



# THE TRANSATLANTIC ECONOMY 2020

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

Daniel S. Hamilton and Joseph P. Quinlan



U.S. CHAMBER OF COMMERCE

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# THE TRANSATLANTIC ECONOMY 2020



**16 million jobs**  
on both sides of the Atlantic



**Half of total**  
global personal consumption



**\$5.6 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 globally 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. companies in Europe (2017)

**\$44 billion**

European companies in the U.S. (2017)

## Investment



**50%**

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



**61%**

of U.S. global investment goes to Europe (2018)

## Jobs



### Workers

**4.9 million**

U.S. companies in Europe (Direct jobs due to investment, 2018)

**4.7 million**

European companies in the U.S. (Direct jobs due to investment, 2018)

## Trade in goods



**\$515 billion**

U.S. goods imports from the EU (2019)

**\$337 billion**

U.S. goods exports to the EU (2019)

## Trade in services



**\$312 billion**

U.S. to Europe (2018)

**\$236 billion**

Europe to the U.S. (2018)

# 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 five 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 explores the transatlantic digital economy, which in many ways has become the backbone of commercial connections across the Atlantic. Chapter Four offers an overview of European commercial ties with the United States, and Chapter Five 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 28 member states of the European Union, as well as Norway, Switzerland and Turkey. Although the UK left the EU formally in early 2020, our data covers 2019, when the UK was still part of the EU.

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 Jason Moyer, Thibaut L'Ortye, Wendy Lopes, Nick Pawley and Garrett Workman for their assistance in producing this study.

We are grateful for generous support of our annual survey from the American Chamber of Commerce to the European Union, the U.S. Chamber of Commerce and their member companies, as well as the American Chambers of Commerce in Denmark, Finland, Ireland, Italy 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, the U.S. and Europe remain each other's most important markets. The transatlantic economy generates \$5.6 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 2018. But together they accounted for 63% of the outward stock and 58% 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 51% of the \$383 billion in U.S. exports by U.S.-based foreign affiliates in 2017. UK, German and Dutch firms based in the U.S. accounted for 63% of U.S. exports by European companies in 2017.

- U.S. foreign affiliate sales in Europe of \$3.2 trillion in 2018 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 2018 - much higher than U.S. intra-firm imports from Asia-Pacific nations (around 40%) and well above the global average (49%). Percentages are notably high for Ireland (88%) and Germany (70%).

- Intra-firm trade also accounted for 37% of U.S. exports to Europe and 57% to the Netherlands, 35% to Germany and 30% 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 57.5% 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 2018 - 61% of the total U.S. global investment position and more than four times U.S. investment in the Asia-Pacific region.

- In 2019 U.S. FDI flows increased to France (+37%), Italy (+20%) and Switzerland (+11%), and to Austria, Belgium, Spain, the UK and numerous other countries.

- 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 \$144 billion in 2018; this negative outflow almost entirely offset the positive FDI flows of \$195 billion to all other industries in Europe. Overall, this caused U.S. FDI flows to Europe to drop by 70% in 2018.

- Overall U.S. FDI outflows to Europe for the first nine months of 2019 were \$374 million, significantly lower than the \$131 billion in U.S. FDI outflows from the first nine months of 2017, prior to the change in the U.S. tax code. Most of the decline in 2019 was due to U.S. companies with offshore operations in Ireland repatriating large quantities of accumulated capital. Declines were also registered in Luxembourg, Sweden, France and Russia.

- U.S. FDI inflows increased in 2019 to the Netherlands, the UK, Switzerland, Germany, Finland, Denmark and Austria.

- 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 2.1% 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 2018 nonbank holding companies accounted for \$2.8 trillion, or about 47% of global U.S. FDI outflows of \$6 trillion, and 54% of total U.S. foreign direct investment in Europe.
- Excluding holding companies, total U.S. FDI stock in Europe amounts to \$1.6 trillion – a much smaller figure but still over two-and-a-half times larger than total U.S. investment in the Asia-Pacific region (FDI stock of \$618 billion excluding holding companies).
- From 2009-2018 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 (\$758 billion in 2018) is more than double combined U.S. investment in South America, the Middle East and Africa (\$260 billion). Total U.S. investment stock in China was just \$117 billion in 2018, only about 15% of U.S. investment stock in the UK. U.S. investment presence in China and India combined – totaling \$163 billion in 2018 – is just 21% 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 2018 Europe accounted for roughly 60% – \$18 trillion – of corporate America’s total foreign assets globally. Largest shares: the UK (20%, \$5.5 trillion) and the Netherlands (11%, \$3.3 trillion).
- America’s asset base in Germany (\$860 billion in 2017) was about 20% larger than its asset base in all of South America and roughly double its assets in China.
- America’s combined asset base in Poland, the Czech Republic and Hungary (roughly \$178 billion) was larger than its asset base in India (\$165 billion).
- America’s assets in Ireland alone (\$1.7 trillion in 2017) were much larger than either those in France (\$408 billion), or Switzerland (\$1 trillion), and light years ahead of those in China (\$446 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 \$288 billion in 2017, four times more than U.S. affiliate exports from China and about three times more than from Mexico.
- Total output of U.S. foreign affiliates in Europe (\$740 billion) and of European affiliates in the U.S. (\$666 billion) in 2018 was greater than the output of such countries as Indonesia, Mexico, the Netherlands, or Turkey.
- Aggregate output of U.S. affiliates globally reached \$1.5 trillion in 2018; Europe accounted for 51% of the total.
- U.S. affiliate output in Europe (\$715 billion) in 2017 was roughly double affiliate output in all of Asia (\$362 billion). U.S. affiliate output in China (\$72 billion) and India (\$35 billion) pale in comparison to U.S. affiliate output in the UK (\$180 billion), Germany (\$85 billion), or even Ireland (\$97 billion).
- Sales of U.S. affiliates in Europe were 70% larger than the comparable figures for the entire Asian region in 2017. Affiliate sales in the UK (\$643 billion) were double total sales in South America. Sales in Germany (\$339 billion) were over double the combined sales in Africa and the Middle East.
- We estimate that U.S. affiliate income in Europe reached a record \$295 billion in 2019 – more than 60% larger than a decade earlier.
- U.S. affiliate income from Europe of \$217 billion in the first nine months of 2019 was 1.5 times more than combined U.S. affiliate income in Latin America and Asia (each with \$76 billion in profits).
- U.S. affiliate income in China in the first three quarters of 2019 (\$9.9 billion), however, was more than combined affiliate income in Germany (\$4.1 billion), Spain (\$2.9 billion) and France (\$2.5 billion), and income in India (\$3.7 billion) was well more than that earned in many European countries.

### **Europe in the U.S.**

- Europe accounted for half (\$125 billion) of the \$251 billion in global FDI that flowed into the U.S. in 2019.
- UK firms were the largest source of greenfield foreign investment projects in 19 U.S. states during the ten-year period from October 2009-September 2019. German companies led in 15 states, followed by Canadian companies in 8 states and Japanese companies in 7.

- German investment flows to the United States grew 53% in the first three quarters of 2019, while flows from Spain and Sweden were almost triple the amount of flows received during the first three quarters of the year before. U.S. inflows from France, Ireland, Italy, the Netherlands, Switzerland and the UK were all lower in the first three quarters of 2019 than the same period a year earlier.
- Europe accounted for roughly 68% of the \$4.3 trillion invested in the United States in 2018 on a historic cost basis. Total European stock in the U.S. of \$3.0 trillion was four times the level of comparable investment from Asia.
- The bulk of the capital was sunk by British firms (with total UK stock amounting to \$561 billion), the Netherlands (\$479 billion), Luxembourg (\$356 billion), Germany (\$324 billion), Switzerland (\$310 billion), and France (\$292 billion).
- In 2017 total assets of European affiliates in the U.S. were an estimated \$8.1 trillion. The UK ranked first, followed by Germany, Switzerland and France.
- In 2017 European assets accounted for nearly 56% of total foreign assets in the United States.
- We estimate income of European affiliates in the U.S. hit a record \$140 billion in 2019.
- The output of British firms in the U.S. in 2018 reached \$170 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 \$115 billion, nearly 20% of the European total.
- Beyond European affiliates, only Japan and Canada have any real economic presence in the U.S. In 2017, Japanese affiliate output totaled nearly \$154 billion, Canadian \$94 billion.
- European companies operating in the U.S. accounted for nearly 62% of the roughly \$1 trillion contributed by all foreign firms to U.S. aggregate production in 2017.
- European companies accounted for 77% of total foreign FDI in U.S. manufacturing in 2018. The U.S. chemicals sector was the biggest recipient of European investment (\$664 billion), followed by transportation equipment (\$89 billion).
- European auto companies produced 27% of total U.S. production in 2018 and generated \$35 billion towards U.S. GDP in 2017. More than half (54%) of European cars produced in the U.S. are U.S. exports to the world.
- Affiliate sales, not trade, are the primary means by which European firms deliver goods and services to U.S. consumers. In 2018 European affiliate sales in the U.S. (\$2.4 trillion) were more than triple U.S. imports from Europe.
- Sales by British affiliates in the U.S. totaled \$543 billion in 2017, followed by German affiliate sales (\$501 billion) and those by Dutch affiliates (\$350 billion).

## Transatlantic Trade

- U.S. merchandise exports to the EU rose by 5.9% in 2019 to a record \$337 billion. Notably strong export markets included Belgium (U.S. exports up 11% in 2019), Spain (+15%), Austria (+60%), Bulgaria (+25%) and Denmark (+22%).
- The U.S. annual merchandise trade deficit with the EU, at \$178 billion in 2019, was at a record high, up 5% from the year earlier. The U.S. deficit with China (\$345 billion) is more than double the U.S. deficit with the EU.
- The U.S. and the EU are each other's largest trading partners. U.S. goods exports to the EU in 2019 (\$337 billion, up 6%) were over 3 times more than U.S. goods exports to China (\$107 billion).
- The U.S. imports 29% of total EU auto exports; the EU imports 19% of total U.S. car exports.
- U.S. exports to Europe were up 11% in 2018 over 2017, and have almost doubled in value since 2000. Twenty-two U.S. states registered double-digit growth in goods exports to Europe from 2017 to 2018.
- 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 50% more goods to Europe than to China.
- In 2018 New York exports to Europe were more than 8 times those to China. Louisiana, Kentucky, Florida and Pennsylvania each sent more than four times the amount of goods to Europe than China. California, Texas, Michigan, Illinois and Ohio each exported more than twice as much to Europe as to China.
- Germany was the top European export market for 18 U.S. states and the UK for 12 in 2018.

## 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 38% of total U.S. services exports and for 42% of total U.S. services imports in 2018.
- U.S. services exports to Europe reached a record \$312 billion in 2018, up 50% from 2009. The U.S. had a \$75 billion trade surplus in services with Europe in 2018, compared with its \$202 billion trade deficit in goods with Europe. With the EU the U.S. registered a \$55 billion trade surplus in services, versus a \$170 billion trade deficit in goods.
- U.S. imports of services from Europe also hit an all-time high in 2018 of \$236 billion, up over 40% from 2009. 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 5%, to \$882 billion, in 2018, 2.8 times more than U.S. services exports to Europe of \$312 billion.
- The UK alone accounted for 30% of all U.S. affiliate sales in Europe in 2017 – \$247 billion, greater than combined affiliate sales in South and Central America (\$122 billion), Africa (\$14 billion) and the Middle East (\$21 billion).
- On a global basis, Europe accounted for roughly 54% of total U.S. affiliate services sales.
- European affiliate sales of services in the U.S. of \$607 billion in 2017 were about 28% 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 \$1.1 trillion in 2017; European firms accounted for 56% of the total. British affiliates lead in terms of affiliate sales of services (\$153 billion), followed closely by Germany (\$148 billion).
- European companies operating in the U.S. generated an estimated \$635 billion in services sales in 2018, which is 2.8 times more than European services exports to the U.S. of \$237 billion.

## The Transatlantic Digital Economy

- Transatlantic flows of data continue to be the fastest and largest in the world, accounting for over one-half of Europe's data flows and about half of U.S. flows. Almost 40% of those flows are through business and research networks.
- North America and Europe generate about 75% of digital content for internet users worldwide.
- U.S. and European cities (Frankfurt, London, Amsterdam, Paris, Stockholm, Miami, New York, Marseille, Los Angeles, San Francisco) 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 2018, digitally-enabled services accounted for 55% of all U.S. services exports, 48% of all services imports, and 69% of the U.S. global surplus in trade in services.
- In 2018 the U.S. registered a \$178 billion trade surplus in digitally-enabled services with the world. Its main commercial partner was Europe, to which it exported over \$213 billion in digitally-enabled services and from which it imported \$120 billion, generating a trade surplus with Europe in this area of \$93 billion.

- U.S. exports of digitally-enabled services to Europe were about 2.6 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.
- In 2018 EU member states exported \$1.39 trillion and imported \$1.17 trillion in digitally-enabled services to countries both inside and outside the EU.
- Excluding intra-EU trade, EU member states exported \$657.34 billion and imported \$523.67 billion in digitally-enabled services, resulting in a surplus of \$133.67 billion for these services.
- Digitally-enabled services represented 58% of all EU services exports to non-EU countries and 57% of all EU services imports from non-EU countries.
- In 2018 the U.S. accounted for 32% of the EU's digitally-enabled services exports to non-EU countries, and 39% of EU digitally-enabled services imports from non-EU countries.
- The U.S. purchased \$210.77 billion of EU digitally-enabled services exports, making it the largest non-EU consumer of EU digitally-enabled services exports, accounting for more EU exports than the rest of non-EU Europe (\$124.41 billion), and more than all digitally-enabled services exports from the EU to Asia and Oceania (\$192.62 billion).
- EU member states with the largest estimated value of digitally-enabled services exports were Germany (\$189.8 billion), Ireland (\$171.9 billion), the UK (\$161.0 billion), and the Netherlands (\$154.0 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.
- In 2018, EU member states imported \$1.17 trillion in digitally-enabled services. 55% originated from other EU member states. Another 17% came from the U.S. (\$202.02 billion), making it the largest supplier of these services. The EU imported more of these services from the U.S. than from EU member states Germany (\$107.0 billion) and the UK (\$124.5 billion).
- 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.
- 53% of the \$838.86 billion in services provided in Europe by U.S. affiliates in 2017 was digitally-enabled.
- In 2017 U.S. affiliates in Europe supplied \$444.33 billion in digitally-enabled services, more than double U.S. digitally-enabled exports to Europe.
- In 2017 European affiliates in the U.S. supplied \$268.54 billion in digitally-enabled services, 2.2 times greater than European digitally-enabled exports to the U.S.
- In 2017, Europe accounted for 69% of the \$259.6 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 greater than such investment in the entire Western Hemisphere outside the U.S. or such investment combined in the Middle East, Africa and the entire Asia-Pacific region.

## 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 9.6 million workers in 2018. Further gains in employment were most likely achieved 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 2018 – 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 2017 lived in Europe; that share is down from 38% in 2008.
- U.S. affiliates employed more manufacturing workers in Europe in 2017 (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 2017, rising from 51,000 to over 136,000, and continuing upwards.
- In 2017 the UK, France and Germany accounted for less than 50% of U.S. affiliate manufacturing employment in Europe. In 1990 they accounted for 67%. Meanwhile, the combined share of U.S. affiliate manufacturing employment in Poland, the Czech Republic and Hungary jumped from virtually zero in 1990 to nearly 13% in 2017, indicative of the eastern spread of U.S. European operations.
- Manufacturing employment among U.S. affiliates in the UK has declined from 431,000 in 2000 to 308,000 in 2017 and in France from 249,000 to 195,000.
- Manufacturing employment among U.S. affiliates in Germany is near levels seen at the start of the century – 376,000 jobs in 2017, 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 40% of total employment by U.S. affiliates in Europe in 2017. U.S. affiliates employed nearly 382,000 European workers in transportation and 295,000 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.
- The manufacturing workforce of U.S. affiliates in Germany (376,000) in 2017 was greater than the number of manufacturing workers employed in Brazil (302,000) and India (211,000) – although well below China (764,000).
- European majority-owned foreign affiliates directly employed 4.6 million U.S. workers in 2017 – some 123,000 more workers than in 2016.
- Firms from Germany accounted for over half (63,000) of the boost in U.S. employment by European companies between 2016 and 2017.
- In 2017 the top five European employers in the U.S. were firms from the United Kingdom (1.2 million), Germany (774,000), France (734,000), the Netherlands (571,000), and Switzerland (454,000).
- European firms employed roughly two-thirds of all U.S. workers on the payrolls of majority-owned foreign affiliates in 2017.
- European companies directly supported 187,000 jobs in the U.S. motor vehicles and parts industry – 43% of total foreign affiliate employment in this industry.
- Texas gained 135,700 jobs (57% more) directly from European investment between 2006 and 2017. Others with significant gains included California – 101,700 jobs added (+29.4%); Illinois 64,400 (+37.6%); New York 59,500 (+21.1%); Florida 54,900 (+34.2%); Pennsylvania 43,400 (+23.8%); North Carolina 42,000 (+27.3%); Massachusetts 41,100 (34.5%); Georgia 39,200 (+34.9%); Michigan 34,500 (+24.5%); Minnesota 33,200 (+65.4%) and Tennessee 29,800 (+39.9%).
- The top five U.S. states in terms of jobs provided directly by European affiliates in 2017 were California (447,200), Texas (371,600), New York (341,600), Illinois (235,700) and Pennsylvania (225,900).

## The Transatlantic Energy Economy

- Foreign companies have ploughed almost \$400 billion into U.S. energy-related industries. In 2017, FDI in the U.S. energy economy directly supported 154,500 U.S. jobs, contributed \$1.1 billion in R&D and generated \$5.1 billion in U.S. exports.
- In 2018 European companies accounted for just over half of all FDI in 779 greenfield project investments in the U.S. energy economy.
- German companies are by far the leading source of foreign direct investment in the U.S. energy economy, accounting for one in five greenfield investment projects in the U.S. energy sector. Other notable European investors include France (9%), Spain (8%), and the UK (8%).
- Between July 2018 and November 2019, U.S. LNG exports to Europe surged by almost 600%, making the U.S. by far the largest LNG exporter to Europe.

Europe also imports more U.S. coal than any other world region. 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 2017 U.S. affiliates invested \$33 billion in research and development in Europe, representing 58% of total global R&D expenditures by U.S. foreign affiliates.

- R&D expenditures by U.S. affiliates were the greatest in Germany (\$8.1 billion), the UK (\$6.4 billion), Switzerland (\$4.7 billion), Ireland (\$3.4 billion), France (\$2 billion), the Netherlands and Belgium (\$1.4 billion each). These seven nations accounted for 84% of U.S. spending on R&D in Europe in 2017.

- In the U.S., R&D expenditures by majority-owned foreign affiliates totaled \$63 billion in 2017. R&D spending by European affiliates totaled \$44 billion, representing 70% of all R&D performed by majority-owned foreign affiliates in the United States.

- Swiss-owned R&D in the U.S. totaled \$10 billion in 2017, nearly a quarter of total European affiliate R&D in the United States. British affiliates accounted for 20%, German for 19.5% and French for 12.2%.

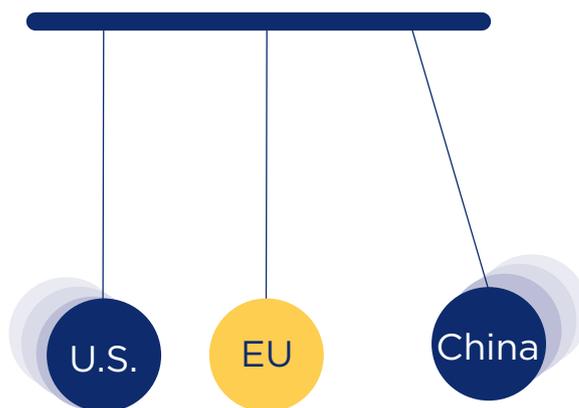
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# Not Business as Usual: The Transatlantic Economy in an Age of Uncertainty





## U.S.-China trade war or trade truce? Significant collateral effects on Europe over 2020 and beyond



“May you live in interesting times” is purported to be a Chinese curse. It aptly describes the transatlantic partnership in 2020. These are interesting times for the United States and Europe. The world’s largest and most important bilateral commercial relationship remains under considerable strain due to escalating trade disputes and threatened tariff increases, differences over data issues, sanctions on Iran, Russia and European energy security, NATO defense spending, climate change objectives, the crisis at the WTO Appellate Body, and the uncertain conditions likely to govern the United Kingdom’s post-Brexit commercial relationships, in particular with the European Union (EU) and the United States. Overshadowing all of these issues are the cascading shocks imposed on the transatlantic and global economy by the novel coronavirus COVID-19.

As stock markets have plunged, oil prices have tumbled, and central banks have slashed interest rates, some have likened the COVID-19 shock to the 2007-2009 financial crisis. This time, however, the banking system is not in crisis, and toxic debt is limited. The nature of the challenge is also different; whereas the 2007-2009 crisis emanated from the financial industry, the COVID-19 crisis is a health emergency. Then, the challenge was to get cash to banks to guarantee their liabilities and rouse the bond markets. Now, the challenge is to cushion the impact on individuals and to help companies survive a cash crunch as health concerns ripple through offices, schools, factories, transportation, hospitality and other “human contact industries.”<sup>1</sup> The COVID-19 hurricane is wreaking havoc on people’s lives across many sectors of the economy, but this time the underlying strengths of the transatlantic economy are sturdy enough to weather the storm, and the storm will pass.

Whether the transatlantic partners can navigate these headwinds effectively together, however,

depends also on their ability to address other issues that bedevil their relationship. Europe has stiffened its resolve over the past year to stand up to the United States and to chart a more independent course from its long-time ally. As German Chancellor Angela Merkel put it, “Europe, as a general rule, needs to be able to do everything itself.”<sup>2</sup> Whether this bold talk turns into action remains to be seen, but European leaders have become more assertive in defending and advancing their economic interests in a world of more diffuse power. The new European Commission led by Ursula von der Leyen supports a larger role for the euro as a global reserve currency and is increasingly assertive on the regulatory front when it comes to data and data privacy. Europe’s Green Deal, meanwhile, is among the most ambitious plans in the world to decarbonize the economy and society; the Commission aims to turn Europe into “the first climate-neutral continent by 2050.” This will require new regulations, directives, member state buy-in and copious amounts of capital, so whether the Green Deal gains traction remains to be seen. Moreover, Europe is haunted by FOMO – the fear of missing out – as the continent begins the new decade lagging behind the United States or China in such critical technologies as 5G, artificial intelligence, the internet of things, computer software, quantum computing and related activities. It is against this backdrop that some European leaders have openly embraced a more interventionist industrial policy. The likely downside to these grand plans is more transatlantic discord and divergence.

Last year we wrote that when it came to trade, “the Trump team’s primary target is China, not Europe.” One year later, the tables have turned. It is Europe that is now in the crosshairs of U.S. trade negotiators. Since securing Congressional ratification of the United States-Mexico-Canada Agreement (USMCA) – successor to the 1994 North American Free Trade Agreement (NAFTA) – and following the Phase

One trade deal signed with China in January 2020, the Trump administration has pivoted to Europe, threatening tariffs on autos, in addition to the WTO-authorized tariffs already levied on finished aircraft, French wine, Italian cheese, and other goods stemming from the Airbus subsidy trade dispute. Proposals by several European countries for digital services taxes have exacerbated transatlantic frictions, risking further escalation of trade tensions between the world's largest economies. Complicating the picture: the UK's post-Brexit attempts to broker new commercial arrangements with both the EU and the United States. How each agreement is crafted and implemented will ultimately affect trade and investment flows between the UK and the EU, the United States and the UK, and the United States and the EU.

In addition to the above, it is important to note that just as Europe suffered some collateral effects of the U.S.-China trade war, Europe could also be penalized by the Sino-American trade truce. One consequence of U.S. imposition of global steel tariffs in 2018, for instance, was to divert steel from China and other countries to Europe, forcing Europe to impose its own set of restrictions. Fast forward to today, and under the Phase One deal, China has committed to buying \$200 billion more of American-made goods and services over the next two years. That portends a surge in new export orders for U.S. firms, as well as a significant shift and redirection in Chinese

purchases towards the United States and away from other regions of the world, including Europe. To make the agreement work, Beijing may feel compelled to require Chinese state-owned firms to give preference to U.S. goods and services (agriculture, aircraft, energy products, etc.) at the expense of comparable European products. In addition, the agreement leaves in place 25% tariffs on a host of Chinese goods, which could divert more Chinese exports to larger, alternative markets like Europe, undercutting the sales and profits of many European firms. Either way - U.S.-China trade war or trade truce - the collateral effects on Europe have been significant and will continue to mount over 2020 and beyond. All told, the Phase One agreement is estimated to cut demand for nearly \$11 billion in European goods, with the German and French manufacturing sectors particularly affected. Moreover, the deal potentially heralds an age of managed trade that could upend how trade disputes have been managed traditionally, challenge the most-favored-nation principle, and further weaken the World Trade Organization.<sup>3</sup>

Similarly, when it comes to the U.S.-China Cold War over technology - or the race to create the technological standards of the future - Europe again finds itself between a rock (U.S. demands that Europe adopt U.S. tech standards) and a hard place (the attractiveness of China's growing tech capabilities, notably 5G networks). If an "economic iron curtain" descends upon the global economy, as former



U.S. Treasury Secretary Hank Paulson has warned, then Europeans will be pressed to choose between Western-style capitalism versus authoritarian state capitalism. A potential “third way,” where Europe tries to promote an alternate approach to both the U.S. and China, could also prove disruptive to transatlantic economic cooperation. At the heart of the debate are U.S. national security concerns regarding the Chinese telecommunications giant Huawei, a leader in 5G technology ready to sell in Europe but also, according to the United States, a potential conduit for Chinese espionage given the close linkages of the firm to the Chinese state and its heavy dependence on state subsidies. Huawei leads the world in 5G infrastructure with 30% of global market share in Q3 2019, followed by Samsung (23%) and European leaders Ericsson (20%) and Nokia (14%).<sup>4</sup> Many EU member states have already adopted Huawei’s technology, further complicating matters in terms of technological dependence on China.

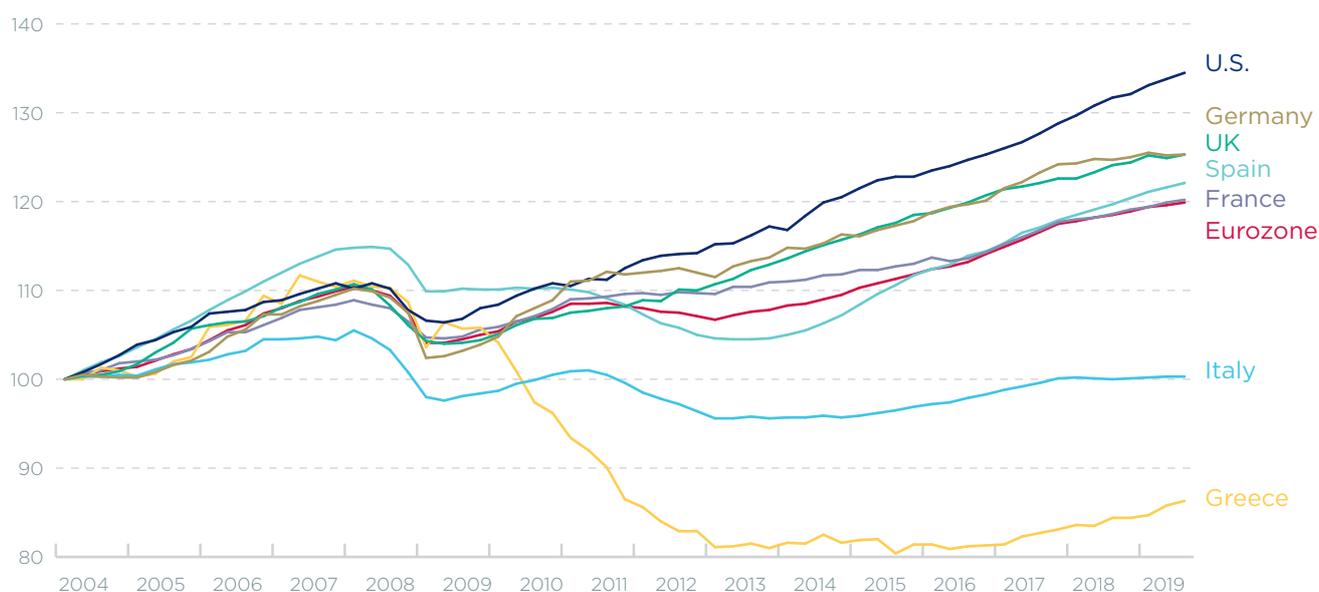
yet again at a faster pace than the European Union, with consensus estimates of U.S. real GDP growth of around 2% versus just 1.4% estimated growth in the EU. Those growth estimates were based on a number of key assumptions, including diminished U.S.-China trade tensions in 2020 (boosting global trade); strongly accommodative monetary policies on both sides of the pond (bolstering consumption and investment levels); and less austerity in favor of fiscal spending across Europe, particularly in Germany (helping to end Europe’s manufacturing recession). By March 2020 COVID-19 had dampened such estimates, with the OECD projecting the U.S. economy to grow 1.9% in 2020 before rebounding to 2.1% in 2021, and for the eurozone to grow 0.8% in 2020 before rebounding to 1.2% in 2021. A host of economic analysts, including the European Commission, are far more dour, projecting that COVID-19 is very likely to push the U.S. and European economies into recession in 2020, and that a rebound later in the year, stretching into 2021, would depend on a bold responses from governments.

### Transatlantic Economic Outlook

The transatlantic economy entered 2020 on firmer ground, but the planks under the largest bilateral relationship in the world have since been subjected to some extraordinary stress tests as COVID-19 throttles supply chains and economic growth. As the year began, the United States was expected to expand

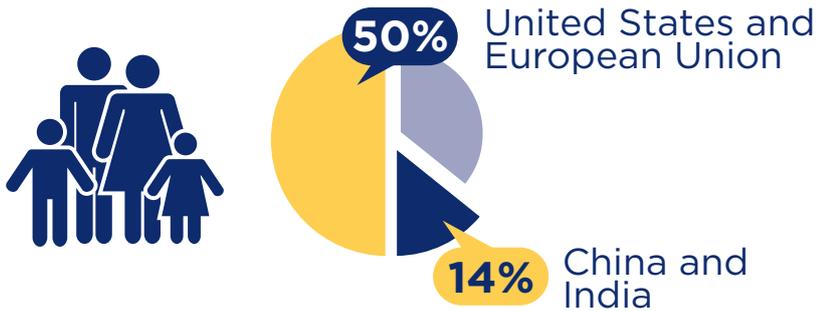
In part because of this uncertainty, fiscal policies across Europe have become more growth-oriented. The European Commission is taking a more accommodating and flexible stance towards member states running budget deficits and attendant rising debt levels. Brussels has come to realize that easier monetary policies – in isolation – cannot generate

**Table 1 Most Developed Economies Back Above Pre-Recession Output Levels** (Real GDP level, Q1 2004 = 100)



Source: Haver Analytics.  
Data through Q3 2019.

## Global personal consumption (2018)



sustained growth, and has become more fiscally lenient towards nations with weak finances (Spain, France, and Italy, for instance). Germany experienced a severe manufacturing slump over the second half of 2019, led by a downturn in automobile production. The latter not only crimped German industrial production but also boosted the number of unemployed automobile workers in Germany as various German car companies announced sizable layoffs in the fourth quarter of 2019. The additional uncertainty generated by COVID-19 finally led German financial and economic leaders to declare that they were prepared to move away from their fixation on balanced budgets and toward more fiscal stimulus/spending to mitigate the coronavirus effect and to revive growth in Europe. The European Commission and EU member states are all deploying significant sums to support industries and workers hit hard by the pandemic.

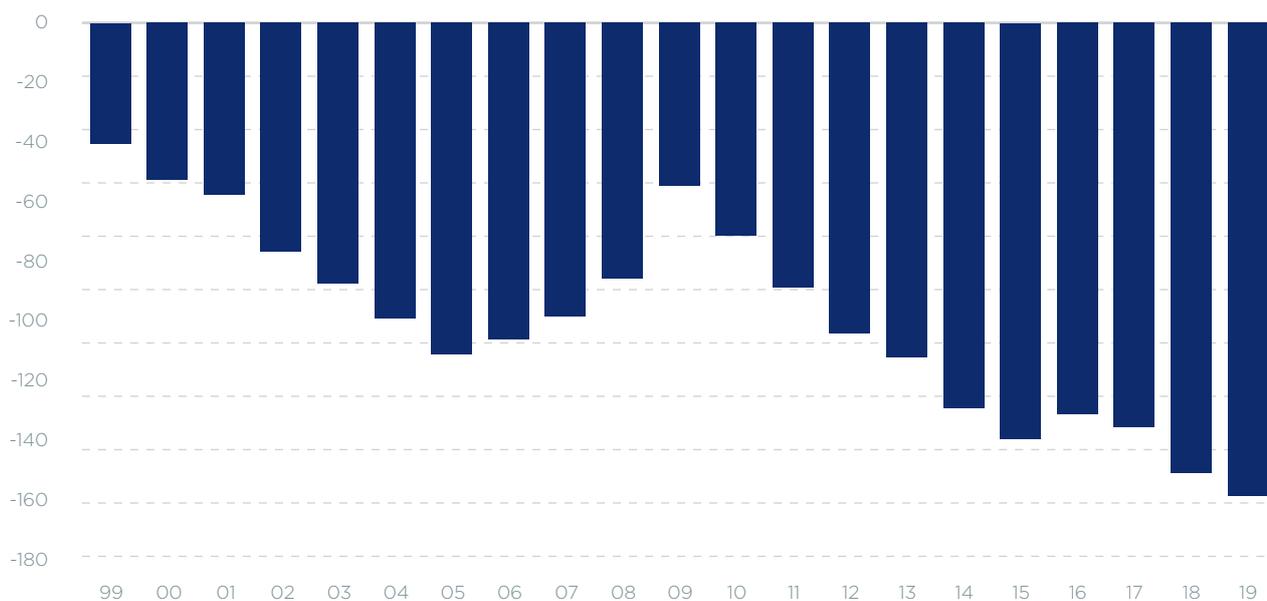
Against this backdrop, while Europe will certainly take a hit, the economic outlook for the continent is expected to gradually improve over the balance of this year as it emerges from the COVID-19 storm, although an escalation in U.S.-EU trade tensions, such as the implementation of U.S. tariffs on EU autos, poses a significant risk. Prospects are not necessarily brighter in the United States. Market jitters over COVID-19 ended the longest economic expansion in U.S. history. U.S. growth was bifurcated last year, with solid consumer spending offsetting the weakness in U.S. manufacturing and agriculture, stemming from the U.S.-China trade war and other U.S. tariff measures. The rebound in U.S. manufacturing, anticipated in 2020 with the signing of the Phase One trade deal along with the increased certainty of having USMCA finalized, is now expected to be delayed until later in the year or sometime in 2021.

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. Economists expect a U-shaped economic cycle in which growth first plunges, then remains stagnant for some time before sharply recovering as consumers emerge from isolation with money to spend and jobs to go to.<sup>5</sup>

COVID-19 concerns will temper consumer spending in many sectors of the U.S. economy at least into the second half of the year. Nonetheless, 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 2018 – greater than that of the next five largest consuming markets in the world combined: China, Japan, Germany, the UK, and India. U.S. consumption accounts for almost 70% of U.S. GDP. As goes the U.S. consumer, so goes the U.S. economy. And since many European firms sell more goods and services in the United States than in their home markets, buoyant U.S. consumer spending positively spills over to Europe via enhanced sales of European affiliates in the United States and higher European exports.

Combined, U.S. and European consumers accounted for half of world consumption in 2018, a fact that underscores the attractiveness of the transatlantic economy and reinforces a point we have made many times in the past: despite the rise of many emerging market economies such as China and India, the United States and European Union still command the largest share of global consumption, 50% together in 2018 versus only 14% from China and India combined. China and India have gained significant share over

**Table 2 U.S. Merchandise Trade Balance with the EU (Billions of \$)**



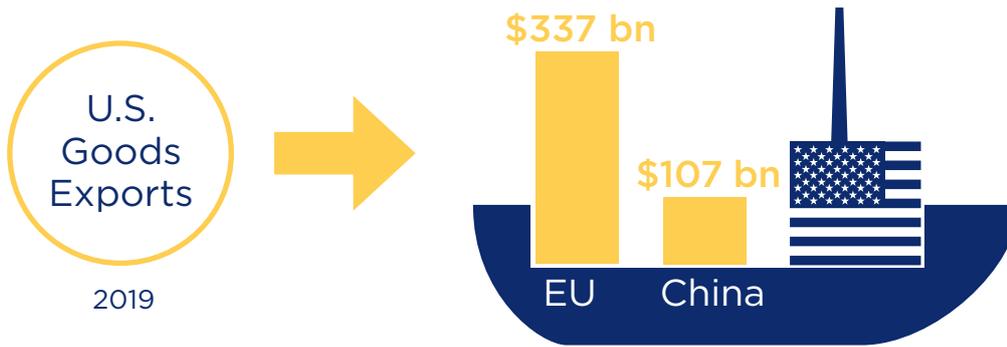
Source: United States Census Bureau.

the past few decades, but the gap remains wide and has actually been very steady over the past few years. At the end of the day, consumers in the United States and Europe are far wealthier (on a per-capita income basis) than their counterparts in India or China. Consumer spending will continue to be a main catalyst for transatlantic economic growth this year.

This deferred consumer growth will influence bilateral trade. Transatlantic trade continued to expand in 2019 but remained largely unbalanced. Transatlantic trade flows are among the largest in the world, even eclipsing trade with China. For instance, U.S. exports of goods to the EU totaled \$337 billion in 2019, up 6% from the prior year. That figure was more than three times larger than U.S. goods exports to China (\$107 billion in 2019). That said, U.S. goods imports from

the EU (\$515 billion in 2019) were significantly larger than U.S. exports last year, leaving a sizable U.S. merchandise trade deficit with the European Union. Overall U.S.-European commercial interactions are far more balanced if one includes services, as we explain in Chapter 2. Nonetheless, the Trump administration focuses inordinately on goods trade imbalances, which remain a constant source of tension that could trigger more protectionist measures from the United States in 2020.

On the employment front, into 2020 the job markets in both the United States and the EU continued to improve, and remained supportive of consumption-led transatlantic economic growth. The U.S. job market is the strongest in decades. The U.S. unemployment rate ended 2019 at 3.5%, a multi-decade low.



The EU jobless rate, while above U.S. levels, is now at its lowest point since before the financial crisis of 2008-2009. In December 2019, the EU unemployment rate stood at 6.2%. What's more, unemployment rates across the continent are diverse, with Germany's jobless rate of 3.2% in December standing in sharp contrast to a jobless rate of 16.6% in Greece and 13.7% in Spain. Even those countries, however, have made significant positive strides over the past year. Meanwhile,

the EU's youth unemployment rate remains problematic, with the rate standing at 14.1% in December 2019. This is down considerably, however, from a peak of 24% in 2013. In sum, the transatlantic economy is on the cusp of a cyclical upswing led by consumption, and supported by easy monetary and fiscal policies. However, politics, protectionism and uncertainty over the coronavirus could undermine the stimulatory effects in place and ultimately derail the budding recovery.

**Table 3 U.S. vs. EU Unemployment Rate** Harmonized Unemployment Rate (% Annual Average)



\*2019 EU data is average through November 2019. Source: OECD.

## Box 1. Post-Brexit Europe and the Transatlantic Economy

The United Kingdom formally left the European Union on January 31, 2020, in the process losing its EU voting rights. At the same time, EU law is still applicable on UK territory, at least through the end of 2020. During this year, the UK retains access to the EU Single Market and remains a party to existing EU trade deals with other countries, even as it negotiates the nature of future UK-EU commercial, political and security relations. UK Prime Minister Boris Johnson is adamant that he will not prolong the Brexit process, which leaves just 10 months to conclude trade talks. Negotiations are already proving to be difficult.

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 also impact the strategic partnership with the United States that has been a fundamental pillar of the liberal international order over the past several decades.

Northern Ireland remains the most complex and politically fraught element surrounding the UK-EU divorce agreement. The prospective deal creates a customs border in the middle of the Irish Sea. This means that Northern Ireland remains officially part of the UK's customs territory, but without checks on goods crossing Northern Ireland's 310-mile land border with EU member Ireland. Northern Ireland companies and farmers continue to follow EU customs and regulatory rules, and in practice, Northern Ireland remains part of the EU's Single Market. The United States has a particular interest in ensuring that the ultimate outcome preserves the political and economic progress achieved through the 1998 Good Friday peace agreement between the British and Irish governments, and most of the political parties in Northern Ireland, which was facilitated by the United States.

The best-case trade scenario by the end of 2020 is a bare-bones placeholder agreement that ensures duty-free and quota-free access for goods, at best providing market access for services at least similar to that granted in the EU's recent trade deals with Canada and Japan. The two sides should also work to ensure the future free flow of data and recognition of equivalence for financial services regulations, among other important considerations. Besides Northern Ireland, a key issue in the negotiations is regulatory divergence. London wants greater freedom from EU rules and standards. The EU wants to keep the two economies more aligned, and has linked the issue to UK access to the EU Single Market.

As the UK negotiates terms with the EU it is busy trying to arrange new trade arrangements with scores of other countries, including the United States. Washington and London are finalizing various arrangements governing customs, mutual recognition of standards, trade continuity and privacy issues so that commercial flows are not disrupted during the transition. They are also intent on concluding a bilateral trade agreement, which has already revealed tough issues regarding market access, particularly for agricultural products and financial services.

By some measures, the UK economy is in a relatively strong position to weather the Brexit storm. The UK employment rate was at a record high at the end of 2019 and total pay grew at its fastest rate in over a decade last summer, with growth moderating slightly since then. Real estate price growth has started to pick back up as the clarity of the Conservatives' convincing December election and avoidance of a no-deal Brexit reduced some of the uncertainty that had stifled growth.

Nonetheless, potentially gale-force winds can be felt. The UK economy slowed markedly in 2018, weighed down by flagging private consumption owing in part to the pound's depreciation and the attendant rise in inflation and loss of real disposable income. In 2019, real GDP growth was unchanged at just 1.3%, as the economy continued to be dragged down by business uncertainty, reduced investment and weakness in the manufacturing sector.

In terms of FDI trends, UK-based EU institutions are decamping for other parts of Europe. According to Reuters, financial firms in the UK have opened over 300 subsidiaries in the EU with an estimated 7,000 workers to staff these operations, in order to avoid any disruptions to financial market access after the transition period.<sup>6</sup> According to preliminary data from the UN, total world FDI flows to the UK declined 6% in 2019 due to a lack of large M&A deals targeting the country. However, U.S. foreign direct investment flows to the UK rebounded in 2019 after 2018 flows were the weakest in thirteen years.

