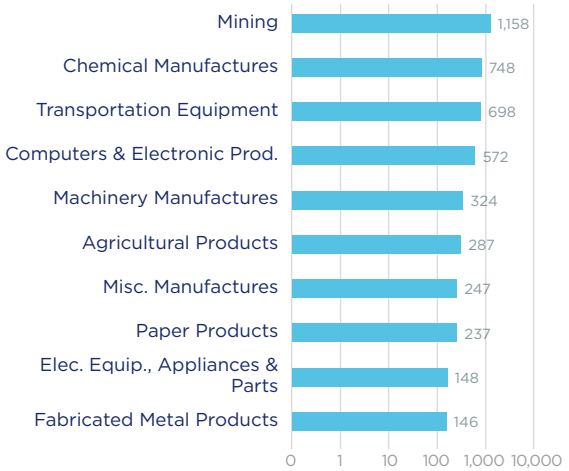
Top European Export Markets, 2019

Country	Exports ($ millions)
United Kingdom	929
Germany	725
Belgium	614
Netherlands	522
France	292

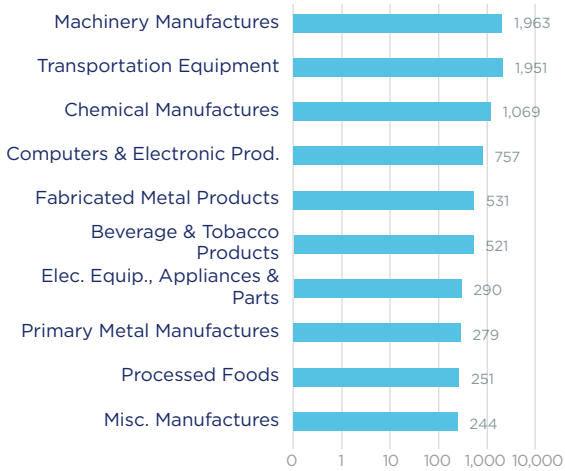
Top European Import Markets, 2019

Country	Imports ($ millions)
Germany	2,493
United Kingdom	1,180
France	1,010
Italy	840
Austria	739

Top Ten Exports to Europe, 2019 ($ millions)



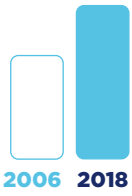
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Washington and Europe

Jobs



83,400
Since 2006: +27,000 (+47.9%)

European companies account for
59%
of foreign affiliate jobs

Employment within Washington, 2018

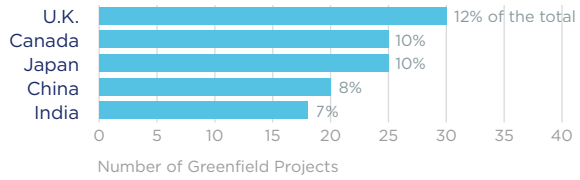
Country	Employment
Canada	23,600
United Kingdom	23,000
Germany	19,400
Japan	14,800
France	12,200

On a country basis, U.K. companies operating in Washington represented 16% of total foreign affiliate employment in Washington, with U.K. multinationals supporting approximately 9,100 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



251
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Washington Goods Exports to Europe, 2019

$11.1 bn

Transportation equipment dominates Washington's exports to Europe, making up almost 65% of total exports.

Top European Export Markets, 2019

Country	Exports ($ millions)
United Kingdom	1,859
Germany	1,762
Turkey	1,419
Netherlands	1,299
Russia	861

Washington Goods Imports from Europe, 2019

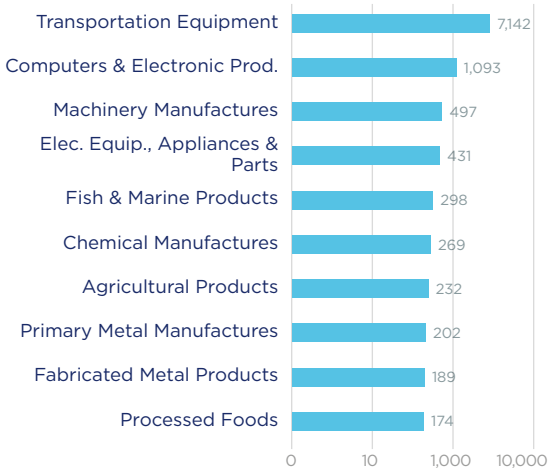
$5.4 bn

Imports from Europe are less concentrated than exports. The state's top import, machinery, makes up only 17% of total goods imports from Europe.

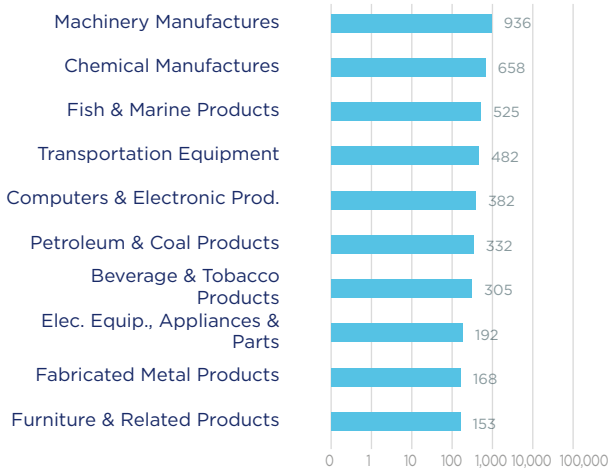
Top European Import Markets, 2019

Country	Imports ($ millions)
Russia	1,154
Germany	1,013
France	554
Italy	504
United Kingdom	454

Top Ten Exports to Europe, 2019 ($ millions)



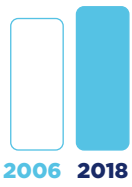
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

West Virginia and Europe

Jobs



13,400
Since 2006: +1,100 (+8.9%)

European companies account for
47%
of foreign affiliate jobs

Employment within West Virginia, 2018

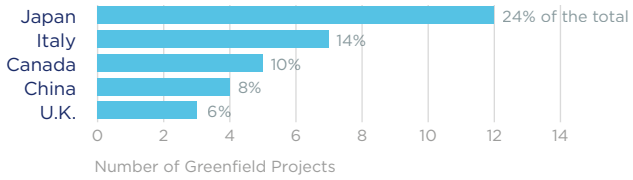
Country	Employment
Canada	6,000
Japan	4,200
United Kingdom	3,100
Netherlands	2,700
Switzerland	1,700

On a country basis, U.K. companies operating in West Virginia represented 11% of total foreign affiliate employment in West Virginia, with U.K. multinationals supporting approximately 1,300 fewer jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



50
Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

West Virginia Goods Exports to Europe, 2019

$1.9 bn

Mining products such as minerals and ores accounted for 57% of exports to Europe in 2019.

West Virginia Goods Imports from Europe, 2019

$0.7 bn

Chemicals and machinery are West Virginia's top imports from Europe.

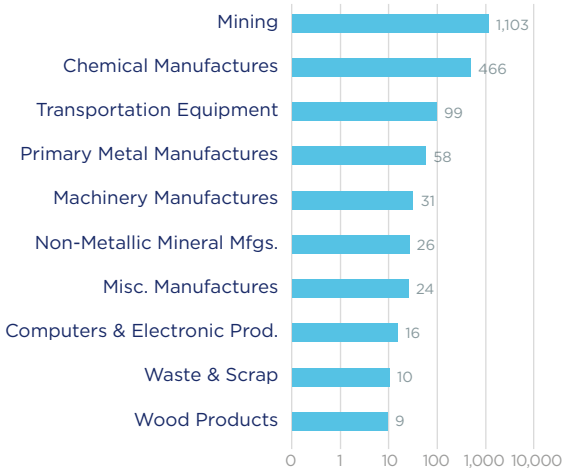
Top European Export Markets, 2019

Country	Exports ($ millions)
Ukraine	481
Netherlands	447
Belgium	256
Germany	190
Italy	140

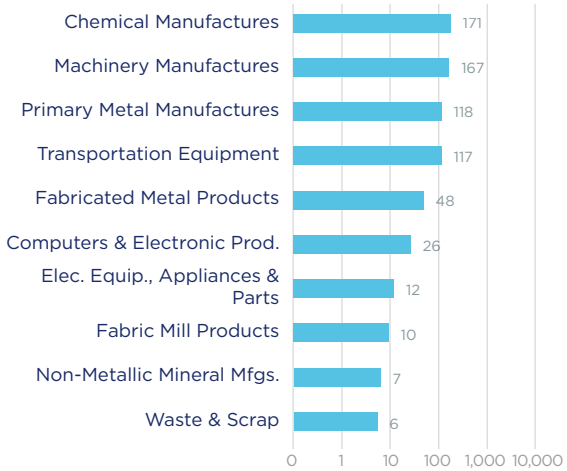
Top European Import Markets, 2019

Country	Imports ($ millions)
Germany	227
France	102
Italy	97
United Kingdom	58
Poland	41

Top Ten Exports to Europe, 2019 ($ millions)



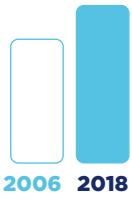
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Wisconsin and Europe

Jobs



81,500

Since 2006: +17,400 (+27.1%)

European companies account for

68%

of foreign affiliate jobs

Employment within Wisconsin, 2018

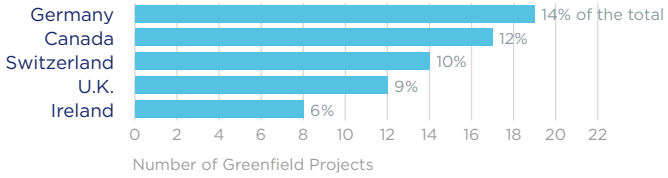
Country	Employment
United Kingdom	16,700
Canada	16,500
Germany	14,700
France	10,100
Switzerland	10,000

On a country basis, U.K. companies operating in Wisconsin represented 14% of total foreign affiliate employment in Wisconsin, with U.K. multinationals supporting approximately 5,400 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



138

Greenfield Projects (October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Wisconsin Goods Exports to Europe, 2019

$4.4 bn

Machinery and computers & electronic products are the state's top exports to Europe.

Wisconsin Goods Imports from Europe, 2019

$8.9 bn

Chemicals and machinery accounted for 38% and 27% of total imports from Europe, respectively.

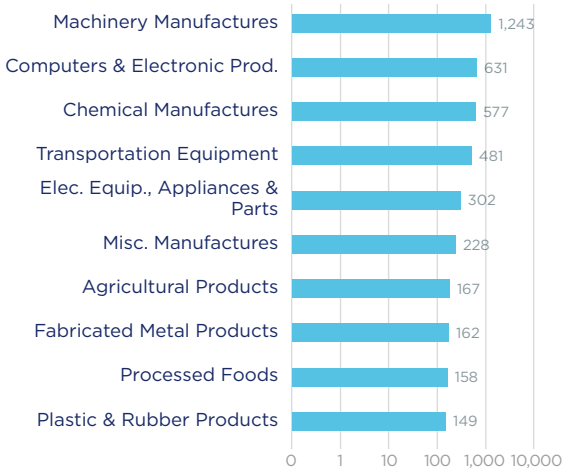
Top European Export Markets, 2019

Country	Exports ($ millions)
United Kingdom	805
Germany	760
Netherlands	452
France	435
Belgium	419

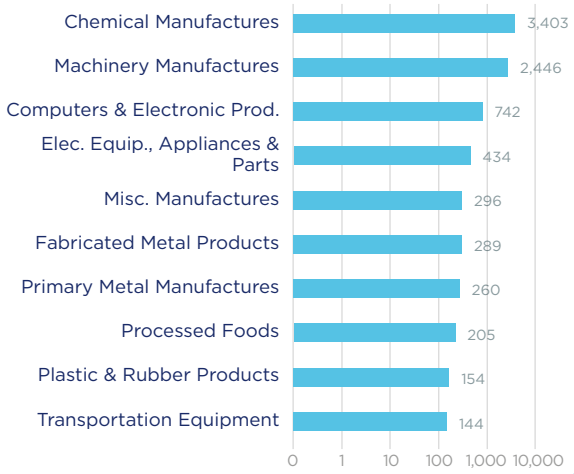
Top European Import Markets, 2019

Country	Imports ($ millions)
Ireland	2,333
Germany	1,932
Italy	925
United Kingdom	778
France	478

Top Ten Exports to Europe, 2019 ($ millions)



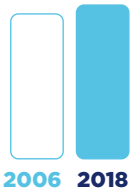
Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Wyoming and Europe

Jobs



5,200
Since 2006: +300
(+6.1%)

European companies account for
63%
of foreign affiliate jobs

Employment within Wyoming, 2018

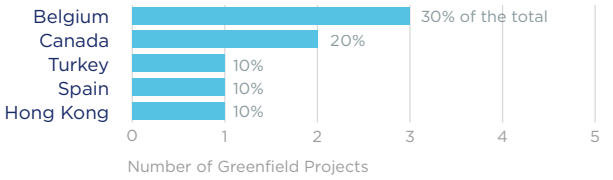
Country	Employment
United Kingdom	2,000
France	1,100
Canada	800
Switzerland	300
Germany	200

On a country basis, U.K. companies operating in Wyoming represented 24% of total foreign affiliate employment in Wyoming, with U.K. multinationals supporting approximately 300 more jobs in 2018 than in 2010.

Jobs directly supported by European investment. Total European-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

Sources of Greenfield Foreign Direct Investment (FDI)



10
Greenfield Projects
(October 2010 - September 2020)

Number of projects does not directly translate to value of projects or jobs added. Greenfield FDI is investment in new assets.

Trade

Wyoming Goods Exports to Europe, 2019

$52.1 m

Chemicals accounted for 22% of Wyoming's exports to Europe in 2019, down from a share of approximately 50% the prior year.

Wyoming Goods Imports from Europe, 2019

$97.8 m

Machinery and fabricated metal products are Wyoming's top imports from Europe.

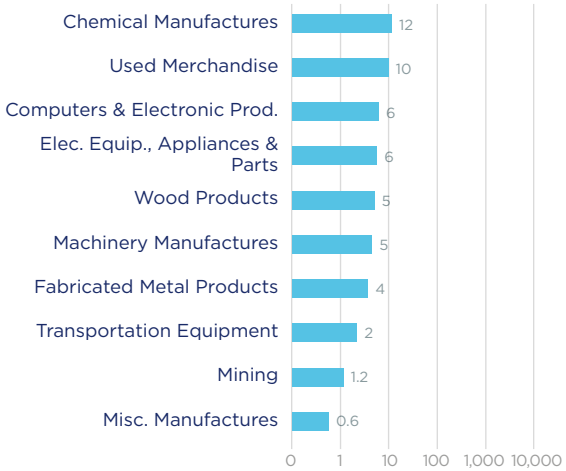
Top European Export Markets, 2019

Country	Exports ($ millions)
Austria	9
Belgium	8
Netherlands	7
Ireland	5
Switzerland	4

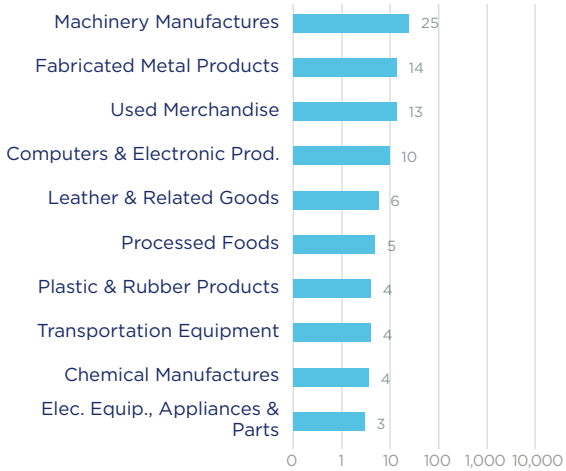
Top European Import Markets, 2019

Country	Imports ($ millions)
Germany	21
Italy	16
Turkey	15
United Kingdom	10
Belgium	5

Top Ten Exports to Europe, 2019 ($ millions)



Top Ten Imports from Europe, 2019 ($ millions)



Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.

Appendix B

U.S. Commerce and Europe: A Country-by-Country Comparison

Europe & the United States

Jobs

United States in Europe	Europe in the United States
4,869,657	5,036,599

Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

$3.6 tn

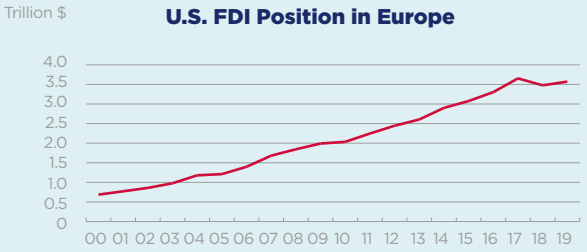
Foreign Direct Investment (FDI), 2019

$2.9 tn

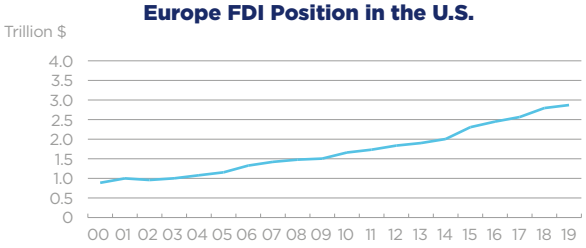
Foreign Direct Investment (FDI), 2019

In terms of the U.S.-Europe investment balance, the U.S. had a larger net cross-border impact in 2019. U.S. foreign direct investment in Europe increased slightly in 2019 to $3.6 trillion. The pace of FDI growth in recent years has slowed due to U.S. corporations' repatriation of foreign earnings after the 2017 U.S. Tax Cuts and Jobs Act. Meanwhile, Europe's foreign direct investment in the U.S. rose to $2.9 trillion. According to estimates for 2019, U.S. affiliates employed over 4.8 million workers in Europe while European affiliates employed about 5.0 million Americans.

U.S. FDI Position in Europe



Europe FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2019.

Trade in Goods

$381.7 bn

U.S. Goods Exports to Europe, 2019

5.4% The U.S. supplied 5.4% of the Europe's total imports...

17.9% ...but the U.S. share increases to 17.9% when intra-Europe trade is excluded from the total.

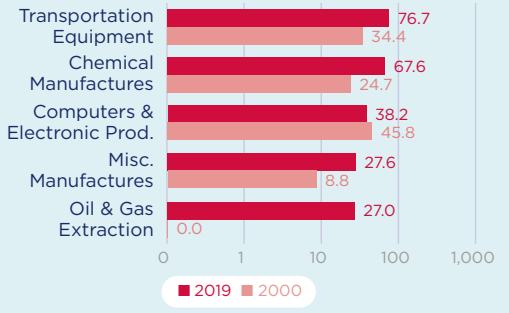
$604.3 bn

U.S. Goods Imports from Europe, 2019

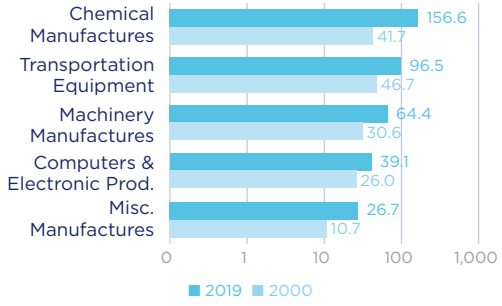
7.7% The U.S. received 7.7% of the total goods Europe exported to the world...

25.9% ...but the U.S. share increases to 25.9% when intra-Europe trade is excluded from the total.