All totaled, Bloomberg economics estimates that Brexit has cost the UK economy about \$170 billion since the referendum and expects the costs to keep increasing amid a new trade arrangement with the EU and reduced productivity growth.<sup>7</sup> According to UK government estimates, an exit from the EU with a free-trade agreement and stricter migration arrangements would cause GDP to be lower by about 6.7% after 15 years, compared with baseline forecasts.<sup>8</sup> No matter what the Brexit terms may be, the process is likely to unsettle markets and cast a cloud over the UK's relations with key partners for years.

This could portend slower U.S. FDI flows to the one-time prime location for U.S. companies doing business in the EU. After the Netherlands, America's corporate stakes in the UK are the deepest in the world. Totalling \$758 billion in 2018, the latest year of available data, America's capital stock in the UK is almost triple the combined investment in South America, the Middle East and Africa (\$260 billion). Total U.S. investment stock in China was just \$117 billion in 2018. Even when the U.S. investment presence in China and India are combined – totaling \$163 billion in 2018 – the figure is just 21% of total U.S. investment in the UK.

Wealthy consumers, respect for the rule of law, the ease of doing business, credible institutions, membership in the European Union – all of these factors, and more, have long made the UK a more attractive place to do business for American firms. Whatever the metric – total assets, R&D expenditures, foreign affiliate sales, employment, trade, etc. – the UK has been a longtime pillar of America's global economic infrastructure and a key hub for the global competitiveness of U.S. firms. Since 2000, the UK has accounted for nearly 8% of the cumulative global income of U.S. affiliates, a proxy for global earnings. In the first nine months of 2019, U.S. affiliate income earned in the UK was a robust \$36.1 billion, a 5% increase from the same period a year ago. For all of Europe, U.S. income in the first nine months was basically flat.

In the end, Brexit is likely to prove costly for the UK and dampen the business climate in the EU. Many indicators suggest that the separation will weigh on real economic growth, subdue consumer and business confidence, spur disinvestment from foreign investors, and trigger bouts of political instability. That said, the cost to U.S. companies remains unclear, as the UK and U.S. and the UK and the EU negotiate future trade relationships. Firms are hedging their positions in the UK by exploring alternative locations in the EU, with Germany, France, the Netherlands, and Ireland among the favored locations for ex-UK investment.

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## Jobs, Trade and Investment: Enduring Ties that Bind







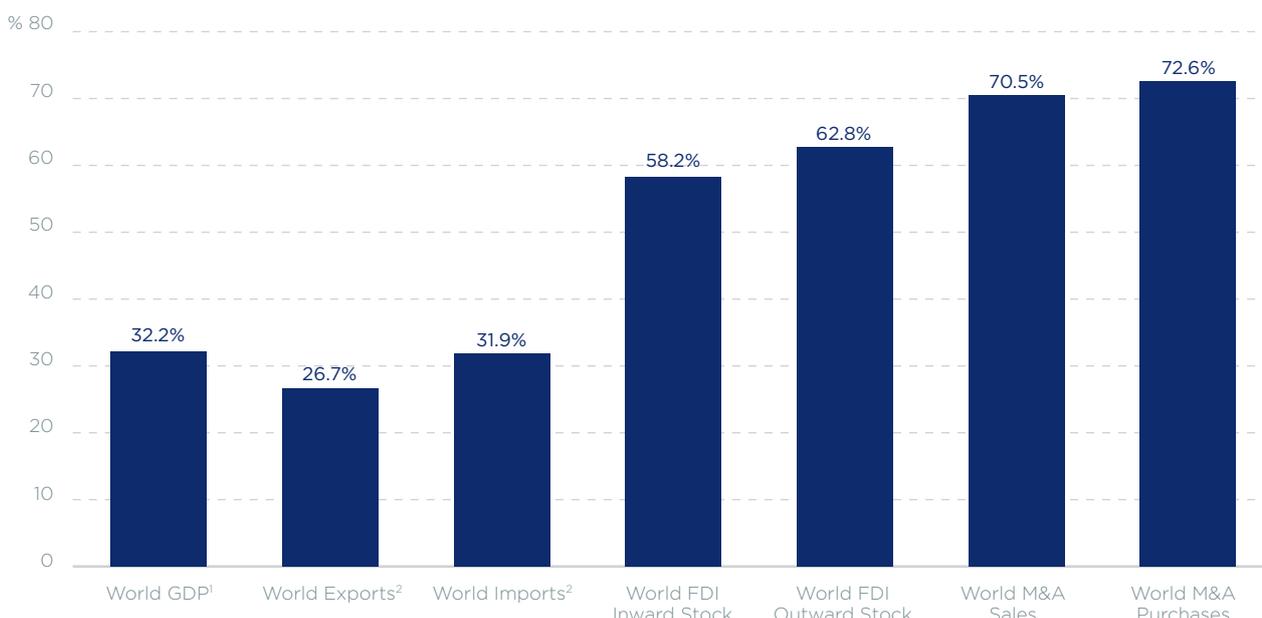
Despite much talk of de-globalization and decoupling, and siren calls of “America First,” “Britain First,” or “Europe First,” the United States and Europe remain deeply intertwined and embedded in each other’s markets. This is not likely to change any time soon given that consumers and producers, workers and companies, citizens, and their governments on both sides of the pond directly benefit from the deep integrative forces that bind the United States and Europe together.

These ties have become even more important as the United States and the European Union each become embroiled in increasingly contentious trade and investment tensions with China. China’s economic rise has been dramatic and continues to affect the global economy. This still does not alter a basic fact of global economic life: the dense interlinkages of investment, trade, technology, innovation and jobs that bind the two sides of the North Atlantic together continue to make the transatlantic economy a key pillar of the global economy. The combined output of the United

States and the EU28 plus close partners Switzerland, Iceland, and Norway accounted for roughly one-third of world GDP in terms of purchasing power parity in 2019. Even if one excludes the United Kingdom, the U.S. and the EU27 (plus Switzerland, Iceland and Norway) account for a substantial 30% of world GDP - higher than the combined output of China and India (one quarter of world GDP).

The transatlantic economy is not only larger than the twin giants of Asia, it is also significantly wealthier. Consumers in the U.S. and the EU easily outspend their counterparts in China and India. As mentioned in Chapter One, the U.S. and EU combined accounted for 50% of global personal consumption in 2018, versus a combined share of just 14% for China and India. Per capita incomes - a key metric of a nation’s wealth - matter, and on this score, it’s no contest. The U.S. (with a per capita income of roughly \$63,000) and the EU (\$37,000) are far wealthier than China (\$10,000) and India (\$2,000). Wealth matters.

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



Sources: UN, IMF, figures for 2018. Transatlantic economy measured as U.S., EU, Norway, Switzerland and Iceland.

1. Based on PPP estimates.

2. Excluding intra-EU, Norway, Switzerland and Iceland trade.

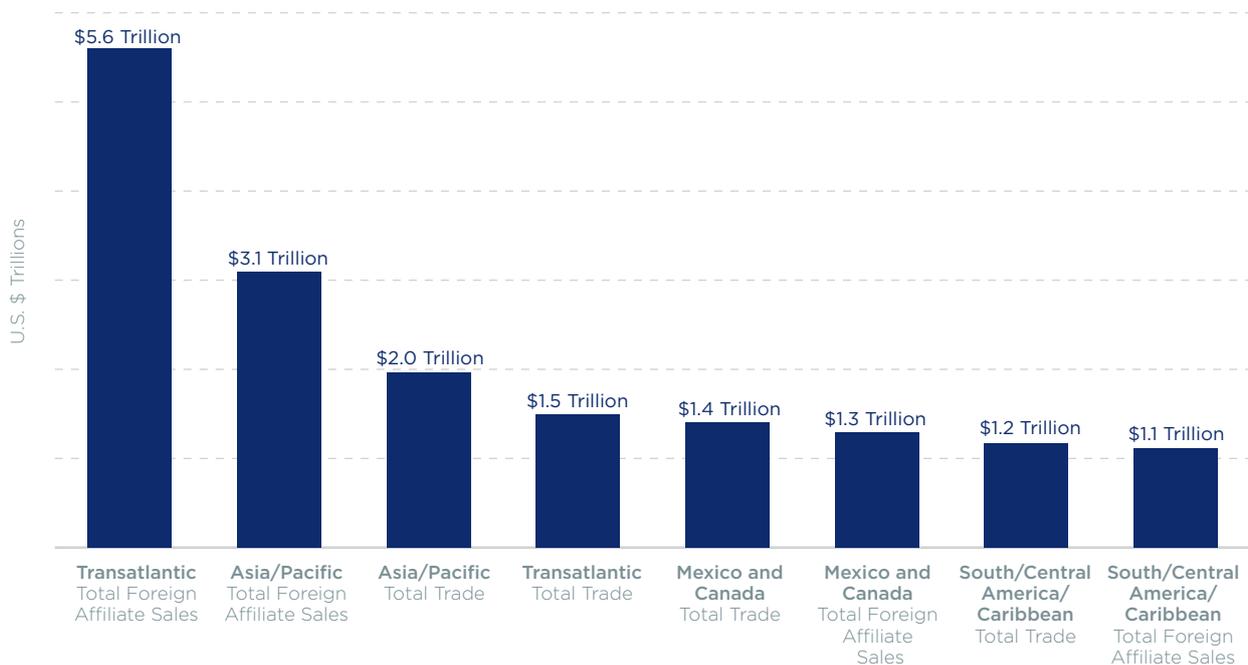
In addition, the transatlantic economy is a repository of innovation and technological advancement, and at the forefront of global foreign direct investment and global mergers and acquisitions activity. Taken together, U.S. and European exports to the world (excluding intra-EU trade) accounted for 27% of global exports in 2018, the last year of complete data; combined imports represented 32% of the world total. Meanwhile, the U.S. and Europe together accounted for 58% of inward stock of foreign direct investment (FDI) and 63% of outward stock of FDI. Each partner has built up the great majority of that stock in the other economy. Mutual investment in the North Atlantic space is very large, dwarfs trade, and has become essential to U.S. and European jobs and prosperity.

It is no surprise, therefore, that the largest commercial artery in the world stretches across the Atlantic. Total transatlantic foreign affiliate sales were estimated at \$5.6 trillion in 2018, easily ranking as the top 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 in-country 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. It all makes perfect sense for U.S. and European firms to invest outside the transatlantic economy.

**Table 2** America's Major Commercial Arteries



Foreign Affiliate Sales: Estimates for 2018. Total Trade: Data for goods & services, 2018. South/Central America and Caribbean includes Mexico.

Source: Bureau of Economic Analysis.



## The transatlantic economy

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



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

world. Many U.S. multinationals – for both goods and services – also use their presence in stable and secure Europe to serve burgeoning, but often volatile, markets of North Africa and the Middle East.

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

#### Box 1. Not by Trade Alone

There is a widespread tendency in political circles, by the media, among the broader public, and even by some in the business community to equate international commerce with trade in goods. By this reckoning, surpluses in goods trade are “good” and deficits are “bad.” Yet trade deficits can arise due to factors other than trade, such as differing domestic growth, consumption or savings rates among countries. Equally important is a simple fact: trade in goods, like trade itself, is a misleading benchmark of international commerce. This is especially true when it comes to the transatlantic economy.

As we document in this study, the broad-based nature of U.S.-European commercial ties cannot be understood by looking at merchandise trade figures alone. While some may associate the EU’s large trade surplus in goods with the United States as a key competitive advantage for Europe, there are several other modes through which global companies reach consumers. These include services trade broadly, as well as digitally-deliverable services in particular – both key U.S. strengths. U.S. companies also deliver goods and services to Europeans through U.S. affiliates operating in Europe. They also generate so-called “primary income” from their foreign affiliate earnings as well as from investment income earned in Europe. These are all factors underscoring why investment, not trade, is the engine of the transatlantic economy. Of course, European companies do the same in the United States.

Taking all of these factors into consideration leads to a more balanced view of transatlantic commerce. While the United States does run a large deficit in goods with the EU (-\$170 billion in 2018), the U.S. surplus in services trade (+\$55 billion) and primary income (+\$112 billion) with the EU roughly offsets the goods imbalance. U.S. primary income receipts from the EU were almost \$450 billion in 2018, versus EU-based companies’ profits and investment income of just \$336 billion in the United States.

In short, we believe the eight indices we set forth in this chapter offer a more accurate view of the nature and significance of the transatlantic economy than a narrow focus on goods trade alone.

## The Ties That Bind – Quantifying the Transatlantic Economy

As we outline and emphasize each year in this annual survey, it is the activities of foreign affiliates – the foot soldiers of the transatlantic partnership – that bind the United States and Europe together. Investment, not trade, drives U.S.-European commerce. Understanding this dynamic is essential to understanding the enduring strength and importance of the transatlantic economy.

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

### 1. Gross Product of Foreign Affiliates

As standalone entities, U.S. affiliates in Europe and European affiliates in the United States are among the largest and most advanced economic forces in the world. The total output, for instance, of U.S. foreign affiliates in Europe (an estimated \$740 billion in 2018) and of European foreign affiliates in the U.S. (estimated at \$666 billion) was greater than the total gross domestic product of most countries. For example, combined transatlantic affiliate output – nearly \$1.4 trillion – was larger than the output of such countries as Mexico, the Netherlands, Turkey or Indonesia.

By our estimation, European affiliate output in the United States rose by around 5.5% in 2018, while U.S. affiliate output in Europe rose by a slower pace of 3.5%. In both cases, growth still far outpaced broader GDP gains in either market. We expect modest gains in U.S. foreign affiliate output in the near term, reflecting

relatively weaker economic conditions across Europe. In the United States, European affiliates are operating in one of the most dynamic economies in the world and are expected to boost their near-term output again this year.

On a global basis, the aggregate output of U.S. foreign affiliates reached \$1.5 trillion in 2018, with Europe (broadly defined) accounting for around 51% of the total.

Looking at actual figures for 2017 from the Bureau of Economic Analysis, U.S. affiliate output in Europe (\$715 billion) was roughly double affiliate output in the entire Asia-Pacific region (\$362 billion). While affiliate output in places like China (\$72 billion in 2017) and India (\$35 billion) has increased over the past decade, what U.S. affiliates produce in these two emerging Asian giants pales in comparison to affiliate output in the United Kingdom (\$180 billion), Germany (\$85 billion), or Ireland (\$97 billion).

In the United States, meanwhile, European affiliates are major economic producers in their own right, with British firms of notable importance. The U.S. output of British companies reached an estimated \$170 billion in 2018, about one-quarter of the European total. For the same year, output from German affiliates operating in the United States totaled \$115 billion, or nearly 20% of the European total.

In 2017, the last year of available data, European affiliates in the United States accounted for nearly 62% of the roughly \$1 trillion that U.S. affiliates of foreign multinationals contributed overall to U.S. aggregate production.

Beyond Europe, only Canada and Japan have any real economic presence in the United States. Japanese affiliate output totaled nearly \$154 billion in 2017, the last year of available data, while Canadian affiliate output totaled \$94 billion.

### Total output of foreign affiliates

(2018 estimate)



**\$740 billion**  
U.S. in Europe

**\$666 billion**  
Europe in the U.S.

### U.S. affiliate output

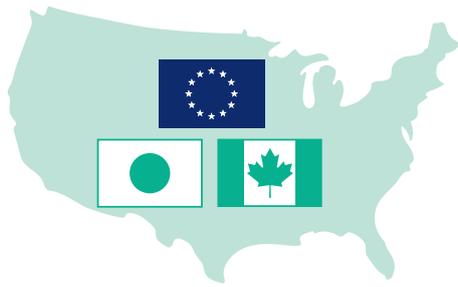
(2017)



**\$715 bn**  
Europe



**\$362 bn**  
Asia-Pacific



## Beyond Europe, only Canada and Japan have any real economic presence in the United States

Deep and thickening transatlantic investment ties contrast starkly with foreign direct investment 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.

### 2. Assets of Foreign Affiliates

The global footprint of Corporate America and Corporate Europe is second to none, with each party each other's largest foreign investor. According to the latest figures from the Bureau of Economic Analysis, U.S. foreign assets in Europe totaled \$17.3 trillion in 2017, representing roughly 62% of the global total. For 2018, we estimate that U.S. foreign assets in Europe reached \$17.5 trillion, close again to 60% of the global total. The largest share of U.S. assets in Europe were in the UK, which accounted for U.S. assets in excess of \$5.5 trillion, around 20% of the global total.

U.S. assets in the Netherlands (around \$3.3 trillion) were the second largest in Europe in 2017. 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 (\$860 billion in 2017) was about 20% larger than its asset base in all of South America. America's combined asset base in Poland, the Czech Republic, and Hungary (roughly \$178 billion) was larger than U.S. assets in India (\$165 billion). America's assets in Ireland (\$1.7 trillion in 2017) were much larger than those in either France (\$408 billion) or Switzerland (\$1 trillion) and light years ahead of those in China (\$446 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 2017. The UK ranked first in Europe, followed by Germany, Switzerland, and France. In 2017, the last year of available data, European assets in the United States accounted for over 56% of all foreign-owned assets in the United States.

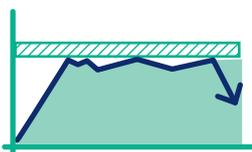
### U.S. foreign assets in Europe \$18 trillion (2018 estimate)



### 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. Most foreign workers on the payrolls of U.S. foreign affiliates are employed in developed nations, notably Europe.

U.S. foreign affiliate employment in Europe has increased steadily since the turn of the century, with affiliate employment in Europe rising from 3.7 million workers in 2000 to 4.8 million workers in 2017, the last year of available data. That represents nearly a 30% increase. We estimate that U.S. foreign affiliates in Europe employed 4.9 million workers in 2018, a slight increase from the year before.



## Chinese FDI in both the United States and Europe is plummeting due to trade tensions and scrutiny of investment

**Table 3 The U.S. - European Employment Balance**

Thousands of employees, 2018\*

| Country        | European Affiliates of U.S. Companies | U.S. Affiliates of European Companies | Employment Balance |
|----------------|---------------------------------------|---------------------------------------|--------------------|
| Austria        | 50.8                                  | 19.1                                  | -31.7              |
| Belgium        | 123.9                                 | 60.6                                  | -63.3              |
| Czech Republic | 88.6                                  | 0.0                                   | 88.6               |
| Denmark        | 41.2                                  | 40.8                                  | -0.4               |
| Finland        | 19.6                                  | 28.8                                  | 9.2                |
| France         | 502.9                                 | 748.9                                 | 246.0              |
| Germany        | 713.2                                 | 789.3                                 | 76.0               |
| Greece         | 15.8                                  | 3.3                                   | -12.6              |
| Hungary        | 68.6                                  | 0.5                                   | 68.1               |
| Ireland        | 132.1                                 | 300.8                                 | 168.7              |
| Italy          | 237.0                                 | 77.4                                  | -159.6             |
| Luxembourg     | 28.3                                  | 13.5                                  | -14.9              |
| Netherlands    | 267.9                                 | 582.1                                 | 314.3              |
| Norway         | 41.1                                  | 6.9                                   | -34.2              |
| Poland         | 209.0                                 | 0.8                                   | -208.2             |
| Portugal       | 33.6                                  | 0.7                                   | -32.9              |
| Romania        | 83.4                                  | <50                                   | -58.4              |
| Spain          | 177.4                                 | 85.8                                  | -91.6              |
| Sweden         | 72.6                                  | 223.1                                 | 150.5              |
| Switzerland    | 99.5                                  | 463.4                                 | 363.9              |
| United Kingdom | 1,494.6                               | 1,246.8                               | -247.7             |
| <b>Europe</b>  | <b>4,869.0</b>                        | <b>4,709.9</b>                        | <b>-159.1</b>      |

Note: Employment balance "+" favors the United States

Source: Bureau of Economic Analysis.

\*2018 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 totaled 1.9 million in 2000, on par with the levels of 2017. 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 308,000 in 2017. U.S. 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 376,000 in 2017. 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 136,000 in 2017, and continuing on an upward trend.

Even given these changes, the manufacturing workforce of U.S. affiliates in Germany (376,000) in 2017 was greater than the number of manufacturing workers employed in Brazil (302,000) and India (211,000) – although well below China (764,000).

Roughly 35% of all manufacturing workers employed by U.S. foreign affiliates outside the United States in 2017 were based in Europe.

On a global basis, U.S. majority-owned affiliates (including banks and non-bank affiliates) employed 14.4 million workers in 2017, with a large share of these workers – roughly 33% – living in Europe. That share is down from 38% in 2009. That decline is in part a consequence of Europe's cyclical slowdown for some years, and in part due to the fact that U.S. overseas capacity is expanding at a faster pace in faster-growing emerging markets than slow-growth developed nations. Another factor at work: more and more U.S. firms are opting to stay home due to competitive wage and energy costs, as opposed to shipping more capacity abroad. Some digital innovations also mean companies can now do some things from home that they used to do abroad. Additionally, the sweeping overhaul of the U.S. corporate tax code in 2017, which significantly lowered America's tax rate relative to many in Europe, has spurred more investment to come home or stay in the United States – more on that in Chapter Five. That said, however, with the U.S. labor market the tightest in decades, U.S. firms are even more dependent on European workers to drive production and sales.

Most employees of U.S. affiliates in Europe live in the UK, Germany, or France. Meanwhile, U.S. majority-owned firms are, on balance, hiring more people in services activities than in manufacturing. The latter accounted for just 40% of total U.S. foreign affiliate employment in Europe in 2017. The key industry in terms of manufacturing employment was transportation equipment, with U.S. affiliates employing nearly 382,000 workers, followed by chemicals (295,000). 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 2017 (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.

## U.S. foreign affiliate employment in Europe



**4.9 million**  
workers  
(2018 estimate)

When it comes to affiliate employment, trends in the United States are similar to those in Europe. Despite stories on the continent about local European companies relocating to lower cost locales in eastern Europe and Asia, most foreign workers of European firms are employed in the United States. Based on the latest figures, European majority-owned foreign affiliates directly employed 4.6 million U.S. workers in 2017 – some 123,000 more workers than in 2016. In 2017, the top five European employers in the United States were the UK (1.2 million, up 15,200 from 2016), Germany (774,000, up 63,000 from 2016), France (734,000, up 10,000 from 2016), the Netherlands (571,000, up 500 from 2016), and Switzerland (454,000, up 8,000 from 2016). European firms employed roughly two-thirds of all U.S. workers on the payrolls of majority-owned foreign affiliates in 2017.

All told, the transatlantic workforce directly employed by U.S. and European foreign affiliates in 2017 was roughly 9.4 million strong, up roughly 2% from the year before. In 2018, modest gains in employment were most likely achieved on both sides of the pond, with employment levels in the U.S. most likely rising at a faster pace than in Europe. For 2018 we estimate that jobs numbers further improved, with U.S. affiliates based in Europe directly employing about 4.9 million European workers, and European affiliates based in the United States directly employing about 4.7 million Americans.

Employment growth, however, most likely softened last year as real growth and demand decelerated on both sides of the ocean. That said, as we have stressed in the past, these figures understate the employment effects of mutual investment flows, since these numbers are limited to direct employment, and do not account for indirect employment effects on nonequity arrangements such as strategic alliances, joint ventures, and other deals. Moreover, foreign employment figures do not include jobs supported by transatlantic trade flows. Trade-related employment is sizable in many U.S. states and many European nations.

In sum, direct and indirect employment remains quite large. We estimate that the transatlantic workforce numbers some 14-16 million workers, counting both

## European foreign affiliate employment in the U.S.



**4.7 million**  
workers  
(2018 estimate)

direct affiliate employees as well as those whose jobs are supported by transatlantic trade. Europe is by far the most important source of “onshored” jobs in America, and the United States is by far the most important source of “onshored” jobs in Europe.

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

The United States and Europe remain primary drivers of global R&D. Yet as the globalization of R&D has gathered pace, more and more global R&D expenditures are emanating from Asia in general, and China in particular. Beijing is unrelentingly focused on being a global leader in artificial intelligence, quantum computing, space exploration, cybersecurity, life sciences, electric vehicles, supercomputing, semiconductors, and 5G. The goal of Beijing’s 13th Five-Year Plan (2016-2020) is to make China an “innovative nation” by 2020; an “international innovation leader” by 2030; and a “world powerhouse of scientific and technological innovation” by 2050.

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

Bilateral U.S.-EU flows in R&D are the most intense between any two international partners.

Table 4 The Top 20 R&amp;D Spenders

| 2018 | Company           | R&D Spending          |                  | Country       | Industry              |
|------|-------------------|-----------------------|------------------|---------------|-----------------------|
|      |                   | 2018, \$U.S. Billions | Change from 2017 |               |                       |
| 1    | Amazon            | 22.6                  | 40.6%            | United States | Retailing             |
| 2    | Alphabet          | 16.2                  | 16.3%            | United States | Software and Services |
| 3    | Volkswagen        | 15.8                  | 14.1%            | Germany       | Auto                  |
| 4    | Samsung           | 15.3                  | 6.8%             | South Korea   | Technology Hardware   |
| 5    | Intel             | 13.1                  | 2.8%             | United States | Semiconductors        |
| 6    | Microsoft         | 12.3                  | -5.7%            | United States | Software and Services |
| 7    | Apple             | 11.6                  | 15.3%            | United States | Technology Hardware   |
| 8    | Roche Holding     | 10.8                  | -8.7%            | Switzerland   | Healthcare            |
| 9    | Johnson & Johnson | 10.6                  | 16.0%            | United States | Healthcare            |
| 10   | Merck & Co.       | 10.2                  | 0.8%             | United States | Healthcare            |
| 11   | Toyota            | 10.0                  | 2.6%             | Japan         | Auto                  |
| 12   | Novartis          | 8.5                   | -11.1%           | Switzerland   | Healthcare            |
| 13   | Ford              | 8.0                   | 9.6%             | United States | Auto                  |
| 14   | Facebook          | 7.8                   | 31.0%            | United States | Software and Services |
| 15   | Pfizer            | 7.7                   | -2.7%            | United States | Healthcare            |
| 16   | General Motors    | 7.3                   | -9.9%            | United States | Auto                  |
| 17   | Daimler           | 7.1                   | -9.2%            | Germany       | Auto                  |
| 18   | Honda Motor       | 7.1                   | 8.7%             | Japan         | Auto                  |
| 19   | Sanofi            | 6.6                   | 5.8%             | France        | Healthcare            |
| 20   | Siemens           | 6.1                   | 4.9%             | Germany       | Capital Goods         |
|      |                   | <b>214.5</b>          | <b>7.3%</b>      |               |                       |

Source: Bloomberg data, Capital IQ data, Strategy& analysis.

In 2017, the last year of available data, U.S. affiliates spent \$33 billion on research and development in Europe, up slightly from the prior year. On a global basis, Europe accounted for roughly 58% of total U.S. R&D abroad in 2017, down slightly from 2016. R&D expenditures by U.S. affiliates were the greatest in Germany (\$8.1 billion), the UK (\$6.4 billion), Switzerland (\$4.7 billion), Ireland (\$3.4 billion), France (\$2 billion), the Netherlands, and Belgium (\$1.4 billion each). These seven nations accounted for roughly 84% of U.S. spending on R&D in Europe in 2017.

In the United States, meanwhile, expenditures on R&D performed by majority-owned foreign affiliates totaled \$62.6 billion in 2017. As in previous years, a sizable share of this R&D spending – \$44.0 billion – emanated from world-class leaders from Europe, given their interest in America's highly skilled labor

force and world-class university system. Most of this investment by European firms took place in such research-intensive sectors as chemicals, autos and information technology products and services.



### R&D spending of foreign affiliates (2017)

**\$33 billion**  
U.S. in Europe

**\$44 billion**  
Europe in the U.S.

In 2017, R&D spending by European affiliates accounted for 70% of total foreign R&D spending in the United States.

On a country basis, Swiss-owned affiliates were the largest foreign source of R&D in the United States in 2017, spending some \$10 billion. Swiss firms accounted for nearly a quarter of the European total. British firms accounted for the second largest percentage of affiliate expenditures, with a 20% share in 2017. Germany's share was close, at 19.5%, followed by France, 12.3%. As Table 4 highlights, some of the world's most innovative companies who invest the most in R&D are domiciled in the U.S. and Europe.

### 5. Intra-firm Trade of Foreign Affiliates

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

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 2018, the last year of available data. That is much higher than related-party imports from the Asia Pacific region (38%) and well above the global average (49%). The percentage was even higher in the case of Ireland (88%) and Germany (70%).

Meanwhile, over 37% of U.S. exports to Europe in 2018 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 (56.6%) were classified as related-party trade. The comparable figure for Germany was 35% and 30% for France.

**Table 5 Related Party Trade, 2018**

| Country        | U.S. Imports: "Related Party Trade," as % of Total | U.S. Exports: "Related Party Trade," as % of Total |
|----------------|--|--|
| European Union | 62.5   | 37.3   |
| Germany        | 69.5   | 35.1   |
| France         | 50.0   | 30.1   |
| Ireland        | 88.1   | 32.1   |
| Netherlands    | 64.8   | 56.6   |
| United Kingdom | 53.3   | 31.9   |

Source: U.S. Census Bureau.

### 6. Foreign Affiliate Sales

U.S. majority-owned foreign affiliate sales on a global basis (goods and services) totaled an estimated \$6.7 trillion in 2018. Total U.S. exports, in contrast, were \$2.5 trillion in 2018, or roughly 38% of foreign affiliate sales. This gap underscores the primacy of foreign affiliate sales over U.S. exports. As we have noted many times before, one of the best kept secrets in Washington is how U.S. firms actually deliver goods and services to foreign customers.

As usual, Europe accounted for the bulk of U.S. affiliate sales in 2018. We estimate that U.S. foreign affiliate sales in Europe totaled \$3.2 trillion, up roughly 7% from the prior year. U.S. affiliate sales in Europe, by our estimates, amounted for roughly half of the global total.

Reflecting the primacy of Europe when it comes to U.S. foreign affiliate sales, sales of U.S. affiliates in Europe were roughly 70% larger than the comparable figures for the entire Asian region in 2017 the last year of available data. Affiliate sales in the UK (\$643 billion) were double total sales in South America. Sales in Germany (\$339 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 2018, for instance, we estimate that majority-owned European affiliate sales in the United States (\$2.4 trillion) were more than triple U.S. imports from Europe. By country, sales of British firms were the largest (\$543 billion) in 2017, followed by Germany (\$501 billion), and the Netherlands (\$350 billion). For virtually all countries in Europe, foreign affiliate sales were easily in excess of their exports to the U.S. in 2017.



## Foreign affiliate sales

(2018 estimate)

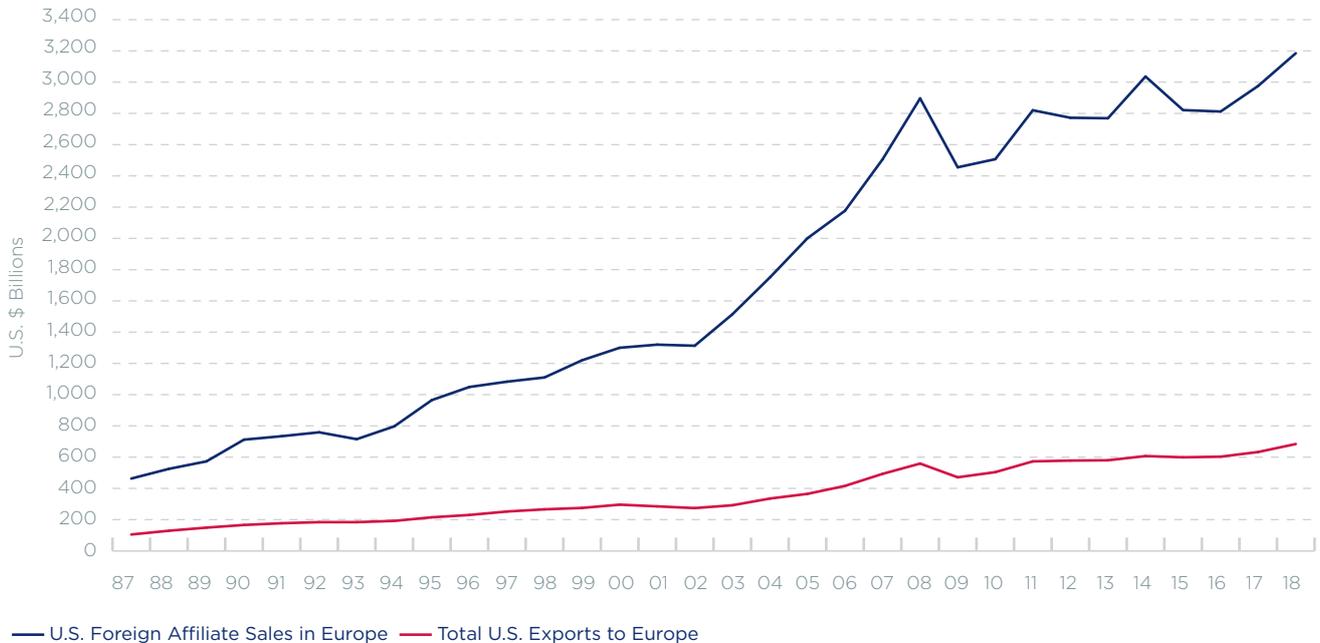
**\$3.2 trillion**

U.S. in Europe

**\$2.4 trillion**

Europe in the U.S.

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

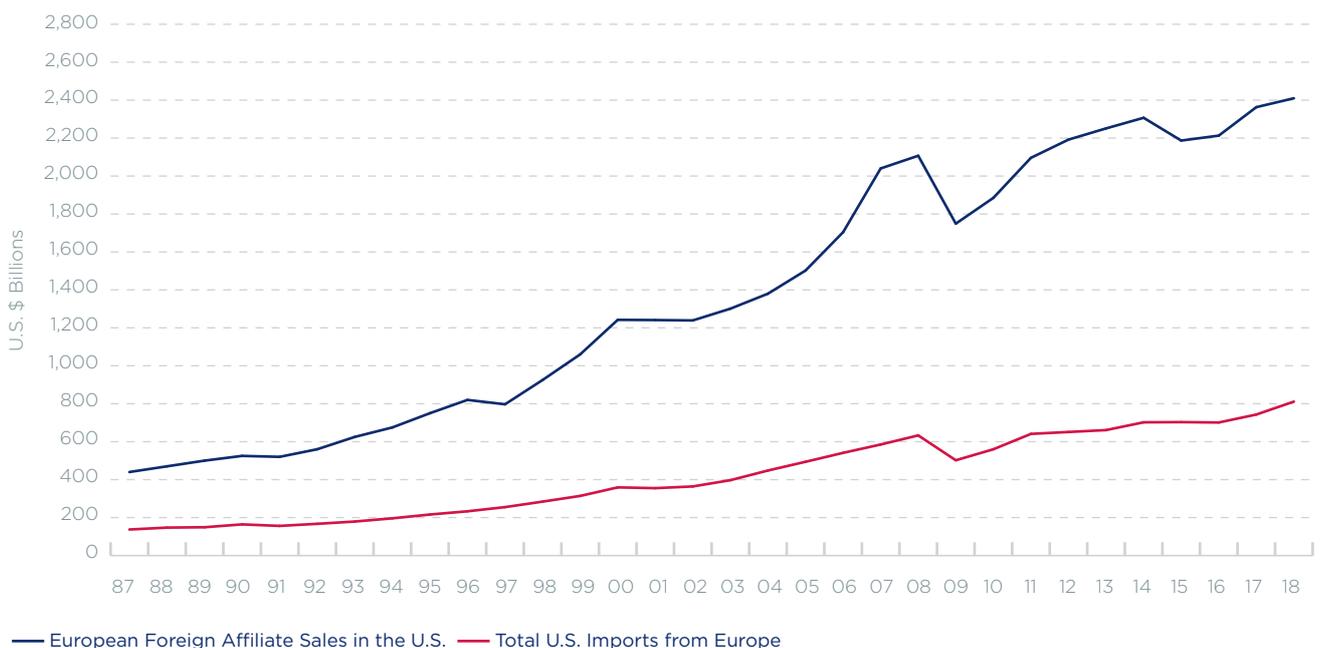


Source: Bureau of Economic Analysis.

Majority-owned non-bank affiliates data: 1987 - 2008. Majority-owned bank and non-bank affiliates: 2009 - 2018.

Foreign Affiliate Sales: Estimates for 2018.

**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 - 2018.

Foreign Affiliate Sales: Estimates for 2018.



## Foreign affiliate profits (2019)

**\$295 billion**  
U.S. in Europe

**\$140 billion**  
Europe in the U.S.

### 7. Foreign Affiliate Profits

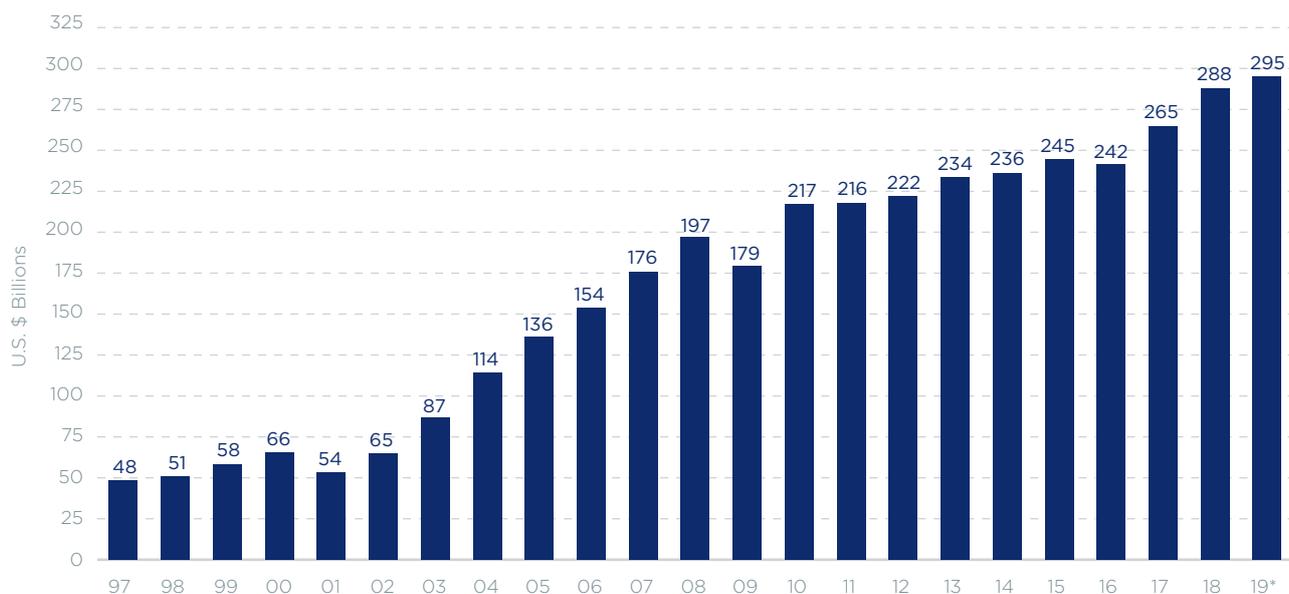
Transatlantic profits have rebounded from the depressed levels of 2009, when the global financial crisis and ensuing recession triggered a sharp downturn in affiliate income/earnings on both sides of the pond. In 2018, U.S. affiliate income in Europe rose to a record \$288 billion, and by another 2.5% in 2019 by our estimate, to a record \$295 billion. The figure for 2019 was more than 60% larger than the depressed levels of 2009, when affiliate income earned in Europe plunged to \$179 billion. Meanwhile, European affiliate income earned in the United States in 2019 was also at record levels; our estimate, affiliate income totaled \$140 billion, up slightly from the prior year.

Europe accounted for roughly 54% of U.S. global foreign affiliate income in the first nine months of 2019. Europe, in other words, remains a very important market to U.S. multinationals. As a footnote, we define Europe here in very broad terms, including not only the EU28 but also Norway, Switzerland, Russia, and smaller markets in Central and Eastern Europe.

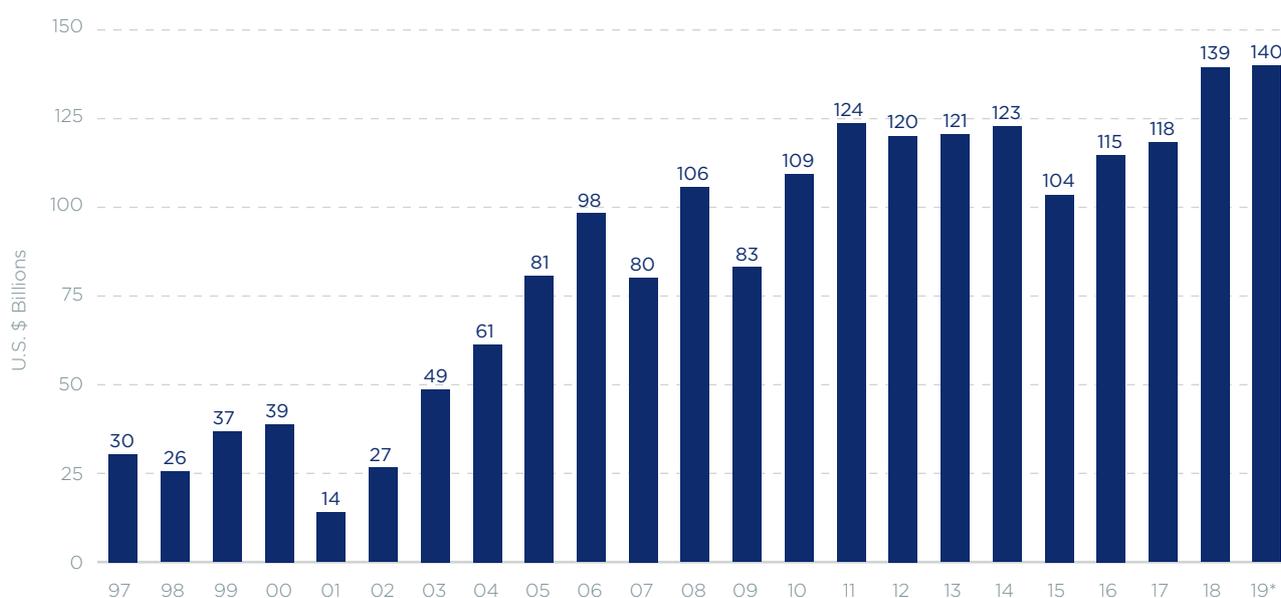
On comparative basis, U.S. affiliate income from Europe is simply staggering, with foreign affiliate income in Europe – \$217 billion in the first nine months of 2019 – about 1.5 times more than combined U.S. affiliate income from Latin America and Asia (each with \$76 billion in profits). It is interesting to note that combined U.S. affiliate income from China and India in 2018 (\$18 billion), the last year of full data, was a fraction of what U.S. affiliates earned/reported in either the Netherlands (\$87 billion), Ireland (\$53 billion), or the United Kingdom (\$47 billion).

Still, there is little doubt that China, India, and Brazil are becoming more important earnings engines for U.S. firms. To this point, in the first nine months of 2019, U.S. affiliate income in China alone (\$9.9 billion) was well in excess of affiliate income in Germany (\$4.1 billion), France (\$2.5 billion), and Spain (\$2.9 billion). U.S. affiliates in India earned \$3.7 billion in the January-September period, well more than that earned in many European countries.

**Table 8 U.S. Earnings from Europe Hitting New Highs** (U.S. foreign affiliate income from Europe)



Source: Bureau of Economic Analysis.  
\*Data for 2019 is authors' estimate.

**Table 9 Record Annual Earnings by European Affiliates in the U.S.** (Foreign affiliate income earned in the U.S.)

Source: Bureau of Economic Analysis.

\*Data for 2019 is authors' estimate.

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

Similarly, the United States remains the most important market in the world in terms of earnings for many European firms. Even though the income of European affiliates in the United States in the first nine months of 2019 was basically flat from the same period a year earlier, for the full year we estimate income of European affiliates in the U.S. hit a record \$140 billion.

## 8. Transatlantic Services

Services generate more than two-thirds of global economic output, attract over two-thirds of foreign direct investment, and provide four-fifths of all jobs in developed countries. Services are the fastest growing segment of global trade; the WTO forecasts that services could account for up to one-third of world trade by 2040 – a 50% increase in the share of services in global trade in just two decades.<sup>1</sup>

The United States and Europe are the largest services economies in the world. They are each other's largest services market, and dense transatlantic services linkages mean that the transatlantic services economy is the geo-economic base for the global competitiveness of U.S. and European services companies.

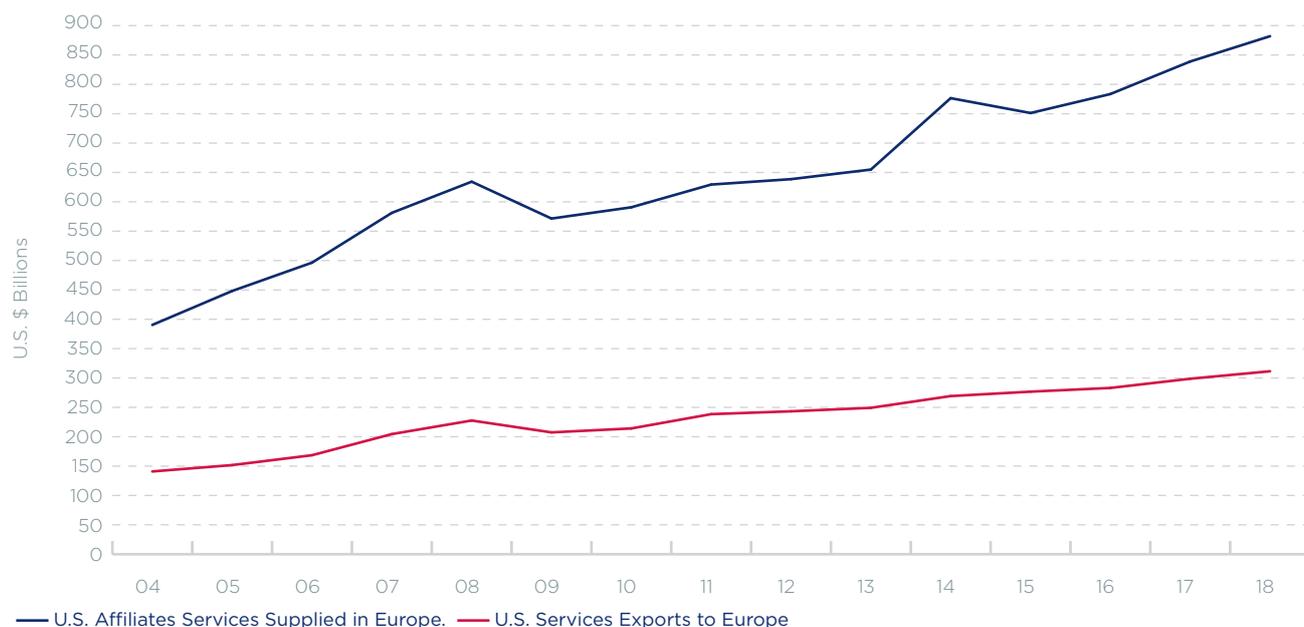
Transatlantic ties in services – both in trade and investment – are quite large and have become even

more intertwined over the past decade. Transatlantic linkages continue to deepen in insurance, education, telecommunications, transport, utilities, advertising, and computer and business services.

On a regional basis, Europe accounted for 38% of total U.S. services exports and for 42% of total U.S. services imports in 2018. Four out of the top ten export markets for U.S. services in 2018 were in Europe. The UK ranked first, followed by Ireland (ranked 4th), Switzerland (6th), and Germany (7th). Of the top ten services providers to the United States in 2018, five were European states, with the UK ranked first, Germany fourth, Switzerland seventh, Ireland eighth, and France ninth. In 2018, the United States registered a \$55 billion trade surplus in services with the EU, versus a \$170 billion trade deficit in goods. Using a broader definition of Europe, which includes non-EU countries, the U.S. runs a slightly larger surplus in services (\$75 billion) and a larger deficit in goods (\$202 billion).<sup>2</sup>

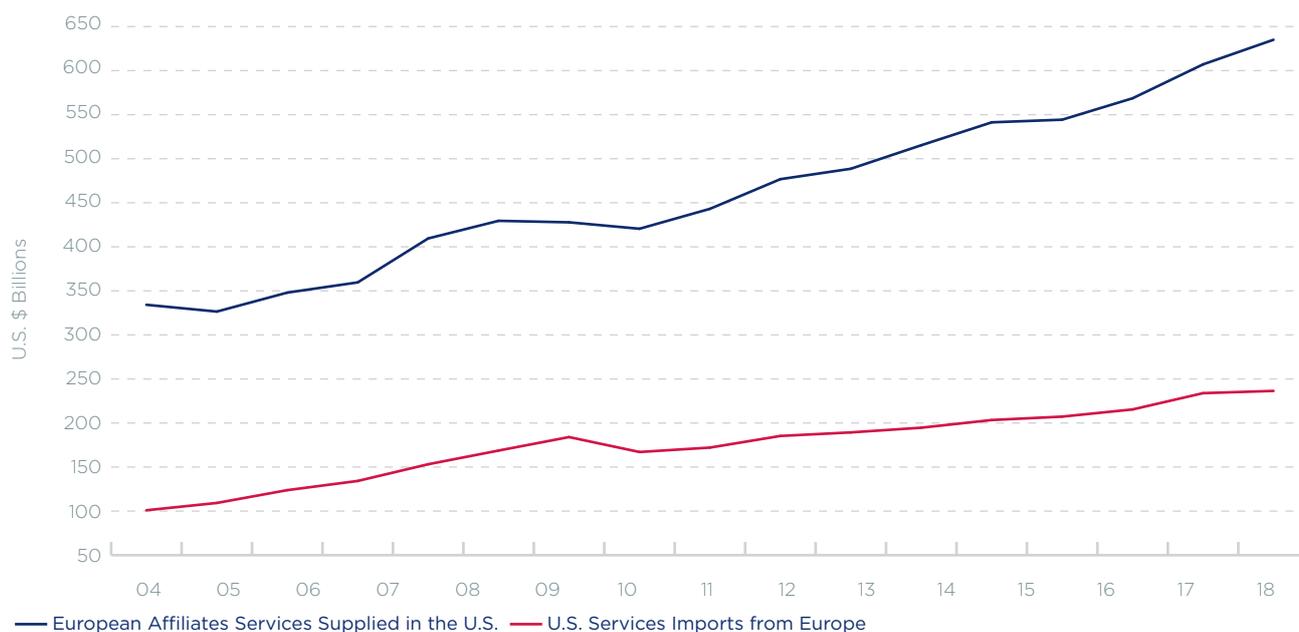
U.S. services exports to Europe reached a record \$312 billion in 2018, up 50% from the cyclical low of 2009. Services exports (or receipts) have been fueled by a number of services-related activities such as travel, passenger fares, education and financial services. In terms of transport, the top five 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 insurance services; the UK and Luxembourg also ranked in the top five in financial services. Ireland was the top export market for U.S. trade in intellectual property – or charges or fees for the use of intellectual property rights, representing

**Table 10 U.S. - Europe Services Linkages**



— U.S. Affiliates Services Supplied in Europe. — U.S. Services Exports to Europe  
 Source: Bureau of Economic Analysis.  
 Majority-owned bank and non-bank affiliates. Services supplied in Europe estimates for 2018.

**Table 11 Europe - U.S. Services Linkages**



— European Affiliates Services Supplied in the U.S. — U.S. Services Imports from Europe  
 Source: Bureau of Economic Analysis.  
 Majority-owned bank and non-bank affiliates. Services supplied in the U.S. estimates for 2018

12% of total receipts. The UK ranked second in telecommunications, computer and information services, after Brazil. As for “other business service exports” or activities like management consulting and R&D, Ireland ranked number one in 2018, followed by Switzerland.

As for U.S. service imports from Europe, figures for 2018 were at all-time highs. U.S. services imports from Europe totaled \$236 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.

Trade figures, while significant, do not do full justice to the importance of the transatlantic services economy. Transatlantic foreign affiliate sales of services are much deeper and thicker than traditional trade figures suggest. Indeed, sales of affiliates have exploded on both sides of the Atlantic over the past few decades thanks to falling communication costs and the rise of the digital economy. Affiliate sales

of services have not only supplemented trade in services, they have become the overwhelming mode of delivery in a rather short period of time. Worldwide affiliate sales of U.S. services almost doubled in the years from 2005 to 2017, exceeding \$1 trillion for the first time in 2007. In 2017, the last year of full data, U.S. affiliate services sales (\$1.6 trillion) were roughly double the level of U.S. services exports (\$827 billion).

Sales of services of U.S. foreign affiliates in Europe rose 7% in 2017 to \$839 billion, and have risen by more than 45% since 2009, when services sales plunged on account of the transatlantic recession. U.S. services exports to Europe in 2017 totaled \$299 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.

The UK accounted for roughly 30% of all U.S. affiliate services sales in Europe; affiliate sales totaled \$247 billion in the UK, a figure greater than total affiliate sales in South and Central America (\$122 billion), Africa (\$14 billion), or the Middle East (\$21 billion). Affiliate sales of services in Ireland remain quite large – \$142 billion in 2017 – and reflect strong U.S.-Irish foreign investment ties with leading U.S. internet, software, and social media leaders. Europe accounted for roughly 54% of total global U.S. affiliate service sales.

We estimate that sales of services of U.S. affiliates in Europe rose by around 5%, to \$882 billion in 2018. U.S. services exports to Europe for the same year were \$312 billion.

U.S. affiliate sales of services in Europe continue to exceed sales of services by U.S. affiliates of European firms. In 2017, the last year of complete data, European affiliate services sales in the United States totaled \$607 billion, about 28% 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 \$1.1 trillion in 2017, with European firms accounting for 56% of the total. Within Europe, British affiliates lead in terms of affiliate sales of services in the United States (\$153 billion), followed closely by Germany (\$148 billion).

**Table 12 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 | 3,610              | 61%                          |
| Manufacturing                  | 456                | 50%                          |

*Note: Historic-cost basis, 2018.  
Source: Bureau of Economic Analysis.*

**Table 13 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 | 2,957                | 68%                          |
| Manufacturing                     | 1,366                | 77%                          |

*Note: Historic-cost basis, 2018.  
Source: Bureau of Economic Analysis.*

We estimate that European affiliate services sales in the United States totaled \$635 billion in 2018, well above U.S. services imports from Europe (\$236 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.

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

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.



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

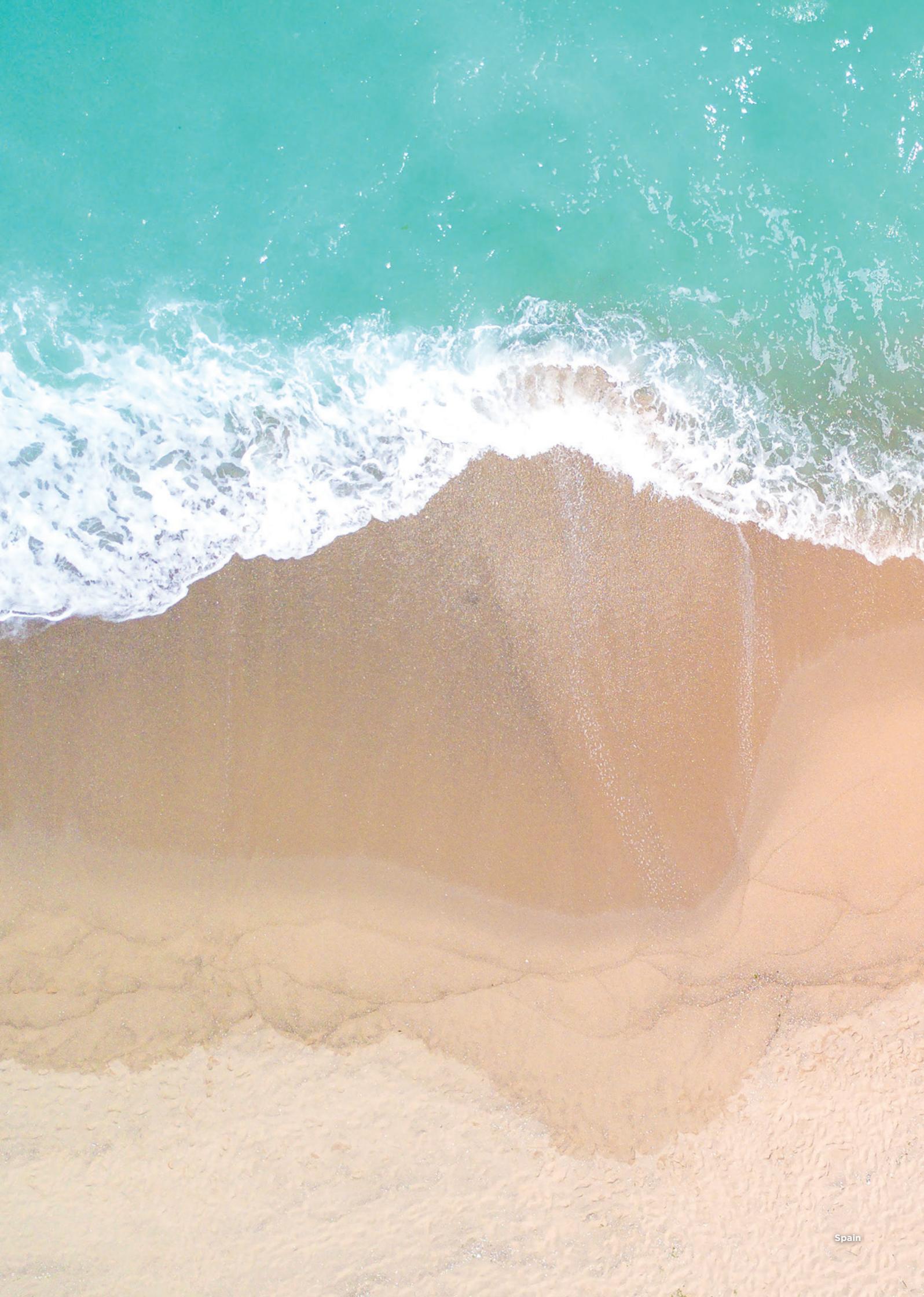
#### Endnotes

- 1 WTO, *World Trade Report 2019: The future of services trade*, [https://www.wto.org/english/res\\_e/booksp\\_e/00\\_wtr19\\_e.pdf](https://www.wto.org/english/res_e/booksp_e/00_wtr19_e.pdf).
- 2 See Notes on Terms, Data and Sources in the back of the study for complete definition of broader Europe.

An aerial photograph of a beach. The top half of the image shows the ocean with white, foamy waves crashing onto the shore. The bottom half shows the golden-brown sand of the beach. A semi-transparent olive-green rectangular box is centered over the image, containing the page number and title.

3

## **Seismic Shift:** The Transatlantic Digital Economy





**60%**  
of global GDP will be digitized by 2022

The digital revolution continues to shake and shape the way we live, learn, work and play. The numbers are astounding. More than 5.19 billion people now use mobile phones, 4.5 billion people are now online, and 3.8 billion use social media. Every minute they buy, sell and send \$5.5 billion in digital services across borders.<sup>1</sup> This year, they will generate 47 zettabytes of data – 534 million times the internet’s size in 1997.<sup>2</sup> Over the next two years, 60% of global GDP will be digitized.<sup>3</sup> Over the next three years, companies are expected to spend \$7.4 trillion on digital transformation.<sup>4</sup> In five years, digital ecosystems will account for more than 30% (\$60 trillion) of global corporate revenue.<sup>5</sup> By that time, an average connected person is likely to interact with Internet-of-Things (IoT) devices nearly 4,900 times a day – the equivalent of one interaction every 18 seconds.<sup>6</sup>

This seismic shift holds untold promise for human health and wealth, for business efficiencies and simply for ease of life. It is connecting people and continents as never before. It raises profound ethical, moral and legal questions. And it is uprooting entire segments of the economy across the Atlantic and around the world.

Whole sectors are challenged as new business models rise. Human mobility is at a revolutionary inflection point due to a remarkable confluence of technological breakthroughs in autonomy, connectivity, electrification, and sharing.<sup>7</sup> The shift of computing to the cloud and the “edge” is creating new architectures of connectivity.<sup>8</sup> Blockchain and distributed ledger technologies offer great potential to reinforce digital trust through traceability, even as they disrupt banking, finance and many other industries.<sup>9</sup> In the next five years, artificial intelligence (AI) applications are projected to empower people with disabilities, power better city services, husband natural resources, and generate global revenues of \$90 billion.<sup>10</sup> By that time, the 3D printing market is expected to be worth \$550 billion; companies are already 3D printing car parts, prosthetic hands, surgical tools, entire houses, and even whole neighborhoods.<sup>11</sup>

The “app and bot” economy is emblematic of unrelenting digital disruption. Apps comprise one of the fastest-growing software markets ever: in 2019 consumers downloaded 204 billion apps and spent more than \$120 billion on apps globally. People place more international calls via apps than over the networks of all of the world’s telecommunications



**Jobs supported by the app economy**

**2.3 million**  
in the U.S.

**2.1 million**  
in Europe

carriers combined. More Americans and many Europeans spend more time on apps than browsing the internet or watching television. The App Economy accounts for over 2.3 million jobs in the United States and 2.1 million in the EU28 (plus Norway and Switzerland), the top countries being the UK (366,000), France (350,000), Germany (296,000), the Netherlands (212,000), Spain (101,000) and Sweden (98,000). London is the top European city for App Economy jobs, followed by Paris, Amsterdam, Stockholm, and Berlin. Germany has a remarkable six cities and the Netherlands has four cities in the top 30.<sup>12</sup>

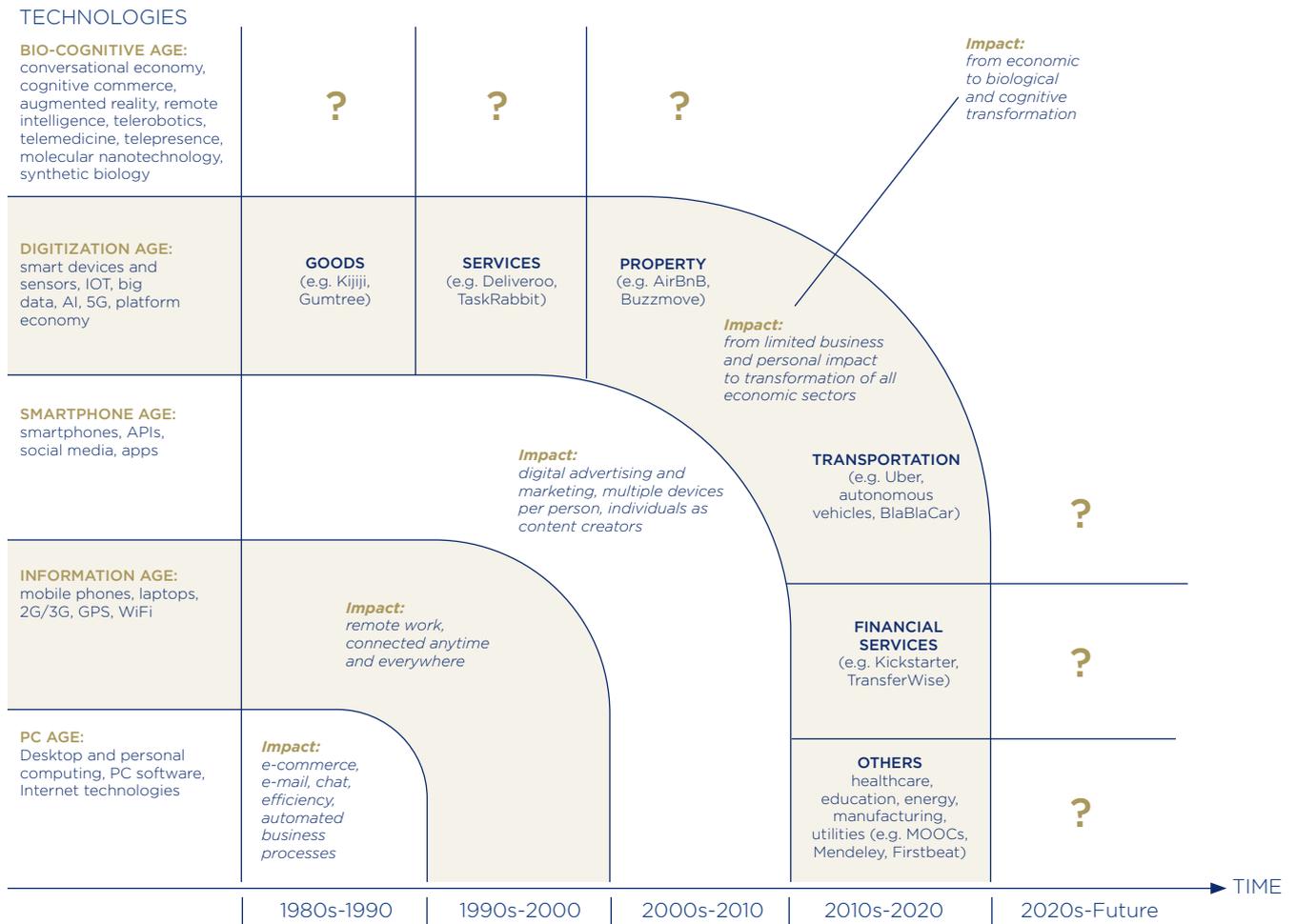
The App Economy has gone mainstream. Yet it is already being transcended by the “Bot Economy,” which is hotter now than the App Economy was when it began. “Bots” – software that automates tasks – and “chatbots” – software that uses artificial intelligence to simulate conversation with humans on messaging platforms – are quickly becoming ubiquitous features of daily life in the transatlantic economy. They, in turn, have opened the door to the next seismic shift: cognitive commerce and the conversational economy, in which voice itself is an operating system.<sup>13</sup>

### The Dawning Bio-Cognitive Age

Even as we grapple with the head-spinning advances and challenges of the “Digitization Age,” some pathfinders are already charting the next frontier – a “Bio-Cognitive Age” in which revolutionary advances in digitization, biology, nanotechnology, behavioral and cognitive sciences are combining to affect not only our economic and social lives, but life itself.<sup>14</sup>

New technologies are augmenting human capabilities both physically and cognitively. Amazon is already planning checkout terminals where consumers can pay simply with a wave of their hand.<sup>15</sup> That’s just the beginning. The genomic and gene-editing revolutions continue unabated. The cost of sequencing a human genome fell from \$14 million in 2006 to about \$1,000 a decade later. A target of less than \$100 now appears achievable. As many as 2 billion people are forecast to have their genome sequenced by 2025.<sup>16</sup> Biohackers are creating cheap alternatives to expensive gene therapies.<sup>17</sup> This year the first humans will have Crispr deployed inside their bodies to fight disease, even as the advent of “prime editing” adds greater precision and flexibility to Crispr technologies.<sup>18</sup>

**Table 1 The Expanding Digital Frontier**



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

Bioengineers are raising so-called organoids – mini-organs in the laboratory – for personal stem cell therapies and to test pharmaceuticals without animal testing. Researchers are combining robotics and synthetic biology to create new sorts of organisms called xenobots that could remove arterial plaque, repair organs, identify cancer, even digest toxic waste.<sup>19</sup> Bioprinters are using 3D printers and bio-inks drawn from living cells to fabricate three-dimensional structures of biological materials. Bioengineers have successfully created artificial bone matrices and printed complex vascular networks. They have even produced the first 3D-printed heart.<sup>20</sup> Xenotransplants – transferring animal organs into humans – are a near-future possibility.<sup>21</sup> Innovations in bioelectronics, including computer-to-brain communication, could treat a range of conditions such as paralysis or damage to the nervous system.<sup>22</sup> Implantable “artificial neurons” hold the promise of treating heart failure by reproducing the electrical properties of brain cells in silicon chips.<sup>23</sup> A drug molecule invented entirely by artificial intelligence entered human clinical trials for the first time in 2020.<sup>24</sup>

Telemedicine, telepresence, and telesurgery are transforming medical techniques and generating greater cross-border trade in healthcare services. The ability to diagnose and treat patients remotely through telemedicine is likely to migrate some healthcare services from hospitals to homes.<sup>25</sup> Telepresence technology, which enables expert surgeons to mentor others in operating surgeries remotely, is already used widely in hospitals. And despite some technical and legal challenges, telesurgery technologies are available that can even enable surgeons to operate on patients at a distance.<sup>26</sup> The use of AI could make drug discovery faster, cheaper and more effective for patients with a range of illnesses; the value of AI in medicine will grow by 2400% by 2025, from \$719 million in 2017 to \$18.2 billion in 2025.<sup>27</sup>

All of these innovations are likely to generate greater cross-border trade of healthcare services. And while bio-engineering and bio-electronics applications are currently focused on the health sector, they

could soon extend to the wider economy. Spider silk manufacturing, for instance, offers applications from aircraft and armor to clothes and cosmetics.<sup>28</sup> Spider-Man is no longer science fiction.

### Changing the Very Nature of Trade

In all of these ways, 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.<sup>29</sup> Digitization 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.<sup>30</sup> Digitization increases the importance of data flows and intellectual property. It has boosted trade in software design over trade in final products.<sup>31</sup> It offers alternative means of payment and finance. It has lowered shipping and customs processing times and reduced radically the cost of creating, copying and accessing text, video content and music, while radically enhancing our ability to access goods and services without owning them. At the same time, by shortening supply chains and enabling more local production, digitization also generates countervailing effects that can dampen trade.<sup>32</sup>

Researchers and firms on each side of the Atlantic have been the vanguard of the digital economy. U.S. companies have been pioneers in social media, e-commerce, autonomous vehicles and platforms; UK companies are leading fintech innovators; Germany has been ranked the world's most innovative nation by Bloomberg for its ability to integrate digital innovations into such sectors as machine tools and manufacturing; Estonia leads the world in e-government innovations.<sup>33</sup>

Speed-of-light digital innovations, however, are often outpacing speed-of-law concerns about their ethical, moral, political and legal implications. Wherever one looks there is growing apprehension among policymakers about how digital innovations are affecting jobs, wages, inequality, privacy, safety, health and security. As each side of the Atlantic has addressed these concerns differently, frictions have arisen. Yet given the dense interlinkages binding the United States and Europe, we cannot afford to be disconnected. The global diffusion of economic power means the window is closing on the ability of the transatlantic partners to maintain a market-oriented democratic approach to data governance, unless they urgently act more effectively together.

### 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. Four in ten individuals are still not connected to the digital economy. The digital revolution is global in its reach but uneven in its effects.

Digital connections are “thicker” between some continents and “thinner” between others – and they are “thickest” between the United States and Europe. The transatlantic theatre 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, New York, Marseille, Los Angeles, San Francisco) represent the world's foremost hubs for international communication and data exchange.<sup>34</sup>

Our understanding of the full impact of the digital economy is limited by our inability to measure it. Not only is there 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.<sup>35</sup> For instance, Erik Brynjolfsson and Avinash Collis estimate that Facebook generates over \$500 of consumer surplus per year for the average user in the United States and Europe. That does not account for potentially countervailing considerations such as the value such data might provide to Facebook. Nonetheless, none of this shows up in GDP.<sup>36</sup>

For these reasons, official estimates of the size of the digital economy as a share of GDP have remained at 4-5% for the past four decades while we can clearly see that the economy has become significantly more digital, and that digitally-enabled trade is growing faster than trade overall. BCG estimates that up to 70% of all global trade flows could eventually be meaningfully affected by digitization. One study coined the term “digital spillovers” to fully capture the digital economy and estimated the global digital economy, including such spillovers, was \$11.5 trillion in 2016, or 15.5% of global GDP. Their analysis indicated that the long-term return on investment for digital technologies is 6.7 times that of non-digital investments.<sup>37</sup>

Failing standard measurements, we have devised five metrics through which we can see more clearly the importance of transatlantic digital connections.<sup>38</sup>

These metrics are not mutually exclusive; they are better understood as different lenses through which one can better understand the transatlantic digital economy.

### 1. Digital Services and Digitally-Enabled Services

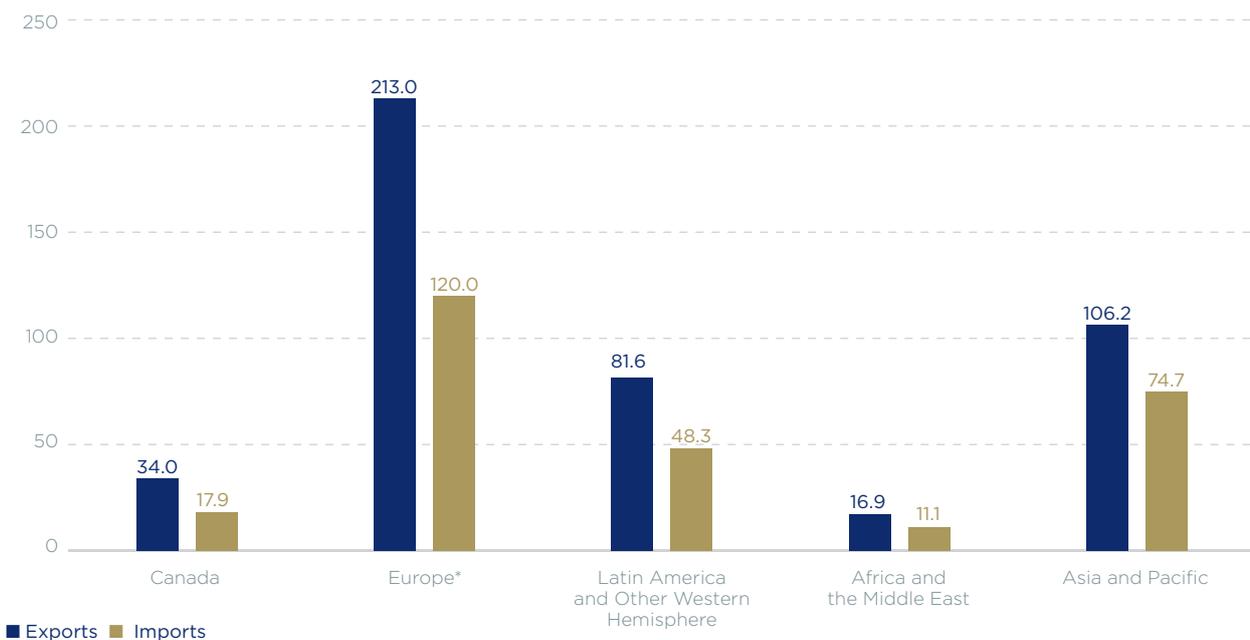
The digital economy is dominated by services, which accounted for 90.8% of total U.S. digital economy current-dollar value added in 2017.<sup>39</sup> Two metrics offer us a clearer picture of transatlantic connections in digital services. A narrow view can be had by looking at cross-border information and communications technology (ICT) services, or *digital services* as shorthand, which are services used to facilitate information processing and communication.<sup>40</sup> 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.”<sup>41</sup> Identifying potentially ICT-enabled services does not tell us with certainty whether the services are *actually* traded digitally.<sup>42</sup> 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,”<sup>43</sup> which means a digital transaction is likely and thus can offer a rough indication of the potential for digital trade.<sup>44</sup> A new OECD/IMF/WTO Handbook defines digital trade as “trade that is digitally ordered and/or digitally delivered,” yet data statistics have not yet been aligned to this definition. That leaves us with digitally-enabled services as the default metric.<sup>45</sup>

In 2018, digitally-enabled services exports amounted to \$2.9 trillion, half of total global services exports. Business services exports are by far the largest category, with a global value of \$1.2 trillion.<sup>46</sup>

The transformative impact of each of these types of digital services is not limited to just the services sector but extends to manufacturing and the traditional bricks-and-mortar economy as well. Digitally-enabled services such as consulting, engineering, software, design and finance are used in manufacturing industries such as transport equipment, electrical equipment and food products. In this regard, digitally-enabled services from the United States have become critical to the competitiveness of European manufacturing and retail operations, and vice versa. In fact, as the line blurs between digital consumers and digital producers, standard industrial classifications may tell us little about digitization’s impact on particular sectors of the economy.<sup>47</sup>

**Table 2 U.S. Trade in Digitally-Enabled Services by Major Area, 2018 (\$Billions)**



\*Europe imports of ICT are author’s estimates. Actual data for Europe ICT imports in 2018 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 October 2019.

For instance, 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.<sup>48</sup>

In 2018, digitally-enabled services accounted for 55% of all U.S. services exports, 48% of all services imports, and 69% of the U.S. global surplus in trade in services (Table 6).

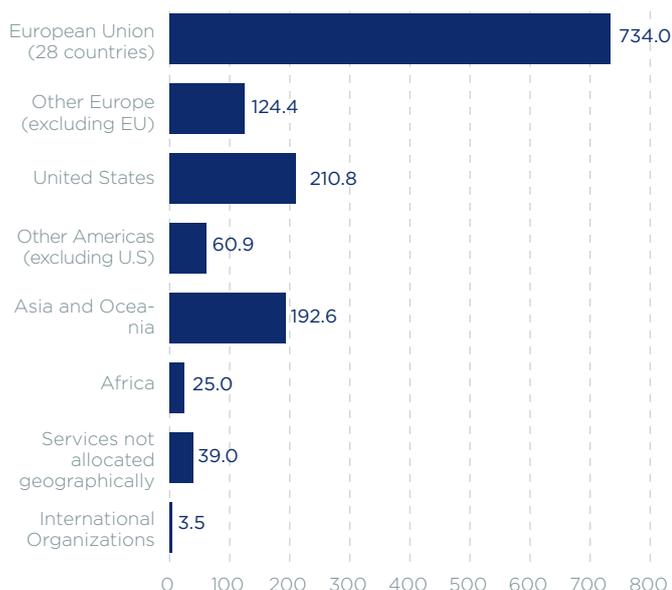
In 2018 the United States registered a \$178 billion trade surplus in digitally-enabled services with the world. Its main commercial partner was Europe, to which it exported over \$213 billion in digitally-enabled services and from which it imported \$120

billion, generating a trade surplus with Europe in this area of \$93 billion. U.S. exports of digitally-enabled services trade to Europe were about 2.6 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 (Table 2).

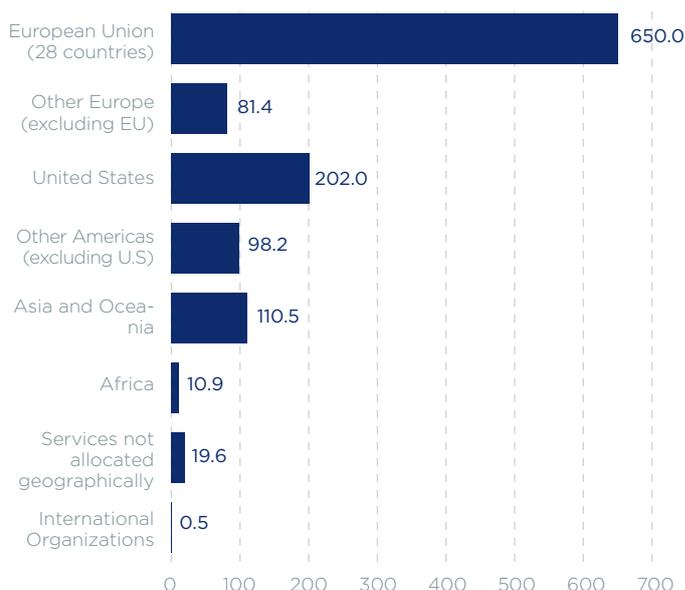
In 2018 the 28 EU member states collectively exported \$1.39 trillion and imported \$1.17 trillion in digitally-enabled services to countries both inside and outside the EU (See Table 3 and Table 4). Excluding intra-EU trade, EU member states exported \$657.34 billion and imported \$523.67 billion in digitally-enabled services, resulting in a surplus of \$133.67 billion for these services.

Digitally-enabled services represented 58% of all EU services exports to non-EU countries and 57% of all EU services imports from non-EU countries.

**Table 3 Destination of EU Exports of Digitally-Enabled Services, 2018 (\$Billions)**



**Table 4 Origin of EU Imports of Digitally-Enabled Services, 2018 (\$Billions)**



*Note: Digitally-Enabled Services includes finance; insurance; IP charges; telecommunications, computer, information services; R&D services; professional and management services; architectural, engineering and other technical services; and other business services. Source: Organization for Economic Cooperation and Development.*

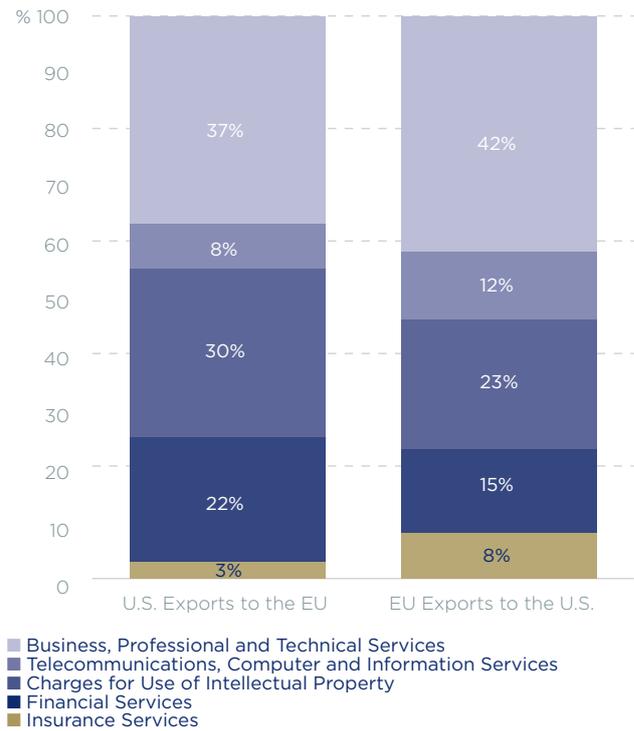
In 2018 the United States accounted for 32% of the EU's digitally-enabled services exports to non-EU countries, and 39% of EU digitally-enabled services imports from non-EU countries.<sup>49</sup> The United States purchased \$210.77 billion, according to OECD data for 2018, making it the largest non-EU consumer of EU digitally-enabled services exports, accounting for more EU exports than the rest of non-EU Europe (\$124.41 billion), and more than all digitally-enabled services exports from the EU to Asia and Oceania (\$192.62 billion).<sup>50</sup>

EU member states with the largest estimated value of digitally-enabled services exports were Germany (\$189.8 billion), Ireland (\$171.9 billion), the United Kingdom (\$161.0 billion), and the Netherlands (\$154.0 billion).

In 2018, EU member states imported \$1.17 trillion in digitally-enabled services, according to OECD data. 55% originated from other EU member states (See Table 4). Another 17% (\$202.02 billion) came from the United States, making it the largest supplier of these services. The EU imported more of these services from the U.S. than from EU member states Germany (\$107.0 billion) and the UK (\$124.5 billion).

Table 5 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 42% of digitally-enabled services exports from the EU to the United States and 37% of digitally-enabled services exports from the United States to the EU in 2018. 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. Strong European demand for U.S. digitally-enabled intellectual property is reflected in the fact that this category accounts for 30% of all U.S. exports of digitally-enabled services to the EU.<sup>51</sup> Financial services comprise the third largest digitally-enabled services export category.

**Table 5 EU Digitally-Enabled Services Trade by Sector, 2018**



Sources: U.S. Bureau of Economic Analysis. Data as of October 2019.

*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. For instance, 49% of all services supplied by U.S. affiliates abroad were digitally-enabled (Table 6).



**Digitally-enabled services supplied by affiliates (2017)**

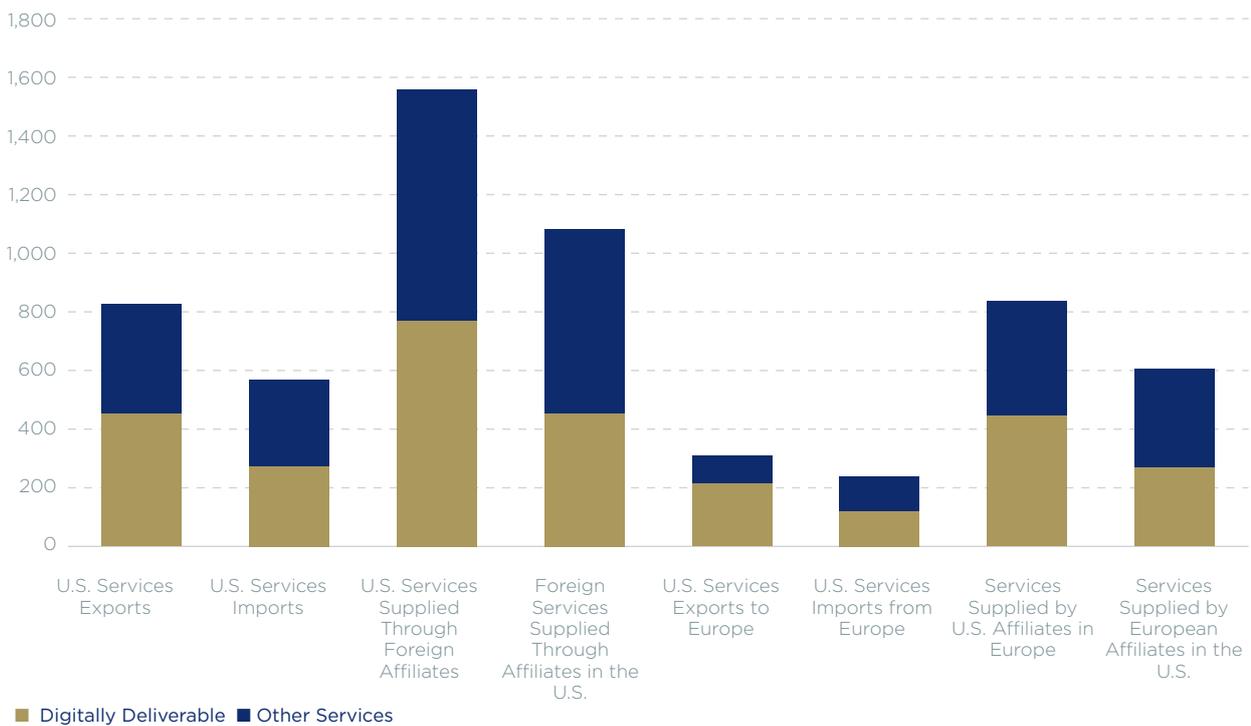
**\$444 billion**  
U.S. affiliates in Europe

**\$269 billion**  
European affiliates in the U.S.

Table 6 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. 53% of the \$838.86 billion in services provided in Europe by U.S. affiliates in 2017 was digitally-enabled. In 2017 U.S. affiliates in Europe supplied \$444.33 billion in digitally-enabled services, whereas European affiliates in the United States supplied \$268.54 billion in digitally-enabled services. Digitally-enabled services supplied by U.S. affiliates in Europe were more than double U.S. digitally-enabled exports to Europe, and digitally-enabled services supplied by European affiliates in the United States were 2.2 times greater than European digitally-enabled exports to the United States.