Top Five U.S. Goods Exports to Europe ($ billions)



Top Five U.S. Goods Imports from Europe ($ billions)



Top State Exporters of Goods to Europe ($ billions)

1	2	3	4	5
52.5 Texas	38.9 California	26.1 New York	12.5 South Carolina	12.4 Pennsyl-vania

Top State Importers of Goods from Europe ($ billions)

1	2	3	4	5
55.3 New Jersey	45.4 New York	45.3 California	42.9 Texas	36.9 Pennsyl-vania

Trade in Services

$345.2 bn

U.S. Services Exports to Europe, 2019

$245.4 bn

U.S. Services Imports from Europe, 2019

"Europe" refers to all 28 members of the European Union in 2019 plus Albania, Andorra, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Gibraltar, Greenland, Iceland, Kazakhstan, Kosovo, Kyrgyzstan, North Macedonia, Malta, Moldova, Monaco, Montenegro, Norway, Russia, Serbia, San Marino, Switzerland, Turkey, Tajikistan, Turkmenistan, Ukraine, Uzbekistan, Vatican.
Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

The EU28 and the United States

Jobs

United States in the EU	The EU in the United States
4,417,275	**4,523,100**

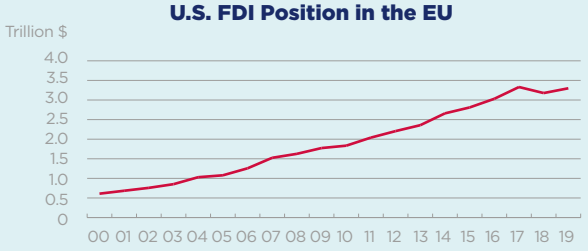
Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

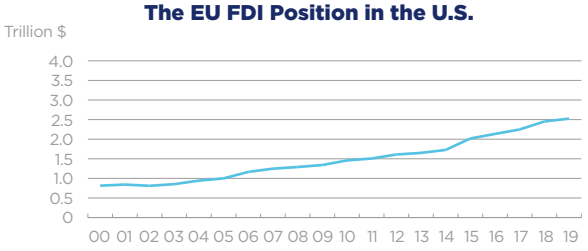
$3.3 tn	**$2.5 tn**
Foreign Direct Investment (FDI), 2019	**Foreign Direct Investment (FDI), 2019**

In terms of the U.S.-EU investment balance, the U.S. had a larger net cross-border impact in 2019. U.S. foreign direct investment in the EU totaled a record $3.3 trillion in 2019, and the EU's foreign direct investment in the U.S. rose to $2.5 trillion. According to estimates for 2019, U.S. affiliates employed over 4.4 million workers in the EU while EU affiliates employed roughly 4.5 million Americans.

U.S. FDI Position in the EU



The EU FDI Position in the U.S.

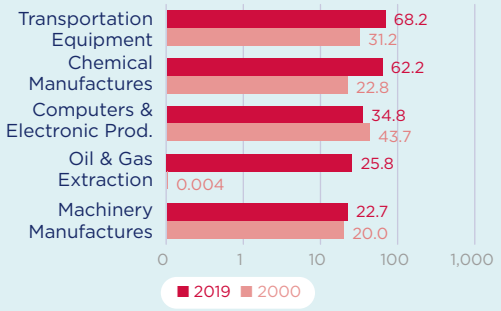


Foreign direct investment position, historic-cost basis, 2000-2019.
*The EU FDI trend charts show an increasing number of member countries overtime. The U.K. is included in all years 2000-2019. Prior to 2013 the EU excludes Croatia. Prior to 2007, it also excludes Bulgaria and Romania. Prior to 2004, it also excludes Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia.

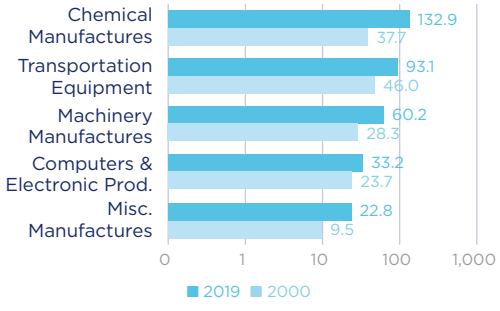
Trade in Goods

$336.7 bn	**$515.2 bn**
U.S. Goods Exports to the EU, 2019	**U.S. Goods Imports from the EU, 2019**
5.3% The U.S. supplied 5.3% of the EU's total imports...	8.0% The U.S. received 8.0% of the total goods the EU exported to the world...
14.3% ...but the U.S. share increases to 14.3% when intra-EU trade is excluded from the total.	21.9% ...but the U.S. share increases to 21.9% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Exports to the EU ($ billions)



Top Five U.S. Goods Imports from the EU ($ billions)



Top State Exporters of Goods to the EU ($ billions)

1	2	3	4	5
47.5	35.1	18.3	11.8	11.6
Texas	California	New York	South Carolina	Kentucky

Top State Importers of Goods from the EU ($ billions)

1	2	3	4	5
43.1	32.9	30.7	30.1	27.7
New Jersey	California	New York	Texas	Illinois

Trade in Services

$279.0 bn	**$208.3 bn**
U.S. Services Exports to the EU, 2019	**U.S. Services Imports from the EU, 2019**

"EU" refers to all 28 members of the European Union as of 2019. Prior to 2013 it excludes Croatia. Prior to 2007, it also excludes Bulgaria and Romania. Prior to 2004, it also excludes Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia.
Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

The EU (ex. UK) & the United States

Jobs

United States in the EU (ex. UK)	The EU (ex. UK) in the United States
2,929,818	**3,220,287**

Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

$2.4 tn

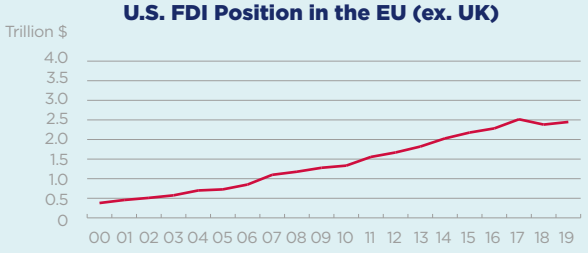
Foreign Direct Investment (FDI), 2019

$2.0 tn

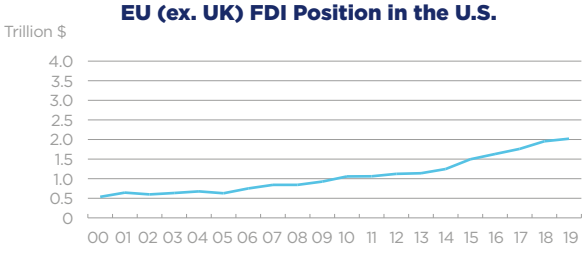
Foreign Direct Investment (FDI), 2019

When the UK is excluded from the EU data, U.S. outward investment is about 25% lower than the EU28 figure. U.S. outward FDI to the EU excluding the U.K. in 2019 was $2.4 trillion, supporting roughly 2.9 million jobs. Inward FDI from the 27 EU member states to the U.S. was a bit lower, $2.0 trillion, but supported more jobs (3.2 million).

U.S. FDI Position in the EU (ex. UK)



EU (ex. UK) FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2019.
*The EU (ex. UK) FDI trend excludes the UK from EU data from 2000-2019. Prior to 2013 it also excludes Croatia. Prior to 2007, it also excludes Bulgaria and Romania. Prior to 2004, it also excludes Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia.

Trade in Goods

$267.6 bn

U.S. Goods Exports to the EU (ex. UK), 2019

4.7% The U.S. supplied 4.7% of the EU's (ex. UK) total imports...

12.0% ...but the U.S. share increases to 12.0% when intra-EU (ex. UK) trade is excluded from the total.

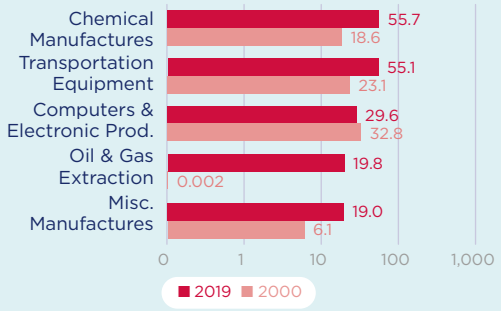
$452.0 bn

U.S. Goods Imports from the EU (ex. UK), 2019

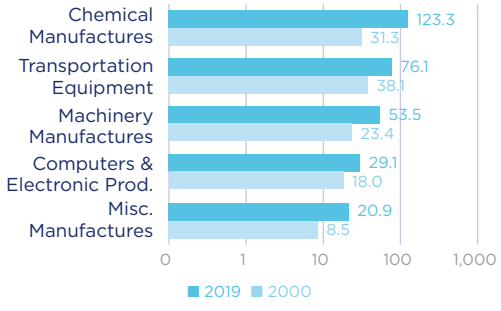
7.4% The U.S. received 7.4% of the total goods the EU (ex. UK) exported to the world...

18.0% ...but the U.S. share increases to 18.0% when intra-EU (ex. UK) trade is excluded from the total.

Top Five U.S. Goods Exports to the EU (ex. UK) ($ billions)



Top Five U.S. Goods Imports from the EU (ex. UK) ($ billions)



Top State Exporters of Goods to the EU (ex. UK) ($ billions)

1	2	3	4	5
37.9 Texas	29.8 California	13.0 New York	9.7 South Carolina	9.0 Louisiana

Top State Importers of Goods from the EU (ex. UK) ($ billions)

1	2	3	4	5
38.1 New Jersey	32.9 California	30.7 New York	30.1 Texas	27.7 Illinois

Trade in Services

$200.7 bn

U.S. Services Exports to the EU (ex. UK), 2019

$146.0 bn

U.S. Services Imports from the EU (ex. UK), 2019

"The EU (ex. UK)" refers to the 27 members of the European Union as of January 31, 2020 (without the United Kingdom).
Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

Austria and the United States

Jobs

United States in Austria	Austria in the United States
47,635	**29,109**

Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

$7.6 bn

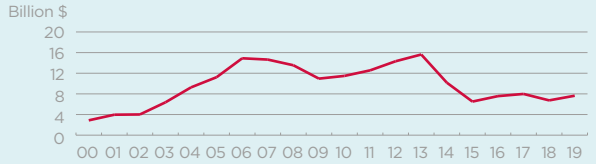
Foreign Direct Investment (FDI), 2019

$14.0 bn

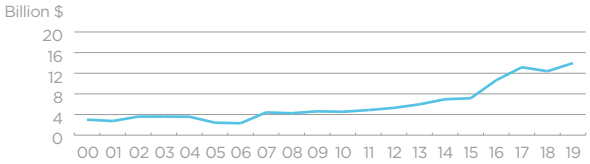
Foreign Direct Investment (FDI), 2019

America's direct investment position in Austria has remained steady near $8 billion since a sharp decline in FDI from 2013-2015. Austria's investment stake in the U.S. now exceeds America's investment in Austria. However, American affiliates employed 1.6 times as many workers in Austria than Austrian firms employed in the U.S., according to 2019 estimates.

U.S. FDI Position in Austria



Austria FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2019.

Trade in Goods

$5.7 bn

U.S. Goods Exports to Austria, 2019

2.9% The U.S. supplied 2.9% of Austria's total imports...

13.4% ...but the U.S. share increases to 13.4% when intra-EU trade is excluded from the total.

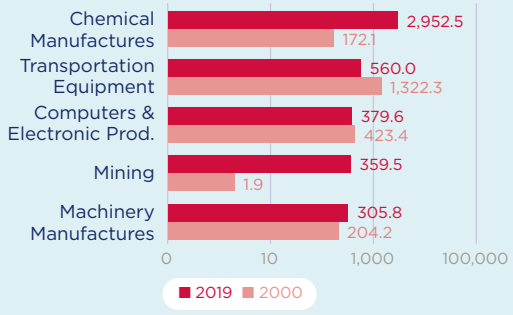
$13.2 bn

U.S. Goods Imports from Austria, 2019

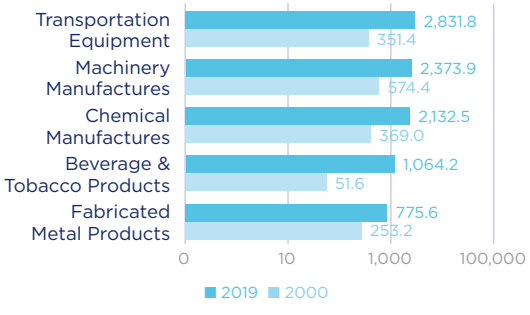
6.2% The U.S. received 6.2% of the total goods Austria exported to the world...

21.1% ...but the U.S. share increases to 21.1% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Exports to Austria ($ millions)



Top Five U.S. Goods Imports from Austria ($ millions)



Top State Exporters of Goods to Austria ($ millions)

1	2	3	4	5
845.8 Kentucky	**380.8** Alabama	**309.5** California	**262.8** North Carolina	**214.5** Florida

Top State Importers of Goods from Austria ($ millions)

1	2	3	4	5
1,641.4 California	**1,110.4** Georgia	**960.5** Texas	**949.9** South Carolina	**914.2** New Jersey

Trade in Services

$1.8 bn

U.S. Services Exports to Austria, 2019

$1.5 bn

U.S. Services Imports from Austria, 2019

Note: U.K. included in EU for purposes of calculating intra-EU trade.
Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

Belgium and the United States

Jobs

United States in Belgium	Belgium in the United States
126,858	**67,852**

Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

$63.2 bn

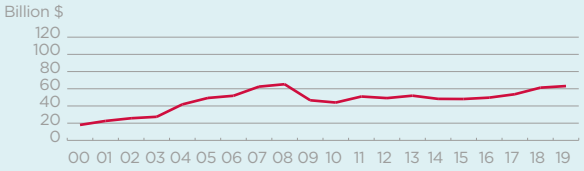
Foreign Direct Investment (FDI), 2019

$65.9 bn

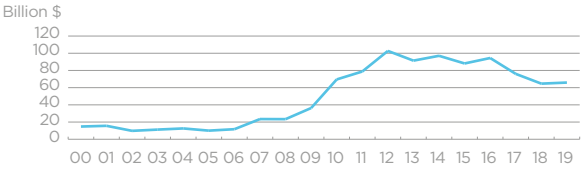
Foreign Direct Investment (FDI), 2019

U.S. direct investments in Belgium are heavily concentrated in the manufacturing sector, which makes up 63% of U.S. FDI in Belgium. Meanwhile, the manufacturing sector accounts for 80% of Belgium's FDI stock in the U.S. Foreign affiliate employment by U.S. companies in Belgium was almost double Belgian companies' employment in the U.S. Affiliate employment by Belgian multinationals in the U.S. fell sharply in 2016, from 148,000 employees to just 51,000, but since then employment is estimated to have picked up slightly to almost 68,000 workers in 2019. Value added by U.S. affiliates in Belgium was an estimated $27.8 billion in 2019, about double that of Belgian affiliates in the U.S.

U.S. FDI Position in Belgium



Belgium FDI Position in the U.S.



FDI position based on a historic-cost basis, 2000-2016.

Trade in Goods

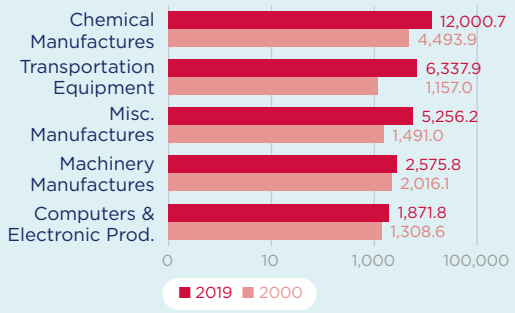
$34.7 bn

U.S. Goods Exports to Belgium, 2019

7.6% The U.S. supplied 7.6% of Belgium's total imports...

21.2% ...but the U.S. share increases to 21.2% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Exports to Belgium ($ millions)



Top State Exporters of Goods to Belgium ($ millions)

1	2	3	4	5
6,340.5 California	**4,108.7** Texas	**3,365.1** New York	**1,798.9** Pennsylvania	**1,285.9** South Carolina

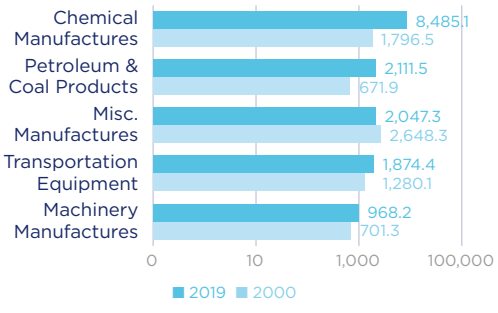
$20.2 bn

U.S. Goods Imports from Belgium, 2019

6.2% The U.S. received 6.2% of the total goods Belgium exported to the world...

22.6% ...but the U.S. share increases to 22.6% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Imports from Belgium ($ millions)



Top State Importers of Goods from Belgium ($ millions)

1	2	3	4	5
4,868.9 Pennsylvania	**2,615.6** New York	**1,477.5** New Jersey	**1,251.8** Texas	**1,191.4** California

Trade in Services

$5.6 bn

U.S. Services Exports to Belgium, 2019

$4.4 bn

U.S. Services Imports from Belgium, 2019

Note: U.K. included in EU for purposes of calculating intra-EU trade.
Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

Bulgaria and the United States

Jobs

United States in Bulgaria	Bulgaria in the United States
9,954	**307**

Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

$756 m

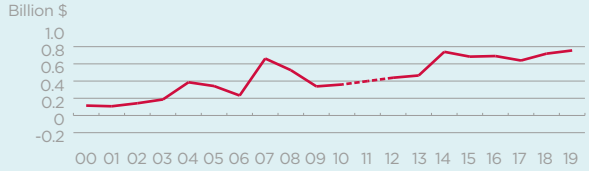
Foreign Direct Investment (FDI), 2019

$30 m

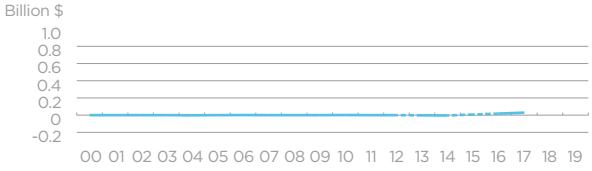
Foreign Direct Investment (FDI), 2017*

America's investment base in Bulgaria is relatively small, and foreign affiliate sales totaled just $2.6 billion in 2019, according to estimates. U.S. affiliates in Bulgaria employed approximately 10,000 workers in 2019, placing Bulgaria 6th among the EU13 in terms of U.S. firms' employment abroad.

U.S. FDI Position in Bulgaria



Bulgaria FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2019.
Note: Dotted line indicates that data has been suppressed for a particular year to avoid disclosure of individual company data.
*Latest year of available data.

Trade in Goods

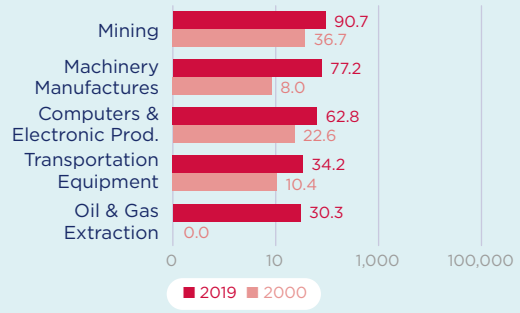
$463 m

U.S. Goods Exports to Bulgaria, 2019

1.0% The U.S. supplied 1.0% of Bulgaria's total imports...