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 7 underscores this dynamic. In 2017, Europe accounted for 69% of the \$259.6 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 greater than such investment in the entire Western Hemisphere outside the U.S. or such investment combined in the Middle East, Africa and the entire Asia-Pacific region.<sup>52</sup>

**Table 6 Digitally-Enabled Services Trade and Services Supplied through Affiliates\*** (\$Billions)



\*Trade data are for 2018. Affiliate data are for 2017, the latest available year.  
 Source: U.S. Bureau of Economic Analysis.  
 Data as of October 2019.



**73%**

of U.S. overseas **direct investment in the “information” industry** is in Europe (2018)

**Table 7 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           |
|--|---------------|------------|------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Canada                                     | 3,595         | 4,140      | 3,971      | 5,996          | 6,316          | 7,135          | 7,595          | 7,401          | 8,487          | 8,342          | 9,161          | 9,105          |
| Europe                                     | 67,270        | 76,156     | 85,450     | 84,117         | 96,310         | 110,525        | 119,123        | 120,796        | 157,811        | 162,409        | 175,105        | 179,146        |
| France                                     | 4,045         | 3,794      | 4,475      | 4,713          | 4,582          | 5,013          | 4,768          | 5,258          | 6,085          | 5,894          | 5,927          | 6,084          |
| Germany                                    | 5,260         | 6,031      | 6,104      | 6,456          | 7,143          | 7,798          | 7,970          | 10,599         | 12,018         | 11,191         | 11,394         | 12,247         |
| Netherlands                                | 5,925         | 8,152      | 9,980      | 8,674          | 8,719          | 9,313          | 10,196         | 9,117          | 12,686         | 13,590         | 13,938         | 17,175         |
| Switzerland                                | 2,871         | 2,527      | 3,197      | 3,747          | 4,034          | 4,419          | 5,243          | 4,778          | (D)            | 5,452          | 5,435          | 6,390          |
| United Kingdom                             | 33,512        | 35,711     | 31,479     | 29,906         | 24,941         | 26,446         | 25,996         | 23,876         | 30,228         | 33,512         | 35,854         | 39,002         |
| 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         | 21,965         |
| Australia                                  | 5,722         | 6,365      | 6,369      | 5,961          | 6,852          | 6,960          | 5,531          | 7,735          | 7,045          | 6,266          | 6,431          | 7,032          |
| Japan                                      | 3,447         | (D)        | 6,224      | 7,856          | 4,575          | 4,828          | 5,204          | 5,807          | 7,796          | 7,821          | 11,252         | 9,953          |
| China                                      | n/a           | n/a        | n/a        | 1,252          | 1,633          | 1,627          | 1,581          | 1,656          | 3,016          | 2,675          | 2,726          | 2,990          |
| 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         | 29,433         |
| <b>TOTAL</b>                               | <b>92,507</b> | <b>(D)</b> | <b>(D)</b> | <b>126,603</b> | <b>141,846</b> | <b>162,338</b> | <b>172,583</b> | <b>179,372</b> | <b>240,073</b> | <b>245,076</b> | <b>261,288</b> | <b>259,624</b> |

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, because most digital sales and purchases are delivered physically or in person – not digitally.<sup>53</sup> And while goods trade growth has been flattening worldwide, the share enabled by e-commerce has been registering double-digit growth in recent years.<sup>54</sup>

Here again we 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.<sup>55</sup>

Nonetheless, we can evaluate and compare many different estimates and surveys that have been conducted. According to UNCTAD, global e-commerce was worth \$29.37 trillion in 2017.<sup>56</sup>

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, currently pale in comparison to business-to-business (B2B) e-commerce. In 2017 B2B e-commerce accounted for 88% (\$25.47 trillion) of the total value of global e-commerce, more than six times larger than business-to-consumer (B2C) transactions (\$3.9 trillion).<sup>57</sup>

Including all types of e-commerce, the United States is the top e-commerce market in the world; online sales there are three times higher than in Japan and more than four times higher than in China. Germany ranks as the fourth largest e-commerce market in the world, with a larger B2B market than China but a much smaller B2C market. North America and Europe account for six of the top 10 e-commerce countries (Table 8).

**Table 8. Top 10 Countries by E-Commerce Sales**

| Rank | Economy             | Total (\$ billion) | As % of GDP | B2B (\$ billion) | % of all e-commerce | B2C (\$ billion) | Annual average spend per online shopper (\$) |
|------|---------------------|--------------------|-------------|------------------|---------------------|------------------|--|
| 1    | United States       | 8,883              | 46          | 8,129            | 90                  | 753              | 3,851  |
| 2    | Japan               | 2,975              | 61          | 2,828            | 95                  | 147              | 3,248  |
| 3    | China               | 1,931              | 16          | 869              | 49                  | 1,062            | 2,574  |
| 4    | Germany             | 1,503              | 41          | 1,414            | 92                  | 88               | 1,668  |
| 5    | Korea (Rep.)        | 1,290              | 84          | 1,220            | 95                  | 69               | 2,983  |
| 6    | United Kingdom      | 755                | 29          | 548              | 74                  | 206              | 4,658  |
| 7    | France              | 734                | 28          | 642              | 87                  | 92               | 2,577  |
| 8    | Canada              | 512                | 31          | 452              | 90                  | 60               | 3,130  |
| 9    | India               | 400                | 15          | 369              | 91                  | 31               | 1,130  |
| 10   | Italy               | 333                | 17          | 310              | 93                  | 23               | 1,493  |
|      | <b>Top 10 Total</b> | <b>19,315</b>      | <b>36</b>   | <b>16,782</b>    | <b>87</b>           | <b>2,533</b>     | <b>2,904</b>                                 |
|      | <b>World</b>        | <b>29,367</b>      |             | <b>25,516</b>    |                     | <b>3,851</b>     |  |

Source: UNCTAD. Data for 2017, latest available. B2B: Business-to-Business. B2C: Business-to-Consumer.

While cross-border sales are estimated to account for 30% of all e-commerce sales, current statistics do not break down e-commerce transactions by origin. As a result, domestic and cross-border transactions are not separately identifiable.<sup>58</sup> Forrester forecasts annual international e-commerce growth of 17% through 2022, and 12% for overall e-commerce (cross-border and domestic, B2B and B2C).<sup>59</sup>

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 e-commerce is expected to account for two-thirds (\$1.78 trillion) and cross-border B2C e-commerce for one-third (\$920 billion) of an overall global cross-border e-commerce market of \$2.7 trillion.<sup>60</sup>

B2C cross-border e-commerce is expected to account for 16% of total global retail sales in 2020.<sup>61</sup> It is the fastest growing segment of international trade. 57% of global online shoppers are now cross-border shoppers.<sup>62</sup> The United States is the leader in cross-border B2C sales; North America and Europe accounted for seven of the top ten B2C merchandise exporters. Cross-border B2C sales as a share of total merchandise exports was highest in the UK, and cross-border B2C as a share of total B2C sales was highest in Germany.

**Table 9. Cross-Border B2C Sales of Top Ten Merchandise Exporters**

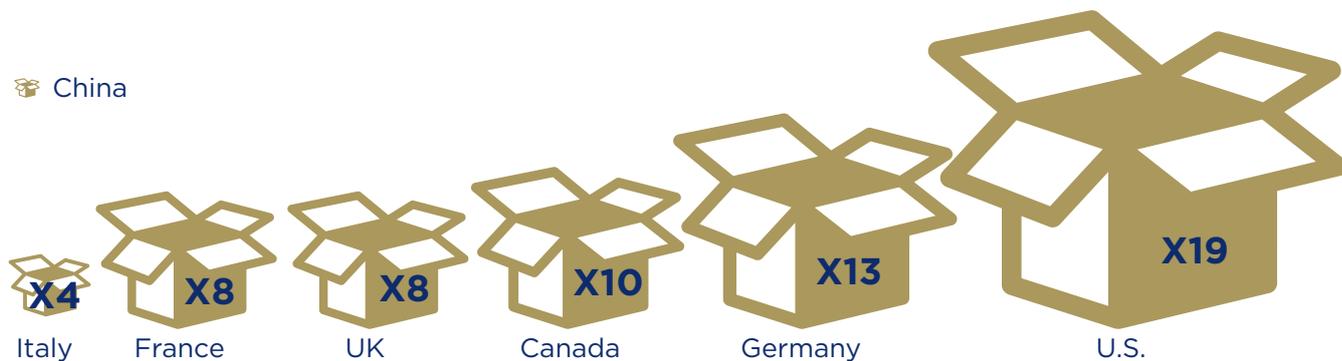
| Rank | Economy             | Total (\$ billion) | As % of merchandise exports | % of B2C    |
|------|---------------------|--------------------|-----------------------------|-------------|
| 1    | United States       | 102                | 6.6                         | 13.5        |
| 2    | China               | 79                 | 3.5                         | 7.5         |
| 3    | United Kingdom      | 31                 | 7.0                         | 15.0        |
| 4    | Japan               | 18                 | 2.6                         | 12.2        |
| 5    | Germany             | 15                 | 1.0                         | 17.1        |
| 6    | France              | 10                 | 1.8                         | 10.6        |
| 7    | Canada              | 8                  | 1.8                         | 12.7        |
| 8    | Italy               | 4                  | 0.7                         | 16.2        |
| 9    | Korea (Rep.)        | 3                  | 0.5                         | 3.8         |
| 10   | Netherlands         | 1                  | 0.2                         | 5.0         |
|      | <b>Top 10 Total</b> | <b>270</b>         | <b>3.0</b>                  | <b>10.7</b> |
|      | <b>World</b>        | <b>412</b>         | <b>2.3</b>                  | <b>10.7</b> |

Source: UNCTAD. Data for 2017, latest available B2C: Business-to-Consumer.



## Per capita e-commerce consumption expenditure compared to China

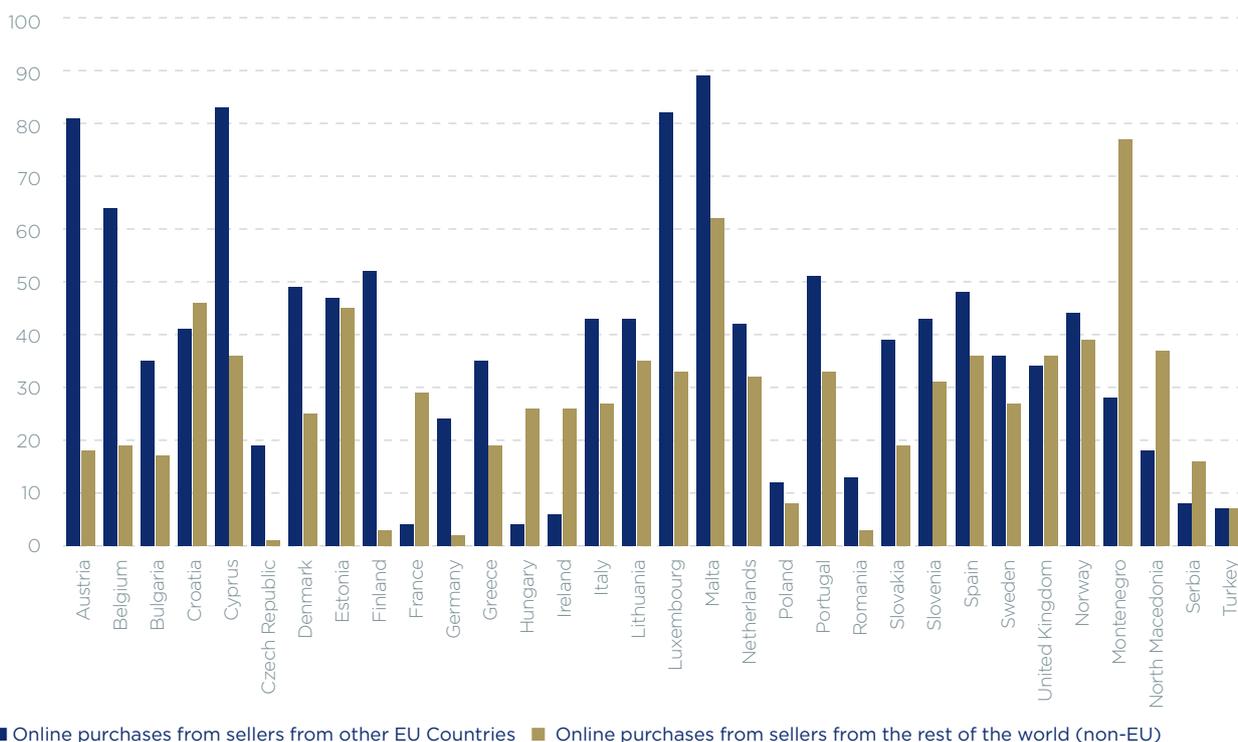
China



China has the largest number of internet buyers at 440 million; its large B2C e-commerce market reflects its billion-plus population. Most of this e-commerce is national; 57% only ever purchase domestically. Interestingly, over half of Chinese cross-border e-purchases are for food.<sup>63</sup> China is underweight, however, when it comes to B2B e-commerce. All told, per capita e-commerce consumption is more than 19 times higher in the United States, 13 times higher in Germany, 10 times higher in Canada, 8 times higher in the UK, 8 times higher in France, and 4 times higher in Italy than in China.

UK consumers are the most likely to shop on the internet, with a whopping 87% making purchases online.<sup>64</sup> Online consumers in all EU countries, besides Croatia (and the UK, which was still in the EU when this data was recorded), buy more from online sellers within the EU than outside it (Table 10). Nonetheless, even though the European Single Market offers an opportunity for more vigorous cross-border e-commerce within the EU, European markets remain fragmented and the potential for cross-border e-commerce has not yet been fully exploited.

**Table 10. European Cross-Border E-Commerce Purchases, by Country, 2018 (%)**



■ Online purchases from sellers from other EU Countries ■ Online purchases from sellers from the rest of the world (non-EU)

Note: Percentage of consumer population that purchased online goods/services from each region; figures can exceed 100%.

Source: Ecommerce Europe, "European Ecommerce Report," 2019 edition, file:///C:/Users/Owner/Downloads/european\_ecommerce\_report\_2019\_free.pdf.

The nature of B2C e-commerce is changing quickly, however, driven by Asia-Pacific consumers who are increasingly paying for their online purchases via alternative payment vehicles such as e-wallets, biometric payments, tablets, smartphone and games consoles. In 2019, there were 2.1 billion mobile wallet users globally, a 30% increase from 2017. Whereas 65% of U.S. and European mobile users are still reluctant to use mobile payment, China boasts a 100% adoption rate.<sup>65</sup> A big reason for the rise of e-wallets in Asia is the success of Chinese e-payment giants Alipay and WeChat. Combined, the two have 1.7 billion users, 10 times more than Apple Pay. Chinese shoppers who used Alipay spent \$1,403 in French stores during Golden Week, 15.5% more than the average U.S. shopper spent on gifts, travel and entertainment for the entire 2019 holiday season.<sup>66</sup>

Most reports do not separate out transatlantic e-commerce trade in goods, but a substantial portion of the global total is undoubtedly between the EU and the United States. Nearly half of all U.S. companies polled by the U.S. International Trade Commission indicated that they had an online trading relationship with the European Union, and almost half say that Europe is the region outside North America where they focus their cross-border strategy first, far ahead of other regions. Over half of European companies also focus first on North America as their primary e-commerce market outside of Europe, again far more than on other regions. The two sides also account for a significant portion of each other's e-commerce trade. It is estimated that 70% of UK e-shoppers and 48% of German e-shoppers purchase from U.S. e-commerce sites, and 49% of U.S. e-commerce purchases are from UK sites.<sup>67</sup>

### 3. The C2C Platform Economy

Platform companies that connect individuals and companies directly to each other to trade products and services are reshaping the U.S. and European economies, as well as the commercial connections between them. Platforms have swiftly become a dominant 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.<sup>68</sup>

According to Forrester, these online marketplaces will account for 67% of global e-commerce sales by 2022.<sup>69</sup> While they have become important for business-to-consumer (B2C) e-commerce and are beginning to impact business-to-business (B2B) e-commerce, they have simply supercharged consumer-to-consumer (C2C) e-commerce (also known as peer-to-peer or P2P e-commerce) in ways that are potentially transformational.

The C2C platform economy model - with main sectors including lending and community financing, online distance work, home sharing, car sharing, online music and video streaming - is spreading quickly to new and more established sectors, such as medical equipment and healthcare, retail, legal services, human resources and food delivery.<sup>70</sup>

While C2C still commands a small share of the e-commerce market, the platform economy has supercharged its potential. Annual growth currently exceeds 25%, and some sectors are projected to even reach 63% by 2025.<sup>71</sup> PriceWaterhouseCoopers estimates that the revenue of C2C platform economy companies will grow 22-fold by 2025 and catch up to the B2C model, with each model achieving sales revenue in 2025 of \$335 billion.<sup>72</sup>

The top 242 platform companies in the world now represent a market value of over \$7 trillion.<sup>73</sup> Just seven so-called "super platforms" account for two-thirds of this total: U.S.-based Microsoft, Apple, Amazon, Google, Facebook and China-based Alibaba and Tencent. The platform economy is dominated by firms from the United States, which account for 70% of the market capitalization of the world's 70 highest valued digital platforms. According to UNCTAD, Google has some 90% of the market for internet searches. Facebook accounts for two thirds of the global social media market, and is the top social media platform in more than 90% of the world's economies. Amazon boasts an almost 40% share of the world's online retail activity, and its Amazon Web Services accounts for a similar share of the global cloud infrastructure services market. Next are firms from China at 22%. Alibaba accounts for close to 60% of the Chinese e-commerce market. WeChat (owned by Tencent) has more than one billion active users and, together with Alipay (Alibaba), its payment solution has captured virtually the entire Chinese market for mobile payments.<sup>74</sup>



European companies account for only 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. 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 and China. There is also a more risk-averse culture that makes it generally harder to secure funding for potentially chancy bets on unproven technologies. More Chinese and U.S. platform companies operate multiple platforms than do their European counterparts, which means they can more easily use revenues from one platform to grow others.<sup>75</sup>

Nonetheless, Europe can look to some successes. Strong growth is expected for important cross-border marketplaces such as Fnac, CDiscount, Spartoo and Pixmania from France, Wirecard, Zalando, Mobil.de, Otto and Delivery Hero from Germany, Flubit, Fruugo, Farfetch and Asos from the UK, Allegro from Poland, Emag in Romania, Coolshop from Denmark and Bytobil from Norway. SAP, Germany's most valuable company, has reinvented itself with a strong focus on platform dynamics. And the largest driver of revenue to the music business today is Swedish company Spotify, which is worth \$35 billion and accounts for over 38% of all recorded music revenue. Spotify is the most popular global audio streaming subscription service with 248 million users, including 113 million subscribers, across 79 markets. It is deeply tied to the transatlantic economy: North Americans and Europeans accounted for 68% of all active monthly users (32% and 36%, respectively) and 71% of all subscriptions (31% and 40%, respectively). Spotify and these other European platforms underscore that companies can achieve success even from relatively small home economies.<sup>76</sup>

There is certainly potential for European success in the platform economy. A study undertaken for the European Parliament estimates that the EU could gain €572 billion in annual consumption if it could harness the platform economy model to take more effective advantage of underutilized capacities

across the Single Market. The study extends its analysis to include B2C transactions, so should be considered an expansive projection. Nonetheless, the potential is significant.<sup>77</sup>

In addition, while the United States and China lead the C2C platform economy, this sector of the UK economy is also robust. The UK is home to 10% of the businesses involved in the global C2C platform economy – more than France, Germany and Spain combined – and London is the C2C platform economy capital of Europe.<sup>78</sup>

Experts expect the platform economy to continue its rapid growth trajectory, and believe a next wave of platforms will transform the financial sector, the automotive industry, energy and construction services.<sup>79</sup> As the platform economy generates major economic opportunities, it is also creating new policy challenges across a wide spectrum of issues, ranging from tax and competition policy to privacy, insurance, finance and labor markets. Nonetheless, even with a more sober appreciation of the future possibilities, the potential is significant.<sup>80</sup>

#### 4. Cross-Border Data Flows

Another way to understand the nature of 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.<sup>81</sup>

Transatlantic flows of data continue to be the fastest and largest in the world, accounting for over one-half of Europe's data flows and about half of U.S. flows.<sup>82</sup> Almost 40% of those flows are through business and research networks.<sup>83</sup>

Researchers are reluctant to use data flows as a proxy for commercial links, since data traffic is not always related to commercial transactions.<sup>84</sup> 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:



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

“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.”<sup>85</sup>

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.<sup>86</sup> 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.<sup>87</sup>

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. It is possible to get a better sense of their importance to the transatlantic economy, however, by literally taking a “deep dive” into the world of undersea cables.<sup>88</sup>

## 5. Making Waves: The Hardware of the Transatlantic Digital Economy

The digital economy evokes images of electrons speeding through the air or through “the cloud.” Reality is different: when it comes to connecting continents, the cloud is actually under the ocean.<sup>89</sup> Subsea cables bring the internet to life. They transmit 99% of all intercontinental telecommunication traffic – data, content, financial payments, phone calls, tweets, texts, emails.<sup>90</sup> Just a few hundred cable systems transport almost all transoceanic traffic globally.<sup>91</sup> Every day they transmit close to \$10 trillion in transactions around the world.<sup>92</sup> These cables serve as an additional proxy for the ties that bind continents. They show clearly that the transatlantic data seaway is the busiest oceanic data route in the world.<sup>93</sup>

In August 1858 the UK’s Queen Victoria used the first transatlantic telegraph cable to send a message to U.S. President James Buchanan congratulating him

on their historic achievement. The message, in Morse code, took over 17 hours to deliver. Twenty years later new cables were transmitting 6 to 8 words a minute. That rose to 40 words by the dawn of the 20th century. In 1956 the first underwater telephone cable was laid, and by 1988 transatlantic fiber optic cables could transmit 15 times the speed of an average U.S. household internet connection. Flash forward thirty years to 2018, when the Marea cable began operating between Bilbao, Spain, and the U.S. state of Virginia, with transmission speeds 16 million times faster than the average home internet connection. That’s enough to stream nearly 5 million HD movies all at once.<sup>94</sup> In 2020 the Dunant cable will go into operation, linking Virginia Beach, Virginia and the French Atlantic Coast, with transmission speeds of 250 Tbs per second – enough to zap the entire contents of the Library of Congress 4,100 miles across the Atlantic three times a second.<sup>95</sup>

Digital ports like Virginia Beach, Bordeaux and Bilbao are charting the frontier of a new transatlantic digital age. They are joined by places like Lecanvey, Ireland, Kristiansand, Norway, Blaabergh, Denmark, and Wall Township, New Jersey. The latter two hamlets, together with cities such as Marseille, France, and Genoa, Italy, are among the planet’s few unique Cable Landing Stations where multiple subsea and terrestrial cable routes come together. At these critical nodes, hundreds of millions of dollars’ worth of subsea cable projects convert to terrestrial cables that then fan out to connect an entire continent.<sup>96</sup>

The new digital ports of the North Atlantic are emblematic of the fact that transatlantic cable connections represent the densest and highest capacity routes, with the highest traffic, in the world.<sup>97</sup> Submarine cables in the Atlantic already carry 55% more data than transpacific routes, and 40% more data than between the U.S. and Latin America.<sup>98</sup> Telegeography estimates a compound annual growth rate of 38% in transatlantic capacity until 2025.<sup>99</sup> Eight new transatlantic cables will be needed by 2027 just to keep up with demand, compared to 4 for intra-Asian routes, 3 for transpacific routes, and just one for U.S.-Latin American routes.<sup>100</sup> 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.<sup>101</sup>



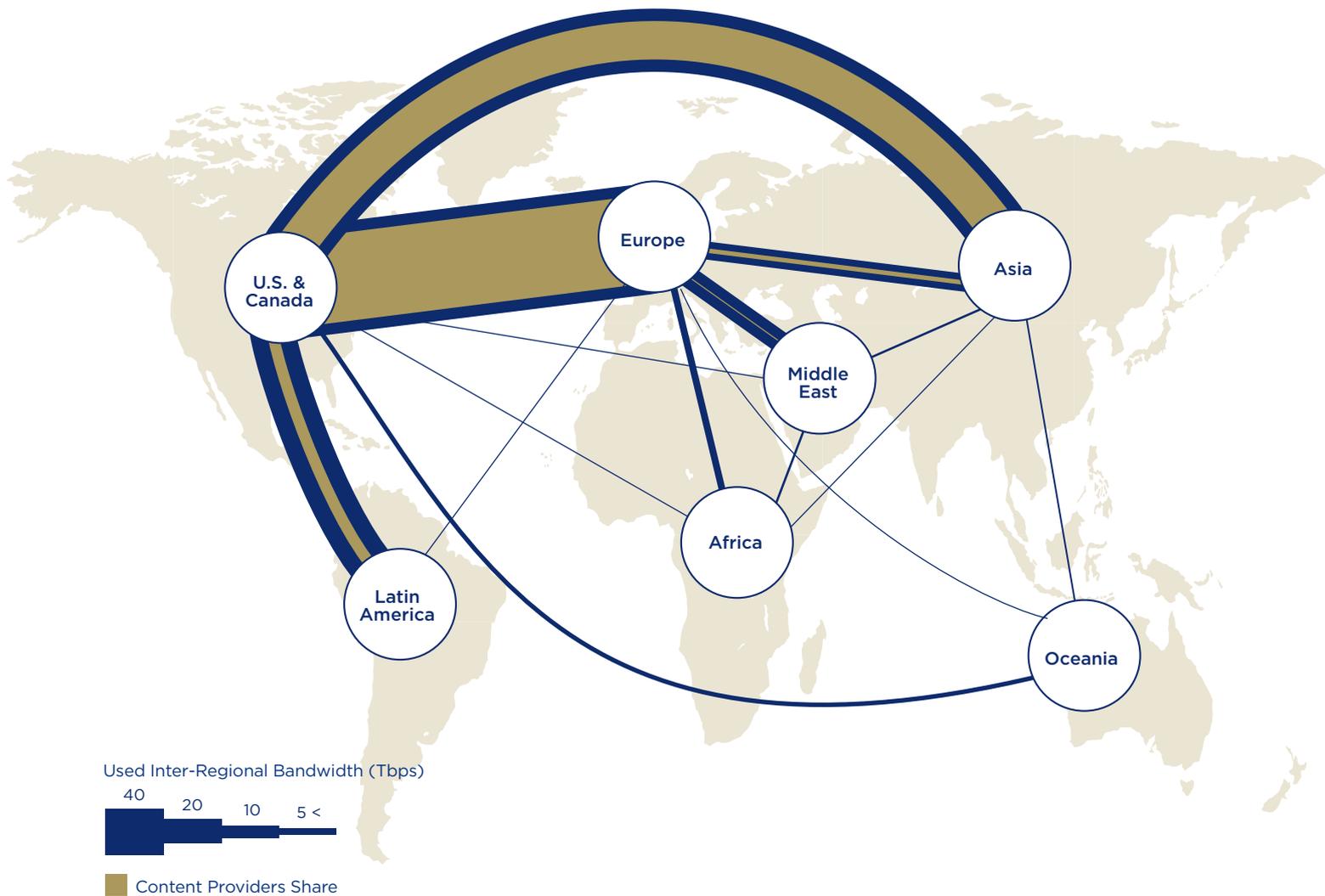
**Subsea cables** bring the internet to life: they transmit **99%** of all intercontinental telecommunication traffic

The Dunant cable is notable not just because it is fast but because it heralds a major shift in the nature of transatlantic subsea connections.<sup>102</sup> Traditionally, transatlantic cables were laid and controlled by large consortia of national telecommunication carriers, also known as Internet Protocol “backbone” operators. This is now changing. The new surge in transatlantic capacity is being driven by private networks, mainly providers of content and cloud services, which have displaced backbone operators as the major investors in subsea cables and the largest source of used international bandwidth.<sup>103</sup> In 2006 backbone providers accounted for over 80% of international bandwidth. By 2018, content providers were accounting for 54% of used international bandwidth globally and a whopping 83% on transatlantic

routes (Table 12). They are the sole drivers of new transatlantic cables planned through 2021.<sup>104</sup> The Dunant cable is but one of seven that Google plans to have come online in the next two years. Just those systems alone will more than double existing total transatlantic capacity.<sup>105</sup>

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.<sup>106</sup>

**Table 12** Used International Bandwidth Showing Content Provider Share, 2018



Source: Telegeography, <https://www2.telegeography.com/hubfs/2019/Presentations/Kate-Reilly-Capacity-North-America-2019.pdf>.

### *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. IDC predicts that more than 50% of enterprise-generated data will be created and processed outside centralized data centers or cloud by 2022.<sup>107</sup>

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.<sup>108</sup>

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 51%. This far exceeds the expected CAGR of global internet traffic. By 2022, installed interconnection bandwidth capacity is expected to reach 13,300-plus Terabits per second (Tbps), which is equivalent to 53 zettabytes of data exchanged annually. This is enough to support every person on earth simultaneously downloading a complete season of *Game of Thrones* in ultra-high definition resolution in less than a day.<sup>109</sup>

The U.S./Canada leads globally, contributing to 38% of interconnection bandwidth, and is predicted to grow with a 46% CAGR. The top four metro areas – New York, Chicago, Washington, DC and Silicon Valley – are expected to represent 79% of interconnection bandwidth in 2022.

Europe contributes 22% of interconnection bandwidth globally and is predicted to grow at a 51% CAGR. The top four metros – London, Frankfurt, Amsterdam and Paris – will reach nearly 78% of European traffic by 2022, with London alone accounting for 34% of European traffic.

The Asia-Pacific region contributes more than 29% of interconnection bandwidth globally and is anticipated to grow at a 56% CAGR. The top five metros – Tokyo, Singapore, Shanghai, Sydney and Hong Kong – equate to 72% of overall Asia-Pacific interconnection bandwidth.

Latin America contributes 11% of interconnection bandwidth globally and is predicted to grow by 63% a CAGR. The top four metros – Sao Paulo, Rio de Janeiro, Buenos Aires, and Mexico City – are expected to equate to 77% of overall Latin American interconnection traffic.<sup>110</sup>

Another notable shift is that traditional business sectors are likely to surpass traditional services providers to become the largest consumers of interconnection bandwidth. Manufacturing, energy, banking & insurance, retail, healthcare and government are expected to grow their interconnections by 7 times by 2022, whereas telecoms, IT services and content and digital media industries are expected to grow their interconnections by 4 times. And as traditional industries deepen their interconnections, they too will become digital services providers.<sup>111</sup>

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.<sup>112</sup>

### *Hubs, Nodes and Trombones*

The internet is structured as a hub-and-spoke system: the hubs are the internet exchanges located in cities around the world, and the spokes are the undersea fiber optic cables that run between these exchanges. This submarine cable system underscores the unevenness of the digital economy and the critical roles U.S. and European cities play as major cross-border hubs. Europe is the global leader, with tremendous connected international capacity. Frankfurt, London, Amsterdam and Paris substantially outpace North American and Asian cities (Table 13). Frankfurt’s connected capacity, for instance, is over four times greater than that of New York and more than double that of Singapore, the Asian leader. Marseille, France has become a major hub for traffic between Europe, Africa and the Middle East.

**Table 13 Highest Capacity International Internet Hub CitiesHubs**

| International Internet Bandwidth (Tbps) | CAGR 2014-2018 |
|---|----------------|
| Frankfurt, Germany                      | 86.2           |
| London, UK                              | 61.8           |
| Amsterdam, Netherlands                  | 55.6           |
| Paris, France                           | 54.5           |
| Singapore, Singapore                    | 37             |
| Hong Kong, China                        | 25.3           |
| Miami, U.S.                             | 25.1           |
| Stockholm, Sweden                       | 23.2           |
| Marseille, France                       | 21.9           |
| New York, U.S.                          | 21.3           |

*Domestic routes omitted.*

Source: Telegeography, *The State of the Network 2020*, <https://www2.telegeography.com/hubfs/assets/Ebooks/state-of-the-network-2020.pdf>.

The role of the United States and Europe as critical digital gateways is also underscored by looking at interregional connections and capacity. The need

to store and move content between North America and Europe, the core hubs of the global digital economy, is higher than for secondary routes. Rising economies are becoming more integrated into the submarine cable network, yet few have data centers and so are reliant on content that is not stored locally. 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.<sup>113</sup> This hub function is reinforced by price dynamics: local content providers in many emerging economies may in fact choose to host their content in Europe or North America because the cost to do so is much lower than at home. South Americans, for instance, rely almost exclusively on international connections routed through data centers in the United States. Similarly, 85% of international traffic emanating from the Middle East travels to centers in Europe. Africa is equally dependent: most traffic travels the trombone-like path from Africa through Europe and back to Africa, even if the African user is browsing a local website for a business just down the street. This “trombone” effect highlights why both the United States and Europe play such outsized roles in international digital traffic.<sup>114</sup>

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A photograph of a silver commuter train on tracks in an urban setting. The train is the central focus, moving from left to right. The tracks are in the foreground, and the background shows city buildings and streetlights. A red rectangular overlay is positioned in the upper half of the image, containing the number '4' in a white circle and the title text in white.

4

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



 HOCHBAHN

VVR



## U.S. unemployment rate

(February 2020)

# 3.5%

Despite various potential trade headwinds and other uncertainties surrounding the global growth outlook, many factors point to a continued benign environment for multinational companies operating in the United States in 2020. First, the consumer backdrop in the U.S. remains relatively strong and is supported by a strong labor market, accommodative monetary policy, and healthy consumer debt dynamics compared to the rest of the world. With the national unemployment rate at 3.6% in early 2020, a healthy jobs market and sustained rise in disposable incomes should continue to support consumer spending in the near term.

In addition, the 2017 corporate tax reform in the United States has shifted the international investment landscape. The reduced tax rate for repatriations of foreign earnings caused firms to bring home large quantities of cash that had been accumulating overseas. Since the end of 2017, firms have brought home a total of \$1.1 trillion, using the cash in a number of ways, from share buybacks and dividends to mergers and acquisitions (M&A), paying down debt, and investing in new capital equipment. Due to high levels of economic policy uncertainty, however, business investment started to decline last year. Additionally, the U.S. manufacturing sector contracted last summer, with production weakness lasting until December of 2019, according to the Institute for Supply Management (ISM) Purchasing Manager's Index. That said, the services economy continued to expand, propelling the U.S. economy to another year of solid growth.

Services account for over 75% of U.S. GDP, but for just 50% of Europe's foreign direct investment stock in the United States. The outsized importance of the manufacturing industry in Europe's FDI base in the United States means that a pickup in manufacturing activity over 2020, driven by a U.S.-China trade truce and refreshed global growth, would benefit many of the European companies that invest and create jobs in the United States.

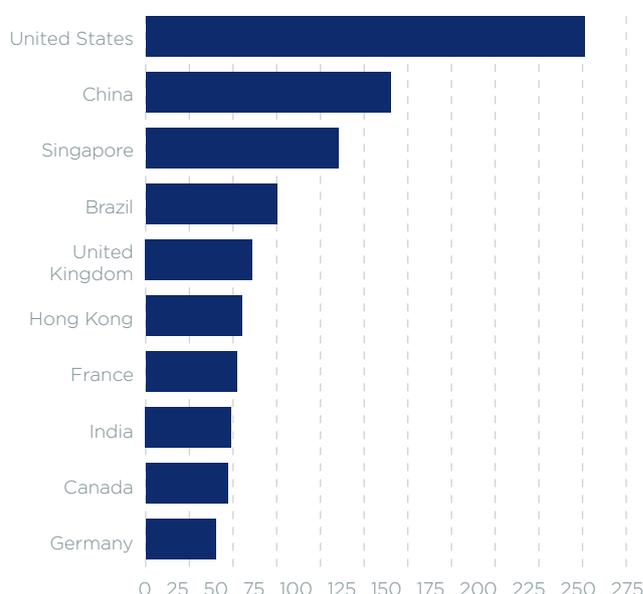
In 2019, the U.S. economy expanded by 2.3% in real terms, a slower pace of growth than the near 3% rate posted in 2018, but stronger than the rate of growth in many other developed countries. Risks to the economic outlook are abundant, however, and include the severity and economic impact of COVID-19, uncertainty about trade, and U.S.

elections in November. Most economists anticipate a COVID-19 induced recession and then generally stagnant economic conditions for a few quarters before growth rebounds, perhaps sharply.

Risks to the economic outlook are abundant, however, and include uncertainty around trade, U.S. elections in November, and the severity and economic impact of the coronavirus, among others. According to forecasts from the IMF, U.S. growth should continue to slow to 2.0% in 2020 and just 1.7% by 2021.

Despite this turbulence, the United States remains one of the most attractive countries in the world for foreign direct investment (FDI). For the past thirteen years, the United States has ranked number one in the world for FDI inflows, attracting over \$250 billion in 2019 (Table 1).

**Table 1 FDI Inflows: Top 10 Host Economies, 2019**  
(\$Billions)



Source: United Nations Conference on Trade and Development (UNCTAD).  
Data for 2019 are preliminary estimates as of January 2020.



The U.S. economy expanded by

# 2.3%

in 2019

## Risks to the economic outlook



As Table 2 depicts, no country has attracted more FDI this century than the United States, taking in over \$4 trillion cumulatively since 2000, more than the total for the next two countries (China and the UK) combined. The table also underscores that, in general, most global FDI flows have been directed at mature, rich developed nations rather than poorer, underdeveloped nations. The United States has attracted 17.1% of total global foreign investment flows this century, and of the top ten recipient countries for investment flows, six are developed nations.

**Table 2 Cumulative Investment Inflows 2000-2018 Rankings**

| Rank | Country        | Cumulative Flows (Billions of U.S. \$) | Percent of World Total |
|------|----------------|--|------------------------|
| 1    | United States  | 4,243.3                                | 17.1%                  |
| 2    | China          | 1,841.1                                | 7.4%                   |
| 3    | United Kingdom | 1,571.0                                | 6.3%                   |
| 4    | Hong Kong      | 1,325.1                                | 5.3%                   |
| 5    | Netherlands    | 894.4                                  | 3.6%                   |
| 6    | Brazil         | 850.8                                  | 3.4%                   |
| 7    | Germany        | 825.0                                  | 3.3%                   |
| 8    | Canada         | 794.5                                  | 3.2%                   |
| 9    | Singapore      | 778.6                                  | 3.1%                   |
| 10   | Belgium        | 718.4                                  | 2.9%                   |

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

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. European companies investing overseas routinely look to the United States, with a population of roughly 330 million and per capita income of almost \$63,000. With less than 5% of the global population, the United States still accounts for around 30% of global personal consumption expenditures, a testament to the purchasing power of American consumers and healthy consumer sentiment in the world's largest economy.

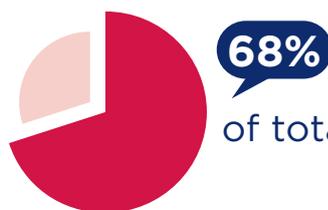
Second, the United States boasts a hyper-competitive economy, ranking second place in the World Economic Forum's latest Global Competitiveness rankings. This competitiveness is driven by an innovative, risk-taking corporate culture and is underpinned by strong institutions, technological readiness, world-class universities, a strong capacity and culture of entrepreneurship, and a dense web of university-industry collaboration in R&D. The ability to attract R&D from companies abroad is important to the innovative health of the U.S. economy. R&D performed by U.S. affiliates of foreign multinationals accounts for about 16% of the total R&D conducted by all businesses in the United States. Most of that comes from Europe.

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 European companies totaled 4.7 million in 2018.

Meanwhile, the United States is a friendly locale to do business, ranking 6th place in the World Bank's 2020 Ease of Doing Business ranking. A transparent rule of law, sophisticated accounting, auditing and reporting standards, secure access to credit, ease of entrepreneurship, and respect for intellectual property rights – all of these factors have contributed to the stable and supportive business environment in the United States. Another competitive U.S. endowment: relatively cheap energy costs thanks to the U.S. energy renaissance that has seen oil production more than double since 2008, in addition to soaring natural gas production.

 **Jobs directly supported by European companies in the U.S. (2018)**  
**4.7 million**

**Total European FDI stock in the U.S.**  
**\$3 trillion**  
 (2018)



of total FDI in the U.S.

With a lowered corporate tax rate and strong economic growth projected for the United States relative to the rest of the developed markets, we anticipate that FDI flows to the U.S. will strengthen in the near term. Additionally, the rising risks of U.S. protectionism under the current U.S. administration could spur more foreign firms to be inside the U.S., endeavoring to avoid new tariffs. Thus, we expect European firms to continue to deepen and spread their footprint in the United States in the years ahead.

### Europe's Stakes in the United States

European firms maintained their dominant foreign investment position in the United States in 2019. Based on our preliminary estimates, we anticipate that about half of the total \$251 billion worth of U.S. FDI inflows in 2019 were from Europe, reflecting European firms' strategy to be "inside" the world's largest and most dynamic market.

U.S. FDI inflows from Europe and the rest of the world are expected to come in lower in 2019 than the prior year, and remain significantly below the peak level of inflows achieved in 2015 (\$339 billion from Europe). The UN estimates that investment in the United States from the EU declined by 6% in 2019. Part of the retreat in foreign investment flows can be attributed to weaker-than-usual cross-border M&A activity conducted in the United States in 2019. Global cross-border M&A decreased by about 40% last year, with deals targeting United States companies accounting for about 31% of total M&A.

Data from the Bureau of Economic Analysis similarly suggests a retreat in U.S. FDI inflows in 2019. Annualizing data for the first nine months of last year, U.S. FDI inflows from Europe are estimated to come in at \$125 billion in 2019 versus 2018 inflows of \$154 billion.

Throughout Europe, the net change in investment flows to the United States in 2019 was mixed, with some countries posting strong growth in FDI flows, while others saw a pullback. German investment flows to the United States grew 53% in the first three quarters of the year, while flows from Spain and Sweden were almost triple the amount of flows received during the first three quarters of last year. Part of that large increase was due to considerable

negative net inflows to the U.S. recorded in Q1 2018 and a rebound to positive investment flows in 2019. Meanwhile, U.S. inflows from France, Ireland, Italy, the Netherlands, Switzerland and the UK were all lower in the first three quarters of 2019 than the same period a year ago.