2.6% ...but the U.S. share increases to 2.6% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Exports to Bulgaria ($ millions)



Top State Exporters of Goods to Bulgaria ($ millions)

1	2	3	4	5
82.0 Texas	**54.9** Washington	**42.4** Nevada	**41.3** California	**25.7** Florida

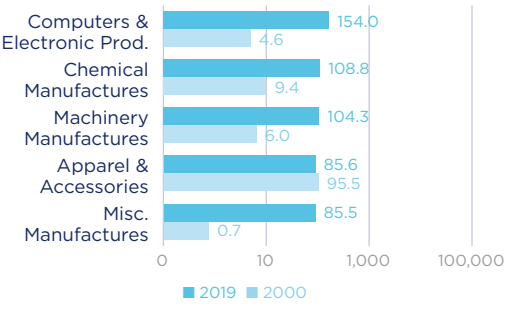
$910 m

U.S. Goods Imports from Bulgaria, 2019

1.9% The U.S. received 1.9% of the total goods Bulgaria exported to the world...

5.5% ...but the U.S. share increases to 5.5% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Imports from Bulgaria ($ millions)



Top State Importers of Goods from Bulgaria ($ millions)

1	2	3	4	5
101.5 Massa-chusetts	**72.9** New York	**59.8** Texas	**50.6** California	**49.9** Missouri

Trade in Services

$354 m

U.S. Services Exports to Bulgaria, 2019

$303 m

U.S. Services Imports from Bulgaria, 2019

Note: U.K. included in EU for purposes of calculating intra-EU trade.
Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

Croatia and the United States

Jobs

United States in Croatia	Croatia in the United States
2,031	< 50

Jobs directly supported by majority-owned affiliates. Estimates for 2018. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

$184 m

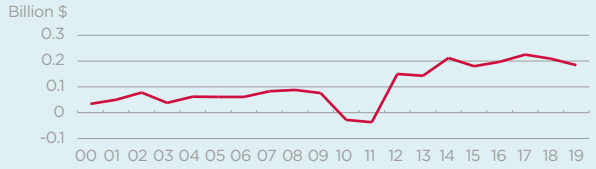
Foreign Direct Investment (FDI), 2019

$19 m

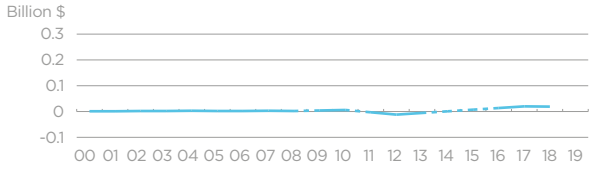
Foreign Direct Investment (FDI), 2018*

U.S. direct investment in Croatia has fluctuated in recent years around $200 million, while Croatia's direct investment position in the U.S. is much lower, around $19 million. U.S. foreign affiliates in Croatia employed an estimated 2,000 workers in 2019, ranking 24th among the 27 EU countries. Meanwhile, Croatian foreign direct investment in the U.S. directly supported fewer than 50 jobs.

U.S. FDI Position in Croatia



Croatia FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2019.
Note: Dotted line indicates that data has been suppressed for a particular year to avoid disclosure of individual company data.
*Latest year of available data. Negative FDI positions can occur when the loans from the affiliate to the parent company exceed the equity and debt investments from the parent to the affiliate, or if a foreign affiliate incurs sufficiently large losses.

Trade in Goods

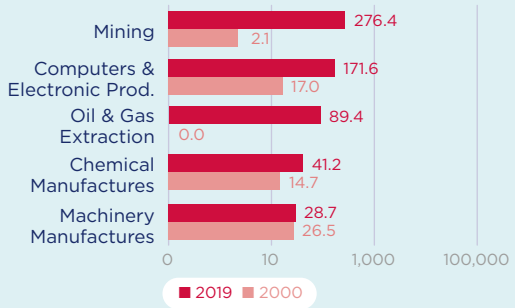
$711 m

U.S. Goods Exports to Croatia, 2019

0.7% The U.S. supplied 0.7% of Croatia's total imports...

3.3% ...but the U.S. share increases to 3.3% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Exports to Croatia ($ millions)



Top State Exporters of Goods to Croatia ($ millions)

1	2	3	4	5
213.0 Virginia	165.7 Pennsyl-vania	98.0 Texas	41.9 Alabama	26.0 California

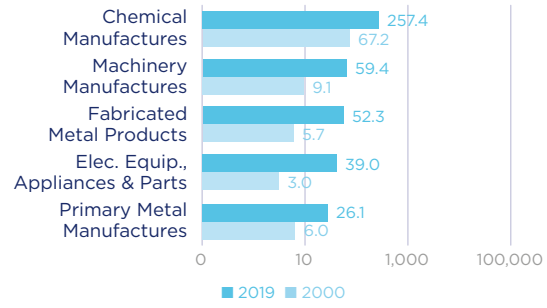
$548 m

U.S. Goods Imports from Croatia, 2019

2.7% The U.S. received 2.7% of the total goods Croatia exported to the world...

8.3% ...but the U.S. share increases to 8.3% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Imports from Croatia ($ millions)



Top State Importers of Goods from Croatia ($ millions)

1	2	3	4	5
207.6 Pennsyl-vania	48.7 Illinois	26.1 New York	22.5 Maryland	20.0 North Carolina

Trade in Services

$264 m

U.S. Services Exports to Croatia, 2019

$369 m

U.S. Services Imports from Croatia, 2019

Note: U.K. included in EU for purposes of calculating intra-EU trade.
Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis; United Nations.

Cyprus and the United States

Jobs

United States in Cyprus	Cyprus in the United States
1,524	3,587

Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

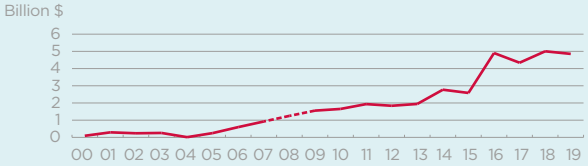
Investment

$4.9 bn
Foreign Direct Investment (FDI), 2019

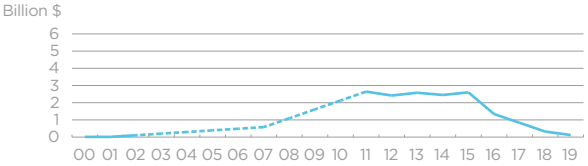
$0.1 bn
Foreign Direct Investment (FDI), 2019

Given the country's small market, Cyprus has not attracted much U.S. foreign direct investment relative to other EU members. U.S. investment in Cyprus declined slightly in 2019 to $4.9 billion. Cyprus's FDI in the U.S., meanwhile, has continued to decline and is now at the lowest level in 20 years. That said, Cyprus-based companies continued to support roughly 2,000 more jobs in the U.S. than American corporations supported in Cyprus.

U.S. FDI Position in Cyprus



Cyprus FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2019.
Note: Dotted line indicates that data has been suppressed for a particular year to avoid disclosure of individual company data.

Trade in Goods

$204 m
U.S. Goods Exports to Cyprus, 2019

1.6% The U.S. supplied 1.6% of Cyprus's total imports...

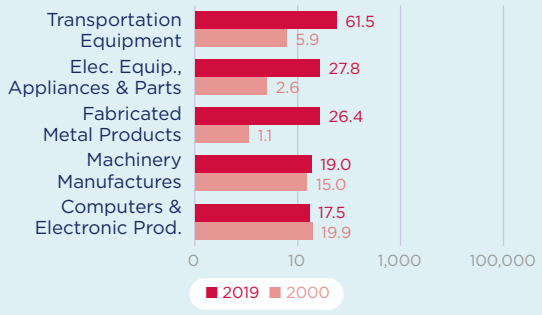
4.9% ...but the U.S. share increases to 4.9% when intra-EU trade is excluded from the total.

$73 m
U.S. Goods Imports from Cyprus, 2019

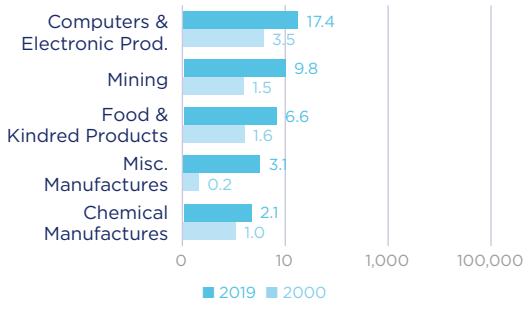
2.2% The U.S. received 2.2% of the total goods Cyprus exported to the world...

3.8% ...but the U.S. share increases to 3.8% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Exports to Cyprus ($ millions)



Top Five U.S. Goods Imports from Cyprus ($ millions)



Top State Exporters of Goods to Cyprus ($ millions)

1	2	3	4	5
58.6	58.2	20.9	15.8	5.5
Texas	Georgia	Alabama	California	New Jersey

Top State Importers of Goods from Cyprus ($ millions)

1	2	3	4	5
19.0	15.9	9.6	5.3	3.6
Texas	Idaho	New York	Alabama	New Jersey

Trade in Services

$681 m
U.S. Services Exports to Cyprus, 2019

$679 m
U.S. Services Imports from Cyprus, 2019

Note: U.K. included in EU for purposes of calculating intra-EU trade.
Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

Czech Republic and the United States

Jobs

United States in Czech Republic	Czech Republic in the United States
79,832	**102**

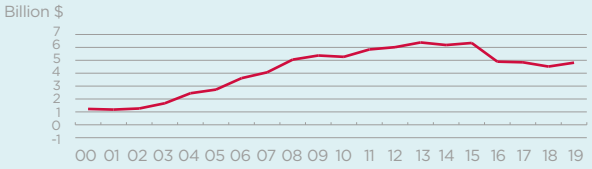
Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

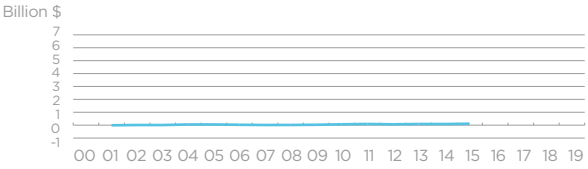
$4.8 bn	**$0.1 bn**
Foreign Direct Investment (FDI), 2019	**Foreign Direct Investment (FDI), 2015***

America's investment base in the Czech Republic has declined in recent years from a peak of $6.4 billion in 2013 to $4.8 billion in 2019. Czech Republic FDI in the U.S. amounted to just $113 million, as of the latest data in 2015. Affiliate employment by U.S. multinationals in the Czech Republic is much larger than that of Czech firms in the U.S. Total sales of U.S. foreign affiliates in the Czech Republic were an estimated $17.3 billion in 2019, while sales by Czech firms in the U.S. were just $52 million.

U.S. FDI Position in Czech Republic



Czech Republic FDI Position in the U.S.

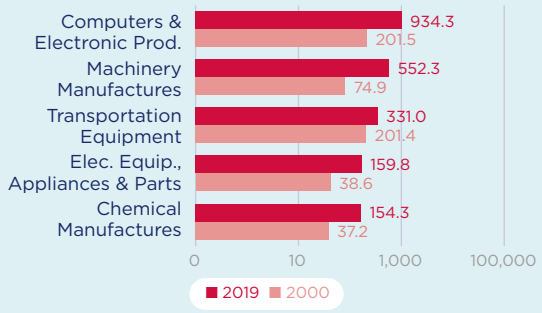


Foreign direct investment position, historic-cost basis, 2000-2019.
*Latest year of available data.

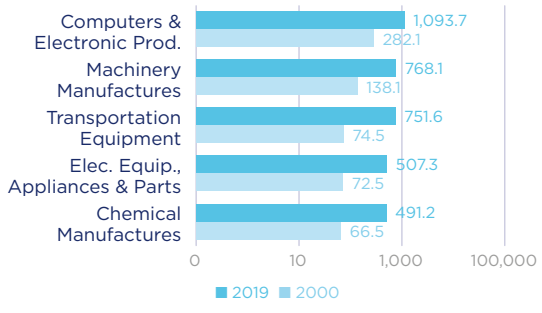
Trade in Goods

$2.8 bn	**$5.5 bn**
U.S. Goods Exports to Czech Republic, 2019	**U.S. Goods Imports from Czech Republic, 2019**
2.0% The U.S. supplied 2.0% of Czech Republic's total imports...	2.3% The U.S. received 2.3% of the total goods Czech Republic exported to the world...
8.0% ...but the U.S. share increases to 8.0% when intra-EU trade is excluded from the total.	14.3% ...but the U.S. share increases to 14.3% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Exports to Czech Republic ($ millions)



Top Five U.S. Goods Imports from Czech Republic ($ millions)



Top State Exporters of Goods to Czech Republic ($ millions)

1	2	3	4	5
496.0 Texas	462.0 California	144.4 Wisconsin	131.6 New York	90.5 Illinois

Top State Importers of Goods from Czech Republic ($ millions)

1	2	3	4	5
684.1 Texas	501.0 South Carolina	432.0 Pennsyl-vania	343.5 California	336.7 Ohio

Trade in Services

$1.4 bn	**$1.6 bn**
U.S. Services Exports to Czech Republic, 2019	**U.S. Services Imports from Czech Republic, 2019**

Note: U.K. included in EU for purposes of calculating intra-EU trade.
Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

Denmark and the United States

Jobs

United States in Denmark	Denmark in the United States
45,299	**42,023**

Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

$9.0 bn

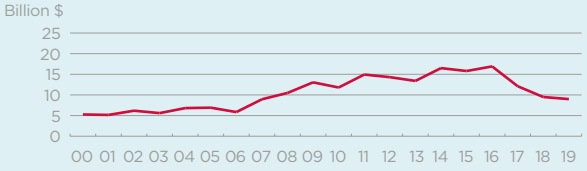
Foreign Direct Investment (FDI), 2019

$23.9 bn

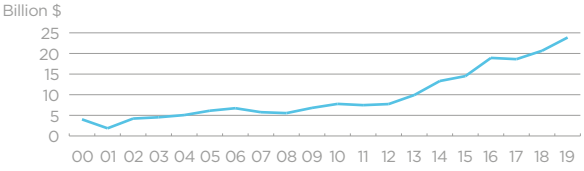
Foreign Direct Investment (FDI), 2019

Bilateral investment between the U.S. and Denmark was relatively equal in 2016, with Denmark investing only $1 billion more in the U.S. than what the U.S. invested in Denmark. Thereafter, the investment gap widened as U.S. investment in Denmark declined while Denmark's investment in the U.S. expanded. In 2019, Danish firms' affiliate sales in the U.S. market were an estimated $30 billion while U.S. foreign affiliate sales in Denmark were $23 billion. The affiliate employment balance favors Denmark slightly, with U.S. affiliates in Denmark employing roughly 3,000 more people than Danish affiliates employ in the U.S., according to 2019 estimates.

U.S. FDI Position in Denmark



Denmark FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2019.

Trade in Goods

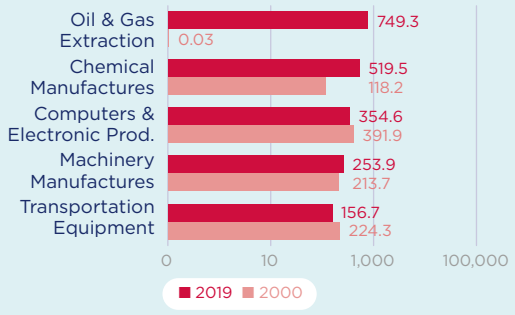
$3.2 bn

U.S. Goods Exports to Denmark, 2019

3.5% The U.S. supplied 3.5% of Denmark's total imports...

11.7% ...but the U.S. share increases to 11.7% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Exports to Denmark ($ millions)



Top State Exporters of Goods to Denmark ($ millions)

1	2	3	4	5
910.6 Texas	**365.4** California	**324.6** North Carolina	**133.0** Florida	**109.7** Georgia

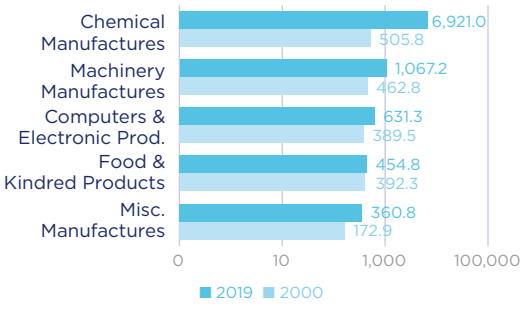
$11.0 bn

U.S. Goods Imports from Denmark, 2019

10.2% The U.S. received 10.2% of the total goods Denmark exported to the world...

24.6% ...but the U.S. share increases to 24.6% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Imports from Denmark ($ millions)



Top State Importers of Goods from Denmark ($ millions)

1	2	3	4	5
5,933.7 Indiana	**549.6** North Carolina	**413.1** Texas	**409.5** California	**389.6** Illinois

Trade in Services

$8.2 bn

U.S. Services Exports to Denmark, 2019

$5.7 bn

U.S. Services Imports from Denmark, 2019

Note: U.K. included in EU for purposes of calculating intra-EU trade.
Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

Estonia and the United States

Jobs

United States in Estonia	Estonia in the United States
3,453	< 50

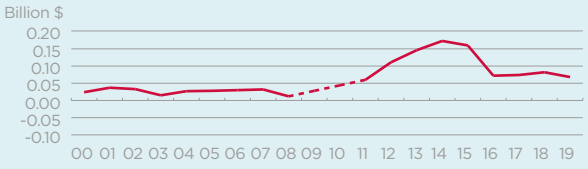
Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

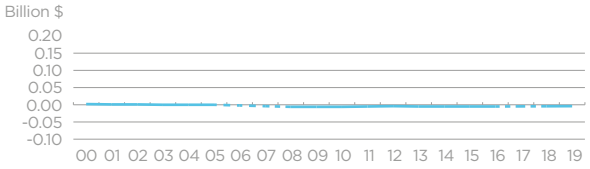
$68 m	-$4 m
Foreign Direct Investment (FDI), 2019	**Foreign Direct Investment (FDI), 2019***

America's direct investment base in Estonia is one of the smallest of the European Union. U.S. affiliates employed roughly 3,500 people in 2019, placing Estonia 23rd among the EU27 countries in terms of employment. Business conditions are favorable for foreign companies in Estonia, with the country ranking 18th out of 190 economies listed in the World Bank's Ease of Doing Business Index. Estonia's advanced digital economy also offers some attraction for U.S. companies.

U.S. FDI Position in Estonia



Estonia FDI Position in the U.S.

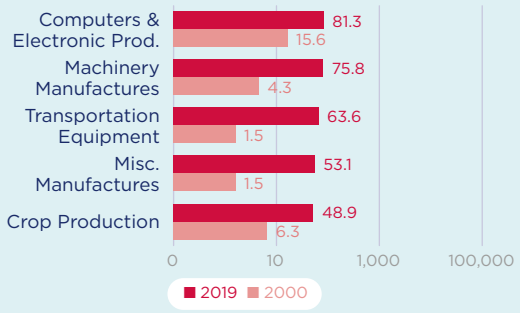


Foreign direct investment position, historic-cost basis, 2000-2019.
Note: Dotted line indicates that data has been suppressed for a particular year to avoid disclosure of individual company data.
*Negative FDI positions can occur when the loans from the affiliate to the parent company exceed the equity and debt investments from the parent to the affiliate, or if a foreign affiliate incurs sufficiently large losses.