In terms of greenfield investment, or new projects by foreign companies, the value of announced greenfield projects globally is estimated to have declined 22% in 2019. Project announcements are a leading indicator for FDI trends, and suggest that global FDI in 2020 should continue to moderate. That said, despite a slowdown in global greenfield investment, the U.S. continues to see strong growth in investment. According to data from FDI markets, business investments into China, Asia and Europe decreased by about 30% in the first half of 2019 from the prior year, but the number of direct investments into the U.S. over the same time period was up 14%.<sup>1</sup>

UK firms were the largest source of greenfield foreign investment projects in 19 U.S. states during the ten-year period from October 2009-September 2019. German companies led in 15 states, followed by Canadian companies in 8 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 foreign direct investment position, 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 68% of the total \$4.3 trillion of foreign capital sunk in the United States as of 2018. Total European stock in the United States of \$3.0 trillion was four times the level of comparable investment from Asia.

The United Kingdom remains by far the largest foreign investor, based on FDI on a historic cost basis, with total FDI stock in the United States totaling \$561 billion in 2018. The Netherlands ranked second in Europe (\$479 billion), followed by Luxembourg (\$356 billion), Germany (\$324 billion), Switzerland (\$310 billion), and France (\$292 billion). Many firms from these countries are just as embedded in the U.S. economy as in their own home markets.

## Box 1. Chinese Investment in North America and Europe

While both U.S. and European stakes in China are on the rise, and vice versa, the ties that bind the United States and Europe are much thicker and far deeper than comparable ties with China. The United States and Europe represent large, wealthy markets, with respect for the rule of law and transparent rules and regulations. China, on the other hand, remains relatively poor, with many barriers to entry in various sectors, all wrapped in an opaque regulatory environment that favors local firms or large state-owned enterprises.

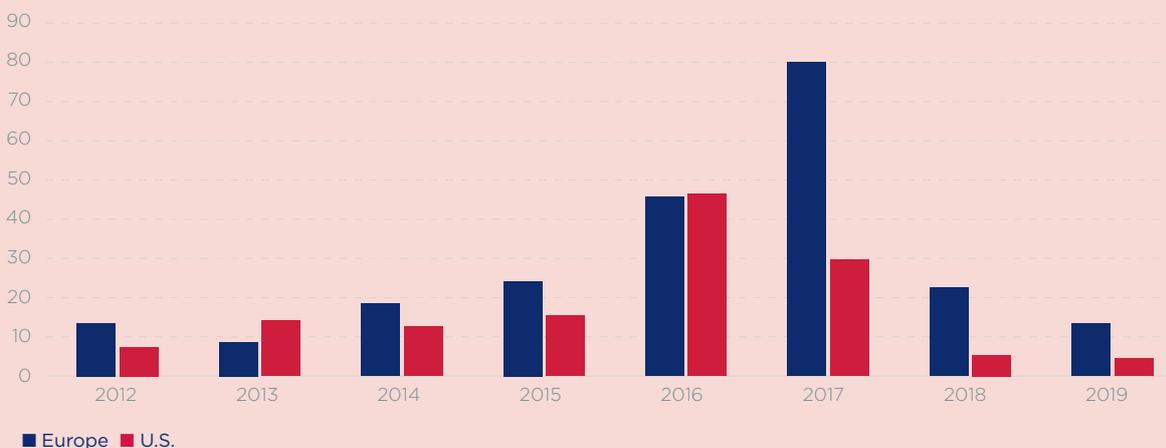
Table 3 highlights that Chinese investments in both the United States and Europe had grown since the start of the decade, but have recently been on a downward trajectory. Chinese investment flows to the U.S. peaked in 2016, and have since declined each year to approximately \$4.5 billion in 2019, as more restrictive Chinese policies on outbound investment, significant Chinese disinvestment of U.S. real estate, hospitality and entertainment assets, and a more protectionist tilt and tighter inward investment screening from the U.S. administration has led to a reduction in Chinese outflows. For instance, according to data from Real Capital Analytics, Chinese were net sellers of commercial property in the U.S. last year in the amount of \$20 billion.

Kansas was the largest recipient of Chinese investment in 2019, with investment flows totaling \$1.6 billion, followed by California (\$0.7 billion). Chinese FDI flows in North America by industry in 2019 were highly concentrated in the consumer products and services industry, representing 37% of the total investment, with mega deals driving the industry concentration. The automotive industry and basic materials followed in second and third place, representing 17% and 15% of the total inflows, respectively.

Chinese investment in Europe also fell dramatically in 2019 but continued to be more robust than Chinese investment in the United States. According to the Rhodium Group, Chinese FDI in Europe fell by 40% in 2019 to \$13.4 billion. These FDI flows were also driven by a concentrated number of mega deals, notably in Finland, the UK, and Sweden, which were the largest recipients of FDI inflows. Ireland saw a large increase in investment from China (up 50%), mostly due to greenfield investments in the biotechnology space. Throughout Europe, the consumer sector attracted the largest amount of FDI inflows from China to Europe, receiving about half of the total \$13.4 billion in investment. Information and communications technology was the second largest sector for Chinese FDI inflows to Europe.

Looking ahead, the pipeline of announced deals in North America and Europe (\$10 billion) suggests a weak start to 2020.<sup>3</sup> A de-escalation of U.S.-China trade tensions and more liberal Chinese investment policy could cause outward FDI to rebound this year, although there remains a large degree of economic uncertainty when it comes to the potential impact of the coronavirus which could dampen investments.

**Table 3 Value of Completed Chinese FDI Transactions in Europe vs. U.S.** (Billions of U.S. \$)



Data represents greenfield investments and acquisitions 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 2020.



**European affiliate earnings in the U.S.**  
**\$140 billion**  
 (estimate 2019)

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 an estimated \$140 billion in the United States - a new record, even if just slightly higher than in 2018. Through the first nine months of 2019, European affiliate income earned in the U.S. totaled \$101 billion. Affiliates of British multinationals are the top earners and saw a strong increase in income of 43% in the first nine months of 2019, compared to the same period in 2018. 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.

Table 4 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. That said, while European investment in the United States has paid off rather well, the benefits have not been one-sided. The United States has benefitted as well in terms of increased jobs and wages for U.S. workers, and rising exports via European affiliates operating in the United States.

**Table 4 European Foreign Direct Investment and Income Earned in the United States** (Billions of U.S. \$)



Sources: Bureau of Economic Analysis.  
 Data as of January 2020.

## 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 5 provides a snapshot of state employment provided 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, thus underestimating 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. Given mounting labor shortages in the United States and growing interest in many U.S. states and regions in European experiences with aligning educational training with the needs of the economy, many European affiliates have taken the lead in job training in the U.S., and have emerged as strong advocates and funders of vocational training.

As mentioned above, European employment is relatively diverse and spread across many U.S. states. Not surprisingly, California, Texas and New York – the three most populous states in the nation – are home to the largest share of European affiliate jobs. Over 1.1 million U.S. workers were on the payrolls of European affiliates in these three states combined in 2017. As the economy has recovered from the 2008/2009 recession, so have the payrolls of European affiliates, with an increase in hiring across many states and industries. In 2017, 17 of the top 20 states measured by European affiliate employment increased hiring. The workforce employed by European companies in Maryland was unchanged from the prior year, and in New York and Florida European affiliate employment declined by about 1%. European companies in states such as Michigan, Missouri and Minnesota registered double-digit growth in employment.

UK firms were the largest sources of onshored jobs in 23 U.S. states. Japanese companies led in 10 states, Canadian companies in 9, Dutch companies in 5, and German companies were the leading onshored jobs suppliers in 2 states.

**Table 5 Ranking of Top 20 States by Jobs Supported Directly by European Investment**  
(Thousands of employees)

| U.S. State     | 2015  | 2016  | 2017  |
|----------------|-------|-------|-------|
| California     | 423.1 | 430.7 | 447.2 |
| Texas          | 361.4 | 366   | 371.6 |
| New York       | 332.1 | 345.1 | 341.6 |
| Illinois       | 212.1 | 234.2 | 235.7 |
| Pennsylvania   | 213.3 | 222.5 | 225.9 |
| Florida        | 196.4 | 217.2 | 215.2 |
| North Carolina | 181.9 | 187.5 | 195.8 |
| New Jersey     | 190.4 | 193.3 | 195.6 |
| Michigan       | 155.6 | 159.3 | 175.4 |
| Ohio           | 152.8 | 155.7 | 162.2 |
| Massachusetts  | 152.6 | 159.6 | 160.4 |
| Georgia        | 131.8 | 141.3 | 151.4 |
| Virginia       | 131.6 | 134.7 | 141.5 |
| Indiana        | 112.2 | 115.6 | 117.3 |
| Tennessee      | 93.3  | 100.3 | 104.5 |
| South Carolina | 98.2  | 98.3  | 102.6 |
| Maryland       | 90.7  | 91.6  | 91.6  |
| Missouri       | 74.8  | 78.1  | 87.0  |
| Connecticut    | 81.3  | 81.6  | 84.4  |
| Minnesota      | 70.6  | 75.4  | 83.9  |

Source: Bureau of Economic Analysis.

Top 3 states with  
the largest share of  
European affiliate jobs



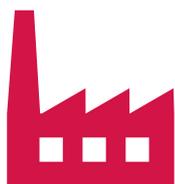
California



Texas



New York



Europe accounts for **77% of total FDI in the U.S. manufacturing industry**

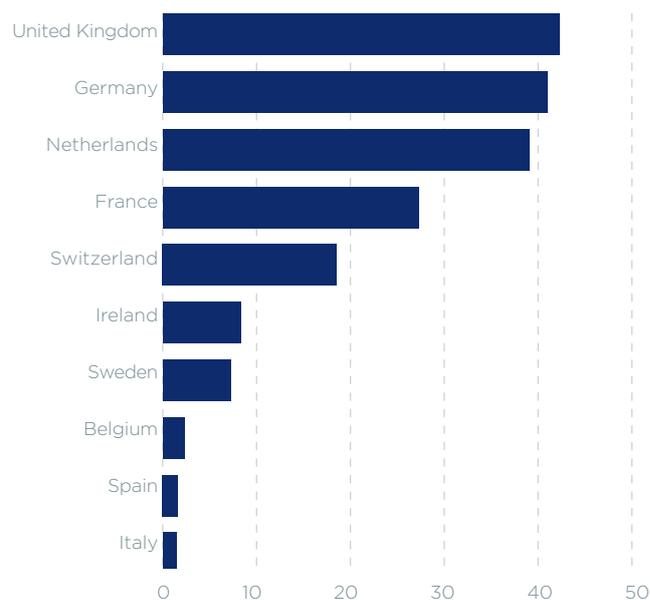
By industry, Europe is by far the largest source of FDI in the manufacturing industry, with European companies representing 77% of the total inward investment position in the United States. Within the manufacturing industry, the U.S. chemicals sector was the biggest recipient of European investment (\$664 billion), followed by transportation equipment (\$89 billion). In terms of European affiliate employment, the retail trade industry employed the most workers (538,000 jobs in 2017) while European companies in chemicals manufacturing, transportation equipment manufacturing, 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, greater sales for local suppliers and businesses, extra revenues for local communities, and more capital investment and R&D expenditures for the United States.

Deep investment ties with Europe have also generated U.S. trade. Table 6 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 2017, the last year of available data, U.S. exports shipped by all majority owned foreign affiliates totaled \$383 billion, with European affiliates accounting for 51% of the total.

The UK, Germany and the Netherlands dominate European affiliate exports from the United States, with the three countries combined representing 63% of European affiliate exports in 2017. By commodity, transportation equipment accounted for about one-quarter of German-owned affiliate exports from 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.

**Table 6 U.S. Exports of Goods Shipped by Affiliates of European Multinational Corporations (\$Billions)**



Source: Bureau of Economic Analysis. Data for 2017.



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



**48/50**  
states **export more to Europe**  
than China  
(2018)

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 7 ranks the top 20 state goods exporters to Europe in 2018, with Texas ranked number one, followed by California, New York and Washington. Overall exports were up sharply in 2018, up 11% from the prior year, and have almost doubled in value since 2000. Twenty-two U.S. states registered double-digit growth in goods exports from 2017 to 2018.

Table 8 shows the importance of the European market to U.S. state exports. Even as an emerging middle class in China demands more foreign imports, U.S. merchandise exports to Europe are still more than triple U.S. exports to China. America's five Pacific coast states exported about 50% more goods to Europe than to China. 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 Europe in 2018. New York's exports to Europe were more than eight times those to China. California, Texas, Michigan, Illinois and Ohio

**Table 7 Ranking of Top 20 U.S. States Total Goods Exports to Europe, by Value** (\$Billions)

| U.S. State        | 2000         | 2018         | % Change from 2017 | % Change from 2000 |
|-------------------|--------------|--------------|--------------------|--------------------|
| Texas             | 12.3         | 45.0         | 34%                | 267%               |
| California        | 27.9         | 36.8         | 3%                 | 32%                |
| New York          | 15.3         | 29.6         | 12%                | 93%                |
| Washington        | 13.1         | 16.2         | 7%                 | 24%                |
| Illinois          | 7.3          | 13.0         | 1%                 | 78%                |
| Louisiana         | 3.3          | 12.6         | 33%                | 282%               |
| Kentucky          | 3.1          | 11.2         | 11%                | 265%               |
| Florida           | 3.9          | 11.2         | 5%                 | 187%               |
| Pennsylvania      | 4.7          | 11.2         | 11%                | 139%               |
| New Jersey        | 6.4          | 10.9         | 5%                 | 71%                |
| Georgia           | 4.0          | 10.3         | 19%                | 159%               |
| South Carolina    | 2.8          | 9.9          | 9%                 | 256%               |
| Ohio              | 5.0          | 9.7          | 12%                | 93%                |
| Massachusetts     | 8.0          | 9.6          | -9%                | 20%                |
| Indiana           | 3.1          | 9.5          | 0%                 | 204%               |
| Connecticut       | 3.5          | 9.4          | 29%                | 168%               |
| North Carolina    | 4.6          | 9.0          | -1%                | 95%                |
| Michigan          | 5.0          | 8.1          | 7%                 | 61%                |
| Utah              | 1.3          | 7.0          | 71%                | 424%               |
| Tennessee         | 2.7          | 7.0          | 5%                 | 158%               |
| <b>U.S. Total</b> | <b>187.4</b> | <b>370.1</b> | <b>11%</b>         | <b>97%</b>         |

Source: Foreign Trade Division, U.S. Census Bureau.

each exported more than twice as many goods to Europe as to China. Louisiana, Kentucky, Florida and Pennsylvania (the 6th-10th largest exporters to Europe) each sent more than four times the amount of goods to Europe than China.

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 service 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 for individual U.S. states.

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

**Table 8 U.S. State Exports of Goods to Europe and China, 2018** (\$Millions)

| U.S. State     | Europe | China  |
|----------------|--------|--------|
| Alabama        | 5,540  | 3,017  |
| Alaska         | 1,039  | 1,018  |
| Arizona        | 4,492  | 1,193  |
| Arkansas       | 1,467  | 307    |
| California     | 36,807 | 16,339 |
| Colorado       | 1,764  | 577    |
| Connecticut    | 9,353  | 942    |
| Delaware       | 1,318  | 381    |
| Florida        | 11,187 | 2,075  |
| Georgia        | 10,257 | 2,978  |
| Hawaii         | 42     | 35     |
| Idaho          | 519    | 418    |
| Illinois       | 13,003 | 3,458  |
| Indiana        | 9,541  | 1,967  |
| Iowa           | 2,571  | 627    |
| Kansas         | 2,361  | 657    |
| Kentucky       | 11,199 | 2,233  |
| Louisiana      | 12,550 | 3,015  |
| Maine          | 432    | 205    |
| Maryland       | 4,084  | 592    |
| Massachusetts  | 9,604  | 2,639  |
| Michigan       | 8,082  | 3,556  |
| Minnesota      | 5,089  | 2,260  |
| Mississippi    | 2,034  | 638    |
| Missouri       | 2,443  | 780    |
| Montana        | 241    | 115    |
| Nebraska       | 1,011  | 424    |
| Nevada         | 4,588  | 917    |
| New Hampshire  | 2,175  | 368    |
| New Jersey     | 10,887 | 1,573  |
| New Mexico     | 335    | 1,102  |
| New York       | 29,612 | 3,436  |
| North Carolina | 8,976  | 2,317  |
| North Dakota   | 270    | 22     |
| Ohio           | 9,710  | 3,635  |
| Oklahoma       | 1,478  | 203    |
| Oregon         | 2,678  | 4,742  |
| Pennsylvania   | 11,180 | 2,565  |
| Rhode Island   | 662    | 144    |
| South Carolina | 9,946  | 5,638  |
| South Dakota   | 184    | 48     |
| Tennessee      | 6,968  | 2,504  |
| Texas          | 45,028 | 16,627 |
| Utah           | 7,032  | 576    |
| Vermont        | 401    | 168    |
| Virginia       | 5,802  | 1,213  |
| Washington     | 16,195 | 15,918 |
| West Virginia  | 3,192  | 484    |
| Wisconsin      | 4,555  | 1,633  |
| Wyoming        | 66     | 53     |

Source: U.S. Census Bureau, Foreign Trade Division.

## Box 2. The Transatlantic Energy Economy

Media reports and political rhetoric highlight vastly different perspectives on energy and environmental issues between the two sides of the North Atlantic. Some of those differences are profound. Yet the headlines often ignore an equally profound reality: U.S. and European firms are deeply embedded in each other's traditional and renewable energy markets – through trade, foreign investment, cross-border deal financing, and collaboration in research and development.

Over the years, foreign companies have ploughed almost \$400 billion into U.S. energy-related industries.<sup>4</sup> In 2017, FDI in the U.S. energy economy directly supported 154,500 U.S. jobs, contributed \$1.1 billion in R&D and generated \$5.1 billion in U.S. exports.<sup>5</sup> 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.<sup>6</sup> In 2018, German firms accounted for 17.6%, and European companies for just over half, of all foreign direct investment in 779 greenfield project investments in the U.S. energy economy. Over the past decade, German firms were behind about one in five greenfield investment projects in the U.S. energy sector (Table 9). Other notable European investors include France (9%), Spain (8%), and the UK (8%).

Domestic and foreign investments in the U.S. energy economy, as well as a liberalization of energy trade policy, have helped propel the U.S. to become a top producer and exporter of energy. The Permian Basin in Texas now produces more oil than most OPEC nations. Between July 2018 and November 2019, U.S. Liquefied Natural Gas (LNG) exports to Europe surged by almost 600%,<sup>7</sup> making the U.S. by far the largest LNG exporter to Europe. Europe also imports more U.S. coal than any other world region.<sup>8</sup> The United States is a net energy exporter of crude and petroleum products to Europe (Table 10).

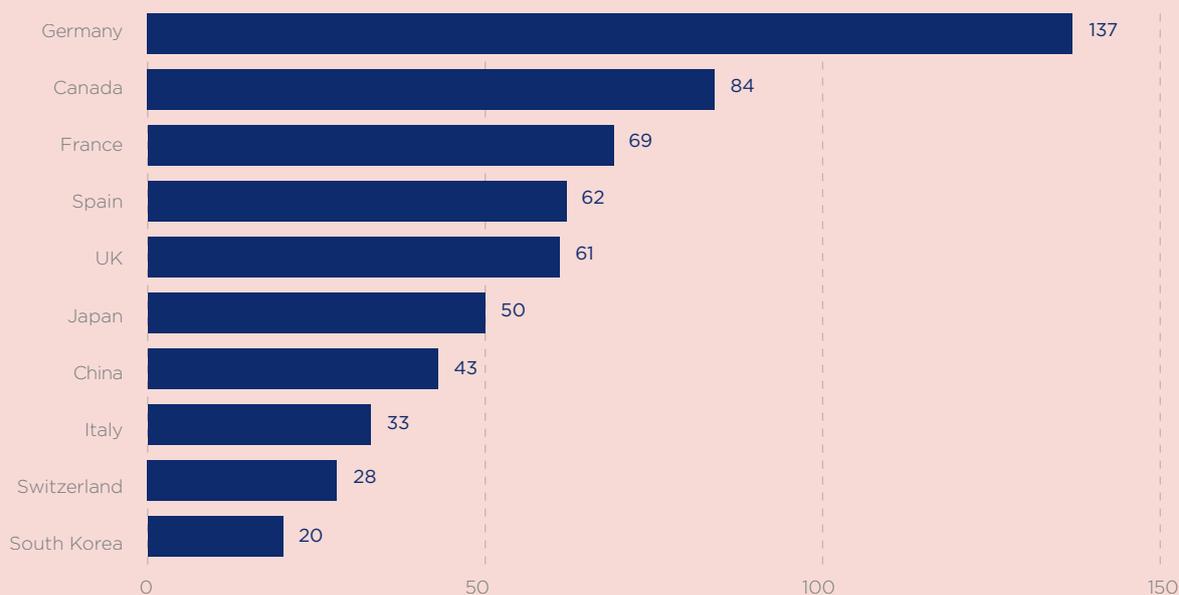
U.S. and European companies will be critical to the development of a cleaner energy future. The EU's ambitious new European Green Deal calls for at least €1 trillion in investments over 10 years, with the ambitious target of making the continent climate neutral by 2050. The plan outlines a wide set of 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.

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.<sup>9</sup> As shown by Table 11, U.S. companies account for four of the top five purchasers of solar and wind capacity in Europe.

Combined, government spending on energy research, development and demonstration (RD&D) in the U.S. and Europe was \$15 billion in 2018, 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 U.S. 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 9 Top Sources of Inward FDI in U.S. Energy**

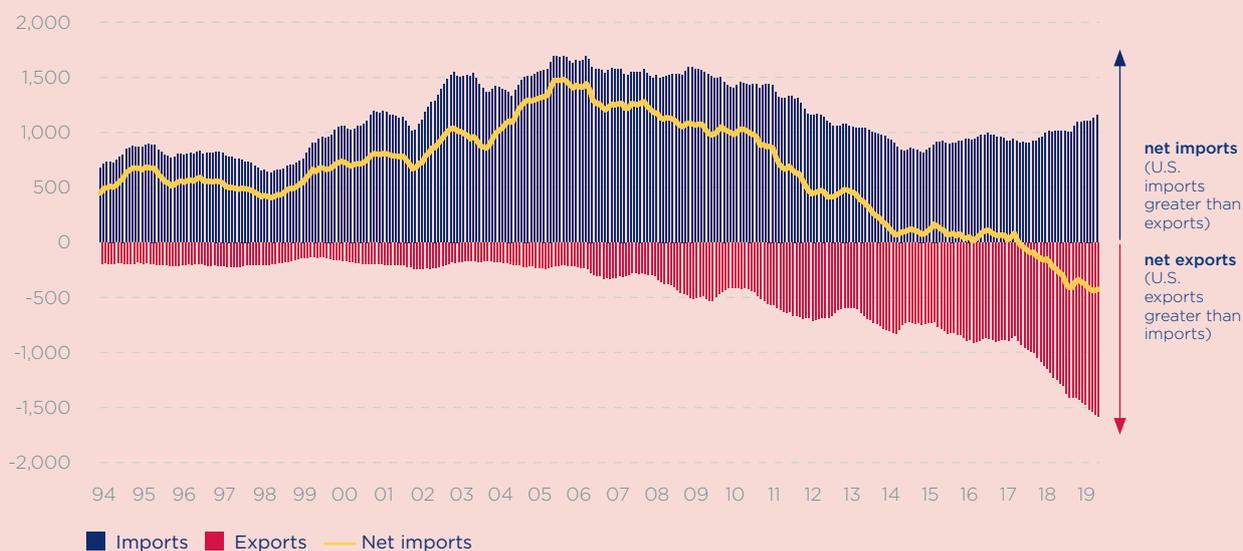
(779 Total Announced Greenfield Projects, October 2009 - September 2019)



Source: SelectUSA, U.S. Department of Commerce.  
Data as of November 2019.

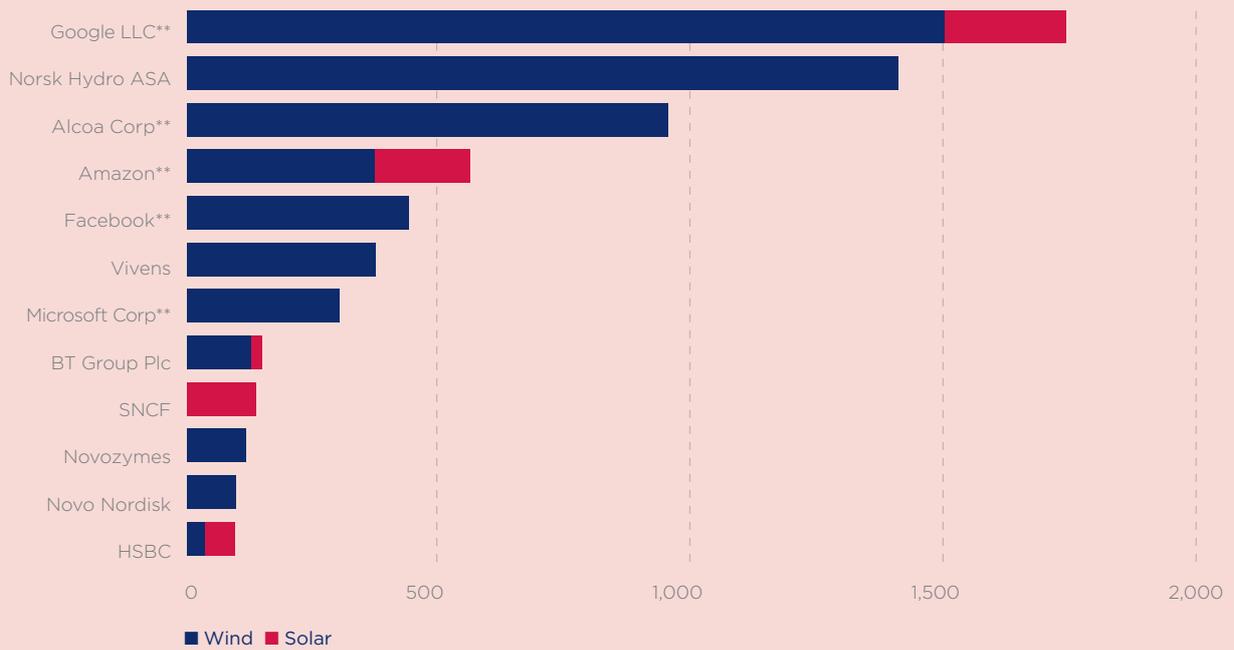
**Table 10 U.S. Net Imports from Europe of Crude Oil and Petroleum Products**

(Thousand Barrels per Day)



Includes other liquids such as natural gas liquids. Data shown is 12 month moving average.  
Source: U.S. Energy Information Administration.  
Data as of January 2020.

**Table 11 Top Purchasers of Renewable Energy in Europe, 2007-2019 (Megawatts)**



\*\*Companies with asterisks are U.S. companies.  
 Source: Bloomberg New Energy Finance, Wall Street Journal.  
 Data as of January 2020.

**Table 12 Total CO<sub>2</sub> emissions (MMtons CO<sub>2</sub>): Transatlantic Economy vs. the World**



**Endnotes**

- 1 See "Trade War Hammers Foreign Investment in China and Southeast Asia," *Nikkei Asian Review*, August 25, 2019.
- 2 "Chinese Lead Foreign Selling of U.S. Commercial Property," *Wall Street Journal*, February 4, 2020.
- 3 Baker McKenzie, "Chinese Investment in Europe and North America Hits 9-Year Low; Signs of Recovery for 2020," January 8, 2020.
- 4 Bureau of Economic Analysis, total inward foreign direct investment position on a historic cost basis in 2018 in petroleum and related industries, and electric power generation transmission and distribution.
- 5 SelectUSA, <https://www.selectusa.gov/servlet/servlet.FileDownload?file=015t00000001nSg>
- 6 Ibid; The "Bureau of Economic Analysis"
- 7 European Commission, "EU-U.S. LNG Trade," Data through November 2019.
- 8 Energy Information Administration, U.S. coal exports through September 2019, <https://www.eia.gov/coal/production/quarterly/pdf/t7p01p1.pdf>.
- 9 "U.S. Companies Fuel Europe's Green-Energy Push," *Wall Street Journal*, January 19, 2020.



5

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



## Real economic growth in the eurozone

(estimate 2019)



Slowed to  
**1.2%**

## U.S. FDI stock in Europe

(2018)



**\$3.6 trillion**

**61%** of total U.S. investment  
abroad

After a volatile year in terms of global trade, business investment, and manufacturing weakness, the European economy had been expected to rebound in 2020, although the cascading effects of COVID-19 are likely to swing European economies into recession and delay European recovery until later in the year or into 2021. Global trade uncertainty moderated slightly after the signing of Phase One of the U.S.-China trade deal, but COVID-19 has throttled supply chains and caused production bottlenecks that have generated further uncertainty. Escalating U.S.-Europe tensions on issues ranging from auto tariffs and 5G security to digital services taxes and energy pipelines are additional key risks to watch in the year ahead. Other sources of uncertainty include the outcome of the U.S. elections in November, the future of the UK-EU and UK-U.S. trade and investment relationships, geopolitical tensions in the Middle East, continuing sanctions on Russia, and the long-term state of U.S.-China trade relations, among others. Meanwhile, populist pressures across the continent remain a key area of focus.

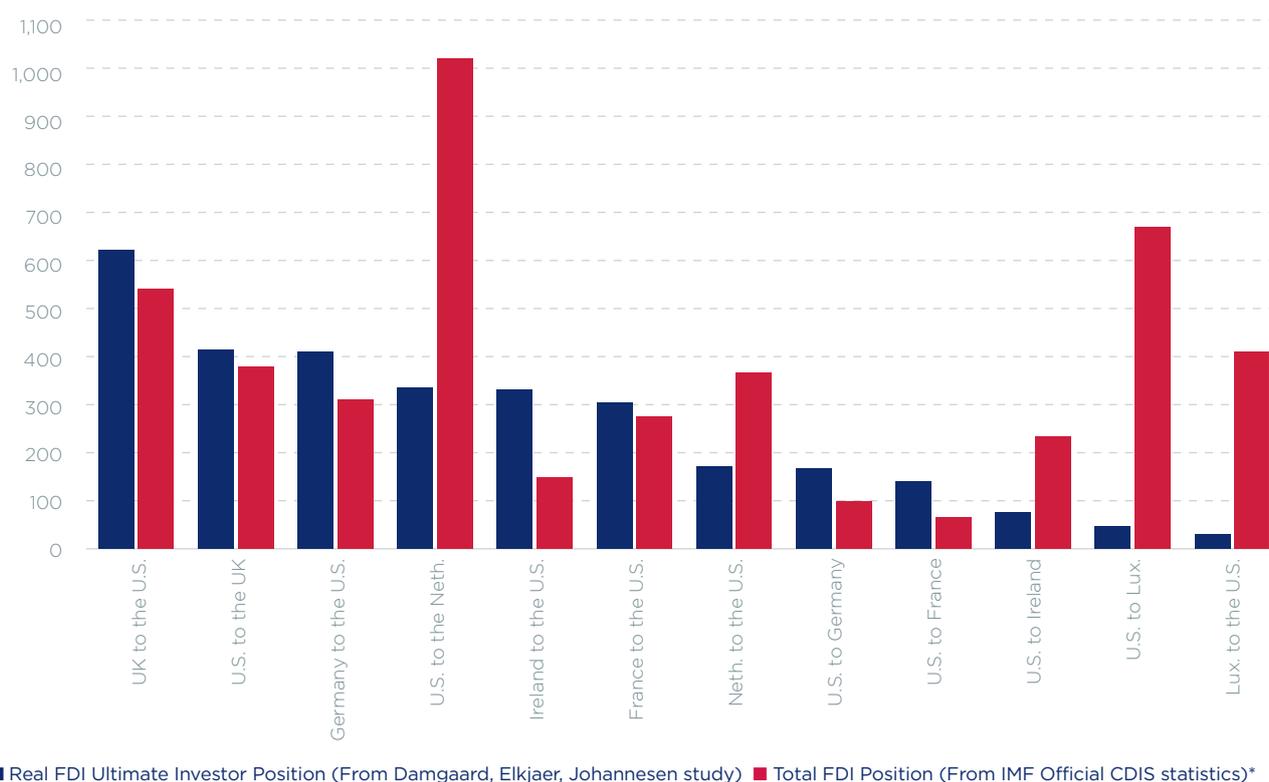
Notwithstanding the recent cyclical slowdown and economic risks, Europe remains one of the most attractive regions of the world for U.S. foreign direct investment (FDI). The latest economic figures underscore corporate America's enduring commitment to its long-standing transatlantic partner. Measured on a historic cost basis, the total stock of U.S. FDI in Europe was \$3.6 trillion in 2018, or 61% of the total U.S. global investment position. This is more than four times the amount of comparable U.S. investment in the Asia-Pacific region.

This overall number, while impressive, doesn't 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 U.S. 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 U.S. in Germany was actually almost \$170 billion.<sup>1</sup> Similarly, "real FDI" links from Germany to the U.S. are considerably higher than official statistics might indicate. All told, they estimate "real FDI" bilateral links from Germany to the U.S. to top \$400 billion, whereas official statistics put that figure closer to \$300 billion.<sup>2</sup> The same is true for other important bilateral investment links. Table 1 shows "real FDI" links both from the U.S. to Great Britain and from Great Britain to the U.S., for instance, to be higher than standard measurements indicate.

**Table 1 Real FDI Links Among Top Global Economies** (\$ Billions)

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

Data for 2017, latest available.

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

## "Phantom" vs. "Real" FDI

The second important phenomenon is what economists call "phantom FDI," or investments that pass through special purpose entities that have no real business activities.<sup>3</sup> 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 is allocated to non-bank holding companies, 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 1). Excluding holding companies, total U.S. FDI stock in Europe amounts to \$1.6 trillion – a much smaller figure but still over two-and-a-half times larger than total U.S. investment in the Asia-Pacific region (FDI stock of \$618 billion excluding holding companies).

## Box 1. U.S. FDI Outflows to Europe Adjusted for Flows of Holding Companies

For the past few years, we have highlighted the role of U.S. holding companies in determining U.S. investment flows to Europe. This additional lens is warranted since holding companies have accounted for almost half of global U.S. FDI stock, and 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 2018, 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.”

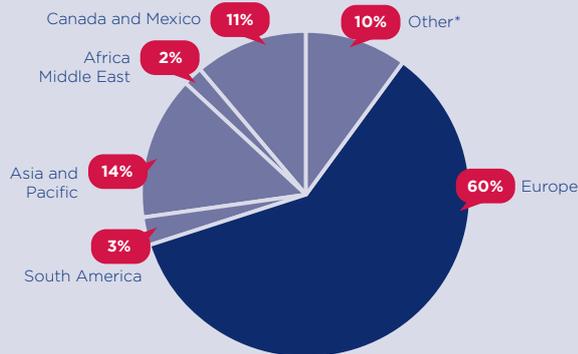
Against this backdrop, total U.S. FDI flows to Europe over the past few years have been in large part driven by flows to holding companies. The countries attracting the most investment of holding companies, not surprisingly, are those with some of the lowest corporate tax rates in Europe, such as the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

Tables 1a and 1b, drawing on BEA data, reflect the significance of holding companies in the composition of U.S. FDI outflows. European markets have accounted for roughly 60% 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.

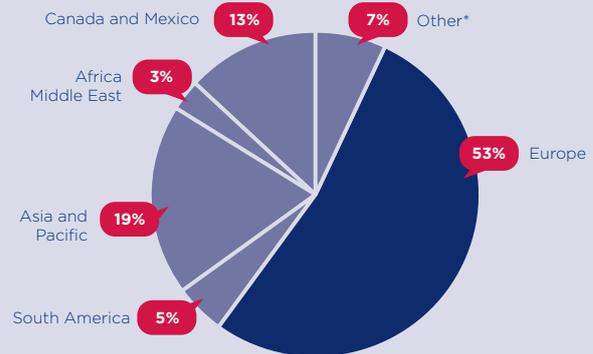
In 2018, U.S. FDI flows to holding companies in Europe were negative (-\$144 billion), as U.S. companies repatriated a large amount of foreign earnings that had been accumulating overseas. This negative outflow from holding companies almost entirely offset the positive FDI flows of \$195 billion to all other industries in Europe, whether it be manufacturing and wholesale trade or finance and information services. Overall, this caused U.S. FDI flows to Europe to drop by 70% in 2018.

The bottom line: 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 2018, 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 U.S. and Europe.

**Table 2a Total U.S. FDI Outflows, 2009-2018**  
(% of Total)



**Table 2b U.S. FDI Outflows Excluding Flows to Nonbank Holding Companies, 2009-2018**  
(% of Total)



\*Includes Central America (excluding Mexico) and Other Western Hemisphere.  
Source: Bureau of Economic Analysis.  
Data as of January 2020.

In terms of the annual flows of FDI from the United States, Europe has historically attracted more than half of U.S. investment each year. However, over the past two years this trend has reversed due to a major 2017 tax overhaul in the United States which encouraged U.S. companies to bring home foreign capital at lower tax rates (See Box 2). Due to these large-scale repatriations of accumulated foreign earnings by U.S. multinational companies, U.S. FDI outflows to Europe were roughly zero for the first

nine months of the year, or \$374 million. That figure is down from \$16 billion in outflows during the same period of 2018, and significantly lower than the \$131 billion in U.S. FDI outflows from Q1-Q3 of 2017, prior to the change in the U.S. tax code. Most of the decline in U.S. investment to Europe was caused by U.S. companies with offshore operations in Ireland; in 2019 these firms repatriated large quantities of accumulated capital, leading to a -\$80 billion outflow in the first three quarters of 2019.

## Box 2. U.S. Corporate Tax Reform: Impact on FDI Outflows

In December 2017, the United States passed the “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.

For years, U.S. multinational companies reinvested their global earnings back into their operations abroad to defer 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 2a shows the breakout of U.S. FDI flows to Europe by component, with retained 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 allowed 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.

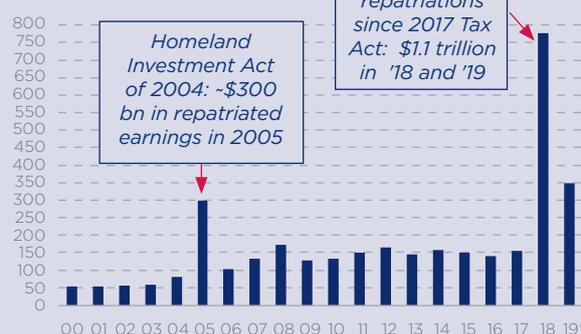
In the first two years after the change in the U.S. corporate tax code, U.S. repatriations of global earnings are estimated to have totaled approximately \$1.1 trillion, or about 40% of the estimated \$3 trillion in funds stockpiled overseas at the end of 2017 (Table 2b). These repatriations and negative FDI outflows are likely a to be a short-term anomaly in the data. According to UNCTAD’s January 2019 Investment Trends Monitor, however, 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 \$)



\*Seasonally adjusted.  
Source: U.S. Bureau of Economic Analysis.  
Data as of January 2020.

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



\*2019 estimate based on three quarters of data.  
Source: U.S. Bureau of Economic Analysis.  
Data as of January 2020.

By contrast, most of the rest of the world saw a rebound in U.S. FDI flows from 2018 to 2019. For example, U.S. FDI outflows to Latin America and the Caribbean, a region also home to several other tax haven destinations for U.S. companies, were \$40 billion in the first three quarters of 2019, compared to negative FDI flows of -\$128 billion for the full year 2018. In Asia Pacific, U.S. FDI outflows rebounded from -\$38 billion in 2018 (full year figure) to +\$49 billion for the first three quarters of 2019.

In total, U.S. global FDI outflows were \$117 billion from Q1-Q3 of 2019, compared to a negative \$114 billion during the same period a year earlier. The recovery in U.S. FDI outflows extended to parts of Europe, with many European countries seeing strong investment growth from the United States. The Netherlands, for example, attracted +\$20 billion in FDI inflows from the U.S. from Q1-Q3 2019, compared with -\$30 billion during the same period a year ago. The United Kingdom and Switzerland, meanwhile, each averaged roughly \$7 billion of U.S. inflows per quarter in 2019, versus just \$2 billion on average each quarter in 2018. However, greater FDI flows to these countries listed above, as well as increases in Germany, Finland, Denmark and Austria, failed to offset major declines

in U.S. FDI to countries such as Ireland, Luxembourg, Sweden, France and Russia.

That said, quarterly, and even annual, U.S. FDI outflows are an extremely volatile measure of U.S.-European investment ties. Table 4 provides a more long-term view of U.S. FDI across Europe. A few items stand out. First, two countries on the list (Russia and Sweden) have experienced net outflows of U.S. investment since the start of this decade. After sinking over \$11 billion into Russia in the first decade of this century, U.S. investment in Russia has dried up since 2010.

Second, official measurements indicate that the share of U.S. FDI in both Germany and France has declined sharply this decade, with France accounting for just 1.3% of U.S. FDI flows to Europe since 2010. Germany's share is slightly higher, 2.1%, 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 Germany via other countries, and analyses that include "round-tripping" estimates conclude that U.S. FDI that eventually ends up in Germany remains robust.

**Table 4 U.S. FDI in Europe: The Long View** (Millions of \$, (-) inflows)

| Country        | 1990-1999          |            | 2000-2009          |            | 2010-3Q2019        |            |
|----------------|--------------------|------------|--------------------|------------|--------------------|------------|
|                | \$ Aggregate Total | % of Total | \$ Aggregate Total | % of Total | \$ Aggregate Total | % of Total |
| Europe         | 465,337            |            | 1,149,810          |            | 1,442,787          |            |
| Austria        | 2,908              | 0.6%       | 501                | 0.0%       | 8,610              | 0.6%       |
| Belgium        | 12,028             | 2.6%       | 40,120             | 3.5%       | 28,257             | 2.0%       |
| Czech Republic | 155                | 0.0%       | 1,941              | 0.2%       | 4,942              | 0.3%       |
| Denmark        | 2,798              | 0.6%       | 5,782              | 0.5%       | 9,289              | 0.6%       |
| Finland        | 1,485              | 0.3%       | 1,598              | 0.1%       | 346                | 0.0%       |
| France         | 29,063             | 6.2%       | 42,963             | 3.7%       | 18,293             | 1.3%       |
| Germany        | 31,817             | 6.8%       | 60,363             | 5.2%       | 30,791             | 2.1%       |
| Greece         | 413                | 0.1%       | 943                | 0.1%       | 297                | 0.0%       |
| Hungary        | 2,929              | 0.6%       | 1,376              | 0.1%       | 1,242              | 0.1%       |
| Ireland        | 21,369             | 4.6%       | 115,085            | 10.0%      | 229,622            | 15.9%      |
| Italy          | 13,825             | 3.0%       | 26,462             | 2.3%       | 15,917             | 1.1%       |
| Luxembourg     | 15,912             | 3.4%       | 126,989            | 11.0%      | 291,888            | 20.2%      |
| Netherlands    | 70,770             | 15.2%      | 295,889            | 25.7%      | 374,544            | 26.0%      |
| Norway         | 4,198              | 0.9%       | 4,997              | 0.4%       | 9,557              | 0.7%       |
| Poland         | 2,681              | 0.6%       | 4,699              | 0.4%       | 2,475              | 0.2%       |
| Portugal       | 1,993              | 0.4%       | 2,212              | 0.2%       | 1,241              | 0.1%       |
| Russia         | 1,555              | 0.3%       | 11,289             | 1.0%       | -1,955             | -0.1%      |
| Spain          | 11,745             | 2.5%       | 28,371             | 2.5%       | 16,620             | 1.2%       |
| Sweden         | 10,783             | 2.3%       | 16,974             | 1.5%       | -3,805             | -0.3%      |
| Switzerland    | 32,485             | 7.0%       | 97,869             | 8.5%       | 138,785            | 9.6%       |
| Turkey         | 1,741              | 0.4%       | 5,994              | 0.5%       | 5,112              | 0.4%       |
| United Kingdom | 175,219            | 37.7%      | 237,906            | 20.7%      | 262,203            | 18.2%      |
| Other          | 17,465             | 2.6%       | 19,487             | 1.4%       | -1,798             | -0.1%      |

Source: Bureau of Economic Analysis.