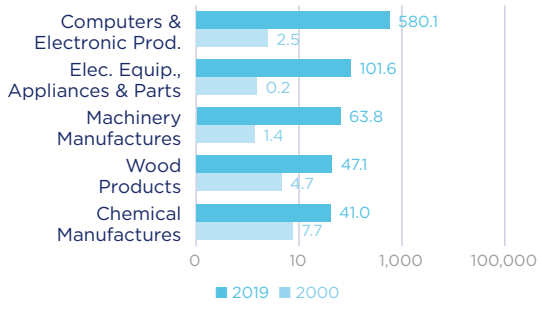
Trade in Goods

$0.4 bn	$1.0 bn
U.S. Goods Exports to Estonia, 2019	**U.S. Goods Imports from Estonia, 2019**
1.1% The U.S. supplied 1.1% of Estonia's total imports...	6.8% The U.S. received 6.8% of the total goods Estonia exported to the world...
4.9% ...but the U.S. share increases to 4.9% when intra-EU trade is excluded from the total.	22.7% ...but the U.S. share increases to 22.7% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Exports to Estonia ($ millions)



Top Five U.S. Goods Imports from Estonia ($ millions)



Top State Exporters of Goods to Estonia ($ millions)

1	2	3	4	5
74.6 California	46.7 Illinois	38.5 New York	26.3 Colorado	24.3 Nevada

Top State Importers of Goods from Estonia ($ millions)

1	2	3	4	5
546.8 Texas	40.5 New Hampshire	33.6 California	31.3 North Carolina	31.1 Ohio

Trade in Services

$156 m	$111 m
U.S. Services Exports to Estonia, 2019	**U.S. Services Imports from Estonia, 2019**

Note: U.K. included in EU for purposes of calculating intra-EU trade.
Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

Finland and the United States

Jobs

United States in Finland	Finland in the United States
21,228	**36,283**

Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

$3.7 bn

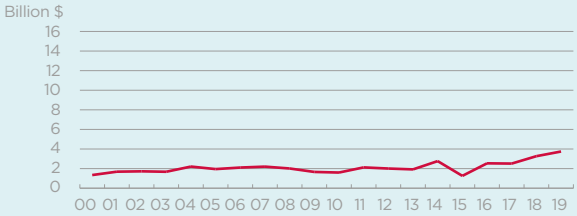
Foreign Direct Investment (FDI), 2019

$14.8 bn

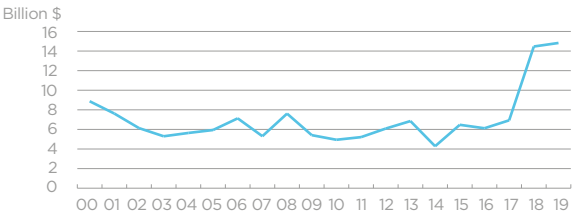
Foreign Direct Investment (FDI), 2019

The direct investment balance favors the United States, with Finnish investment in the U.S. rising in 2019 to over $14 billion. Total employment by Finnish companies in the U.S. have also risen substantially over the past few years from 23,000 in 2015 to over 36,000 in 2019. Finnish direct investment in the U.S. is heavily concentrated in the wholesale trade and manufacturing industries, representing 15% and 72% of total FDI, respectively.

U.S. FDI Position in Finland



Finland FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2019.

Trade in Goods

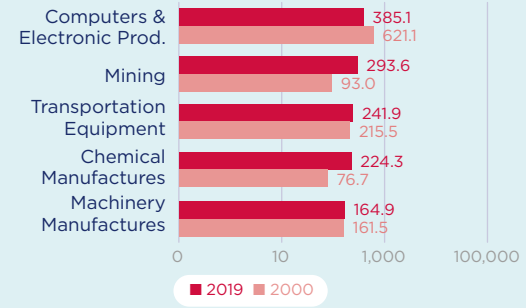
$1.8 bn

U.S. Goods Exports to Finland, 2019

2.1% The U.S. supplied 2.1% of Finland's total imports...

7.5% ...but the U.S. share increases to 7.5% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Exports to Finland ($ millions)



Top State Exporters of Goods to Finland ($ millions)

1	2	3	4	5
239.1 Texas	**144.0** California	**136.6** Michigan	**97.8** Georgia	**82.3** Ohio

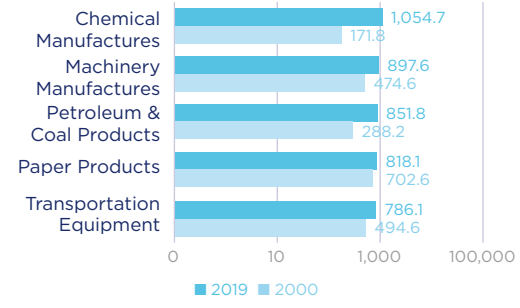
$6.4 bn

U.S. Goods Imports from Finland, 2019

7.5% The U.S. received 7.5% of the total goods Finland exported to the world...

18.1% ...but the U.S. share increases to 18.1% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Imports from Finland ($ millions)



Top State Importers of Goods from Finland ($ millions)

1	2	3	4	5
1,047.6 Pennsyl-vania	**705.5** New Jersey	**665.0** Maryland	**493.5** Texas	**383.7** Georgia

Trade in Services

$2.0 bn

U.S. Services Exports to Finland, 2019

$1.8 bn

U.S. Services Imports from Finland, 2019

Note: U.K. included in EU for purposes of calculating intra-EU trade.
Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

France and the United States

Jobs

United States in France	France in the United States
505,908	**799,460**

Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

$83.8 bn

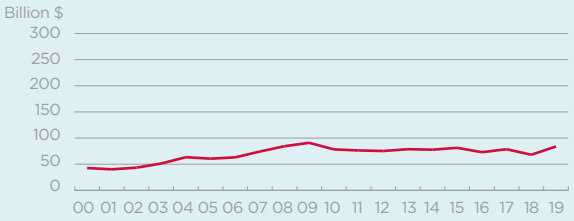
Foreign Direct Investment (FDI), 2019

$282.2 bn

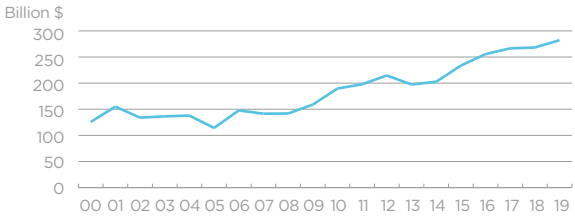
Foreign Direct Investment (FDI), 2019

The direct investment balance favors the U.S., with U.S. investment in France ($83.8 billion) just 30% of total French investment in the U.S. in 2019 ($282.2 billion). The U.S. is a significant market for French firms, with U.S. affiliates of French firms recording an estimated $337 billion in sales during 2019. The manufacturing sector makes up about 43% of French FDI in the U.S. In terms of jobs, U.S. and French affiliates combined employed over 1.3 million workers, with the employment balance favoring the U.S. by about 300,000 jobs, according to 2019 estimates.

U.S. FDI Position in France



France FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2019.

Trade in Goods

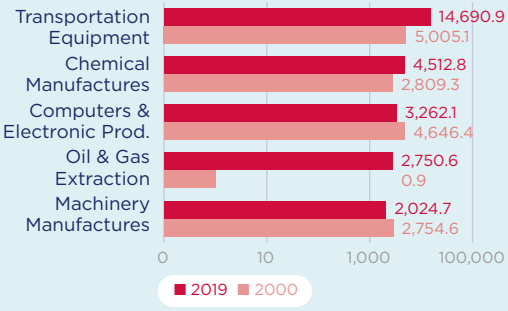
$37.7 bn

U.S. Goods Exports to France, 2019

5.6% The U.S. supplied 5.6% of France's total imports...

17.6% ...but the U.S. share increases to 17.6% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Exports to France ($ millions)



Top State Exporters of Goods to France ($ millions)

1	2	3	4	5
4,678.5 Texas	**3,508.8** Kentucky	**2,947.3** California	**2,618.3** North Carolina	**2,181.4** New York

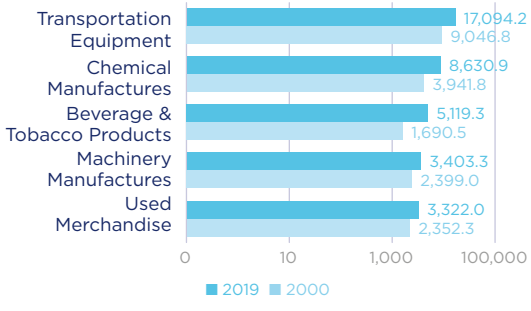
$57.6 bn

U.S. Goods Imports from France, 2019

8.3% The U.S. received 8.3% of the total goods France exported to the world...

19.9% ...but the U.S. share increases to 19.9% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Imports from France ($ millions)



Top State Importers of Goods from France ($ millions)

1	2	3	4	5
9,469.7 New York	**4,818.6** California	**4,341.5** New Jersey	**3,895.6** Florida	**3,872.3** Illinois

Trade in Services

$22.4 bn

U.S. Services Exports to France, 2019

$20.4 bn

U.S. Services Imports from France, 2019

Note: U.K. included in EU for purposes of calculating intra-EU trade.
Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

Germany and the United States

Jobs

United States in Germany	Germany in the United States
685,886	**882,174**

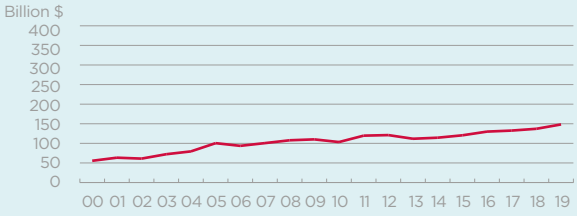
Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

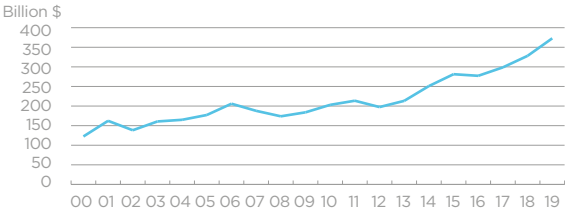
$148.3 bn	**$372.9 bn**
Foreign Direct Investment (FDI), 2019	**Foreign Direct Investment (FDI), 2019**

The investment balance favors the U.S., with Germany's investment in the U.S. more than 2.5 times the size of U.S. investment in Germany. Wholesale trade and transportation equipment manufacturing are the largest industries when it comes to German stock of FDI in the U.S., followed by finance and insurance. The value added by German affiliates in the United States ($135 billion) was higher than that of U.S. affiliates operating in Germany ($87 billion), according to 2019 estimates. The employment picture is relatively balanced, with affiliates of both countries employing a combined workforce of almost 1.6 million employees.

U.S. FDI Position in Germany



Germany FDI Position in the U.S.

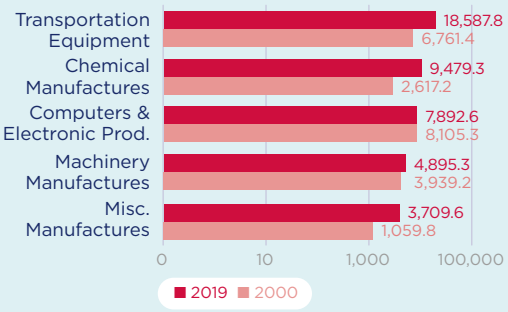


Foreign direct investment position, historic-cost basis, 2000-2019.

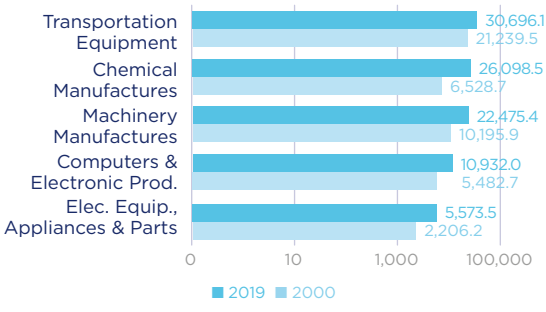
Trade in Goods

$60.1 bn	**$127.5 bn**
U.S. Goods Exports to Germany, 2019	**U.S. Goods Imports from Germany, 2019**
4.9% The U.S. supplied 4.9% of Germany's total imports...	9.0% The U.S. received 9.0% of the total goods Germany exported to the world...
14.8% ...but the U.S. share increases to 14.8% when intra-EU trade is excluded from the total.	21.6% ...but the U.S. share increases to 21.6% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Exports to Germany ($ millions)



Top Five U.S. Goods Imports from Germany ($ millions)



Top State Exporters of Goods to Germany ($ millions)

1	2	3	4	5
6,438.7	**4,534.7**	**4,487.9**	**3,308.9**	**3,139.9**
California	Texas	South Carolina	Illinois	Alabama

Top State Importers of Goods from Germany ($ millions)

1	2	3	4	5
11,309.1	**9,499.7**	**8,543.9**	**8,245.7**	**8,034.3**
California	Georgia	New Jersey	Illinois	Texas

Trade in Services

$36.6 bn	**$34.9 bn**
U.S. Services Exports to Germany, 2019	**U.S. Services Imports from Germany, 2019**

Note: U.K. included in EU for purposes of calculating intra-EU trade.
Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

Greece and the United States

Jobs

United States in Greece	Greece in the United States
15,743	**3,792**

Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

$938 m

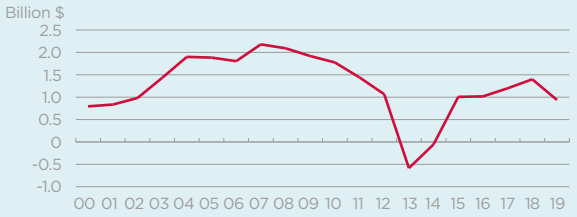
Foreign Direct Investment (FDI), 2019

$639 m

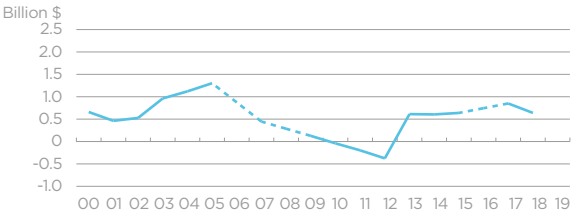
Foreign Direct Investment (FDI), 2018*

Greece's investment ties with the U.S. have rebounded since 2013. In 2019, America's foreign direct investment position in Greece dipped slightly below $1 billion. Greece's FDI position in the U.S. has also improved to $639 million in 2018, the latest year of available data. Estimated U.S. affiliate sales in Greece of $5.8 billion were three times greater than sales of Greek affiliates in the U.S.

U.S. FDI Position in Greece



Greece FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2019.
Note: Dotted line indicates that data has been suppressed for a particular year to avoid disclosure of individual company data.
*Latest year of available data. Negative FDI positions can occur when the loans from the affiliate to the parent company exceed the equity and debt investments from the parent to the affiliate, or if a foreign affiliate incurs sufficiently large losses.

Trade in Goods

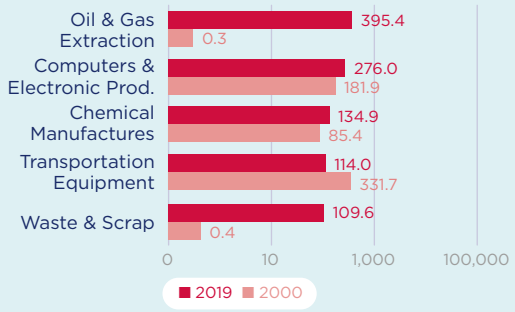
$1.4 bn

U.S. Goods Exports to Greece, 2019

2.2% The U.S. supplied 2.2% of Greece's total imports...

4.7% ...but the U.S. share increases to 4.7% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Exports to Greece ($ millions)



Top State Exporters of Goods to Greece ($ millions)

1	2	3	4	5
318.2 Texas	**194.1** Pennsylvania	**140.7** Louisiana	**118.4** California	**70.1** Georgia

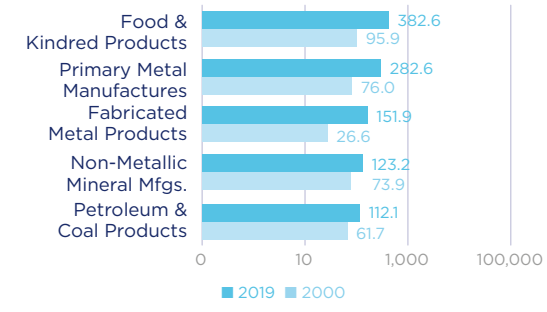
$1.5 bn

U.S. Goods Imports from Greece, 2019

3.9% The U.S. received 3.9% of the total goods Greece exported to the world...

8.8% ...but the U.S. share increases to 8.8% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Imports from Greece ($ millions)



Top State Importers of Goods from Greece ($ millions)

1	2	3	4	5
190.9 Texas	**170.7** New Jersey	**157.5** New York	**129.2** California	**118.3** North Carolina

Trade in Services

$1.6 bn

U.S. Services Exports to Greece, 2019

$4.1 bn

U.S. Services Imports from Greece, 2019

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

Hungary and the United States

Jobs

United States in Hungary	Hungary in the United States
69,066	205

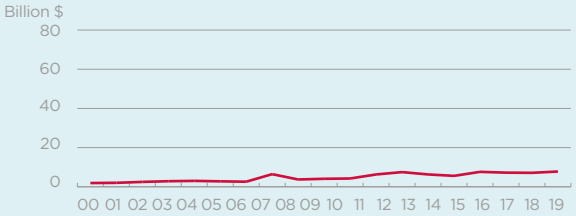
Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

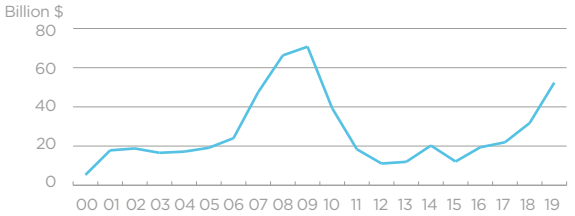
$6.1 bn	$52.4 bn
Foreign Direct Investment (FDI), 2019	**Foreign Direct Investment (FDI), 2019**

America's investment base in Hungary amounted to $6.1 billion in 2019, which was 7% lower than the prior year. U.S. affiliate employment in Hungary ranked fourth among EU13 countries. Value added by U.S.-owned affiliates totaled $3.9 billion in 2019, according to estimates. Meanwhile, Hungarian investment in the U.S. increased by 65% in 2019 to over $52 billion, though total investment remains below its peak of $70.7 billion in 2009.

U.S. FDI Position in Hungary



Hungary FDI Position in the U.S.

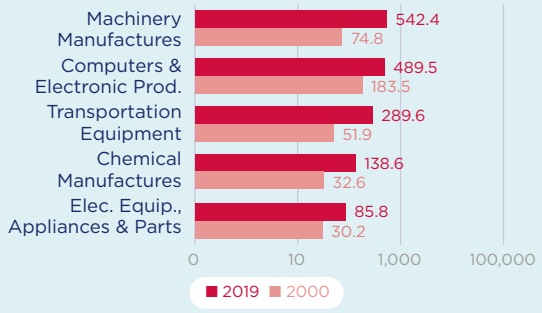


Foreign direct investment position, historic-cost basis, 2000-2019.