Ireland has become a favored destination for FDI among U.S. multinationals 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 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 Top 20 U.S. Affiliate Sales Abroad by Destination\*** (\$Millions)

| Rank | 1982                 |              | 1990              |              | 2000              |               | 2017              |                |
|------|----------------------|--------------|-------------------|--------------|-------------------|---------------|-------------------|----------------|
|      | Country              | Value        | Country           | Value        | Country           | Value         | Country           | Value          |
| 1    | United Kingdom       | 33,500       | United Kingdom    | 51,350       | United Kingdom    | 94,712        | <b>Ireland</b>    | <b>288,058</b> |
| 2    | Switzerland          | 27,712       | Canada            | 46,933       | Canada            | 94,296        | Switzerland       | 263,259        |
| 3    | Canada               | 25,169       | Germany           | 41,853       | Germany           | 69,522        | Singapore         | 250,488        |
| 4    | Germany              | 19,117       | Switzerland       | 38,937       | Netherlands       | 67,852        | United Kingdom    | 187,324        |
| 5    | Netherlands          | 15,224       | Netherlands       | 33,285       | Singapore         | 56,961        | Netherlands       | 162,643        |
| 6    | Belgium              | 11,924       | France            | 24,782       | Switzerland       | 56,562        | Canada            | 134,968        |
| 7    | Singapore            | 11,579       | Belgium           | 21,359       | <b>Ireland</b>    | <b>51,139</b> | Germany           | 114,673        |
| 8    | France               | 11,255       | Singapore         | 15,074       | Mexico            | 37,407        | Belgium           | 103,226        |
| 9    | Indonesia            | 8,289        | Hong Kong         | 9,951        | France            | 35,797        | Mexico            | 91,597         |
| 10   | Hong Kong            | 4,474        | Italy             | 9,562        | Belgium           | 32,010        | Hong Kong         | 81,868         |
| 11   | Italy                | 3,993        | <b>Ireland</b>    | <b>9,469</b> | Hong Kong         | 22,470        | China             | 69,071         |
| 12   | Australia            | 3,710        | Spain             | 7,179        | Malaysia          | 16,013        | France            | 57,362         |
| 13   | <b>Ireland</b>       | <b>2,842</b> | Japan             | 7,066        | Sweden            | 15,736        | Luxembourg        | 38,577         |
| 14   | United Arab Emirates | 2,610        | Australia         | 6,336        | Italy             | 14,370        | India             | 31,554         |
| 15   | Brazil               | 2,325        | Mexico            | 5,869        | Spain             | 12,928        | Australia         | 31,224         |
| 16   | Japan                | 2,248        | Indonesia         | 5,431        | Japan             | 11,845        | Brazil            | 29,547         |
| 17   | Malaysia             | 2,046        | Brazil            | 3,803        | Australia         | 9,370         | Italy             | 28,200         |
| 18   | Panama               | 1,662        | Norway            | 3,565        | Brazil            | 8,987         | Japan             | 28,024         |
| 19   | Spain                | 1,635        | Malaysia          | 3,559        | China             | 7,831         | Spain             | 27,624         |
| 20   | Mexico               | 1,158        | Nigeria           | 2,641        | Norway            | 6,238         | Malaysia          | 25,930         |
|      | All Country Total    | 252,274      | All Country Total | 398,873      | All Country Total | 857,907       | All Country Total | 2,428,798      |

Source: Bureau of Economic Analysis.

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



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

Ireland's progress has been remarkable. In 1982, Ireland ranked 13th in the world in terms of U.S. foreign affiliate exports. Then, U.S. affiliates supplied just \$2.8 billion worth of goods and services from Ireland to other countries. By 1990 that figure had grown to \$9.5 billion and by 2000 it was in excess of \$50 billion. In the 21st century, as the industrial and technological capacities of U.S. affiliates in Ireland surged, so did U.S. affiliate exports, soaring nearly six times between 2000 and 2017 to \$288 billion. U.S. firms leverage Ireland as an export base to a far greater degree than low-cost locales like Mexico and China.

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, depending on the ultimate trade and investment deals forged between the UK and the EU and the UK and the United States. Increased barriers to trade and regulatory divergence in the UK 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, and EU enlargement enticed more U.S. firms to invest directly in continental member states of the EU. Brexit uncertainties have accelerated such trends, as U.S. companies based in the UK seek to retain a presence within the EU Single Market. 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 Still Matters

Despite Europe's recently weak economic performance and heightened U.S.-EU trade tensions, the secular and structural case for investing in Europe remains positive. First, the European Union remains one of the largest economies in the world. This fact is often overlooked or ignored by political and media

commentary that is more attuned to what's wrong rather than what's right with Europe. In nominal U.S. dollar terms, the European Union (plus Norway, Switzerland, Iceland) accounted for 22.5% of world output in 2019, according to estimates from the International Monetary Fund. Even when the United Kingdom is excluded from the figures, the aggregate output of this group of nations – \$16.7 trillion, or 19.3% of total output – is among the largest in the world. The figure (EU excluding the UK) is slightly less than America's share (24.8%), but in excess of China's – 16.3%. Based on purchasing power parity figures, the European Union's share, including Norway, Switzerland, and Iceland, was greater than that of the United States but less than that of China in 2019.

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. Even with the UK's decision to leave the EU, the sum of Europe's parts is one of the largest economic entities in the world; as such, Europe remains a key pillar of the global economy and critical component to the corporate success of U.S. firms.

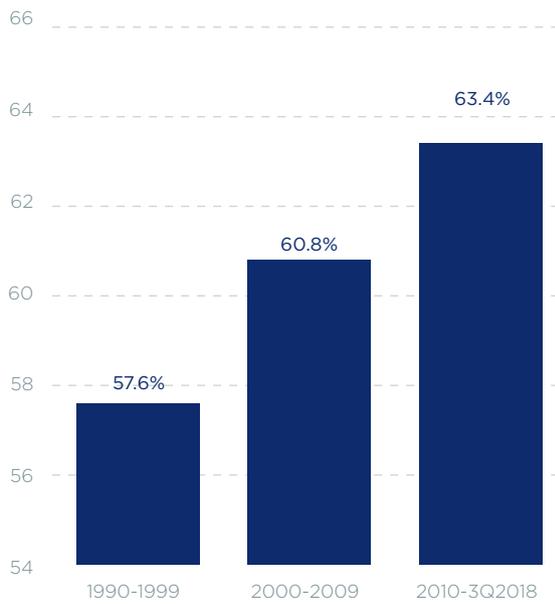
**Table 6 Cumulative U.S. FDI Outflows** (\$Millions)

| 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     | 2,056,009     | 1,149,810 | 55.9%                  |
| 2010Q1-2019Q3 | 2,509,607     | 1,442,787 | 57.5%                  |

Source: Bureau of Economic Analysis.

As Table 6 highlights, Europe attracts more than half of U.S. aggregate FDI outflows. The region's share of total U.S. FDI this decade is 57.5%, which is up from the first decade of this century as well as from the level of the 1990s. When U.S. FDI flows to Caribbean offshore financial centers are subtracted from the total, Europe's share climbs even higher, to almost two-thirds of U.S. direct investment flows (Table 7).

**Table 7 U.S. FDI Flows to Europe**  
(% of World Total\*)



\*Excluding Caribbean and Other Western Hemisphere.  
Source: Bureau of Economic Analysis.  
Data as of January 2020.



corruption, etc.) as well as policy headwinds (foreign exchange controls, tax preferences favoring local firms) reducing the overall attractiveness of these markets to multinationals.

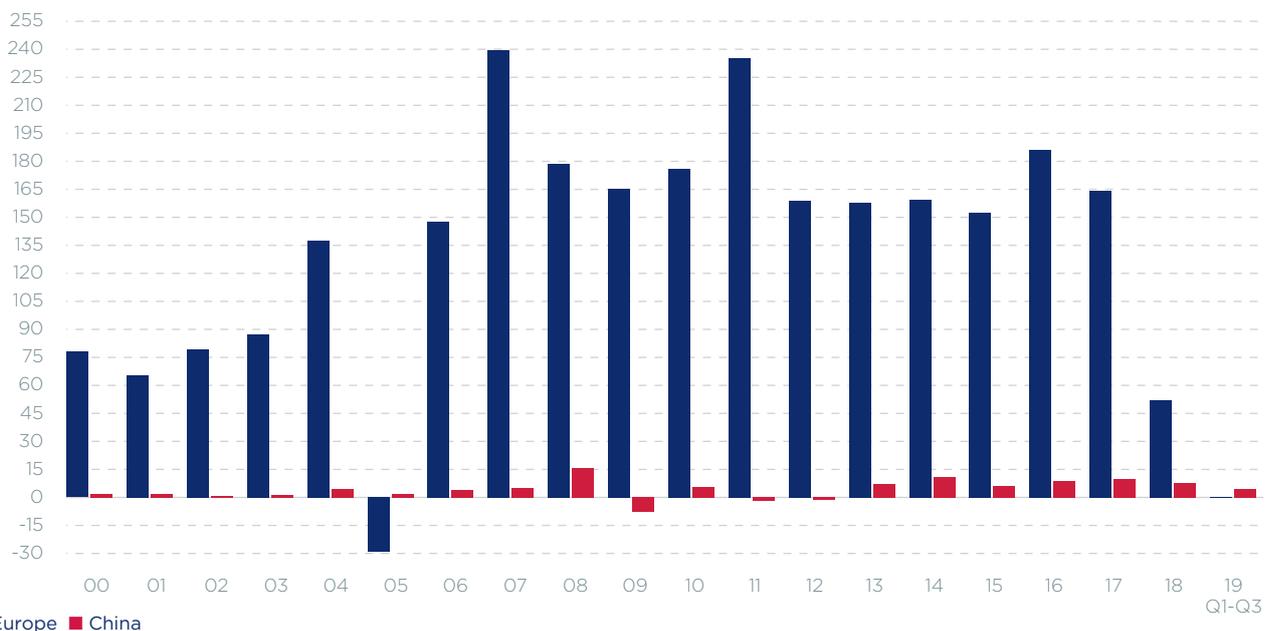
Second, real growth in the emerging markets has downshifted. GDP growth in Brazil and Russia slowed over the past year, though the IMF projects a recovery in 2020. Growth prospects in China, meanwhile, have slowed considerably as Beijing shifts towards more consumption and services-led growth and away from export- and investment-driven growth. India's economy has also downshifted, growing at just 4.8% in 2019 versus 6.8% the prior year. Though India's growth is estimated to rebound, the country remains too poor and too closed-off to make much of a difference to the bottom line of Corporate America.

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. Reality is different for a host of reasons.

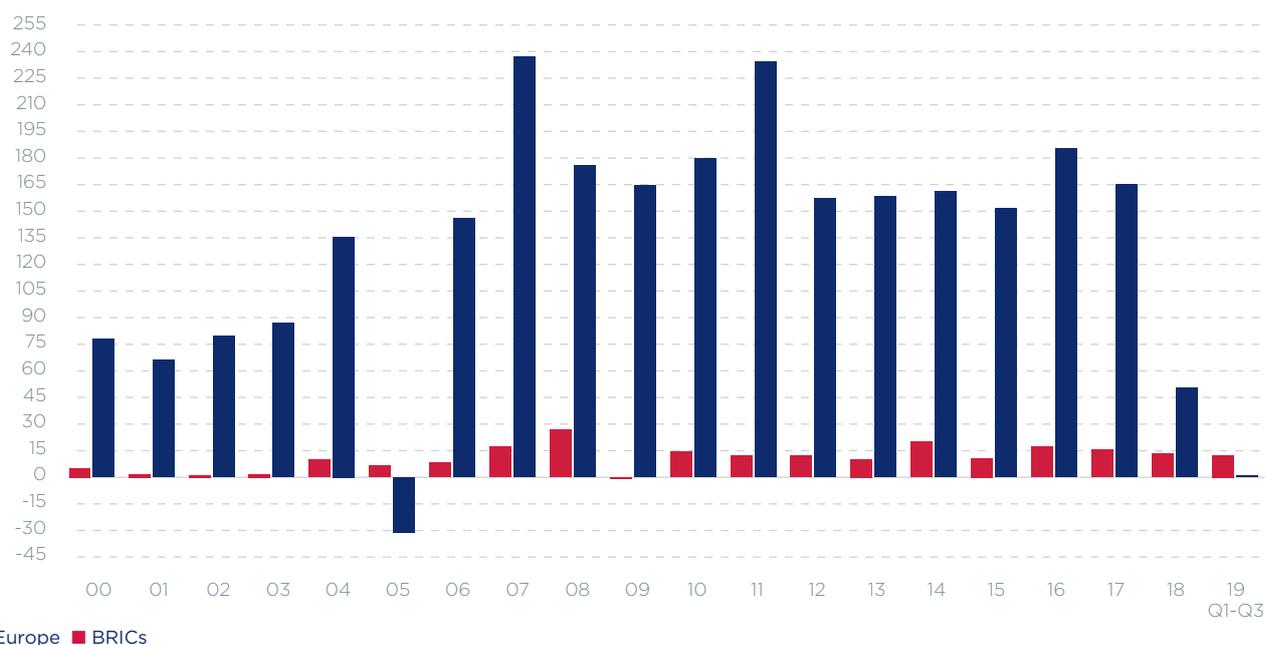
First, investing in emerging markets such as China, India and Brazil remains difficult, with indigenous barriers to growth (poor infrastructure, dearth of human capital,

In the end, for both cyclical and structural factors, the BRICs and the emerging markets remain difficult places to do business. Hence the wide divergence between U.S. FDI to the BRICs (Brazil, Russia, India, China) and U.S. FDI to Europe, as shown by the historical FDI flows displayed in Tables 8 and 9. Data on FDI flows in 2018-19 is distorted due to the repatriations of cash as explained above.

**Table 8 U.S. Foreign Direct Investment Flows to China vs. Europe (\$ Billions)**



Source: Bureau of Economic Analysis.  
Data as of January 2020.

**Table 9 U.S. Foreign Direct Investment Outflows to the BRICs vs. Europe\*** (\$ Billions)

\*Europe does not include flows to Russia.  
 Source: Bureau of Economic Analysis.  
 Data as of January 2020.

Third, while overall economic growth in Europe has downshifted in recent years, there are pockets of the eurozone economy that are projected to have more robust growth in the near term. Ireland, Hungary, Romania, and Poland are estimated to grow in the range of 3-3.5% this year, while several other EU economies should see growth exceeding 2%, including the Czech Republic and Greece, according to IMF forecasts as of January 2020.

Fourth, in addition to being one of the largest economic blocs in the world, Europe is also wealthy, and wealth matters. Wealth is correlated with highly skilled labor, rising per capita incomes, innovation, and a world class R&D infrastructure, among other things. In the aggregate, 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.

While much has been made of the rise of China, with the mainland's economy now the second largest in the world, the Middle Kingdom remains relatively poor. China's per capita income totaled just \$9,771 in 2018, according to figures from the World Bank. The Chinese figure ranks 68th in the world and is well below the per capita income levels of Switzerland (\$82,797), Sweden (\$54,608), the Netherlands (\$53,024), Finland (\$50,152), Germany (\$47,603), and the European Union average of around \$37,000. With a miserly per capita income of about \$2,000, India ranks 141st.

Wealth, in turn, drives consumption. The EU accounted for about 21% of total global personal consumption expenditures in 2018, a slightly lower share than that of the United States but well above that of China (11%), India (3%) and the BRICs combined (18%). Gaining access to wealthy consumers is among the primary reasons why U.S. firms invest overseas, and hence the continued attractiveness of wealthy Europe to American companies.

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

The World Bank annually ranks the regulatory environment for domestic firms in 190 nations, a ranking which serves as a very good proxy for the ease of doing business for domestic and foreign companies alike. And in the 2020 Ease of Doing Business rankings, 17 European economies ranked among the top 30 most business-friendly countries.

Denmark ranked 4th overall, followed by Georgia (7th), the United Kingdom (8th), Norway (9th), Sweden (10th), Lithuania (11th), North Macedonia (17th), Estonia (18th), Latvia (19th), Finland (20th), Germany (22nd), Ireland (24th), Kazakhstan (25th), Iceland (26th), Austria (27th), Russia (28th), and Spain (30th) (See Table 10). Outliers include Bulgaria (61st), Luxembourg (72nd), Greece (79th) and Malta (88th).

**Table 10 Ease of Doing Business Rankings 2020**

| Ease of Doing Business 2020 |                        |
|-----------------------------|------------------------|
| Rank                        | Country                |
| 1                           | New Zealand            |
| 2                           | Singapore              |
| 3                           | Hong Kong              |
| 4                           | <b>Denmark</b>         |
| 5                           | South Korea            |
| 6                           | <b>United States</b>   |
| 7                           | <b>Georgia</b>         |
| 8                           | <b>United Kingdom</b>  |
| 9                           | <b>Norway</b>          |
| 10                          | <b>Sweden</b>          |
| 11                          | <b>Lithuania</b>       |
| 12                          | Malaysia               |
| 13                          | Mauritius              |
| 14                          | Australia              |
| 15                          | Taiwan                 |
| 16                          | United Arab Emirates   |
| 17                          | <b>North Macedonia</b> |
| 18                          | <b>Estonia</b>         |
| 19                          | <b>Latvia</b>          |
| 20                          | <b>Finland</b>         |
| 21                          | Thailand               |
| 22                          | <b>Germany</b>         |
| 23                          | <b>Canada</b>          |
| 24                          | <b>Ireland</b>         |
| 25                          | <b>Kazakhstan</b>      |
| 26                          | <b>Iceland</b>         |
| 27                          | <b>Austria</b>         |
| 28                          | <b>Russia</b>          |
| 29                          | Japan                  |
| 30                          | <b>Spain</b>           |

Source: World Bank, *Ease of Doing Business Report 2020*.

Meanwhile, reflecting the challenging business environment in many emerging markets, these countries rank low on the list. However, there are signs of improvement, with many of the major developing countries seeing their business rankings significantly increase in the past year. China ranked 31st in terms of the ease of doing business in the latest rankings, up from 46th last year and 78th in 2018. India ranked 63rd, moving up from number 77 last year and 100 in 2018. However, there is still much to be improved in terms of the regulatory environment in the BRIC nations; strong real GDP growth does not necessarily equate to a favorable environment for business. Other factors need to be considered, like the rise of state capitalism in many developing nations, continued intellectual property right infringements, capital controls, and discriminating domestic policies against foreign firms. These factors have become favorite policy tools in many key emerging markets, further enhancing the attractiveness of Europe in the eyes of U.S. multinationals.

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

In addition, despite numerous structural challenges in Europe and notwithstanding current market problems, many European economies remain among the most competitive in the world. For instance, in the latest rankings of global competitiveness from the World Economic Forum, six European countries were ranked among the top ten, and ten more among the top thirty. The Netherlands ranked 4th, Switzerland 5th, Germany 7th, Sweden 8th, the United Kingdom 9th and Denmark 10th (see Table 11). The United States, by way of comparison, ranked 2nd, down from 1st place in 2018.

**Table 11 North Atlantic Economies are the Most Competitive in the World**

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

Source: World Economic Forum, *Global Competitiveness Report 2019*.

At the other end of the spectrum, a handful of European nations scored poorly, underscoring the fact that Europe's competitiveness is hardly homogenous. Some nations did not even score in the top fifty – Romania ranked 51st and Greece ranked 59th, while Croatia ranked 63rd in the latest survey, the worst performer among EU members.

The spread between the Netherlands in fourth place and floundering Croatia underscores the divergent competitiveness of the EU and highlights the fact that various nations exhibit various competitive strengths and weaknesses. For instance, Croatia's ranking was dragged down by weak judicial independence, a weak entrepreneurial culture and poor labor market flexibility. Greece received low marks for its property rights and financial stability, which stands 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; Spain's ranking was hurt by its government regulations, labor market inefficiencies and bank capital ratios, but is the top country in terms of the overall health of its citizens. Switzerland ranked first across several variables, including workforce skills, broadband internet subscriptions and government policy stability.

All of the above is another way of saying that there is a great deal more to Europe than the daily diet of negative headlines. The various countries of Europe offer specific micro capabilities and competencies that are lacking on a relative basis 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. Based on the European Innovation Scoreboard for 2019, Sweden, Finland, Denmark and the Netherlands rank as "innovation leaders" in Europe. These are the most innovative states in the EU, performing well above that of the EU 28 average.

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

While significant discrepancies exist among nations in the EU as to knowledge-based capabilities, the innovation performance of the EU remains ahead of all BRIC nations. In addition, based on the latest figures from the innovation scoreboard, the EU is now ahead of the United States when it comes to innovation performance.

Since R&D expenditures are a key driver of value-added growth, it is interesting to note that EU-based organizations accounted for over 21% of total global R&D in 2017 in purchasing-power parity terms. That lagged the share of the United States and China but exceeded the share of Japan, South Korea, and Russia. Over the past two decades, China has steadily advanced its R&D capabilities, and is estimated to overtake the U.S. as the top R&D spender in the world (Table 12.)

## Number of researchers hosted

(2017)

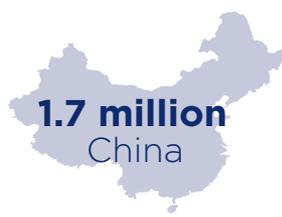
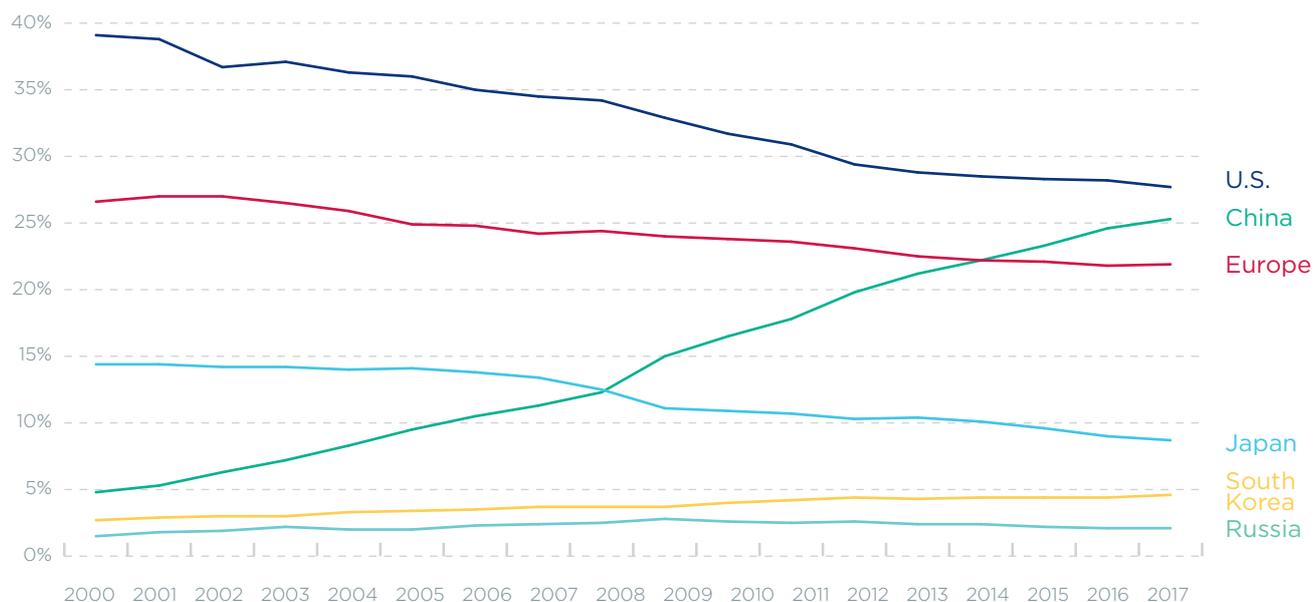


Table 12 Global R&D Expenditures and the Rise of China (% of Total)



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.

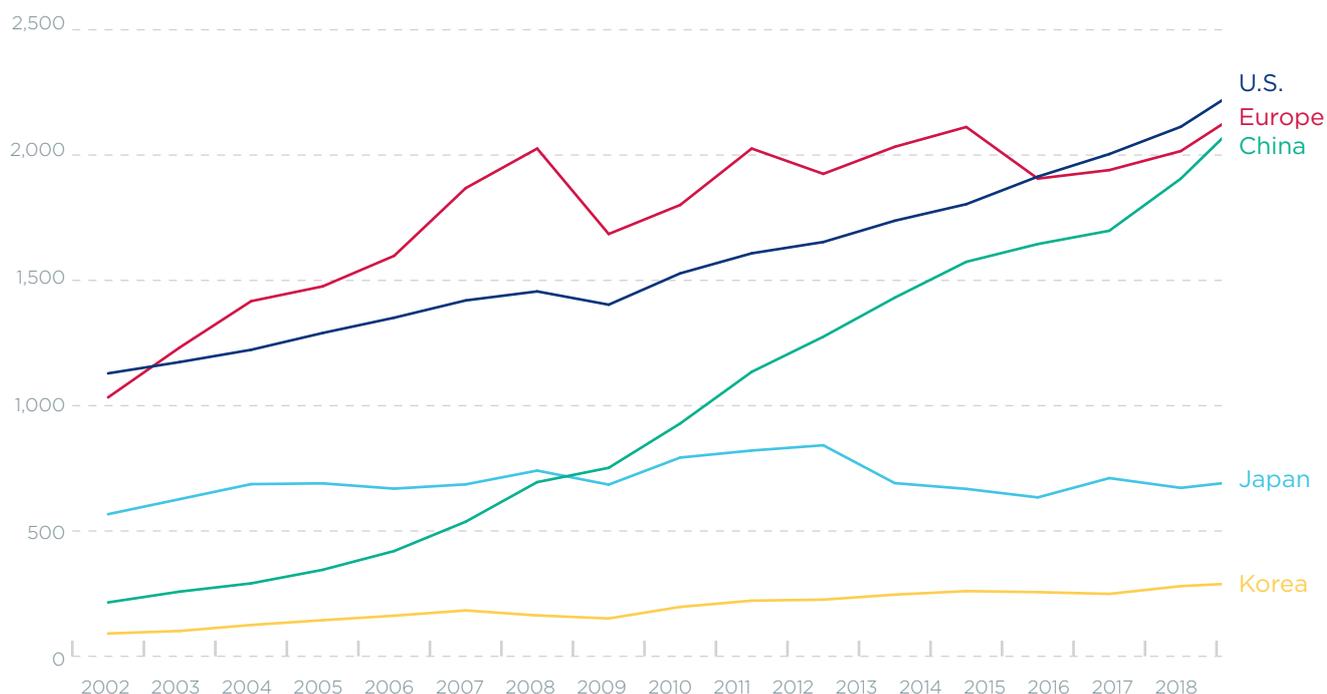
Data as of January 2020.

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 2017, larger than that of the United States (2.8%) and China (2.1%).

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 million researchers in 2017 versus 1.4 million in the United States and 1.7 million in China, according to OECD estimates.

Europe is also a global leader in high-technology manufacturing industries such as pharmaceuticals, scientific instruments and aerospace. According to the latest data from the National Science Foundation, the Europe is second largest producer when it comes to output of “knowledge and technology intensive industries”. These include aircraft, pharmaceuticals, computer and electronic products, and other high and medium R&D intensive industries. That said, China’s output has quickly caught up to Europe’s production, totaling \$2.18 trillion in value added in 2018 versus Europe’s \$2.20 trillion (See Table 13).

**Table 13 Value Added of Knowledge and Technology Intensive Industries (\$ Billions)**

"Knowledge and technology intensive industries" include high R&D intensive and medium-high R&D intensive industries classified by the OECD. High R&D intensive industries include aircraft; pharmaceuticals; computer, electronic, and optical products; scientific research and development services; and software publishing. Medium-high R&D intensive industries include weapons and ammunition; motor vehicles; medical and dental instruments; machinery and equipment; chemicals and chemical products; electrical equipment; railroad, military vehicles, and transport; and IT and other information services.

Sources: IHS Markit; National Science Foundation, Science and Engineering Indicators.

Finally, in terms of future workers, 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 Switzerland is the highest in the OECD, at 44%. The comparable figures for Lithuania, Iceland, Ireland, Belgium, and Luxembourg are all higher than that of the United States (currently 37%).

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 countries, Europe is expected to remain a critical and indispensable geographic node in the global operations of U.S. companies. Remember: U.S. multinationals increasingly view the world through a 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 largest segments of the global economy.

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



**59,900**  
Since 2006: +17,800  
(42.3%)



European companies  
account for  
**53%**  
of foreign affiliate jobs

### Employment within Alabama, 2017

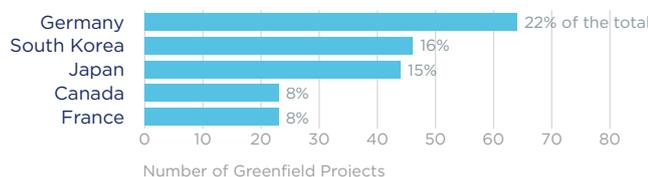
| Country        | Employment |
|----------------|------------|
| Japan          | 20,600     |
| United Kingdom | 16,600     |
| Germany        | 14,200     |
| Canada         | 12,200     |
| France         | 8,200      |

On a country basis, U.K. companies operating in Alabama represented 15% of total foreign affiliate employment in Alabama, with U.K. multinationals supporting approximately 5,000 more jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



**290**  
Greenfield Projects  
(October 2009 -  
September 2019)

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



### Alabama Goods Exports to Europe, 2018

**\$5.5 bn**

57% of total exports from Alabama to Europe were transportation equipment, reflecting the state's linkages with European auto manufacturers.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Germany        | 2,547                 |
| Belgium        | 506                   |
| France         | 433                   |
| Netherlands    | 355                   |
| United Kingdom | 288                   |

### Alabama Goods Imports from Europe, 2018

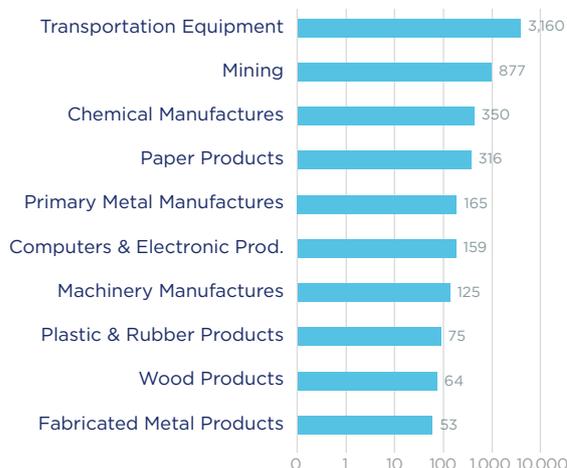
**\$7.2 bn**

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

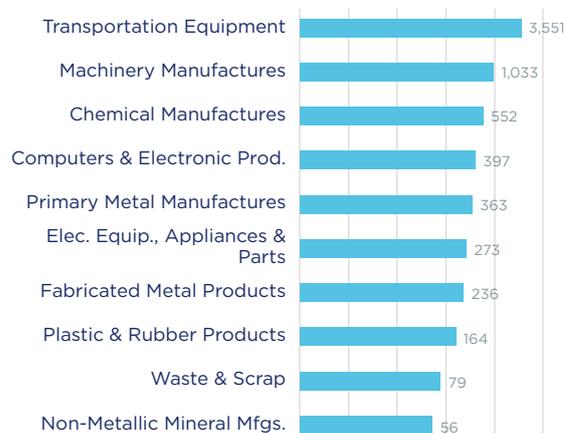
#### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Germany        | 3,448                 |
| France         | 866                   |
| United Kingdom | 719                   |
| Italy          | 296                   |
| Russia         | 195                   |

#### Top Ten Exports to Europe, 2018 (\$ millions)



#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Alaska and Europe



### Employment within Alaska, 2017

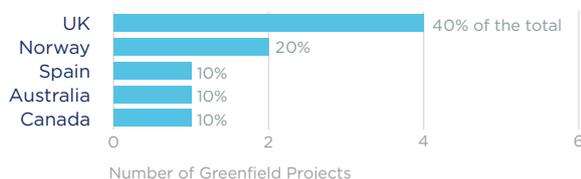
| Country        | Employment |
|----------------|------------|
| Canada         | 6,100      |
| United Kingdom | 4,100      |
| Japan          | 2,800      |
| Germany        | 300        |
| Switzerland    | 300        |

On a country basis, U.K. companies operating in Alaska represented 23% of total foreign affiliate employment in Alaska, with U.K. multinationals supporting approximately 200 fewer jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



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



### Alaska Goods Exports to Europe, 2018

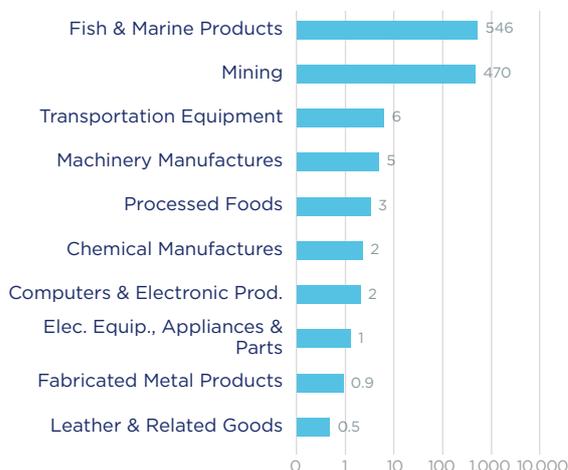
**\$1 bn**

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

#### Top European Export Markets, 2018

| Country     | Exports (\$ millions) |
|-------------|-----------------------|
| Netherlands | 263                   |
| Germany     | 209                   |
| Spain       | 167                   |
| France      | 83                    |
| Italy       | 73                    |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### Alaska Goods Imports from Europe, 2018

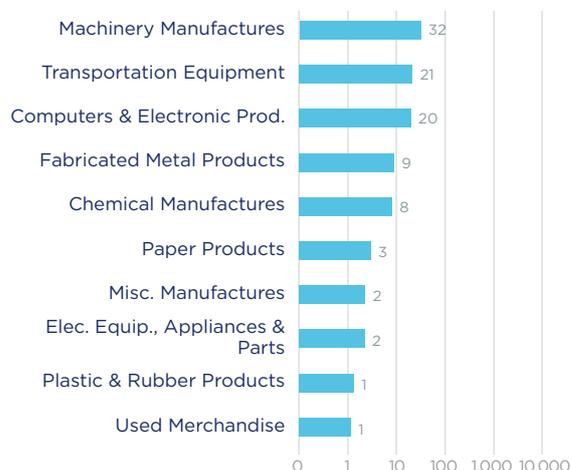
**\$113.3 m**

Machinery made up about 28% of total Alaskan imports from Europe. Other large import categories from Europe include transportation equipment and computer & electronic products.

#### Top European Import Markets, 2018

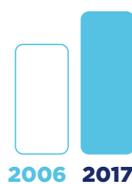
| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Germany        | 34                    |
| United Kingdom | 14                    |
| Italy          | 11                    |
| France         | 11                    |
| Russia         | 9                     |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Arizona and Europe



**61,100**

Since 2006: +13,900 (29.4%)



European companies account for **54%** of foreign affiliate jobs

### Employment within Arizona, 2017

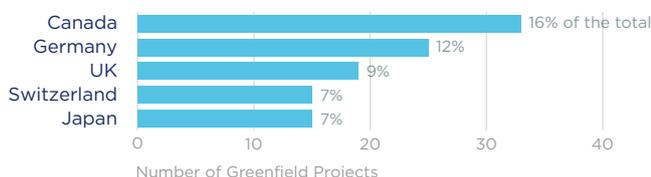
| Country        | Employment |
|----------------|------------|
| Canada         | 18,200     |
| United Kingdom | 17,600     |
| France         | 11,300     |
| Japan          | 10,100     |
| Germany        | 9,500      |

On a country basis, U.K. companies operating in Arizona represented 15% of total foreign affiliate employment in Arizona, with U.K. multinationals supporting approximately 4,500 more jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



**208**

Greenfield Projects (October 2009 - September 2019)

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



### Arizona Goods Exports to Europe, 2018

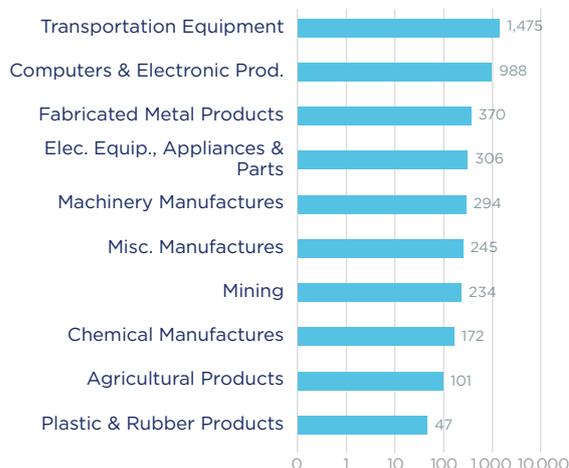
**\$4.5 bn**

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

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| United Kingdom | 929                   |
| Germany        | 746                   |
| Netherlands    | 618                   |
| France         | 567                   |
| Ireland        | 229                   |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### Arizona Goods Imports from Europe, 2018

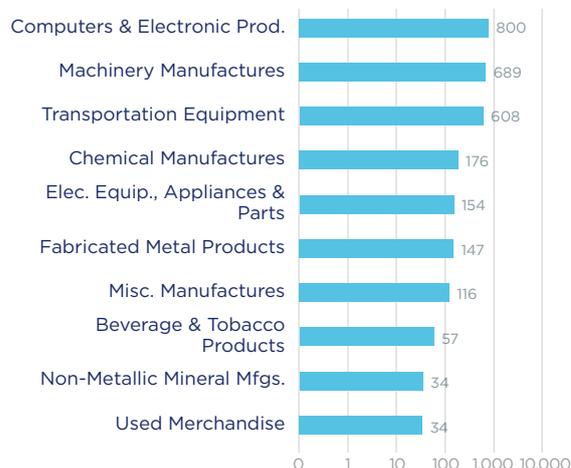
**\$3.6 bn**

Arizona's largest merchandise imports from Europe were computers & electronic products, representing 22% of total imports from Europe.

#### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Germany        | 870                   |
| United Kingdom | 608                   |
| Netherlands    | 516                   |
| Italy          | 411                   |
| France         | 314                   |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Arkansas and Europe



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



European companies account for **62%** of foreign affiliate jobs

### Employment within Arkansas, 2017

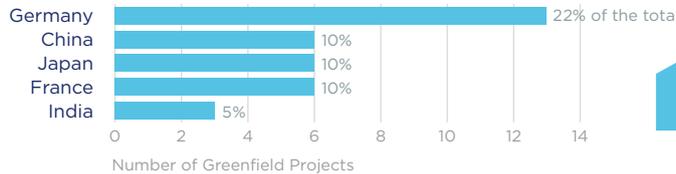
| Country        | Employment |
|----------------|------------|
| United Kingdom | 6,500      |
| France         | 6,300      |
| Japan          | 5,900      |
| Switzerland    | 4,700      |
| Canada         | 2,900      |

On a country basis, U.K. companies operating in Arkansas represented 14% of total foreign affiliate employment in Arkansas, with U.K. multinationals supporting approximately 2,800 more jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



**59**  
Greenfield Projects (October 2009 - September 2019)

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



### Arkansas Goods Exports to Europe, 2018

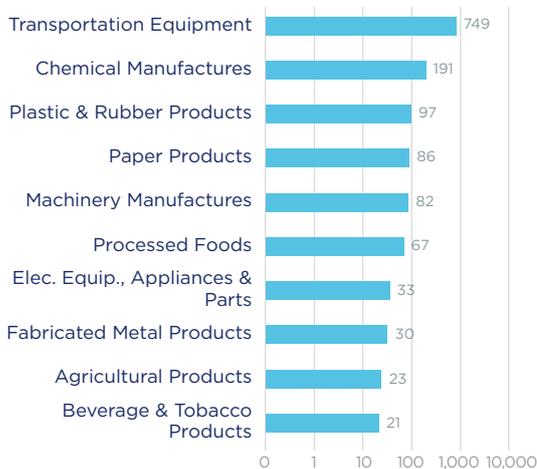
**\$1.5 bn**

Transportation equipment made up 51% of exports to Europe in 2018.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| France         | 326                   |
| United Kingdom | 204                   |
| Belgium        | 196                   |
| Switzerland    | 125                   |
| Germany        | 122                   |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### Arkansas Goods Imports from Europe, 2018

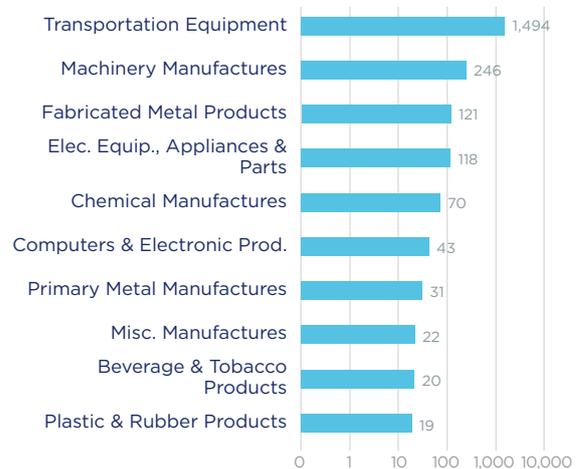
**\$2.3 bn**

Transportation equipment and machinery manufactures were the top product imports, combined accounting for over 75% of total imports from Europe.