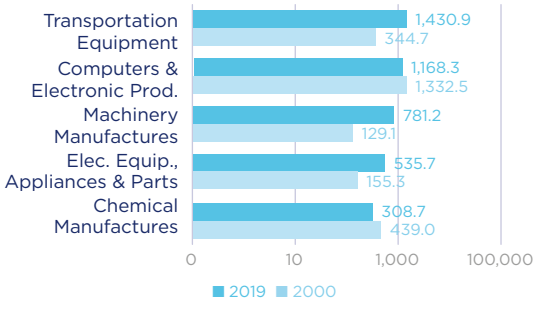
Trade in Goods

$1.9 bn	$5.3 bn
U.S. Goods Exports to Hungary, 2019	**U.S. Goods Imports from Hungary, 2019**
1.7% The U.S. supplied 1.7% of Hungary's total imports...	2.4% The U.S. received 2.4% of the total goods Hungary exported to the world...
6.3% ...but the U.S. share increases to 6.3% when intra-EU trade is excluded from the total.	13.4% ...but the U.S. share increases to 13.4% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Exports to Hungary ($ millions)



Top Five U.S. Goods Imports from Hungary ($ millions)



Top State Exporters of Goods to Hungary ($ millions)

1	2	3	4	5
324.7 Texas	172.4 Georgia	159.7 Indiana	134.2 California	120.5 Ohio

Top State Importers of Goods from Hungary ($ millions)

1	2	3	4	5
548.0 Texas	529.4 California	505.1 South Carolina	456.0 Michigan	455.8 Georgia

Trade in Services

$1.4 bn	$1.0 bn
U.S. Services Exports to Hungary, 2019	**U.S. Services Imports from Hungary, 2019**

Note: U.K. included in EU for purposes of calculating intra-EU trade.
Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

Ireland and the United States

Jobs

United States in Ireland	Ireland in the United States
136,710	344,793

Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

$354.9 bn

Foreign Direct Investment (FDI), 2019

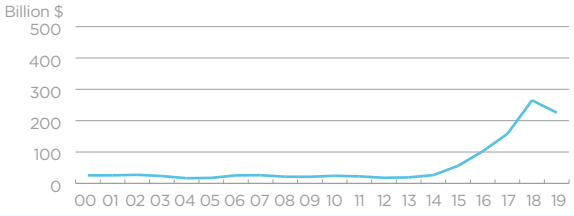
$225.5 bn

Foreign Direct Investment (FDI), 2019

The investment balance favors Ireland, with U.S. investment in Ireland totaling some $355 billion in 2019 versus $226 billion of Irish investment in the U.S. Total U.S. FDI in Ireland fell again in 2019, as American companies continued to repatriate foreign profits after U.S. tax reform. Value added by U.S. affiliates in Ireland totaled an estimated $117 billion in 2019, almost double the gross product of Irish affiliates operating in the U.S. However, affiliate employment favored the United States, with Ireland's affiliates employing roughly 200,000 more Americans than U.S. affiliates employed in Ireland.

U.S. FDI Position in Ireland

Ireland FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2019.

Trade in Goods

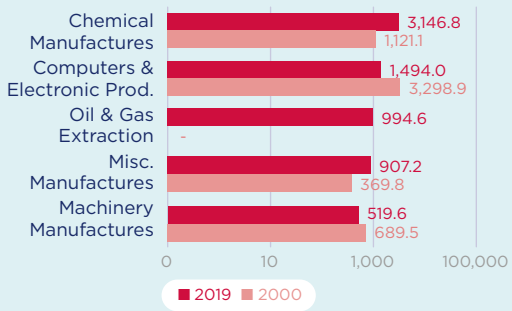
$9.1 bn

U.S. Goods Exports to Ireland, 2019

13.9% The U.S. supplied 13.9% of Ireland's total imports...

38.8% ...but the U.S. share increases to 38.8% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Exports to Ireland ($ millions)



Top State Exporters of Goods to Ireland ($ millions)

1	2	3	4	5
1,155.5 Texas	1,117.3 California	709.6 Massa-chusetts	483.9 New Hampshire	482.2 Minnesota

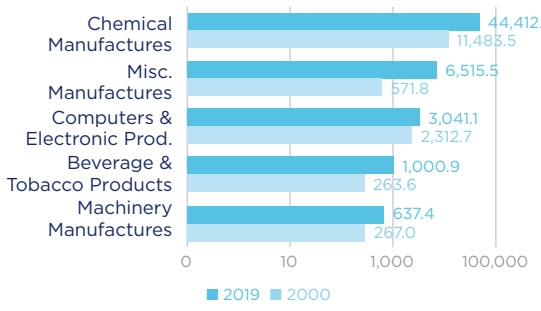
$61.9 bn

U.S. Goods Imports from Ireland, 2019

30.8% The U.S. received 30.8% of the total goods Ireland exported to the world...

58.3% ...but the U.S. share increases to 58.3% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Imports from Ireland ($ millions)



Top State Importers of Goods from Ireland ($ millions)

1	2	3	4	5
9,174.8 Indiana	7,812.9 Tennessee	4,339.8 New Jersey	4,262.0 Kentucky	4,255.5 Ohio

Trade in Services

$57.5 bn

U.S. Services Exports to Ireland, 2019

$23.2 bn

U.S. Services Imports from Ireland, 2019

Note: U.K. included in EU for purposes of calculating intra-EU trade.
Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis

Italy and the United States

Jobs

United States in Italy	Italy in the United States
253,919	**96,038**

Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

$34.9 bn

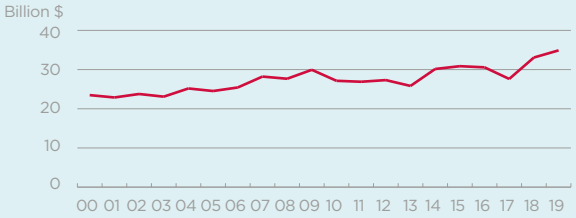
Foreign Direct Investment (FDI), 2019

$32.8 bn

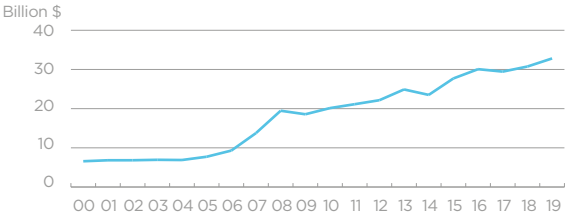
Foreign Direct Investment (FDI), 2019

America's FDI position in Italy continued to climb in 2019, after having stalled since 2009. Meanwhile, Italian investment in the U.S. has been climbing steadily, up almost 400% since 2000. In 2019, Italy benefited more with regards to affiliate sales, value added and employment. For example, value added by U.S. affiliates in Italy was more than three times the value added of Italian companies in the U.S. Also, affiliates of U.S.-owned companies supported about 160,000 more jobs in Italy than Italian multinationals supported in the U.S., according to 2019 estimates.

U.S. FDI Position in Italy



Italy FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2019.

Trade in Goods

$23.8 bn

U.S. Goods Exports to Italy, 2019

4.0% The U.S. supplied 4.0% of Italy's total imports...

9.8% ...but the U.S. share increases to 9.8% when intra-EU trade is excluded from the total.

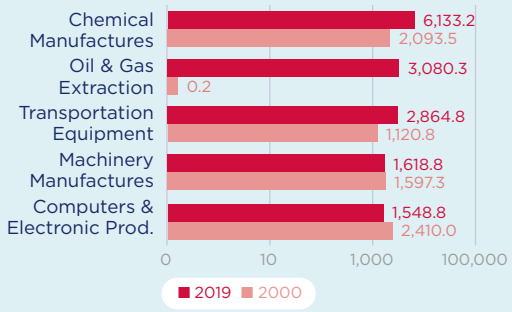
$57.3 bn

U.S. Goods Imports from Italy, 2019

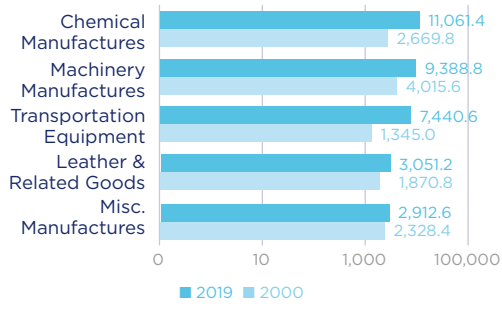
9.6% The U.S. received 9.6% of the total goods Italy exported to the world...

21.6% ...but the U.S. share increases to 21.6% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Exports to Italy ($ millions)



Top Five U.S. Goods Imports from Italy ($ millions)



Top State Exporters of Goods to Italy ($ millions)

1	2	3	4	5
4,108.9 Texas	**1,855.2** California	**1,280.0** Florida	**1,259.7** Indiana	**1,173.3** Michigan

Top State Importers of Goods from Italy ($ millions)

1	2	3	4	5
7,299.1 New Jersey	**6,130.3** New York	**4,993.8** Pennsyl-vania	**4,155.4** California	**3,931.0** Texas

Trade in Services

$9.6 bn

U.S. Services Exports to Italy, 2019

$12.1 bn

U.S. Services Imports from Italy, 2019

Note: U.K. included in EU for purposes of calculating intra-EU trade.
Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

Latvia and the United States

Jobs

United States in Latvia	Latvia in the United States
1,320	< 50

Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

$38 m

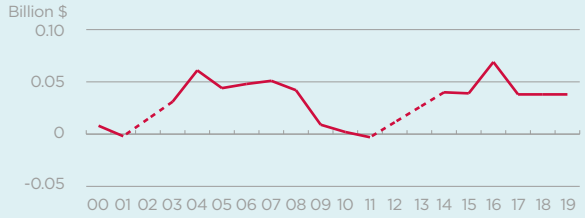
Foreign Direct Investment (FDI), 2019

$0 m

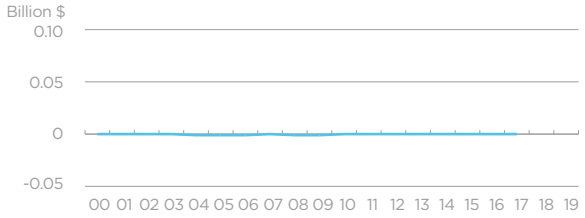
Foreign Direct Investment (FDI), 2017*

The small country of roughly two million people has yet to attract significant foreign direct investment from the United States. U.S. FDI in Latvia has stalled since 2016, along with U.S. affiliate employment which remains the lowest in the EU. Foreign sales by U.S. firms in Latvia were $287 million in 2019, while sales by Latvian firms in the U.S. were just $3 million.

U.S. FDI Position in Latvia



Latvia FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2019.
Note: Dotted line indicates that data has been suppressed for a particular year to avoid disclosure of individual company data.
*Latest year of available data. Negative FDI positions can occur when the loans from the affiliate to the parent company exceed the equity and debt investments from the parent to the affiliate, or if a foreign affiliate incurs sufficiently large losses.

Trade in Goods

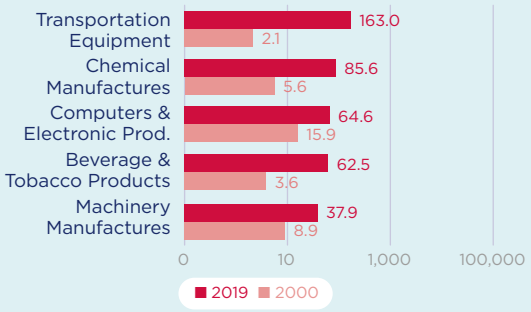
$552 m

U.S. Goods Exports to Latvia, 2019

0.9% The U.S. supplied 0.9% of Latvia's total imports...

4.0% ...but the U.S. share increases to 4.0% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Exports to Latvia ($ millions)



Top State Exporters of Goods to Latvia ($ millions)

1	2	3	4	5
134.6	73.6	45.1	44.8	44.5
Texas	Alabama	Georgia	California	Tennessee

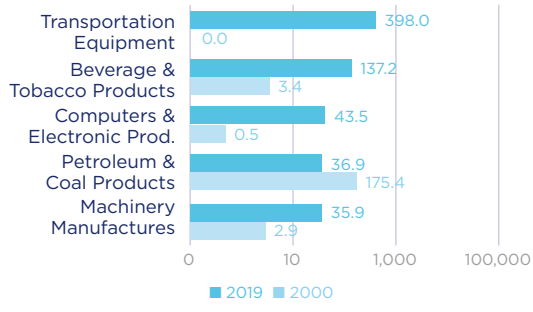
$815 m

U.S. Goods Imports from Latvia, 2019

1.5% The U.S. received 1.5% of the total goods Latvia exported to the world...

4.6% ...but the U.S. share increases to 4.6% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Imports from Latvia ($ millions)



Top State Importers of Goods from Latvia ($ millions)

1	2	3	4	5
254.7	196.3	51.4	46.2	37.8
Texas	Georgia	California	Maryland	New York

Trade in Services

$206 m

U.S. Services Exports to Latvia, 2019

$93 m

U.S. Services Imports from Latvia, 2019

Note: U.K. included in EU for purposes of calculating intra-EU trade.
Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

Lithuania and the United States

Jobs

United States in Lithuania	Lithuania in the United States
4,164	0

Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

$171 m

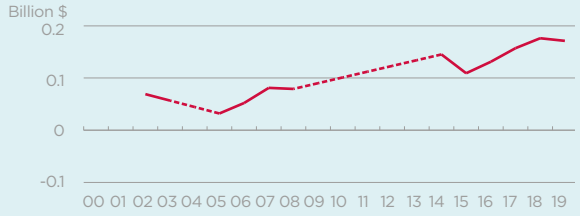
Foreign Direct Investment (FDI), 2019

-$4 m

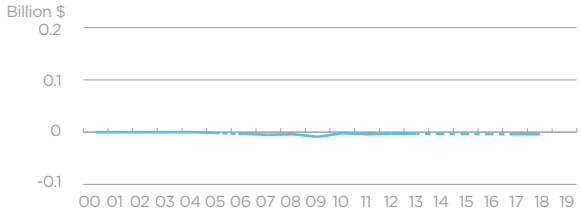
Foreign Direct Investment (FDI), 2018*

The U.S. FDI position in Lithuania remains small, but has more than doubled since the start of the century. U.S. affiliate employment in Lithuania has also been rising, with jobs rising from 2,200 in 2016 to an estimated 4,200 in 2019. Business conditions are favorable for foreign companies in Lithuania, with the country ranking 11th out of 190 economies listed in the World Bank's Ease of Doing Business Index.

U.S. FDI Position in Lithuania



Lithuania FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2019.
Note: Dotted line indicates that data has been suppressed for a particular year to avoid disclosure of individual company data.
*Latest year of available data. Negative FDI positions can occur when the loans from the affiliate to the parent company exceed the equity and debt investments from the parent to the affiliate, or if a foreign affiliate incurs sufficiently large losses.

Trade in Goods

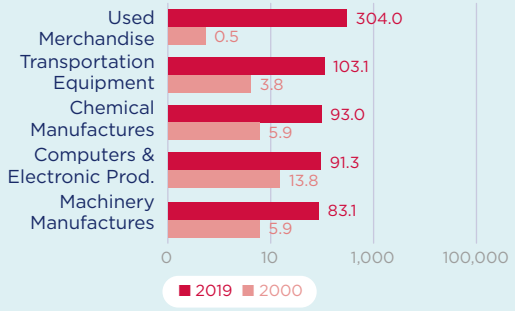
$0.9 bn

U.S. Goods Exports to Lithuania, 2019

1.5% The U.S. supplied 1.5% of Lithuania's total imports...

4.8% ...but the U.S. share increases to 4.8% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Exports to Lithuania ($ millions)



Top State Exporters of Goods to Lithuania ($ millions)

1	2	3	4	5
148.7	118.8	85.7	77.4	61.7
California	Texas	New York	New Jersey	Georgia

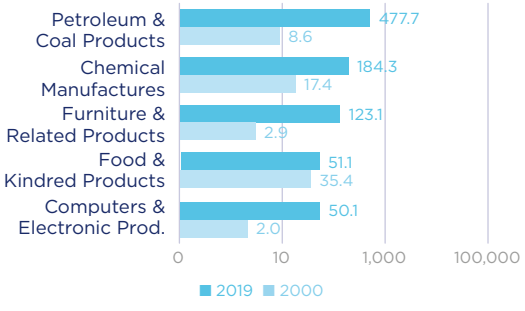
$1.1 bn

U.S. Goods Imports from Lithuania, 2019

3.7% The U.S. received 3.7% of the total goods Lithuania exported to the world...

9.0% ...but the U.S. share increases to 9.0% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Imports from Lithuania ($ millions)



Top State Importers of Goods from Lithuania ($ millions)

1	2	3	4	5
137.3	122.3	76.9	69.7	36.4
Maryland	New Jersey	California	Texas	New York

Trade in Services

$240 m

U.S. Services Exports to Lithuania, 2019

$93 m

U.S. Services Imports from Lithuania, 2019

Note: U.K. included in EU for purposes of calculating intra-EU trade.
Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis; United Nations.

Luxembourg and the United States

Jobs

United States in Luxembourg	Luxembourg in the United States
29,150	**19,987**

Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

$766.1 bn

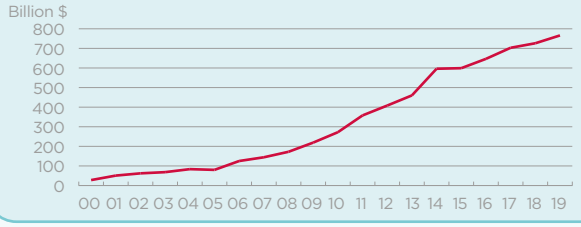
Foreign Direct Investment (FDI), 2019

$297.1 bn

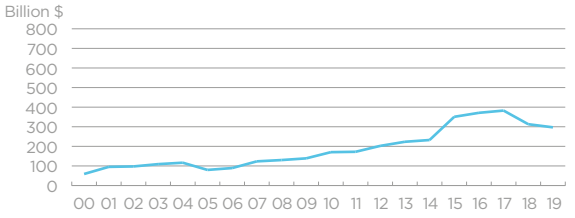
Foreign Direct Investment (FDI), 2019

Investment between the U.S. and Luxembourg is skewed in favor of Luxembourg. Estimated U.S. foreign affiliate sales in Luxembourg were about twelve times greater than sales of Luxembourg affiliates in the U.S. Although direct investment in the U.S. by Luxembourg-based companies has been trending upward, total affiliate employment has fallen from a peak of 38,300 in 2010 to an estimated 20,000 in 2019. This is in contrast to the 77% rise in U.S. affiliate employment in Luxembourg since 2010, and explains the large shift in the employment balance since the start of the decade.

U.S. FDI Position in Luxembourg



Luxembourg FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2019.

Trade in Goods

$1.9 bn

U.S. Goods Exports to Luxembourg, 2019

3.2% The U.S. supplied 3.2% of Luxembourg's total imports...

20.9% ...but the U.S. share increases to 20.9% when intra-EU trade is excluded from the total.

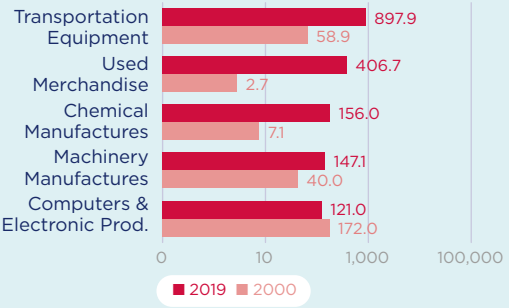
$0.6 bn

U.S. Goods Imports from Luxembourg, 2019

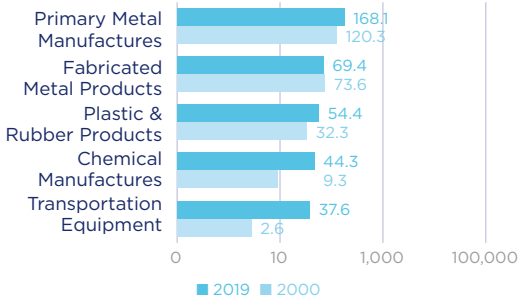
2.8% The U.S. received 2.8% of the total goods Luxembourg exported to the world...