#### Top European Import Markets, 2018

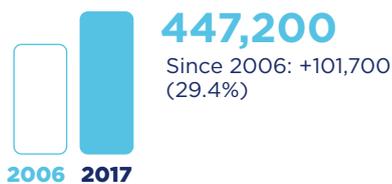
| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| France         | 1,318                 |
| Germany        | 322                   |
| United Kingdom | 137                   |
| Italy          | 133                   |
| Netherlands    | 51                    |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## California and Europe



### Employment within California, 2017

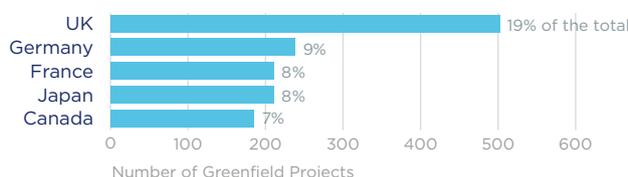
| Country        | Employment |
|----------------|------------|
| Japan          | 118,600    |
| United Kingdom | 112,900    |
| France         | 90,100     |
| Germany        | 79,400     |
| Canada         | 61,300     |

On a country basis, U.K. companies operating in California represented 14% of total foreign affiliate employment in California, with U.K. multinationals supporting approximately 28,400 more jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



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



### California Goods Exports to Europe, 2018

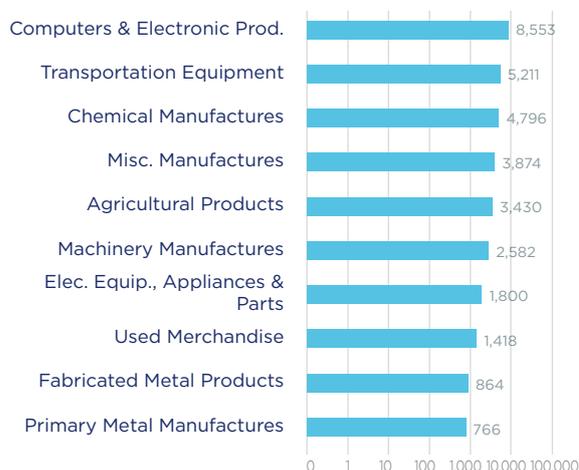
**\$36.8 bn**

23% of California's exports to Europe in 2018 consisted of high-tech goods (computers & electronic products).

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Germany        | 6,592                 |
| Netherlands    | 6,429                 |
| United Kingdom | 5,266                 |
| France         | 3,328                 |
| Belgium        | 2,753                 |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### California Goods Imports from Europe, 2018

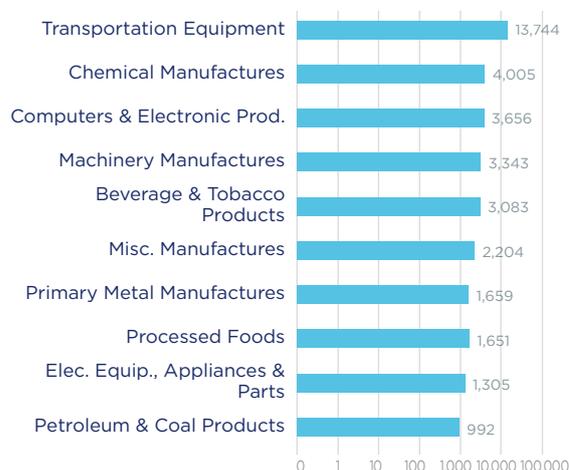
**\$44.4 bn**

Transportation equipment and chemical manufactures were the top product imports, representing 31% and 9% of total European imports, respectively.

#### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Germany        | 12,397                |
| United Kingdom | 5,492                 |
| Italy          | 4,397                 |
| France         | 3,605                 |
| Switzerland    | 2,678                 |

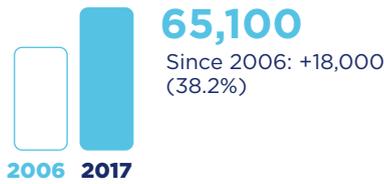
#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Colorado and Europe

### Jobs



### Employment within Colorado, 2017

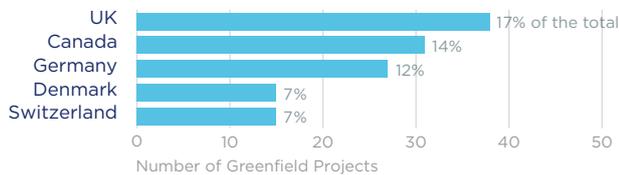
| Country        | Employment |
|----------------|------------|
| United Kingdom | 18,300     |
| Canada         | 13,500     |
| France         | 8,700      |
| Germany        | 7,800      |
| Japan          | 7,300      |

On a country basis, U.K. companies operating in Colorado represented 16% of total foreign affiliate employment in Colorado, with U.K. multinationals supporting approximately 5,100 more jobs in 2017 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)



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, 2018

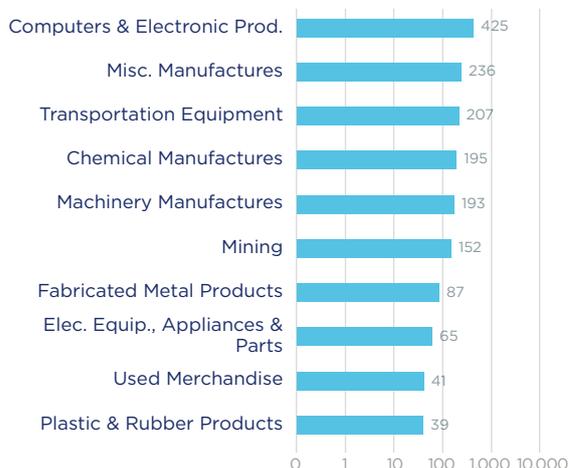
**\$1.8 bn**

About one-quarter of the state's exports to Europe consisted of high-tech goods (computers & electronic products) in 2018.

### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Netherlands    | 305                   |
| Germany        | 301                   |
| United Kingdom | 220                   |
| Switzerland    | 191                   |
| France         | 182                   |

### Top Ten Exports to Europe, 2018 (\$ millions)



### Colorado Goods Imports from Europe, 2018

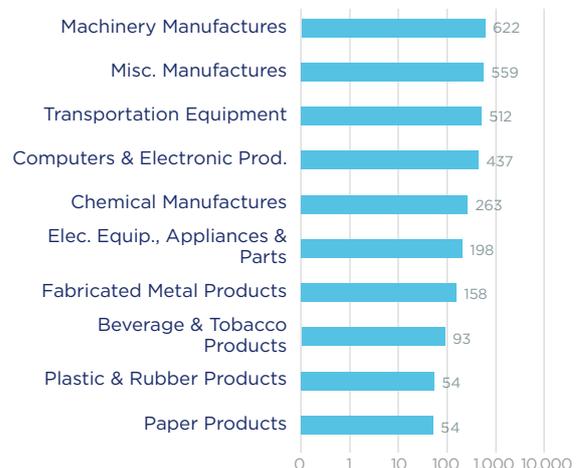
**\$3.3 bn**

Colorado's largest imports from Europe were machinery and miscellaneous manufactured products.

### Top European Import Markets, 2018

| Country     | Imports (\$ millions) |
|-------------|-----------------------|
| Switzerland | 812                   |
| Germany     | 633                   |
| Italy       | 250                   |
| France      | 245                   |
| Denmark     | 227                   |

### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Connecticut and Europe



### Employment within Connecticut, 2017

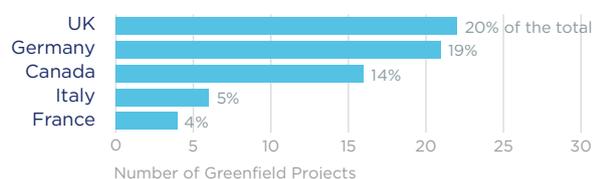
| Country        | Employment |
|----------------|------------|
| United Kingdom | 20,000     |
| Netherlands    | 17,900     |
| Germany        | 13,500     |
| Japan          | 7,900      |
| France         | 7,600      |

On a country basis, U.K. companies operating in Connecticut represented 18% of total foreign affiliate employment in Connecticut, with U.K. multinationals supporting approximately 1,500 more jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



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



### Connecticut Goods Exports to Europe, 2018

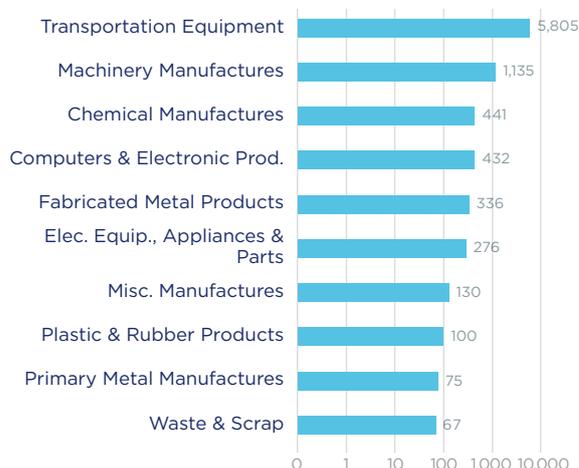
**\$9.4 bn**

Exports are heavily skewed towards transportation equipment.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| France         | 3,178                 |
| Germany        | 2,332                 |
| United Kingdom | 1,484                 |
| Netherlands    | 770                   |
| Belgium        | 242                   |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### Connecticut Goods Imports from Europe, 2018

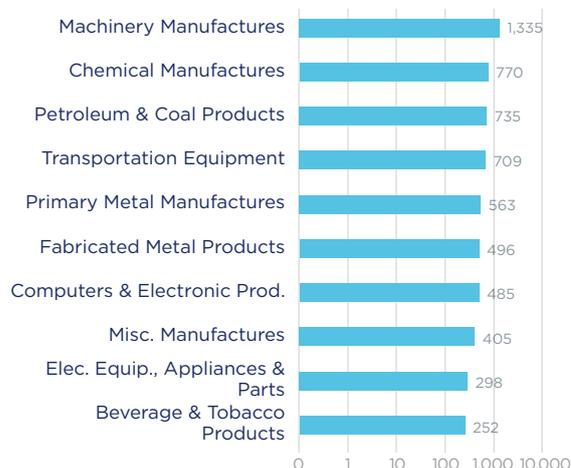
**\$7.9 bn**

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

#### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Germany        | 1,465                 |
| United Kingdom | 1,176                 |
| France         | 728                   |
| Ireland        | 655                   |
| Italy          | 618                   |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Delaware and Europe



**18,500**  
Since 2006: -200 (-1.1%)



European companies account for **73%** of foreign affiliate jobs

### Employment within Delaware, 2017

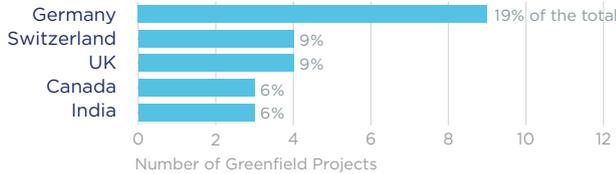
| Country        | Employment |
|----------------|------------|
| United Kingdom | 8,100      |
| Germany        | 3,100      |
| Canada         | 2,300      |
| Netherlands    | 2,100      |
| Japan          | 1,900      |

On a country basis, U.K. companies operating in Delaware represented 32% of total foreign affiliate employment in Delaware, with U.K. multinationals supporting approximately 1,300 fewer jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



**47**  
Greenfield Projects (October 2009 - September 2019)

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



### Delaware Goods Exports to Europe, 2018

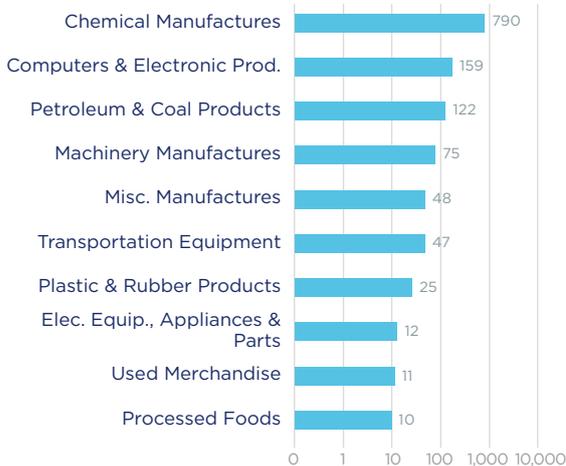
**\$1.3 bn**

Chemicals are Delaware's primary export to Europe, representing 60% of the state's total exports.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| United Kingdom | 404                   |
| Belgium        | 382                   |
| Germany        | 239                   |
| Netherlands    | 129                   |
| France         | 22                    |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### Delaware Goods Imports from Europe, 2018

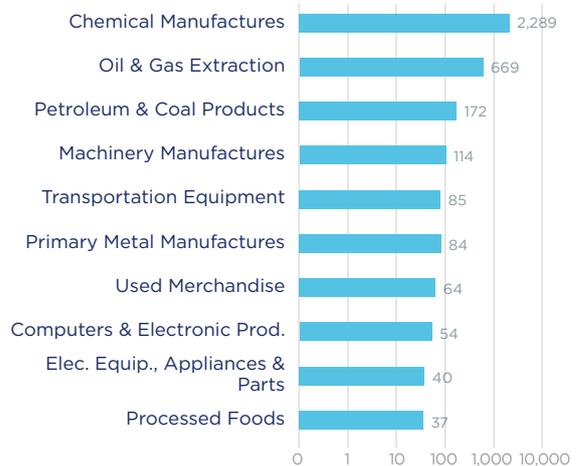
**\$3.8 bn**

Chemicals are also Delaware's top import from Europe, representing 60% of the state's total European imports.

#### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| United Kingdom | 809                   |
| France         | 588                   |
| Switzerland    | 536                   |
| Russia         | 380                   |
| Kazakhstan     | 294                   |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## **Florida and Europe**

### Jobs



### Employment within Florida, 2017

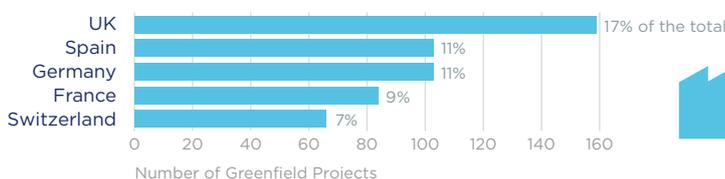
| Country        | Employment |
|----------------|------------|
| United Kingdom | 64,500     |
| Canada         | 44,700     |
| Germany        | 37,000     |
| France         | 31,000     |
| Switzerland    | 29,000     |

On a country basis, U.K. companies operating in Florida represented 18% of total foreign affiliate employment in Florida, with U.K. multinationals supporting approximately 22,900 more jobs in 2017 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)



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, 2018

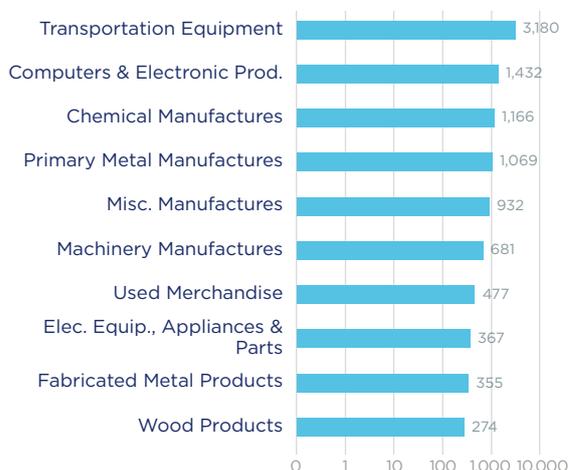
**\$11.2 bn**

Transportation Equipment accounts for about 28% of Florida's total exports to Europe.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Germany        | 2,294                 |
| United Kingdom | 2,103                 |
| Netherlands    | 1,124                 |
| Switzerland    | 1,102                 |
| France         | 1,049                 |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### Florida Goods Imports from Europe, 2018

**\$19.9 bn**

Florida's imports from Europe are concentrated in transportation equipment, representing a 25% share of the state's total imports from Europe in 2018.

#### Top European Import Markets, 2018

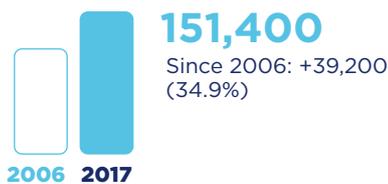
| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Germany        | 4,316                 |
| France         | 3,139                 |
| Italy          | 2,131                 |
| United Kingdom | 2,088                 |
| Spain          | 1,409                 |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Georgia and Europe



### Employment within Georgia, 2017

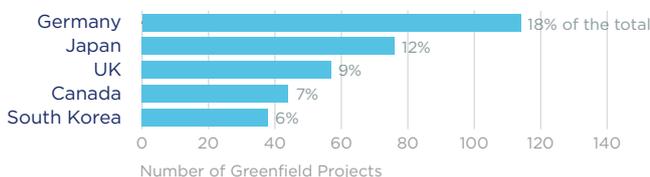
| Country        | Employment |
|----------------|------------|
| United Kingdom | 35,400     |
| Japan          | 31,400     |
| Germany        | 30,700     |
| Canada         | 28,900     |
| France         | 22,200     |

On a country basis, U.K. companies operating in Georgia represented 14% of total foreign affiliate employment in Georgia, with U.K. multinationals supporting approximately 12,100 more jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



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



### Georgia Goods Exports to Europe, 2018

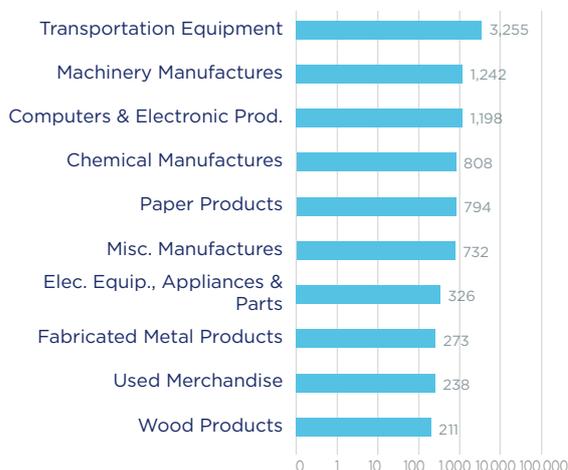
**\$10.3 bn**

Over 31% of Georgia's exports to Europe consist of transportation equipment.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Germany        | 2,295                 |
| United Kingdom | 1,591                 |
| Netherlands    | 1,315                 |
| Belgium        | 764                   |
| France         | 608                   |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### Georgia Goods Imports from Europe, 2018

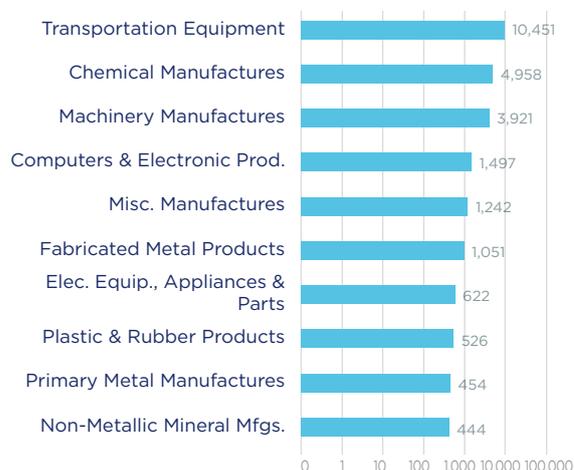
**\$28.6 bn**

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

#### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Germany        | 9,839                 |
| United Kingdom | 5,098                 |
| Italy          | 2,288                 |
| France         | 2,241                 |
| Ireland        | 1,054                 |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Hawaii and Europe



### Employment within Hawaii, 2017

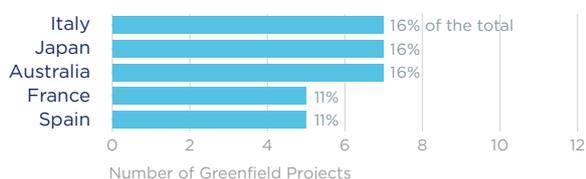
| Country        | Employment |
|----------------|------------|
| Japan          | 17,000     |
| France         | 5,600      |
| United Kingdom | 2,900      |
| Canada         | 1,400      |
| Germany        | 1,100      |

On a country basis, French companies operating in Hawaii represented 15% of total foreign affiliate employment in Hawaii, with French multinationals supporting approximately 1,200 more jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



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



### Hawaii Goods Exports to Europe, 2018

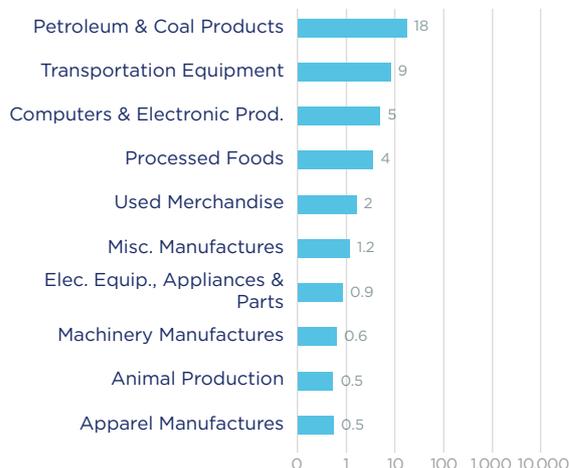
**\$42.5 m**

Petroleum & coal, transportation equipment, and computer & electronic products led the way as top export categories.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Netherlands    | 19                    |
| United Kingdom | 9                     |
| France         | 3                     |
| Sweden         | 3                     |
| Germany        | 2                     |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### Hawaii Goods Imports from Europe, 2018

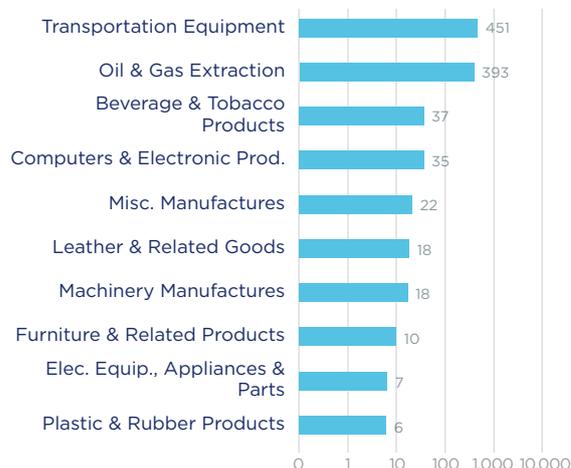
**\$1 bn**

Hawaii's top European import category was transportation equipment, which made up 44% of total imports in 2018, followed by oil & gas.

#### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Russia         | 388                   |
| Germany        | 313                   |
| France         | 174                   |
| Italy          | 52                    |
| United Kingdom | 22                    |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Idaho and Europe



**11,700**  
Since 2006: +1,000 (9.3%)



European companies account for **70%** of foreign affiliate jobs

### Employment within Idaho, 2017

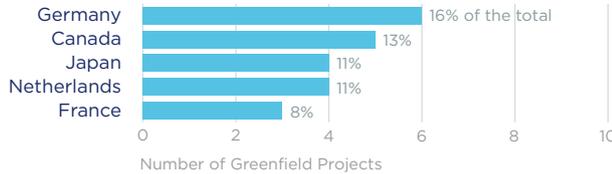
| Country        | Employment |
|----------------|------------|
| Canada         | 3,000      |
| France         | 2,700      |
| United Kingdom | 2,200      |
| Germany        | 1,900      |
| Switzerland    | 1,800      |

On a country basis, French companies operating in Idaho represented 16% of total foreign affiliate employment in Idaho, with French multinationals supporting the same amount of jobs in 2017 as 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



**38**  
Greenfield Projects (October 2009 - September 2019)

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



### Idaho Goods Exports to Europe, 2018

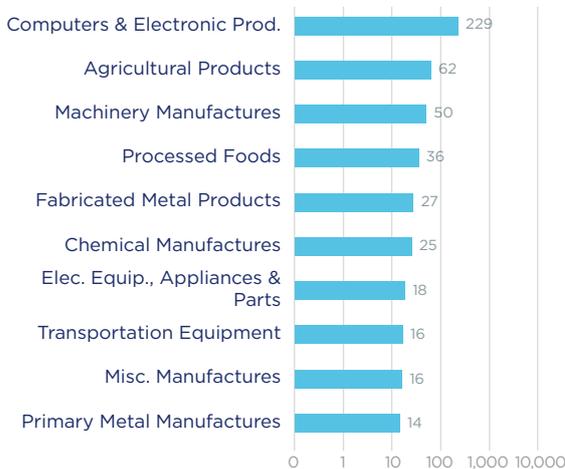
**\$519.2 m**

Computers & electronic products made up almost 45% of total exports to Europe.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| United Kingdom | 189                   |
| Netherlands    | 94                    |
| Germany        | 58                    |
| France         | 33                    |
| Spain          | 30                    |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### Idaho Goods Imports from Europe, 2018

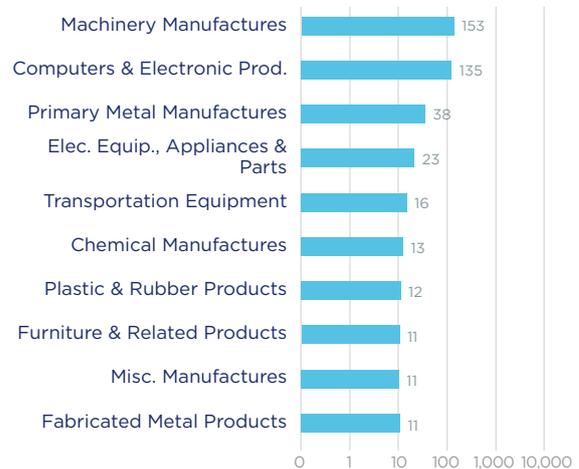
**\$473.7 m**

Machinery manufactures represented 32% of the state's total imports from Europe.

#### Top European Import Markets, 2018

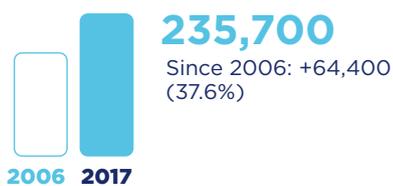
| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Germany        | 96                    |
| Netherlands    | 85                    |
| United Kingdom | 68                    |
| Greece         | 41                    |
| Italy          | 34                    |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Illinois and Europe



### Employment within Illinois, 2017

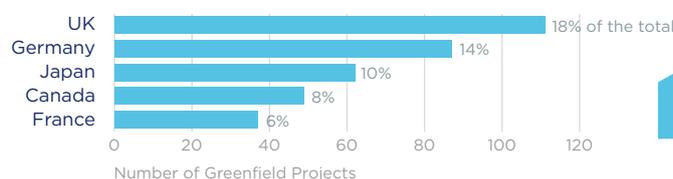
| Country        | Employment |
|----------------|------------|
| United Kingdom | 78,800     |
| Japan          | 42,600     |
| Germany        | 42,400     |
| France         | 35,500     |
| Canada         | 30,100     |

On a country basis, U.K. companies operating in Illinois represented 22% of total foreign affiliate employment in Illinois, with U.K. multinationals supporting approximately 27,900 more jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



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



### Illinois Goods Exports to Europe, 2018

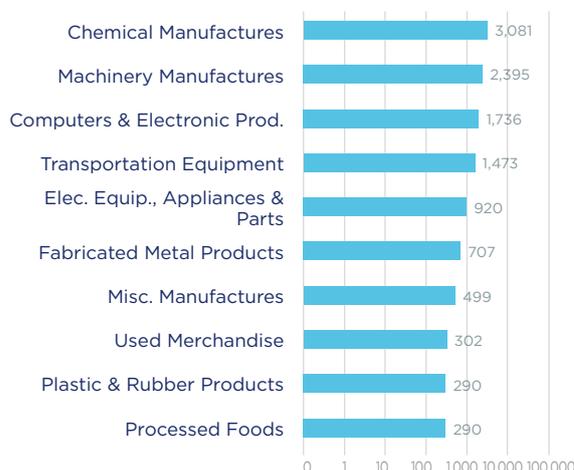
**\$13 bn**

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

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Germany        | 3,304                 |
| United Kingdom | 1,913                 |
| Netherlands    | 1,781                 |
| Belgium        | 1,526                 |
| France         | 978                   |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### Illinois Goods Imports from Europe, 2018

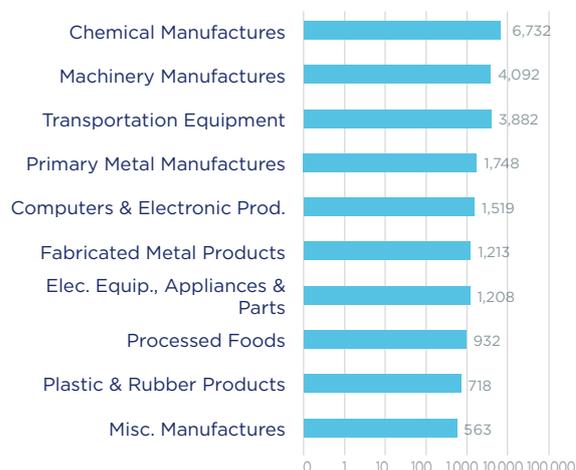
**\$27.7 bn**

Chemicals and machinery are also the state's top imports from Europe.

#### Top European Import Markets, 2018

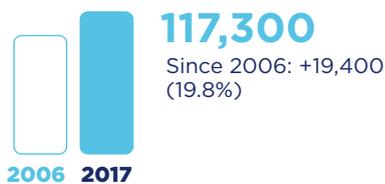
| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Germany        | 6,522                 |
| Italy          | 3,591                 |
| Netherlands    | 3,030                 |
| United Kingdom | 2,896                 |
| Ireland        | 2,443                 |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Indiana and Europe



### Employment within Indiana, 2017

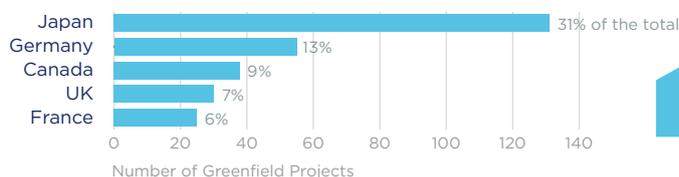
| Country        | Employment |
|----------------|------------|
| Japan          | 54,200     |
| United Kingdom | 35,600     |
| France         | 30,000     |
| Canada         | 15,900     |
| Germany        | 15,900     |

On a country basis, U.K. companies operating in Indiana represented 18% of total foreign affiliate employment in Indiana, with U.K. multinationals supporting approximately 4,000 more jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



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



### Indiana Goods Exports to Europe, 2018

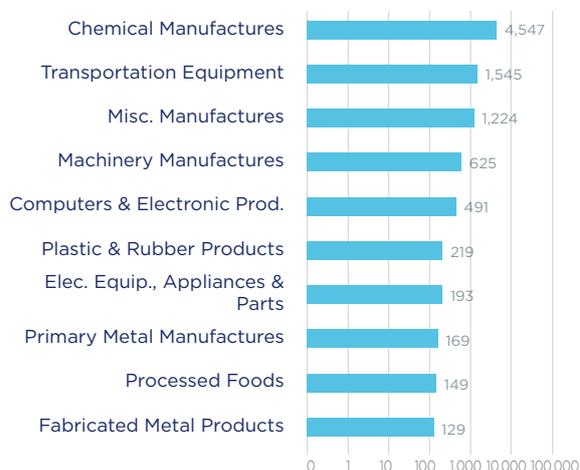
**\$9.5 bn**

Trade in chemicals represented 48% of total exports.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Germany        | 1,531                 |
| France         | 1,429                 |
| Italy          | 1,381                 |
| United Kingdom | 1,191                 |
| Netherlands    | 1,008                 |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### Indiana Goods Imports from Europe, 2018

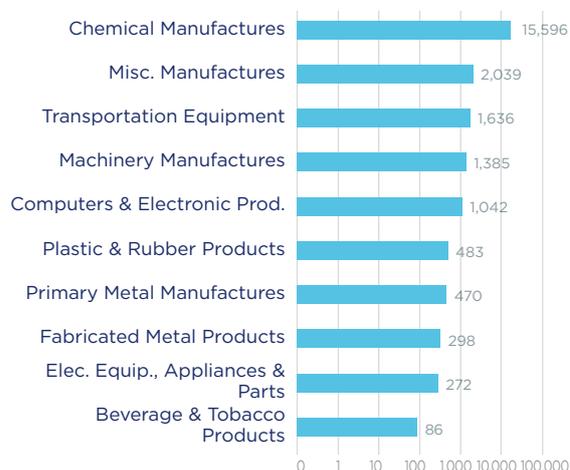
**\$25.9 bn**

Chemicals were also the state's largest import from Europe, representing 60% of total imports.

#### Top European Import Markets, 2018

| Country     | Imports (\$ millions) |
|-------------|-----------------------|
| Ireland     | 9,480                 |
| Denmark     | 3,927                 |
| Germany     | 3,916                 |
| France      | 2,674                 |
| Switzerland | 1,618                 |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Iowa and Europe



**32,500**  
Since 2006: +1,700  
(5.5%)



European companies  
account for  
**56%**  
of foreign affiliate jobs

### Employment within Iowa, 2017

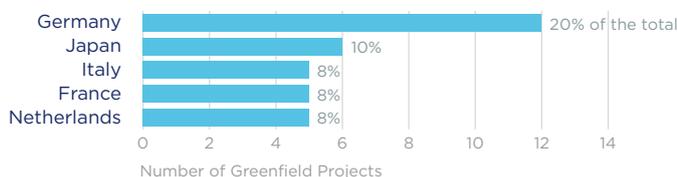
| Country        | Employment |
|----------------|------------|
| United Kingdom | 7,500      |
| Netherlands    | 6,300      |
| Japan          | 5,300      |
| Germany        | 3,900      |
| Switzerland    | 3,800      |

On a country basis, U.K. companies operating in Iowa represented 13% of total foreign affiliate employment in Iowa, with U.K. multinationals supporting approximately 600 fewer jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



**60**  
Greenfield Projects  
(October 2009 -  
September 2019)

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



### Iowa Goods Exports to Europe, 2018

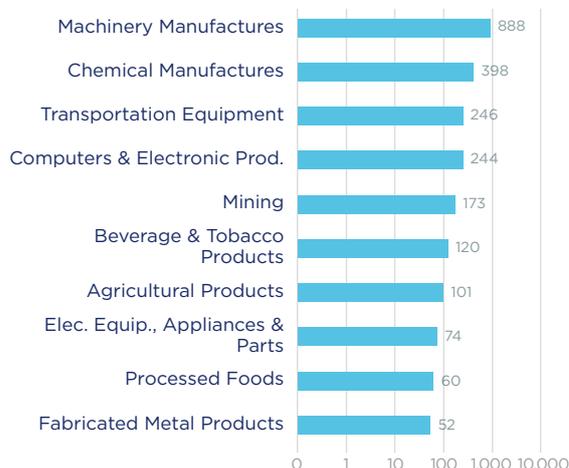
**\$2.6 bn**

Machinery manufactures accounted for 35% of total exports, or roughly \$900 million. Chemicals, the second largest export category, represented less than half of that amount.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Germany        | 458                   |
| United Kingdom | 333                   |
| France         | 314                   |
| Netherlands    | 185                   |
| Spain          | 181                   |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### Iowa Goods Imports from Europe, 2018

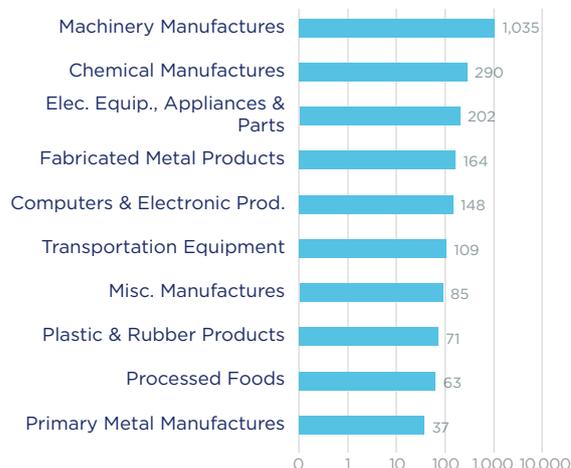
**\$2.4 bn**

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

#### Top European Import Markets, 2018

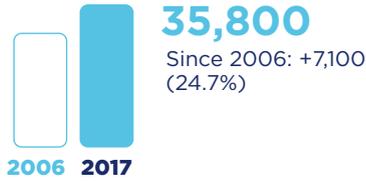
| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Germany        | 790                   |
| Italy          | 332                   |
| United Kingdom | 153                   |
| France         | 148                   |
| Netherlands    | 140                   |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Kansas and Europe



### Employment within Kansas, 2017

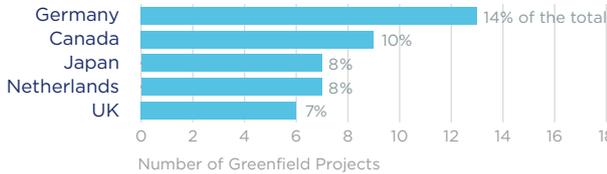
| Country        | Employment |
|----------------|------------|
| Japan          | 10,000     |
| Canada         | 7,700      |
| United Kingdom | 7,400      |
| Switzerland    | 6,300      |
| Germany        | 6,100      |

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 1,600 more jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



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### Kansas Goods Exports to Europe, 2018

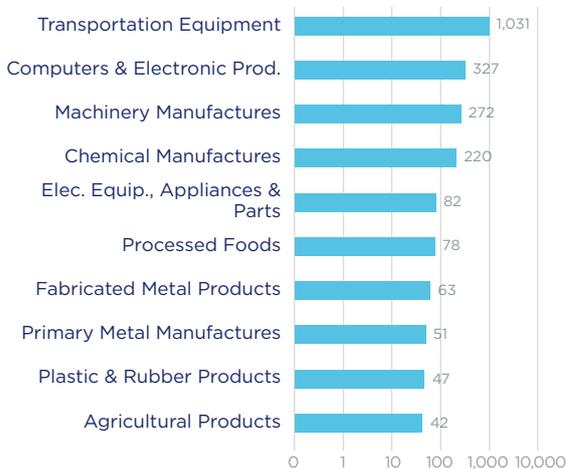
**\$2.4 bn**

Almost 80% of Kansas' exports to Europe were concentrated in four main export categories: transportation equipment, computer & electronic products, machinery and chemicals.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| United Kingdom | 528                   |
| Germany        | 475                   |
| France         | 298                   |
| Spain          | 126                   |
| Netherlands    | 121                   |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### Kansas Goods Imports from Europe, 2018

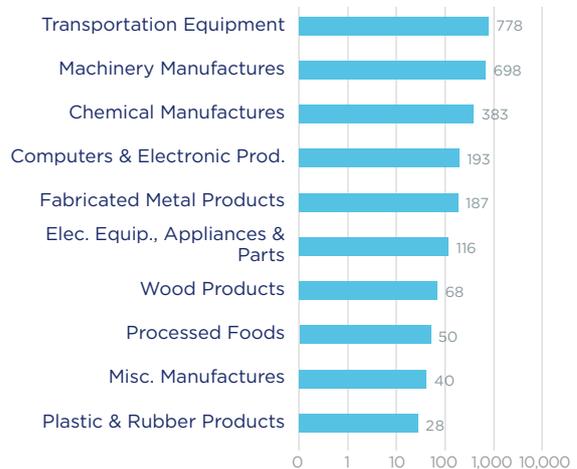
**\$3 bn**

Transportation equipment represented 26% of the state's total imports from Europe.

#### Top European Import Markets, 2018

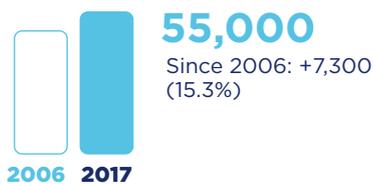
| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Germany        | 940                   |
| United Kingdom | 492                   |
| France         | 280                   |
| Italy          | 240                   |
| Spain          | 182                   |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Kentucky and Europe



### Employment within Kentucky, 2017

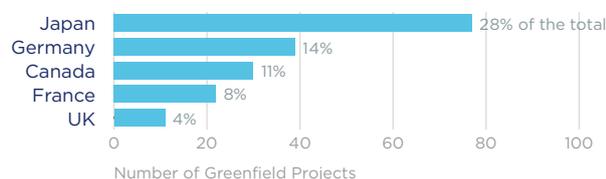
| Country        | Employment |
|----------------|------------|
| Japan          | 46,700     |
| Germany        | 14,500     |
| Canada         | 11,500     |
| France         | 11,500     |
| United Kingdom | 9,000      |

On a country basis, German companies operating in Kentucky represented 10% of total foreign affiliate employment in Kentucky, with German multinationals supporting approximately 5,000 more jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



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### Kentucky Goods Exports to Europe, 2018

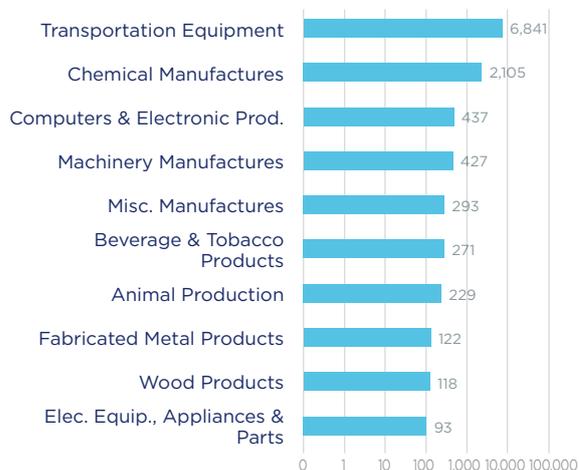
**\$11.2 bn**

Reflecting the large presence of automobile manufacturers in the state, Kentucky's top export to Europe in 2018 was transportation equipment (61% of total exports).