17.0% ...but the U.S. share increases to 17.0% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Exports to Luxembourg ($ millions)



Top Five U.S. Goods Imports from Luxembourg ($ millions)



Top State Exporters of Goods to Luxembourg ($ millions)

1	2	3	4	5
355.9	**284.5**	**239.3**	**212.8**	**106.8**
New York	Texas	Florida	Georgia	California

Top State Importers of Goods from Luxembourg ($ millions)

1	2	3	4	5
52.3	**49.9**	**49.0**	**43.0**	**41.5**
Texas	New York	Virginia	New Jersey	Georgia

Trade in Services

$7.5 bn

U.S. Services Exports to Luxembourg, 2019

$1.7 bn

U.S. Services Imports from Luxembourg, 2019

Note: U.K. included in EU for purposes of calculating intra-EU trade.
Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

Malta and the United States

Jobs

United States in Malta	Malta in the United States
1,625	1,230

Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

$0.6 bn

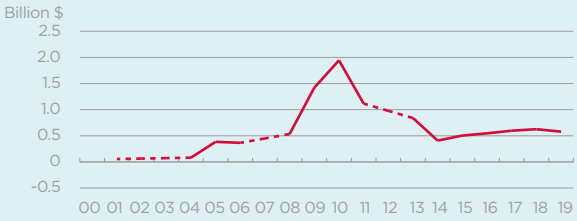
Foreign Direct Investment (FDI), 2019

$2.0 bn

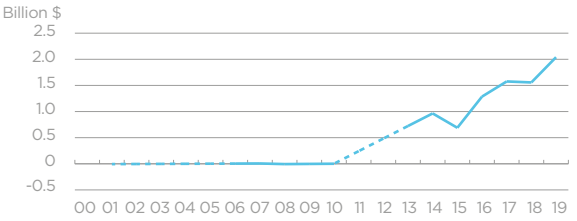
Foreign Direct Investment (FDI), 2019

Despite the country's tiny population (just 500,000 people), Malta has attracted a relatively large amount of foreign direct investment from the U.S. The investment position of the U.S. in Malta amounted to $579 million in 2019. In addition, American investment directly supported jobs for roughly 1,600 Maltese workers, according to 2019 estimates. Meanwhile, Malta's direct investment position in the U.S. was $2 billion in 2019, which is markedly higher from its near-zero levels of investment prior to 2010.

U.S. FDI Position in Malta



Malta FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2019.
Note: Dotted line indicates that data has been suppressed for a particular year to avoid disclosure of individual company data.

Trade in Goods

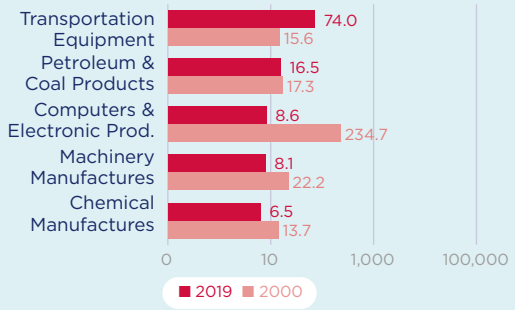
$143 m

U.S. Goods Exports to Malta, 2019

1.9% The U.S. supplied 1.9% of Malta's total imports...

7.2% ...but the U.S. share increases to 7.2% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Exports to Malta ($ millions)



Top State Exporters of Goods to Malta ($ millions)

1	2	3	4	5
63.3	16.6	12.8	9.2	4.5
Georgia	Mississippi	California	Texas	Florida

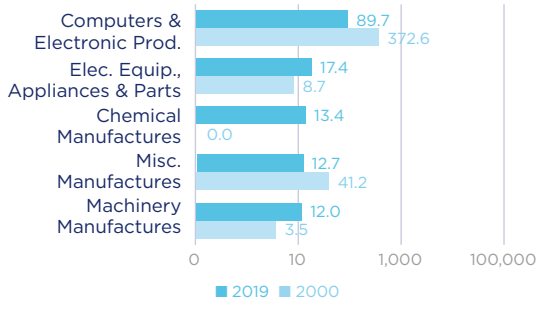
$172 m

U.S. Goods Imports from Malta, 2019

4.3% The U.S. received 4.3% of the total goods Malta exported to the world...

8.9% ...but the U.S. share increases to 8.9% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Imports from Malta ($ millions)



Top State Importers of Goods from Malta ($ millions)

1	2	3	4	5
54.7	38.3	7.1	5.7	5.2
California	Illinois	Michigan	Louisiana	New Jersey

Trade in Services

$1.4 bn

U.S. Services Exports to Malta, 2019

$0.7 bn

U.S. Services Imports from Malta, 2019

Note: U.K. included in EU for purposes of calculating intra-EU trade.
Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

Netherlands and the United States

Jobs

United States in Netherlands	Netherlands in the United States
266,818	**563,722**

Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

$860.5 bn

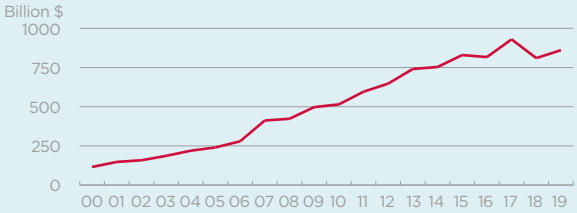
Foreign Direct Investment (FDI), 2019

$487.1 bn

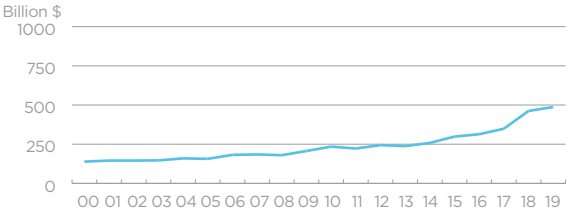
Foreign Direct Investment (FDI), 2019

America's investment stake in the Netherlands is almost double the amount of Dutch investment in the U.S. Still, the U.S. is a prime foreign destination for Dutch firms, which recorded an estimated $410 billion in affiliate sales in the U.S. during 2019, according to estimates. The employment balance clearly favors the U.S. with a large amount of jobs supported by Dutch firms in the U.S. Amsterdam was ranked by fDi Markets in 2020 as the 2nd most attractive city in Europe in terms of connectivity.

U.S. FDI Position in Netherlands



Netherlands FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2019.

Trade in Goods

$51.1 bn

U.S. Goods Exports to Netherlands, 2019

7.7% The U.S. supplied 7.7% of Netherlands's total imports...

14.0% ...but the U.S. share increases to 14.0% when intra-EU trade is excluded from the total.

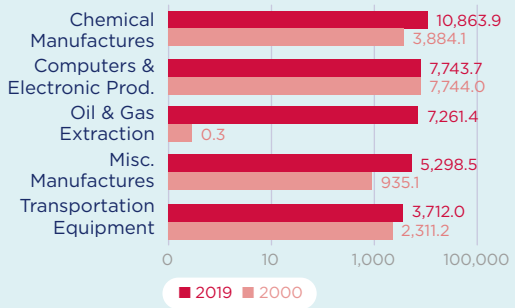
$29.7 bn

U.S. Goods Imports from Netherlands, 2019

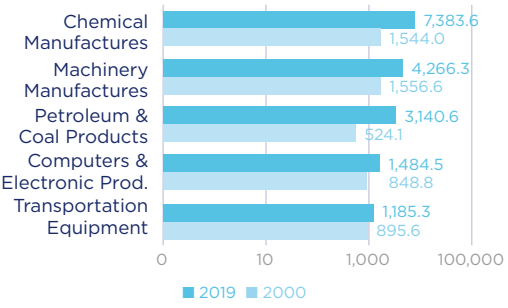
4.7% The U.S. received 4.7% of the total goods Netherlands exported to the world...

17.4% ...but the U.S. share increases to 17.4% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Exports to Netherlands ($ millions)



Top Five U.S. Goods Imports from Netherlands ($ millions)



Top State Exporters of Goods to Netherlands ($ millions)

1	2	3	4	5
11,595.4 Texas	**6,408.7** California	**2,998.7** Louisiana	**1,821.8** Pennsylvania	**1,397.5** Indiana

Top State Importers of Goods from Netherlands ($ millions)

1	2	3	4	5
5,517.8 Illinois	**3,724.5** New Jersey	**1,890.7** California	**1,749.7** Kentucky	**1,581.9** Texas

Trade in Services

$20.5 bn

U.S. Services Exports to Netherlands, 2019

$15.1 bn

U.S. Services Imports from Netherlands, 2019

Note: U.K. included in EU for purposes of calculating intra-EU trade.
Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

Norway and the United States

Jobs

United States in Norway	Norway in the United States
43,065	**8,097**

Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

$25.6 bn

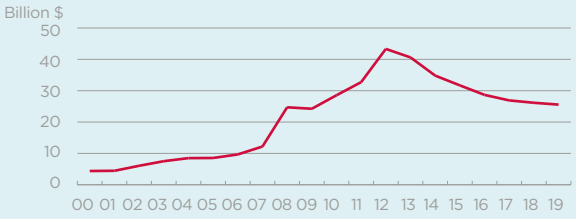
Foreign Direct Investment (FDI), 2019

$24.2 bn

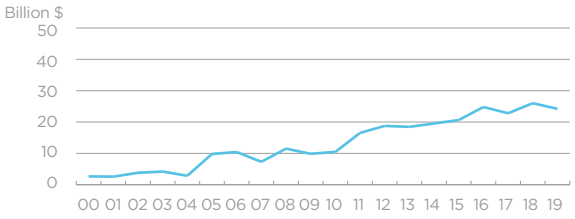
Foreign Direct Investment (FDI), 2019

Norway's FDI in the U.S. fell slightly in 2019 to $26 billion, which is roughly equivalent to U.S. FDI in Norway. The employment balance, however, is heavily skewed in favor of Norway, with U.S. foreign affiliates employing roughly 43,000 Norwegian workers, according to 2019 estimates – a significant figure compared to the 8,000 workers employed by Norwegian companies in the U.S.

U.S. FDI Position in Norway



Norway FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2019.

Trade in Goods

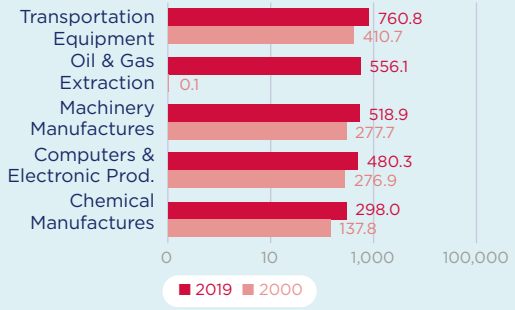
$3.9 bn

U.S. Goods Exports to Norway, 2019

7.9% The U.S. supplied 7.9% of Norway's total imports...

20.1% ...but the U.S. share increases to 20.1% when trade with the EU and U.K. is excluded from the total.

Top Five U.S. Goods Exports to Norway ($ millions)



Top State Exporters of Goods to Norway ($ millions)

1	2	3	4	5
1,329.7 Texas	257.6 California	229.1 Louisiana	210.6 Washington	184.8 Georgia

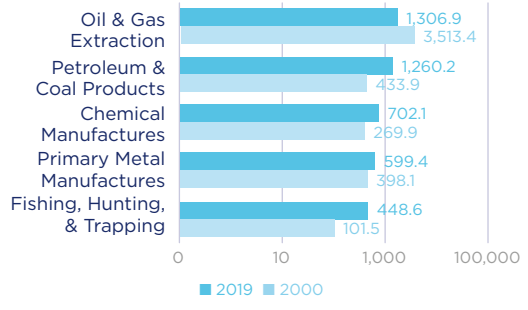
$6.5 bn

U.S. Goods Imports from Norway, 2019

4.4% The U.S. received 4.4% of the total goods Norway exported to the world...

20.6% ...but the U.S. share increases to 20.6% when trade with the EU and U.K. is excluded from the total.

Top Five U.S. Goods Imports from Norway ($ millions)



Top State Importers of Goods from Norway ($ millions)

1	2	3	4	5
1,056.0 New Jersey	824.2 Pennsyl-vania	662.0 Texas	439.1 California	417.5 Louisiana

Trade in Services

$3.0 bn

U.S. Services Exports to Norway, 2019

$2.5 bn

U.S. Services Imports from Norway, 2019

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

Poland and the United States

Jobs

United States in Poland	Poland in the United States
207,198	1,025

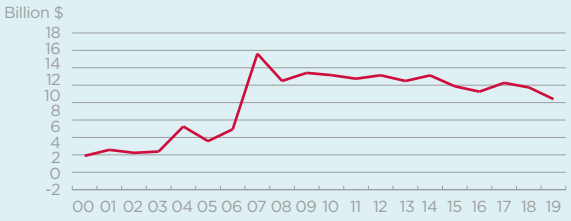
Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

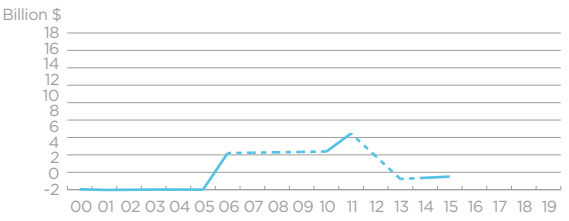
$10.4 bn	$1.5 bn
Foreign Direct Investment (FDI), 2019	**Foreign Direct Investment (FDI), 2015***

As one of the largest markets in central Europe, Poland has attracted significant sums of U.S. foreign direct investment. The estimated U.S. affiliate workforce of roughly 200,000 workers in Poland ranks number one among EU13 countries by a wide margin. U.S. companies added an estimated 3,000 Polish workers to their payrolls in 2019. Meanwhile, Polish companies have yet to make significant investments in the U.S., with just $1.5 billion investment recorded in the U.S. in 2015, the latest year with available data.

U.S. FDI Position in Poland



Poland FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2019.
Note: Dotted line indicates that data has been suppressed for a particular year to avoid disclosure of individual company data.
*Latest year of available data.

Trade in Goods

$6.0 bn	$8.4 bn
U.S. Goods Exports to Poland, 2019	**U.S. Goods Imports from Poland, 2019**

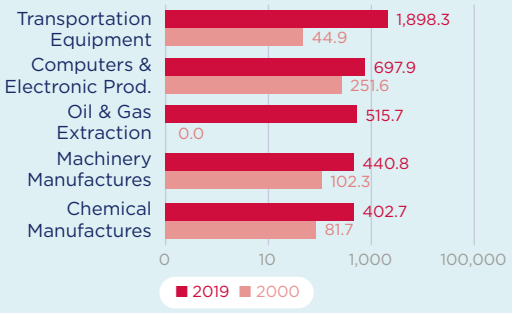
2.3% The U.S. supplied 2.3% of Poland's total imports...

7.4% ...but the U.S. share increases to 7.4% when intra-EU trade is excluded from the total.

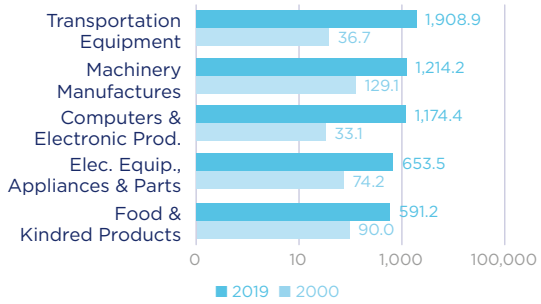
2.9% The U.S. received 2.9% of the total goods Poland exported to the world...

14.1% ...but the U.S. share increases to 14.1% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Exports to Poland ($ millions)



Top Five U.S. Goods Imports from Poland ($ millions)



Top State Exporters of Goods to Poland ($ millions)

1	2	3	4	5
786.6 Texas	615.3 Washington	362.1 California	308.2 South Carolina	236.3 Louisiana

Top State Importers of Goods from Poland ($ millions)

1	2	3	4	5
995.7 New Jersey	735.5 New Hampshire	515.3 Illinois	503.0 Texas	470.6 Pennsyl-vania

Trade in Services

$2.6 bn	$2.2 bn
U.S. Services Exports to Poland, 2019	**U.S. Services Imports from Poland, 2019**

Note: U.K. included in EU for purposes of calculating intra-EU trade.
Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

Portugal and the United States

Jobs

United States in Portugal	Portugal in the United States
32,400	**1,025**

Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

$2.4 bn

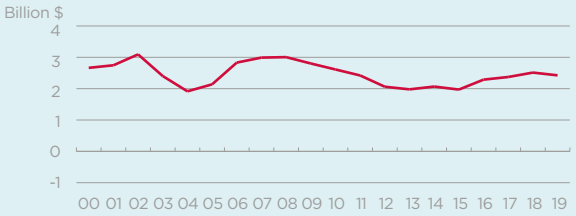
Foreign Direct Investment (FDI), 2019

$1.1 bn

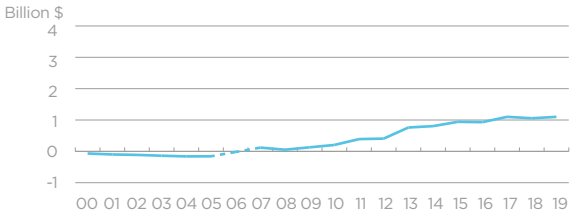
Foreign Direct Investment (FDI), 2019

The investment balance is favored towards Portugal. U.S. direct investment in Portugal totaled $2.4 billion in 2019, which is largely concentrated in manufacturing, wholesale trade, and professional services. U.S. affiliates employed an estimated 32,400 Portuguese workers in 2019 compared to Portuguese affiliate employment of just 1,025 Americans. Since 2009, U.S. employment in Portugal has increased 12%, and Portuguese employment in the U.S. has risen by 105%.

U.S. FDI Position in Portugal



Portugal FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2019.
Note: Dotted line indicates that data has been suppressed for a particular year to avoid disclosure of individual company data.

Trade in Goods

$1.7 bn

U.S. Goods Exports to Portugal, 2019

1.8% The U.S. supplied 1.8% of Portugal's total imports...

7.8% ...but the U.S. share increases to 7.8% when intra-EU trade is excluded from the total.

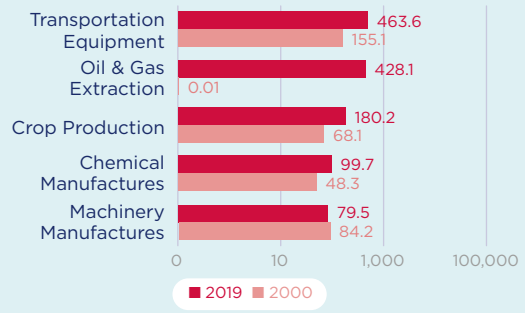
$3.9 bn

U.S. Goods Imports from Portugal, 2019

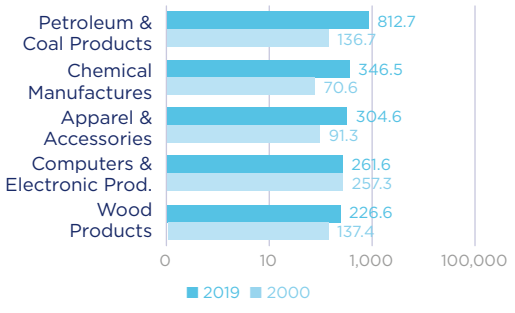
5.1% The U.S. received 5.1% of the total goods Portugal exported to the world...

21.0% ...but the U.S. share increases to 21.0% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Exports to Portugal ($ millions)



Top Five U.S. Goods Imports from Portugal ($ millions)



Top State Exporters of Goods to Portugal ($ millions)

1	2	3	4	5
338.7 Louisiana	**285.5** Texas	**184.2** Pennsyl-vania	**122.1** New Jersey	**75.5** Indiana

Top State Importers of Goods from Portugal ($ millions)

1	2	3	4	5
643.7 New Jersey	**415.1** California	**328.2** South Carolina	**311.3** New York	**264.8** Connecticut

Trade in Services

$1.6 bn

U.S. Services Exports to Portugal, 2019

$1.7 bn

U.S. Services Imports from Portugal, 2019

Note: U.K. included in EU for purposes of calculating intra-EU trade.
Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

Romania and the United States

Jobs

United States in Romania	Romania in the United States
77,191	< 50

Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

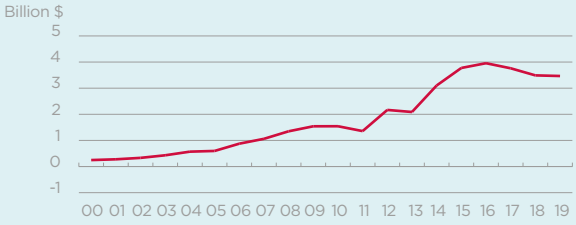
Investment

$3.5 bn
Foreign Direct Investment (FDI), 2019

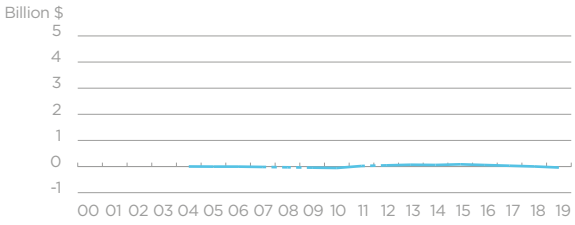
$0.0 bn
Foreign Direct Investment (FDI), 2019

While America's investment in Romania is small relative to other EU members, U.S. investment ties with Romania have deepened over the decade. U.S. affiliates have added roughly 40,000 Romanian workers to their payrolls since 2009, placing Romania 3rd among the EU13 countries in terms of jobs supported. Meanwhile, Romania's investment in the U.S. is relatively small. Romanian multinationals employed fewer than 50 employees in the U.S. in 2019.

U.S. FDI Position in Romania



Romania FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2019.
Note: Dotted line indicates that data has been suppressed for a particular year to avoid disclosure of individual company data.

Trade in Goods

$0.9 bn
U.S. Goods Exports to Romania, 2019

0.9% The U.S. supplied 0.9% of Romania's total imports...

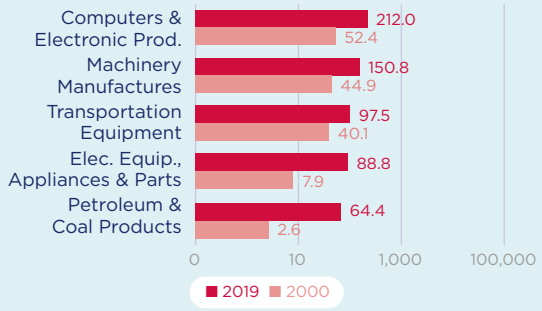
3.7% ...but the U.S. share increases to 3.7% when intra-EU trade is excluded from the total.

$2.4 bn
U.S. Goods Imports from Romania, 2019

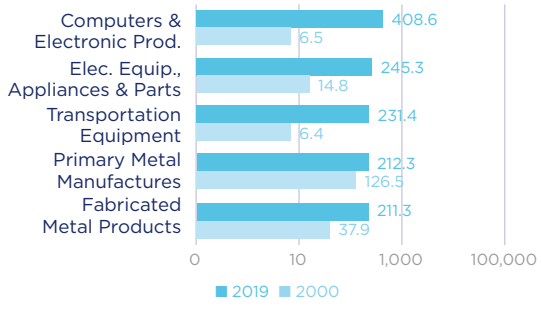
1.9% The U.S. received 1.9% of the total goods Romania exported to the world...

8.1% ...but the U.S. share increases to 8.1% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Exports to Romania ($ millions)



Top Five U.S. Goods Imports from Romania ($ millions)



Top State Exporters of Goods to Romania ($ millions)

1	2	3	4	5
113.8 Texas	98.1 California	76.5 New York	58.8 North Carolina	57.0 Louisiana

Top State Importers of Goods from Romania ($ millions)

1	2	3	4	5
367.5 Texas	232.0 South Carolina	149.4 Georgia	138.1 Michigan	126.6 New York

Trade in Services

$812 m
U.S. Services Exports to Romania, 2019

$622 m
U.S. Services Imports from Romania, 2019

Note: U.K. included in EU for purposes of calculating intra-EU trade.
Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

Slovakia and the United States

Jobs

United States in Slovakia	Slovakia in the United States
46,823	**< 50**

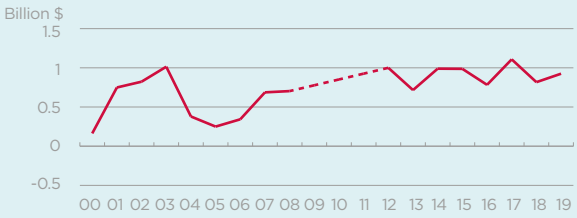
Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

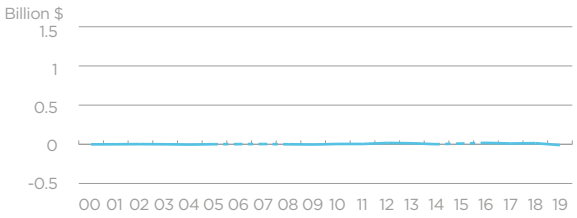
$925 m	**-$10 m**
Foreign Direct Investment (FDI), 2019	**Foreign Direct Investment (FDI), 2019***

America's investment stock in Slovakia is relatively small (just $925 million), but foreign affiliate sales were $9.9 billion in 2019, according to estimates. Located in the heart of central Europe, Slovakia is well positioned to capture U.S. investment in areas such as distribution, transportation, wholesale trade and other service activities. U.S. foreign affiliates in Slovakia employed an estimated 47,000 workers overall, the 5th largest among the EU13 countries. Meanwhile, Slovakia's direct investment position in the U.S. was relatively small in 2019, and affiliate employment amounted to fewer than 50 workers.

U.S. FDI Position in Slovakia



Slovakia FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2019.
Note: Dotted line indicates that data has been suppressed for a particular year to avoid disclosure of individual company data.
*Negative FDI positions can occur when the loans from the affiliate to the parent company exceed the equity and debt investments from the parent to the affiliate, or if a foreign affiliate incurs sufficiently large losses.

Trade in Goods

$0.4 bn	**$5.1 bn**
U.S. Goods Exports to Slovakia, 2019	**U.S. Goods Imports from Slovakia, 2019**

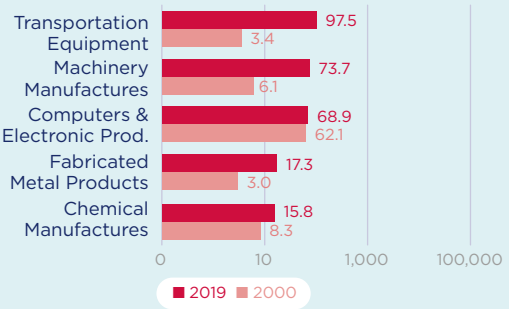
0.6% The U.S. supplied 0.6% of Slovakia's total imports...

3.3% ...but the U.S. share increases to 3.3% when intra-EU trade is excluded from the total.

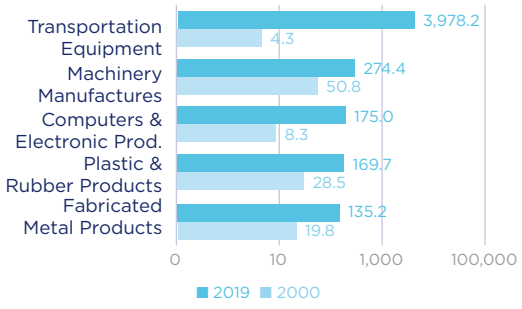
3.1% The U.S. received 3.1% of the total goods Slovakia exported to the world...

20.5% ...but the U.S. share increases to 20.5% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Exports to Slovakia ($ millions)



Top Five U.S. Goods Imports from Slovakia ($ millions)



Top State Exporters of Goods to Slovakia ($ millions)

1	2	3	4	5
74.4	**35.6**	**29.3**	**27.3**	**26.0**
Georgia	Pennsylvania	California	Illinois	Michigan

Top State Importers of Goods from Slovakia ($ millions)

1	2	3	4	5
1,025.6	**974.2**	**956.6**	**662.8**	**326.4**
California	Rhode Island	Texas	Florida	Georgia

Trade in Services

$373 m	**$184 m**
U.S. Services Exports to Slovakia, 2019	**U.S. Services Imports from Slovakia, 2019**

Note: U.K. included in EU for purposes of calculating intra-EU trade.
Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

Slovenia and the United States

Jobs

United States in Slovenia	Slovenia in the United States
4,063	<50

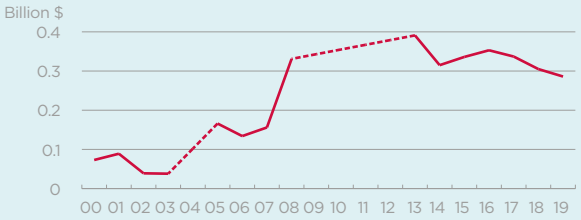
Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

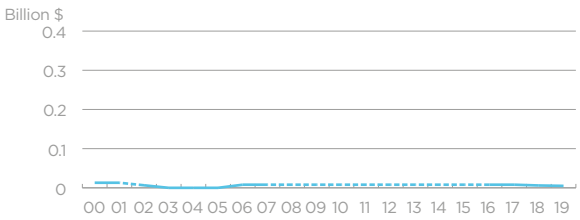
$286 m	$5 m
Foreign Direct Investment (FDI), 2019	**Foreign Direct Investment (FDI), 2019**

U.S. foreign direct investment in Slovenia was $286 million in 2019, a small decrease from the prior year. Meanwhile, Slovenia's outward FDI stock in the U.S. was just $5 million, with affiliates supporting fewer than 50 jobs. U.S. direct investment in Slovenia supported about 4,000 jobs in 2019, but the employment figure has been declining since a recent peak in 2014 of 6,100 workers. Estimated U.S. foreign affiliate sales in Slovenia were $700 million in 2019, compared with just $2 million of foreign affiliate sales made by Slovenian firms in the U.S.

U.S. FDI Position in Slovenia



Slovenia FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2019.
Note: Dotted line indicates that data has been suppressed for a particular year to avoid disclosure of individual company data.

Trade in Goods

$344 m	$963 m
U.S. Goods Exports to Slovenia, 2019	**U.S. Goods Imports from Slovenia, 2019**

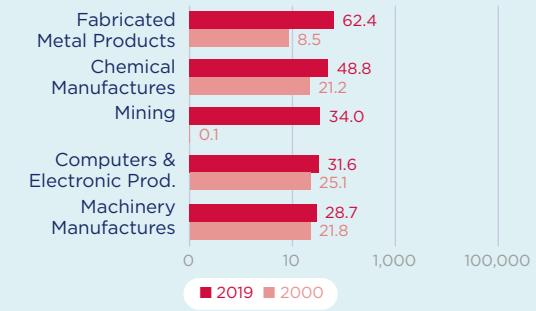
0.9% The U.S. supplied 0.9% of Slovenia's total imports...

2.4% ...but the U.S. share increases to 2.4% when intra-EU trade is excluded from the total.

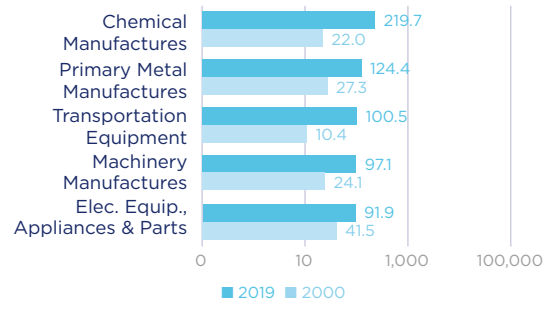
1.5% The U.S. received 1.5% of the total goods Slovenia exported to the world...

5.6% ...but the U.S. share increases to 5.6% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Exports to Slovenia ($ millions)



Top Five U.S. Goods Imports from Slovenia ($ millions)



Top State Exporters of Goods to Slovenia ($ millions)

1	2	3	4	5
74.1	56.6	28.0	20.1	16.8
Texas	South Carolina	California	Georgia	Louisiana

Top State Importers of Goods from Slovenia ($ millions)

1	2	3	4	5
144.7	87.7	69.7	56.0	47.3
New Jersey	Pennsylvania	South Carolina	Georgia	Illinois

Trade in Services

$175 m	$70 m
U.S. Services Exports to Slovenia, 2019	**U.S. Services Imports from Slovenia, 2019**

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis; United Nations.

Spain and the United States

Jobs

United States in Spain	Spain in the United States
178,556	92,655

Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

$40.8 bn

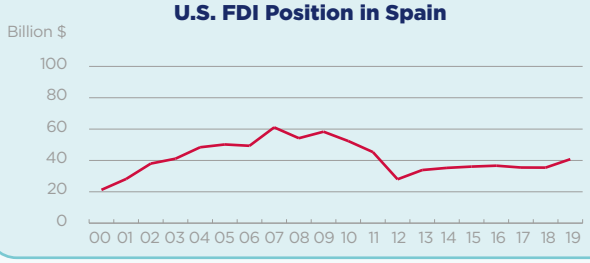
Foreign Direct Investment (FDI), 2019

$86.8 bn

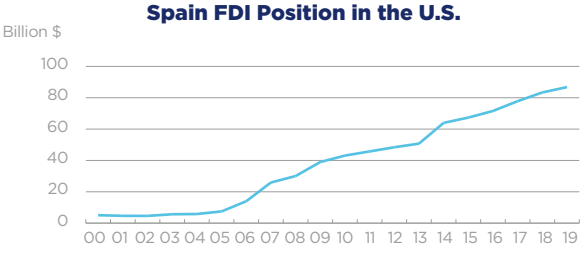
Foreign Direct Investment (FDI), 2019

Since 2011, the investment balance shifted in favor of the U.S., as Spain's economy was squeezed by a severe recession and resulting austerity measures. Since then, U.S. direct investment in Spain has slightly recovered, amounting to $41 billion in 2019. Meanwhile, the U.S. has seen its inward FDI stock from Spain rise by almost 125% since 2009. Spanish investment in the U.S. has increased every year since 2002. U.S. affiliates based in Spain added roughly 2,800 workers to their payrolls in 2019, and employ about 1.9 times as many workers as Spanish affiliates employ in the U.S., according to estimates.

U.S. FDI Position in Spain



Spain FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2019.

Trade in Goods

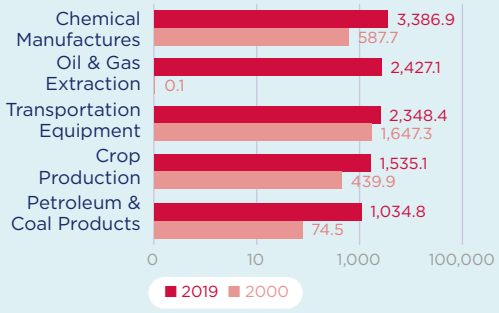
$15.2 bn

U.S. Goods Exports to Spain, 2019

4.0% The U.S. supplied 4.0% of Spain's total imports...

9.5% ...but the U.S. share increases to 9.5% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Exports to Spain ($ millions)



Top State Exporters of Goods to Spain ($ millions)

1	2	3	4	5
2,758.4 Texas	1,782.6 Louisiana	1,527.9 California	809.1 South Carolina	638.9 North Carolina

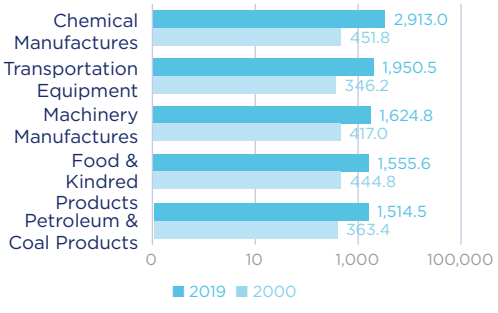
$16.8 bn

U.S. Goods Imports from Spain, 2019

4.6% The U.S. received 4.6% of the total goods Spain exported to the world...

13.4% ...but the U.S. share increases to 13.4% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Imports from Spain ($ millions)



Top State Importers of Goods from Spain ($ millions)

1	2	3	4	5
2,216.1 New Jersey	1,627.0 Texas	1,481.8 Florida	1,405.8 New York	1,219.6 Michigan

Trade in Services

$8.7 bn

U.S. Services Exports to Spain, 2019

$7.8 bn

U.S. Services Imports from Spain, 2019

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

Sweden and the United States

Jobs

United States in Sweden	Sweden in the United States
75,262	**234,816**

Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

$38.8 bn

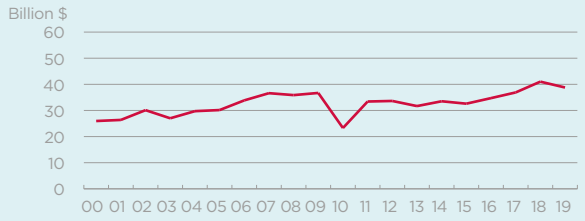
Foreign Direct Investment (FDI), 2019

$52.7 bn

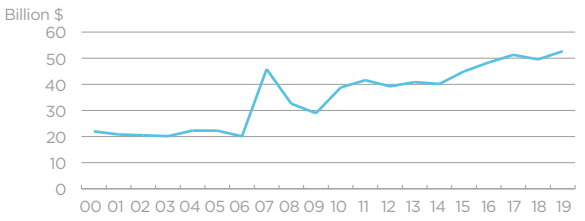
Foreign Direct Investment (FDI), 2019

The investment balance favors the U.S., with Swedish direct investment in the U.S. totaling $52.7 billion, while the U.S. investment stock in Sweden was $38.8 billion in 2019. The value added of Swedish affiliates in the U.S. also exceeded that of U.S. foreign affiliates in Sweden. The employment balance is also heavily skewed in favor of the United States, with Swedish firms estimated to have employed over 230,000 U.S. workers in 2019.

U.S. FDI Position in Sweden



Sweden FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2019.

Trade in Goods

$4.4 bn

U.S. Goods Exports to Sweden, 2019

3.0% The U.S. supplied 3.0% of Sweden's total imports...

9.9% ...but the U.S. share increases to 9.9% when intra-EU trade is excluded from the total.

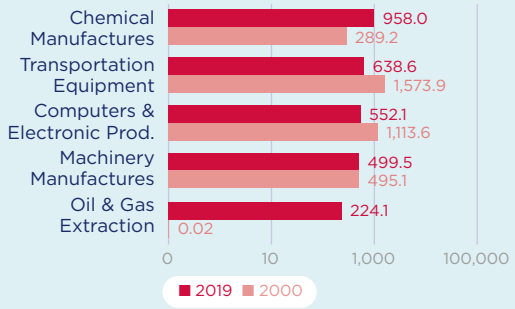
$12.1 bn

U.S. Goods Imports from Sweden, 2019

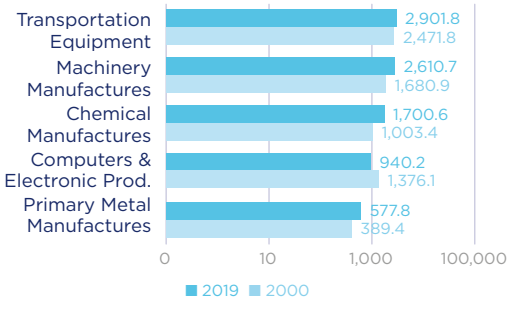
8.0% The U.S. received 8.0% of the total goods Sweden exported to the world...

18.8% ...but the U.S. share increases to 18.8% when intra-EU trade is excluded from the total.

Top Five U.S. Goods Exports to Sweden ($ millions)



Top Five U.S. Goods Imports from Sweden ($ millions)



Top State Exporters of Goods to Sweden ($ millions)

1	2	3	4	5
603.8 California	**360.1** Texas	**241.8** Pennsyl-vania	**234.5** Illinois	**231.7** Kentucky

Top State Importers of Goods from Sweden ($ millions)

1	2	3	4	5
1,378.5 New Jersey	**899.5** Pennsyl-vania	**860.4** Maryland	**856.5** California	**719.5** Kentucky

Trade in Services

$6.7 bn

U.S. Services Exports to Sweden, 2019

$3.3 bn

U.S. Services Imports from Sweden, 2019

Note: U.K. included in EU for purposes of calculating intra-EU trade.
Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

Switzerland and the United States

Jobs

United States in Switzerland	Switzerland in the United States
101,872	**490,438**

Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

$229.0 bn

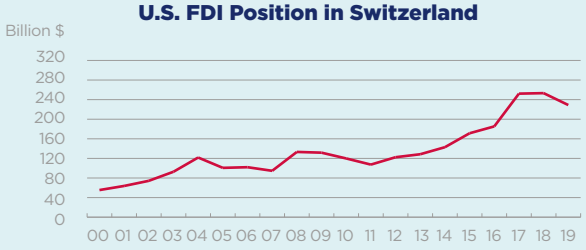
Foreign Direct Investment (FDI), 2019

$300.4 bn

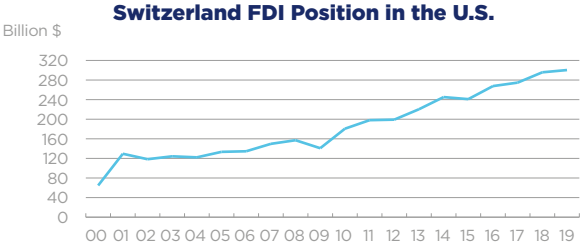
Foreign Direct Investment (FDI), 2019

The investment balance favors the U.S.—direct investment stock in Switzerland totaled $229 billion in 2019 versus $300 billion of Swiss investment in the U.S. The largest industries for U.S.-Switzerland bi-lateral investment were finance and insurance, chemicals manufacturing and non-bank holding companies. Estimates show the employment balance significantly favors the United States, and that U.S. affiliates in Switzerland and Swiss affiliates in the U.S. each added thousands of additional workers to their payrolls in 2019.

U.S. FDI Position in Switzerland



Switzerland FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2019.

Trade in Goods

$17.9 bn

U.S. Goods Exports to Switzerland, 2019

6.8% The U.S. supplied 6.8% of Switzerland's total imports...

16.7% ...but the U.S. share increases to 16.7% when trade with the EU and U.K. is excluded from the total.

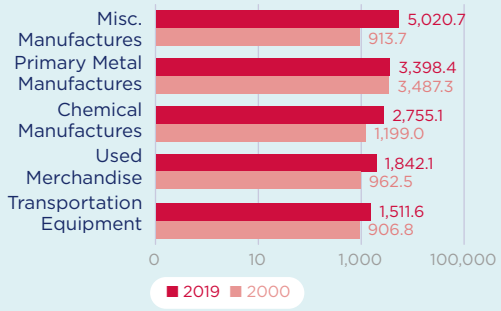
$44.6 bn

U.S. Goods Imports from Switzerland, 2019

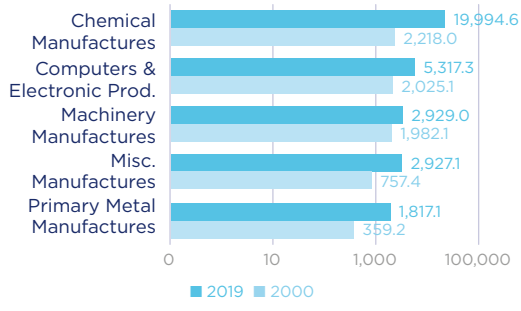
14.0% The U.S. received 14.0% of the total goods Switzerland exported to the world...

28.0% ...but the U.S. share increases to 28.0% when trade with the EU and U.K. is excluded from the total.

Top Five U.S. Goods Exports to Switzerland ($ millions)



Top Five U.S. Goods Imports from Switzerland ($ millions)



Top State Exporters of Goods to Switzerland ($ millions)

1	2	3	4	5
6,179.2 New York	**1,790.3** California	**1,311.6** Nevada	**1,091.6** Massa-chusetts	**605.1** New Jersey

Top State Importers of Goods from Switzerland ($ millions)

1	2	3	4	5
6,838.2 New Jersey	**6,570.1** Pennsyl-vania	**6,368.6** New York	**4,883.8** Kentucky	**2,505.7** California

Trade in Services

$46.8 bn

U.S. Services Exports to Switzerland, 2019

$25.0 bn

U.S. Services Imports from Switzerland, 2019

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

Turkey and the United States

Jobs

United States in Turkey	Turkey in the United States
57,589	**3,750*** *range of 2,500-4,999

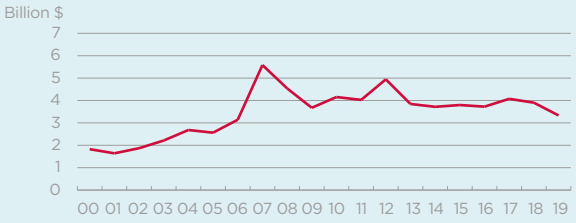
Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

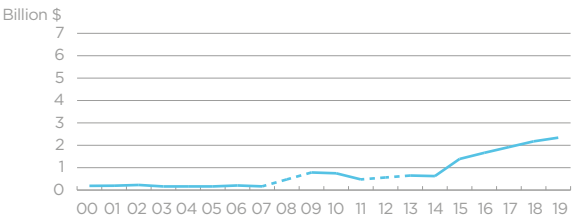
$3.3 bn	**$2.3 bn**
Foreign Direct Investment (FDI), 2019	**Foreign Direct Investment (FDI), 2019**

The investment balance favors Turkey — the U.S. had $3.3 billion of foreign direct investment in Turkey in 2019 versus Turkey's $2.3 billion of investment in the U.S. According to 2019 estimates, affiliates of U.S. multinationals had sales of $30.3 billion in Turkey compared to Turkey's affiliate sales in the U.S. of only $1.6 billion. U.S. affiliate employment in Turkey declined slightly in 2015, but has since rebounded and is now at all-time highs.

U.S. FDI Position in Turkey



Turkey FDI Position in the U.S.

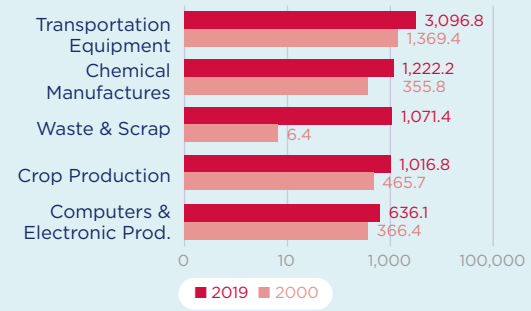


Foreign direct investment position, historic-cost basis, 2000-2019.
Note: Dotted line indicates that data has been suppressed for a particular year to avoid disclosure of individual company data.

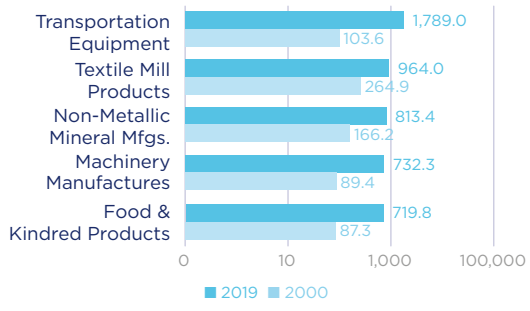
Trade in Goods

$10.0 bn	**$10.6 bn**
U.S. Goods Exports to Turkey, 2019	**U.S. Goods Imports from Turkey, 2019**
5.6% The U.S. supplied 5.6% of Turkey's total imports...	5.0% The U.S. received 5.0% of the total goods Turkey exported to the world...
8.7% ...but the U.S. share increases to 8.7% when trade with the EU and U.K. is excluded from the total.	9.7% ...but the U.S. share increases to 9.7% when trade with the EU and U.K. is excluded from the total.

Top Five U.S. Goods Exports to Turkey ($ millions)



Top Five U.S. Goods Imports from Turkey ($ millions)



Top State Exporters of Goods to Turkey ($ millions)

1	2	3	4	5
1,532.5	1,419.3	848.8	781.9	574.2
Texas	Washington	New York	California	Georgia

Top State Importers of Goods from Turkey ($ millions)

1	2	3	4	5
1,420.4	1,152.9	1,015.6	974.2	688.0
Texas	California	New York	New Jersey	Georgia

Trade in Services

$4.2 bn	**$2.0 bn**
U.S. Services Exports to Turkey, 2019	**U.S. Services Imports from Turkey, 2019**

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

United Kingdom and the United States

Jobs

United States in United Kingdom	United Kingdom in the United States
1,487,457	**1,302,813**

Jobs directly supported by majority-owned affiliates. Estimates for 2019. Total U.S.-related jobs are likely to be higher, because these figures do not include jobs created by trade flows, indirect employment effects through distributors or suppliers, or via non-equity arrangements such as strategic alliances, joint ventures, or other deals.

Investment

$851.4 bn

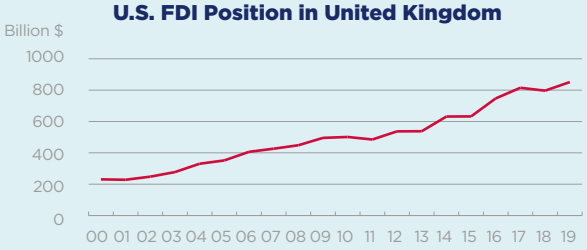
Foreign Direct Investment (FDI), 2019

$505.1 bn

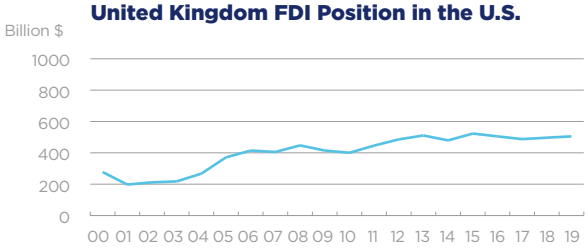
Foreign Direct Investment (FDI), 2019

In terms of the U.S.-U.K. investment balance, the U.S. had a larger cross-border impact in 2019. U.S. foreign direct investment in the United Kingdom totaled a record $851 billion in 2019, and the U.K.'s foreign direct investment in the U.S. remained flat at roughly $500 billion. Estimated sales of American and British affiliates in each other's markets were a combined $1.4 trillion in 2019. According to estimates for 2019, U.S. affiliates employed roughly 1.5 million workers in the U.K. while U.K. affiliates employed about 1.3 million Americans.

U.S. FDI Position in United Kingdom



United Kingdom FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2019.

Trade in Goods

$69.1 bn

U.S. Goods Exports to United Kingdom, 2019

10.0% The U.S. supplied 10.0% of United Kingdom's total imports...

19.8% ...but the U.S. share increases to 19.8% when trade with the EU is excluded from the total.

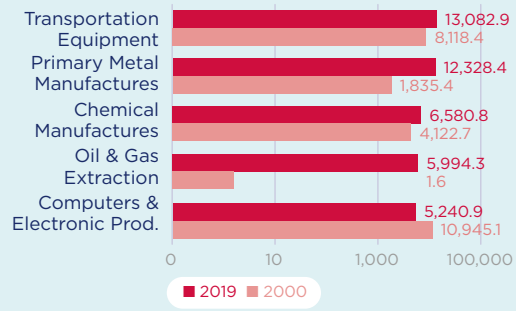
$63.2 bn

U.S. Goods Imports from United Kingdom, 2019

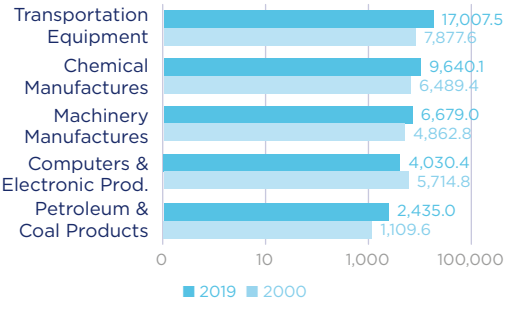
15.5% The U.S. received 15.5% of the total goods United Kingdom exported to the world...

28.8% ...but the U.S. share increases to 28.8% when trade with the EU is excluded from the total.

Top Five U.S. Goods Exports to United Kingdom ($ millions)



Top Five U.S. Goods Imports from United Kingdom ($ millions)



Top State Exporters of Goods United Kingdom ($ millions)

1	2	3	4	5
9,617.9	**8,751.8**	**5,314.7**	**5,262.8**	**3,552.6**
Texas	Utah	New York	California	Kentucky

Top State Importers of Goods from United Kingdom ($ millions)

1	2	3	4	5
6,259.2	**5,501.8**	**5,501.6**	**5,495.2**	**5,006.6**
California	New York	Texas	Georgia	New Jersey

Trade in Services

$78.3 bn

U.S. Services Exports to United Kingdom, 2019

$62.3 bn

U.S. Services Imports from United Kingdom, 2019

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

Notes on Terms, Data and Sources

Employment, Investment, and Trade Linkages for the 50 U.S. States and Europe

Jobs data are from the U.S. Commerce Department's Bureau of Economic Analysis (BEA). BEA employment by state is only available for Canada, France, Germany, Japan, the Netherlands, Switzerland, and the United Kingdom; for this reason, other countries may not be listed in this jobs section. Data on jobs is for majority owned bank and non-bank affiliates from 2007-2019, and nonbank affiliates from 1997-2006). Data on investment is from SelectUSA, a program led by the U.S. Department of Commerce, using data from fDi Markets. The data show number of Greenfield FDI projects announced over the span of ten years; Greenfield projects are investments in new assets and the number of projects does not directly translate to the value of projects or jobs added. Trade data comes from the U.S. Census Bureau's USA Trade Online database as well as the International Trade Administration at the U.S. Commerce Department. Europe includes Albania, Andorra, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia-Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Faroe Islands, Finland, France, Georgia, Germany, Gibraltar, Greece, Hungary, Iceland, Ireland, Italy, Kazakhstan, Kosovo, Kyrgyzstan, Latvia, Liechtenstein, Lithuania, Luxembourg, North Macedonia, Malta, Moldova, Monaco, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Russia, San Marino, Serbia, Slovakia, Slovenia, Spain, Svalbard, Sweden, Switzerland, Tajikistan, Turkey, Turkmenistan, Ukraine, United Kingdom, Uzbekistan, Vatican City. The top ten exports and imports bar charts employ a logarithmic scale to facilitate cross-state comparisons.

Investment and Trade for the EU 27, UK, Norway, Switzerland, Turkey and the U.S.

Investment and jobs data are from the Bureau of Economic Analysis, with employment figures representing author estimates for 2019. Dotted lines on the FDI trend for certain countries indicate that data was unavailable for that time period. Data on exports and imports of goods and services are from the U.S. Commerce Department. The bar charts employ logarithmic scales to facilitate cross-country comparisons. Data on trade exports and imports by state were extracted from the U.S. Census Bureau's USA Trade Online database. The data representing the United States' share of imports and exports were constructed using data from the International Monetary Fund's Direction of Trade Statistics database.

Foreign direct investment (FDI) measures the direct investment position between foreign affiliates and their parent companies. These statistics specifically measure the U.S. or European parent's share, or interest, in its foreign affiliate rather than overall size or level of operations of the foreign affiliate. The U.S. direct investment position abroad is equal to the value of U.S. par¬ents' equity in, and net outstanding loans to, their foreign affiliates at historical cost.

Total assets, employment, sales, research & development, and value-added statistics are sourced from the BEA's Survey of Activities of Multinational Enterprises. These statistics on the activities of majority-owned foreign affiliates are not adjusted for the ownership share of the parent company. Thus, for example, the employment statistics include all the employees of each affiliate, including affiliates in which the U.S. parent's ownership share is less than 100 percent. Total assets on a majority-owned foreign affiliate's balance sheet measures the affiliate's total assets, including the share of assets not owned by the U.S. parent.

Majority-owned foreign affiliates are affiliates that are more than 50 percent owned by their U.S. parent. Majority-owned U.S. affiliates are affiliates that are more than 50 percent owned by the European parent company.

Digital Services

Information and communications technology (ICT) services, or digital services, are services used to facilitate information processing and communication. The U.S. Bureau of Economic Analysis (BEA) defines digital services as including three categories of international trade in services: telecommunications services, computer services, and charges for the use of intellectual property associated with computer software. Digitally enabled services, or potentially ICT-enabled services, are services that can be, but not necessarily are, delivered remotely over ICT networks. These include the three categories defined above for digital services plus: insurance services, financial services, all charges for the use of intellectual property, information services, research and development, professional and management consulting, architectural and engineering services, industrial engineering, training services, and other business services not included elsewhere.

E-Commerce

Most estimates of e-commerce do not distinguish whether such commerce is domestic or international. In addition, many metrics do not make it clear whether they cover all modes of e-commerce or only the leading indicators of business-to-business (B2B) and business-to-consumer (B2C) e-commerce. Finally, there are no official data on the value of cross-border e-commerce sales broken down by mode; official statistics on e-commerce are sparse and usually based on surveys rather than on real data. The U.S. International Trade Commission (ITC) defines global e-commerce as the sale of goods and services over the internet.

Terms

Throughout this report, the terms "EU," "EU27" or "EU (excluding UK)" refers to all 27 member states of the European Union, excluding the United Kingdom. The terms "EU28" or "EU (including UK)" includes all 27 member states of the European Union plus the United Kingdom. The term EU15 refers to older EU member states: United Kingdom, Ireland, Belgium, Luxembourg, the Netherlands, Austria, Spain, Italy, Greece, France, Germany, Portugal, Sweden, Finland, and Denmark. The term EU13 refers to newer EU member states: Estonia, Latvia, Lithuania, Poland, the Czech Republic, Slovakia, Hungary, Slovenia, Malta, Cyprus, Romania and Bulgaria, and Croatia. The "euro area" includes those EU member states that have adopted the euro as their currency: Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Portugal, Slovakia, Slovenia, and Spain.

In addition to the above, the term "Europe" in this report refers to the following: all 27 members of the European Union plus Albania, Andorra, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Gibraltar, Greenland, Iceland, Kazakhstan, Kosovo, Kyrgyzstan, Macedonia, Malta, Moldova, Monaco, Montenegro, Norway, Russia, Serbia, San Marino, Switzerland, Turkey, Tajikistan, Turkmenistan, Ukraine, the United Kingdom, Uzbekistan, and Vatican City.

About the Authors

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

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THE TRANSATLANTIC ECONOMY 2021

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Daniel S. Hamilton and Joseph P. Quinlan

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