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| France         | 3,317                 |
| United Kingdom | 2,962                 |
| Netherlands    | 1,316                 |
| Germany        | 1,164                 |
| Austria        | 792                   |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### Kentucky Goods Imports from Europe, 2018

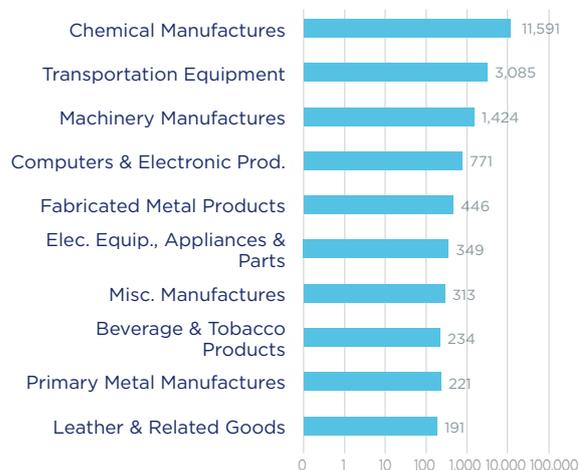
**\$22.8 bn**

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

#### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Switzerland    | 6,620                 |
| Ireland        | 4,229                 |
| Germany        | 2,756                 |
| France         | 2,508                 |
| United Kingdom | 1,303                 |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Louisiana and Europe



### Employment within Louisiana, 2017

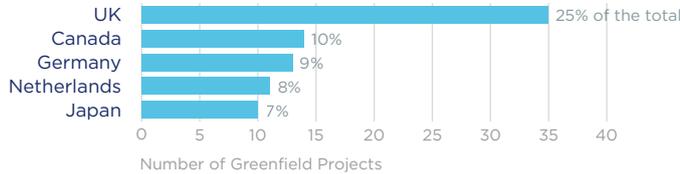
| Country        | Employment |
|----------------|------------|
| United Kingdom | 16,200     |
| Canada         | 10,700     |
| France         | 10,300     |
| Germany        | 5,900      |
| Netherlands    | 4,800      |

On a country basis, U.K. companies operating in Louisiana represented 23% of total foreign affiliate employment in Louisiana, with U.K. multinationals supporting approximately 4,600 more jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



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



### Louisiana Goods Exports to Europe, 2018

**\$12.6 bn**

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

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Netherlands    | 3,356                 |
| United Kingdom | 1,766                 |
| Spain          | 1,370                 |
| Belgium        | 1,341                 |
| France         | 1,261                 |

### Louisiana Goods Imports from Europe, 2018

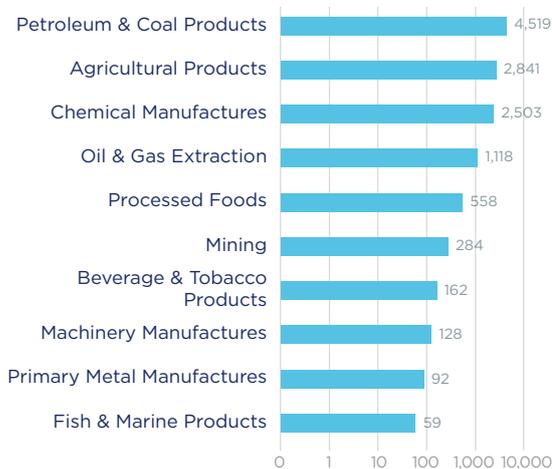
**\$7.8 bn**

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

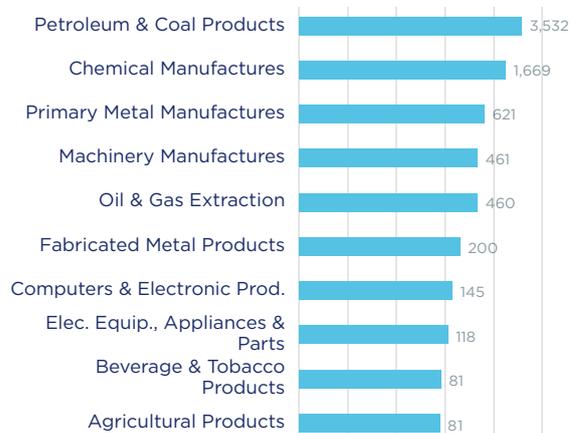
#### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Russia         | 3,031                 |
| United Kingdom | 768                   |
| Belgium        | 622                   |
| Germany        | 614                   |
| Norway         | 376                   |

#### Top Ten Exports to Europe, 2018 (\$ millions)



#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## **Maine and Europe**

### Jobs



### Employment within Maine, 2017

| Country        | Employment |
|----------------|------------|
| Netherlands    | 17,500*    |
| Canada         | 9,700      |
| United Kingdom | 2,300      |
| Switzerland    | 2,100      |
| Germany        | 1,700      |

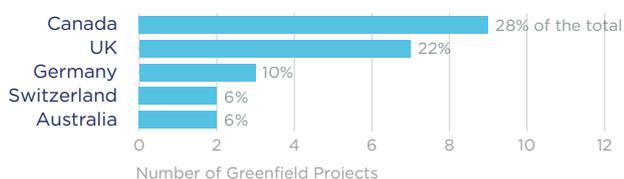
On a country basis, Dutch companies operating in Maine represented 50% of total foreign affiliate employment in Maine, with Dutch multinationals supporting approximately 17,400 more jobs in 2017 than in 2010.

\*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)



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, 2018

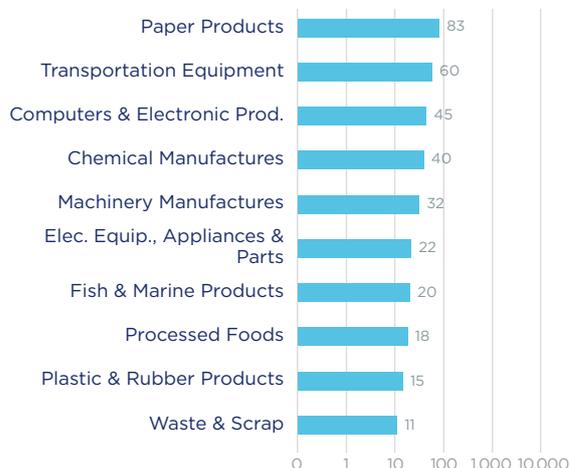
**\$431.5 m**

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

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Italy          | 87                    |
| Germany        | 66                    |
| Netherlands    | 60                    |
| United Kingdom | 49                    |
| Belgium        | 31                    |

#### Top Ten Exports to Europe, 2018 (\$ millions)



#### Maine Goods Imports from Europe, 2018

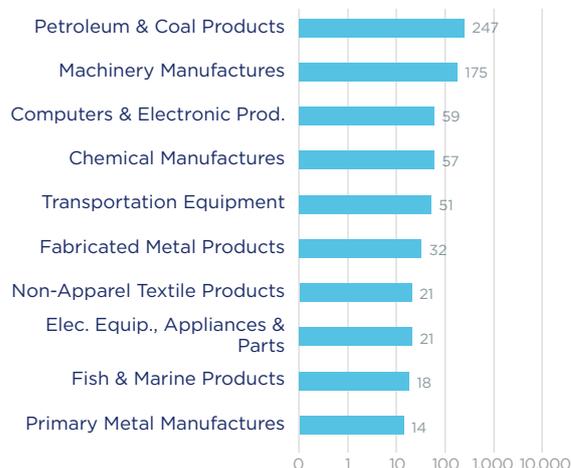
**\$875.5 m**

Petroleum & coal products represent 28% of Maine's total imports from Europe, followed by machinery and computers & electronic products.

#### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Netherlands    | 236                   |
| Germany        | 171                   |
| United Kingdom | 92                    |
| Finland        | 63                    |
| Italy          | 45                    |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

# Maryland and Europe



## Employment within Maryland, 2017

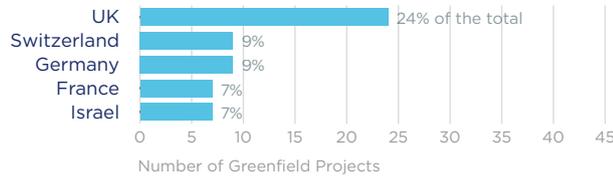
| Country        | Employment |
|----------------|------------|
| Netherlands    | 28,500     |
| United Kingdom | 25,800     |
| Canada         | 15,600     |
| France         | 9,500      |
| Germany        | 8,400      |

On a country basis, Dutch companies operating in Maryland represented 24% of total foreign affiliate employment in Maryland, with Dutch multinationals supporting approximately 7,100 more jobs in 2017 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.



## Sources of Greenfield Foreign Direct Investment (FDI)



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



## Maryland Goods Exports to Europe, 2018

**\$4.1 bn**

Top exports are transportation equipment, chemicals, and metal products.

### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| France         | 1,121                 |
| Netherlands    | 596                   |
| Germany        | 591                   |
| United Kingdom | 504                   |
| Belgium        | 373                   |

## Maryland Goods Imports from Europe, 2018

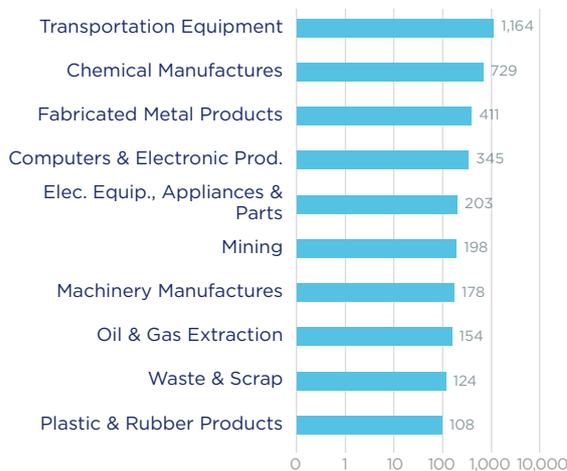
**\$15.7 bn**

Transportation equipment and machinery manufactures were the top product imports.

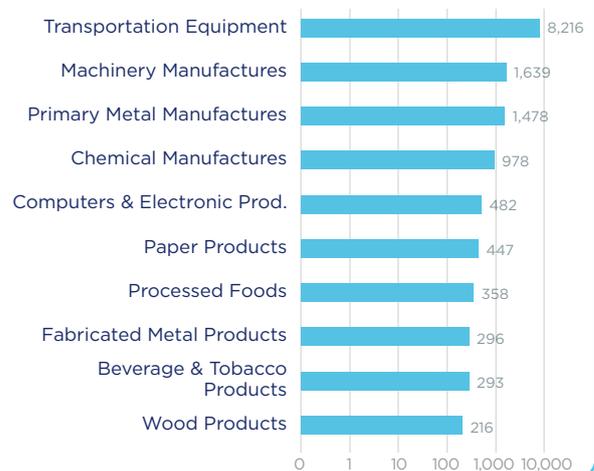
### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| United Kingdom | 4,364                 |
| Germany        | 4,169                 |
| Finland        | 1,196                 |
| Russia         | 749                   |
| Sweden         | 692                   |

### Top Ten Exports to Europe, 2018 (\$ millions)



### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Massachusetts and Europe



### Employment within Massachusetts, 2017

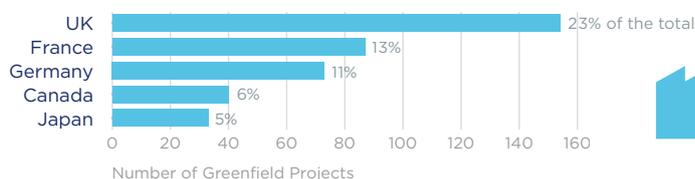
| Country        | Employment |
|----------------|------------|
| United Kingdom | 40,500     |
| Netherlands    | 37,700     |
| Canada         | 23,300     |
| France         | 23,200     |
| Germany        | 18,500     |

On a country basis, U.K. companies operating in Massachusetts represented 19% of total foreign affiliate employment in Massachusetts, with U.K. multinationals supporting approximately 2,200 more jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



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



### Massachusetts Goods Exports to Europe, 2018

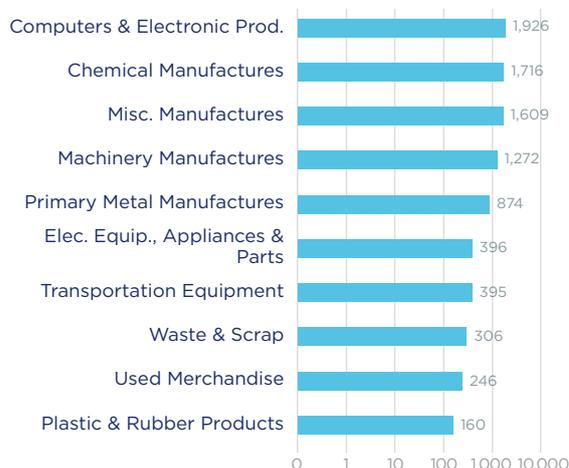
**\$9.6 bn**

Computers & electronic products accounted for over 20% of Massachusetts' total exports to Europe. Chemical products were similarly important, representing 18% of total exports.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Germany        | 1,952                 |
| Netherlands    | 1,351                 |
| Switzerland    | 1,214                 |
| United Kingdom | 1,102                 |
| Ireland        | 819                   |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### Massachusetts Goods Imports from Europe, 2018

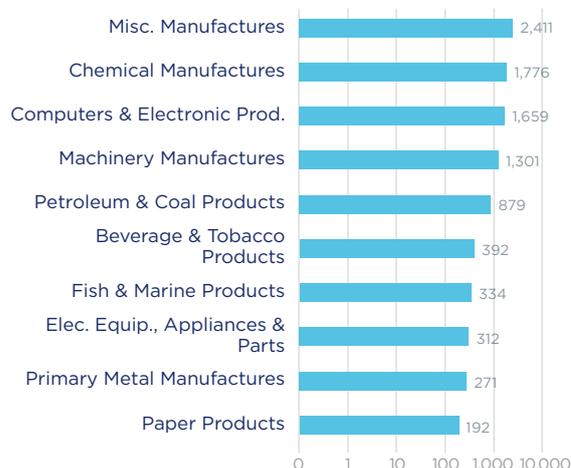
**\$11.6 bn**

Key imports from Europe include miscellaneous manufactured products, chemicals, and computer & electronic products.

#### Top European Import Markets, 2018

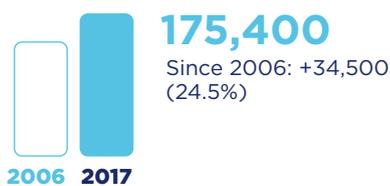
| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Ireland        | 2,197                 |
| Germany        | 2,137                 |
| United Kingdom | 1,700                 |
| Italy          | 1,381                 |
| Switzerland    | 1,046                 |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Michigan and Europe



### Employment within Michigan, 2017

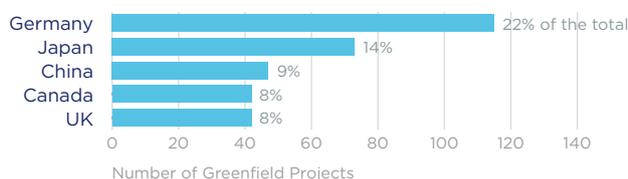
| Country        | Employment |
|----------------|------------|
| Germany        | 42,200     |
| Netherlands    | 37,500*    |
| Japan          | 34,500     |
| United Kingdom | 34,400     |
| Canada         | 27,000     |

On a country basis, German companies operating in Michigan represented 16% of total foreign affiliate employment in Michigan, with German multinationals supporting approximately 16,300 more jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



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



### Michigan Goods Exports to Europe, 2018

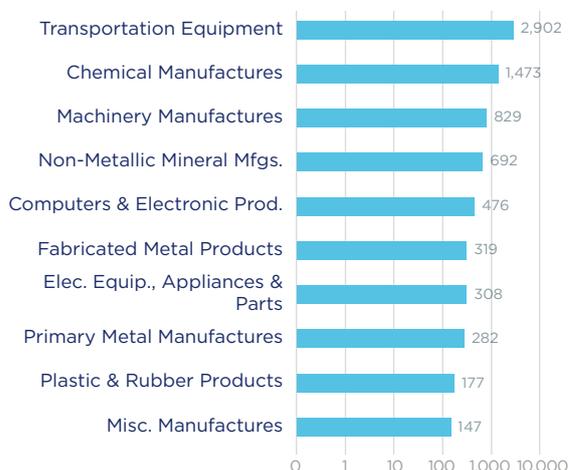
**\$8.1 bn**

Not surprisingly, transportation equipment is the largest exported product, representing 36% of the state's total exports to Europe.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Germany        | 1,971                 |
| Italy          | 1,258                 |
| United Kingdom | 908                   |
| Belgium        | 766                   |
| France         | 515                   |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### Michigan Goods Imports from Europe, 2018

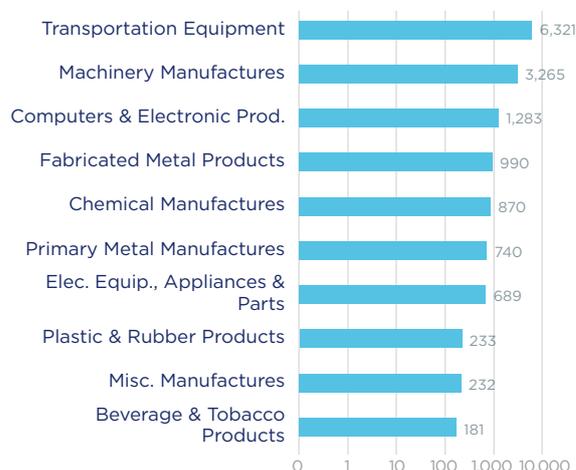
**\$16 bn**

Imports from Europe mainly consist of transportation equipment and machinery.

#### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Germany        | 5,708                 |
| Italy          | 3,972                 |
| Spain          | 1,006                 |
| United Kingdom | 742                   |
| France         | 723                   |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Minnesota and Europe

### Jobs



### Employment within Minnesota, 2017

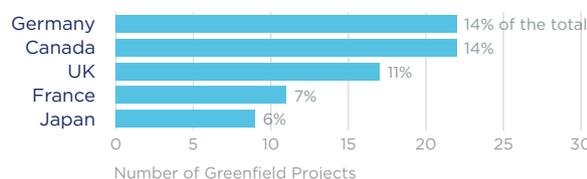
| Country        | Employment |
|----------------|------------|
| Canada         | 24,100     |
| Germany        | 23,100     |
| United Kingdom | 18,900     |
| Japan          | 10,600     |
| Switzerland    | 8,400      |

On a country basis, German companies operating in Minnesota represented 17% of total foreign affiliate employment in Minnesota, with German multinationals supporting approximately 13,700 more jobs in 2017 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)



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, 2018

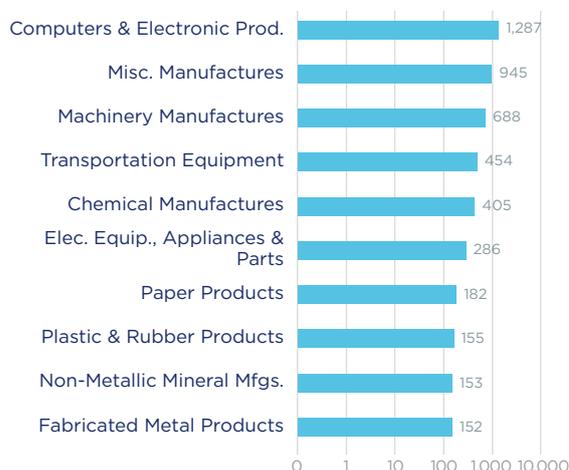
**\$5.1 bn**

Computers & electronic products account for over one-quarter of Minnesota's exports to Europe.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Germany        | 1,073                 |
| United Kingdom | 621                   |
| Belgium        | 608                   |
| Ireland        | 471                   |
| Netherlands    | 464                   |

#### Top Ten Exports to Europe, 2018 (\$ millions)



#### Minnesota Goods Imports from Europe, 2018

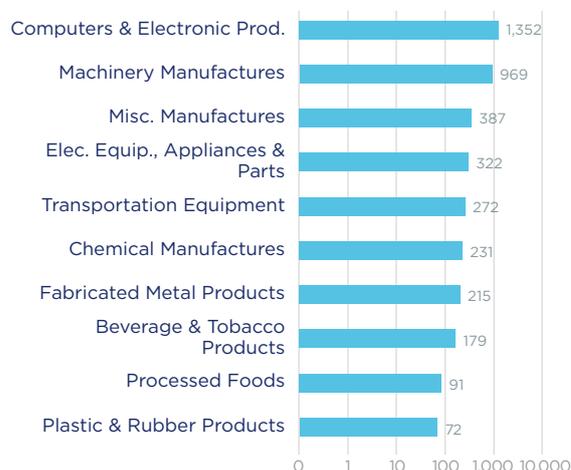
**\$4.6 bn**

Computers & electronic products were also the state's top imports from Europe.

#### Top European Import Markets, 2018

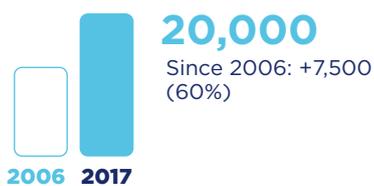
| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Germany        | 1,052                 |
| Ireland        | 1,027                 |
| Italy          | 499                   |
| United Kingdom | 401                   |
| France         | 383                   |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Mississippi and Europe



### Employment within Mississippi, 2017

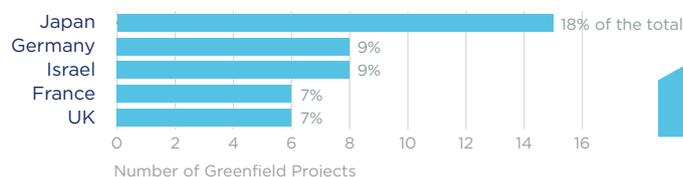
| Country        | Employment |
|----------------|------------|
| Japan          | 10,600     |
| France         | 4,400      |
| United Kingdom | 4,400      |
| Germany        | 4,300      |
| Canada         | 3,800      |

French and U.K. companies each represented 11% of total foreign affiliate employment in Mississippi. U.K. companies supported approximately 700 more jobs in 2017 than in 2010, while French companies increased employment by 2,300 over the same period.

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.



### Sources of Greenfield Foreign Direct Investment (FDI)



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### Mississippi Goods Exports to Europe, 2018

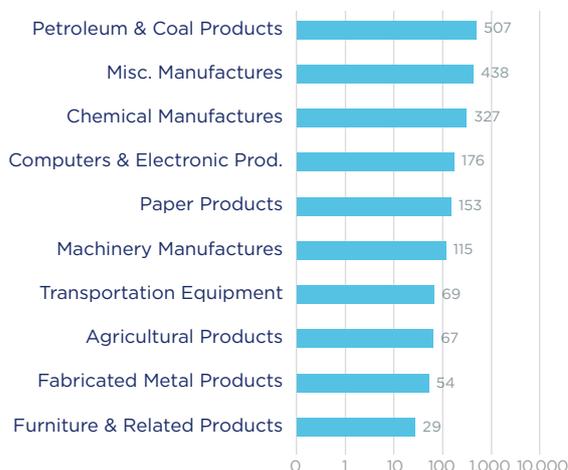
**\$2 bn**

Petroleum & coal products represented about 25% of Mississippi's total exports to Europe in 2018. The next largest export categories were miscellaneous manufactured commodities, and chemicals.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Belgium        | 512                   |
| Netherlands    | 492                   |
| Germany        | 205                   |
| United Kingdom | 136                   |
| France         | 111                   |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### Mississippi Goods Imports from Europe, 2018

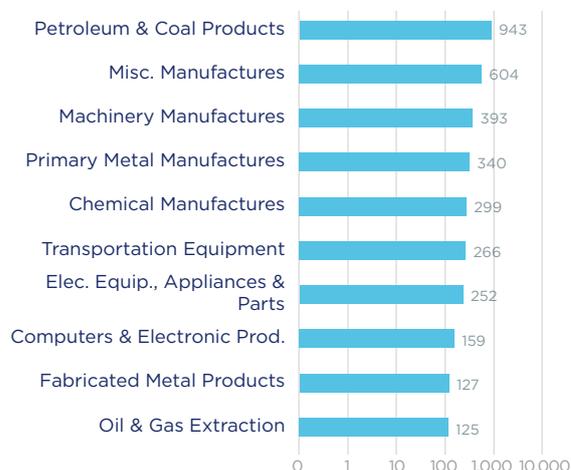
**\$3.7 bn**

Imports from Europe were relatively diverse, with seven different product categories each accounting for over \$200 million worth of European imports in 2018.

#### Top European Import Markets, 2018

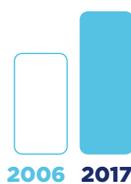
| Country | Imports (\$ millions) |
|---------|-----------------------|
| Germany | 748                   |
| Belgium | 637                   |
| Ireland | 320                   |
| France  | 290                   |
| Russia  | 282                   |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Missouri and Europe



**87,000**

Since 2006: +25,300 (41%)



European companies account for **68%** of foreign affiliate jobs

### Employment within Missouri, 2017

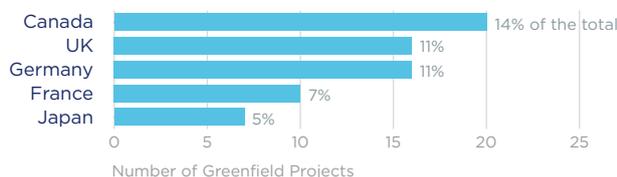
| Country        | Employment |
|----------------|------------|
| United Kingdom | 26,100     |
| Germany        | 14,900     |
| Canada         | 12,100     |
| Japan          | 12,100     |
| France         | 11,000     |

On a country basis, U.K. companies operating in Missouri represented 20% of total foreign affiliate employment in Missouri, with U.K. multinationals supporting approximately 8,700 more jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



**146**

Greenfield Projects (October 2009 - September 2019)

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### Missouri Goods Exports to Europe, 2018

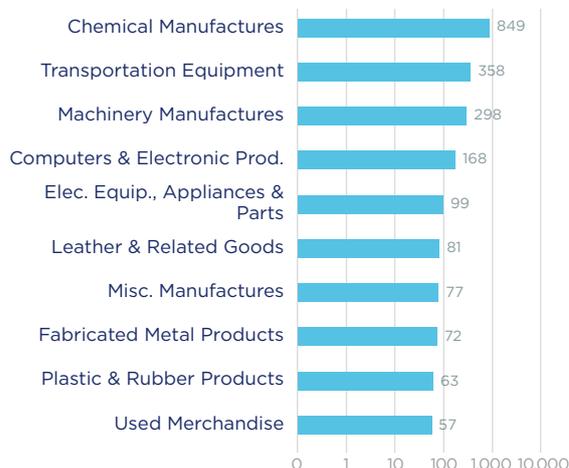
**\$2.4 bn**

Top exports to Europe from Missouri are chemicals, transportation equipment and machinery manufactures.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Belgium        | 495                   |
| Germany        | 439                   |
| United Kingdom | 323                   |
| France         | 245                   |
| Netherlands    | 196                   |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### Missouri Goods Imports from Europe, 2018

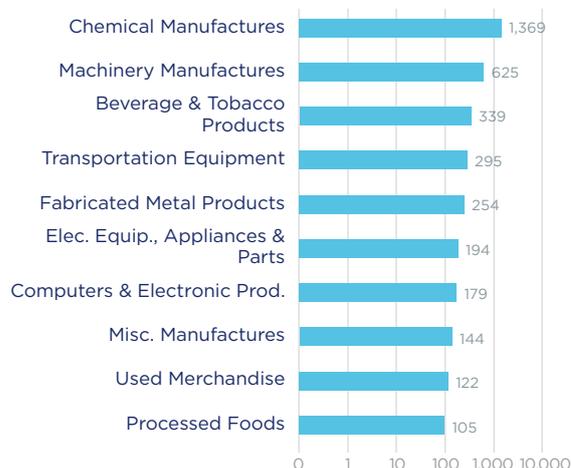
**\$4.1 bn**

Chemicals, machinery, and beverage & tobacco products were the top imported goods from Europe.

#### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Germany        | 1,444                 |
| Belgium        | 338                   |
| Italy          | 335                   |
| France         | 318                   |
| United Kingdom | 284                   |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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



## Montana and Europe



**4,800**

Since 2006: -800 (-14.3%)



European companies account for **62%** of foreign affiliate jobs

### Employment within Montana, 2017

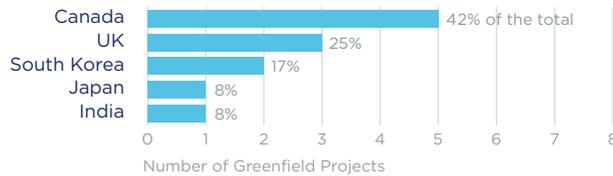
| Country        | Employment |
|----------------|------------|
| United Kingdom | 2,200      |
| Canada         | 1,500      |
| France         | 800        |
| Japan          | 400        |
| Germany        | 300        |

On a country basis, U.K. companies operating in Montana represented 28% of total foreign affiliate employment in Montana, with U.K. multinationals supporting approximately 1,100 more jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



**12**

Greenfield Projects (October 2009 - September 2019)

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### Montana Goods Exports to Europe, 2018

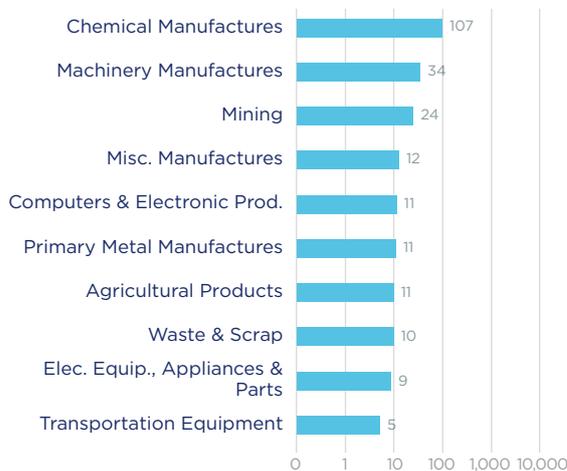
**\$241.3 m**

Exports are relatively small and skewed towards chemicals, machinery and mining.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Belgium        | 85                    |
| United Kingdom | 30                    |
| Germany        | 20                    |
| Netherlands    | 18                    |
| France         | 15                    |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### Montana Goods Imports from Europe, 2018

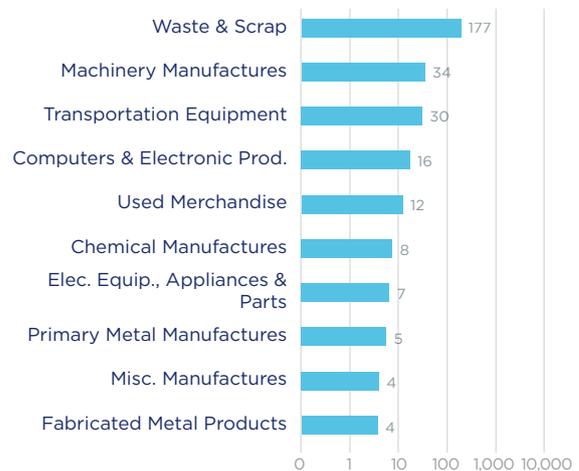
**\$341.7 m**

Montana's imports from Europe are also small and heavily concentrated in waste & scrap.

#### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Germany        | 215                   |
| Italy          | 42                    |
| France         | 36                    |
| United Kingdom | 15                    |
| Switzerland    | 4                     |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Nebraska and Europe



**15,200**  
Since 2006: +4,100 (36.9%)



European companies account for **48%** of foreign affiliate jobs

### Employment within Nebraska, 2017

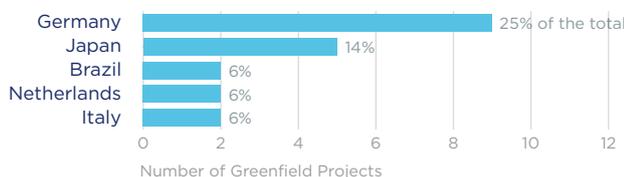
| Country        | Employment |
|----------------|------------|
| Japan          | 4,700      |
| United Kingdom | 3,900      |
| France         | 3,300      |
| Switzerland    | 2,100      |
| Canada         | 1,900      |

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 1,300 more jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



**36**  
Greenfield Projects (October 2009 - September 2019)

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



### Nebraska Goods Exports to Europe, 2018

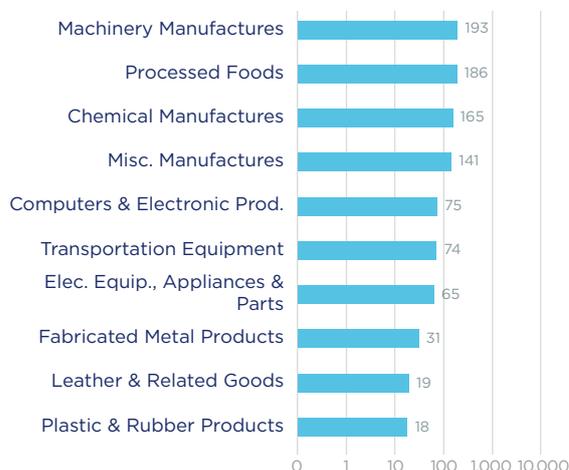
**\$1 bn**

Top exports are machinery, processed foods and chemicals.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Netherlands    | 166                   |
| Germany        | 147                   |
| Belgium        | 139                   |
| France         | 135                   |
| United Kingdom | 64                    |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### Nebraska Goods Imports from Europe, 2018

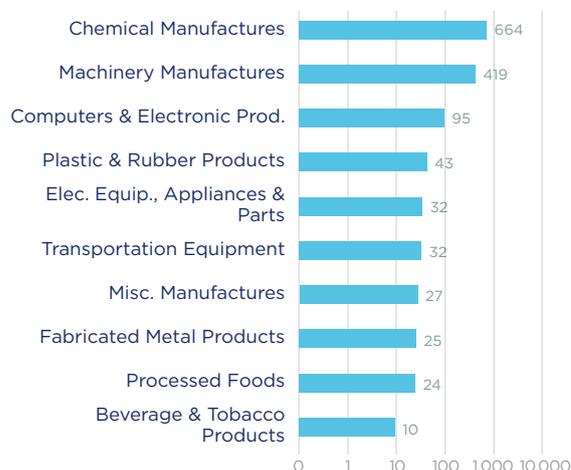
**\$1.5 bn**

Chemicals represented nearly half of Nebraska's total imports from Europe in 2018.

#### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Switzerland    | 358                   |
| Germany        | 292                   |
| United Kingdom | 236                   |
| France         | 131                   |
| Spain          | 128                   |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Nevada and Europe



**25,700**  
Since 2006: +4,800 (23%)



European companies account for **52%** of foreign affiliate jobs

### Employment within Nevada, 2017

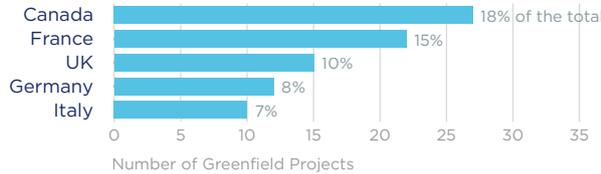
| Country        | Employment |
|----------------|------------|
| Canada         | 10,100     |
| United Kingdom | 6,800      |
| France         | 5,800      |
| Germany        | 3,700      |
| Japan          | 3,600      |

On a country basis, U.K. companies operating in Nevada represented 14% of total foreign affiliate employment in Nevada, with U.K. multinationals supporting approximately 500 more jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



**148**  
Greenfield Projects (October 2009 - September 2019)

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



### Nevada Goods Exports to Europe, 2018

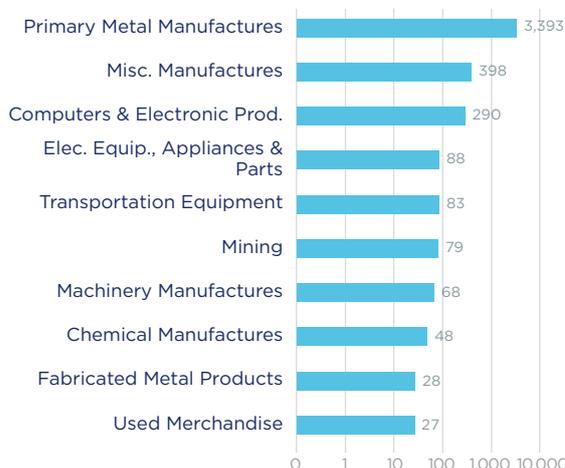
**\$4.6 bn**

Primary metal manufactures account for almost 75% of Nevada's total exports to Europe.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Switzerland    | 3,410                 |
| Germany        | 355                   |
| United Kingdom | 183                   |
| Netherlands    | 160                   |
| Spain          | 88                    |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### Nevada Goods Imports from Europe, 2018

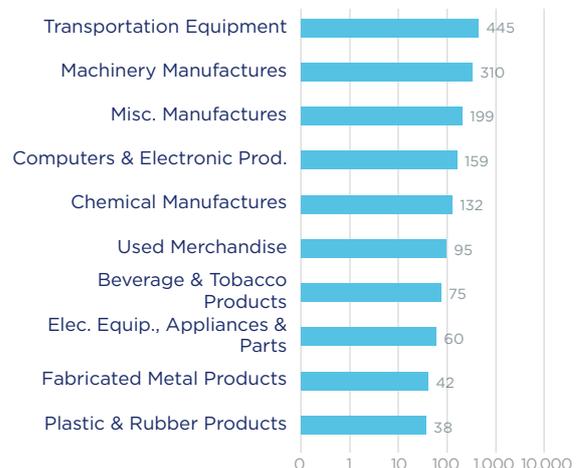
**\$1.8 bn**

Imports from Europe to Nevada are diverse, ranging from transportation equipment to machinery to chemicals.

#### Top European Import Markets, 2018

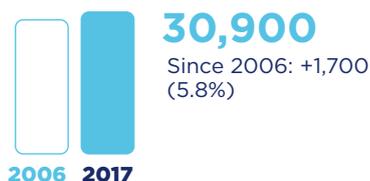
| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| France         | 549                   |
| Germany        | 342                   |
| United Kingdom | 228                   |
| Switzerland    | 129                   |
| Belgium        | 97                    |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## New Hampshire and Europe



### Employment within New Hampshire, 2017

| Country        | Employment |
|----------------|------------|
| United Kingdom | 11,000     |
| Netherlands    | 7,500*     |
| Canada         | 7,100      |
| Switzerland    | 4,600      |
| Japan          | 4,300      |

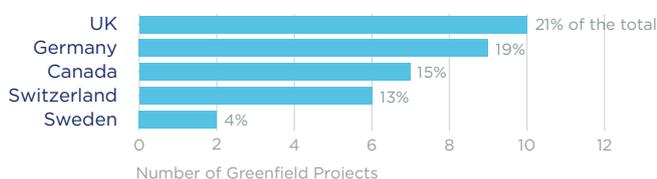
On a country basis, U.K. companies operating in New Hampshire represented 24% of total foreign affiliate employment in New Hampshire, with U.K. multinationals supporting approximately 700 more jobs in 2017 than in 2010.

\*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.



### Sources of Greenfield Foreign Direct Investment (FDI)



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



### New Hampshire Goods Exports to Europe, 2018

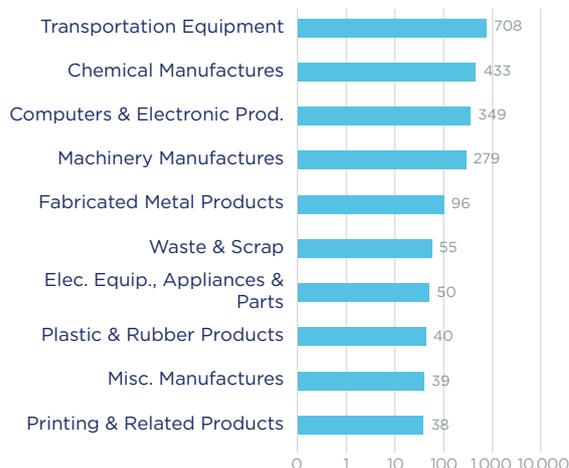
**\$2.2 bn**

Transportation equipment and chemicals were the top two exports to Europe from New Hampshire in 2018. Combined these two exports made up over half of the state's total exports to Europe.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Germany        | 692                   |
| Ireland        | 433                   |
| France         | 223                   |
| United Kingdom | 181                   |
| Netherlands    | 178                   |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### New Hampshire Goods Imports from Europe, 2018

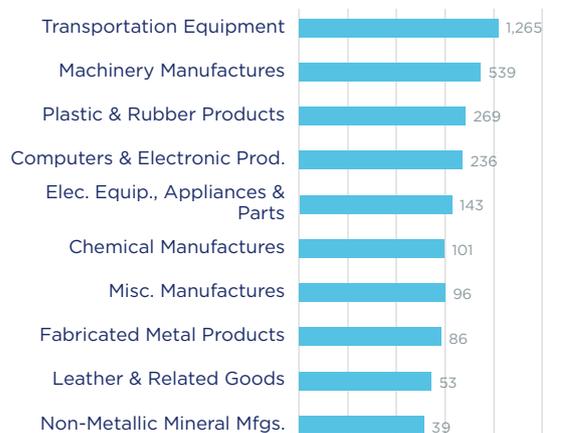
**\$3.1 bn**

Transportation equipment represented 41% of the state's total imports from Europe.

#### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Germany        | 723                   |
| Poland         | 639                   |
| United Kingdom | 391                   |
| Italy          | 256                   |
| Ireland        | 156                   |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## New Jersey and Europe



### Employment within New Jersey, 2017

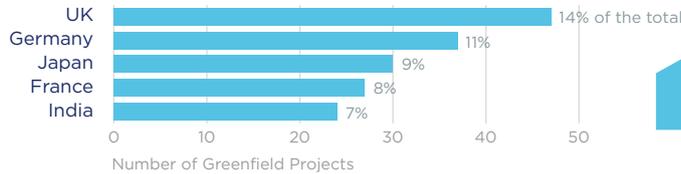
| Country        | Employment |
|----------------|------------|
| France         | 46,900     |
| United Kingdom | 41,500     |
| Canada         | 30,200     |
| Switzerland    | 28,200     |
| Germany        | 27,100     |

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 17,300 more jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



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



### New Jersey Goods Exports to Europe, 2018

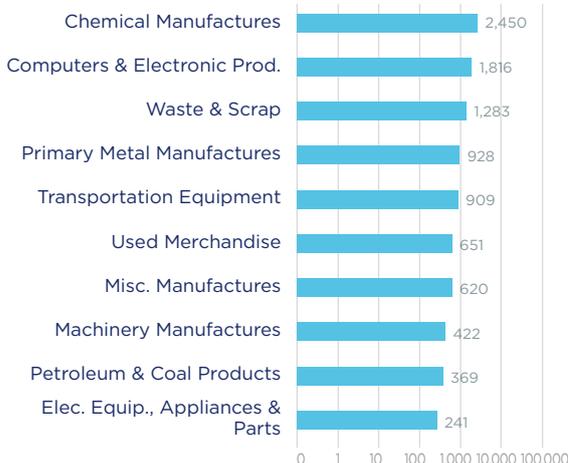
**\$10.9 bn**

Top exports consist of chemical manufactures and computers & electronic products.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| United Kingdom | 2,405                 |
| Germany        | 1,525                 |
| Netherlands    | 1,425                 |
| France         | 973                   |
| Italy          | 887                   |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### New Jersey Goods Imports from Europe, 2018

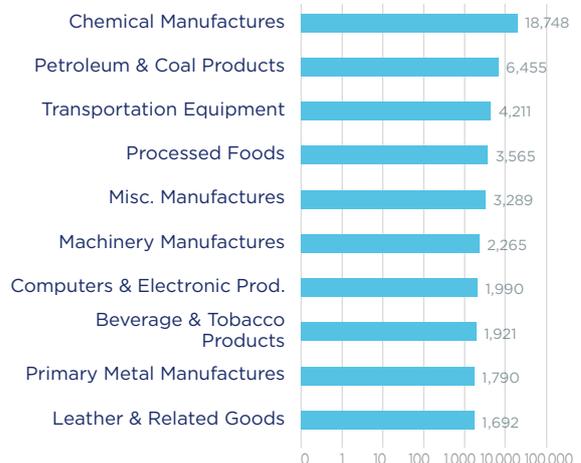
**\$53.5 bn**

About 35% of New Jersey's imports from Europe was related to the chemicals industry.

#### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Germany        | 9,715                 |
| Italy          | 7,013                 |
| Switzerland    | 6,133                 |
| United Kingdom | 4,644                 |
| France         | 4,494                 |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## New Mexico and Europe

### Jobs



### Employment within New Mexico, 2017

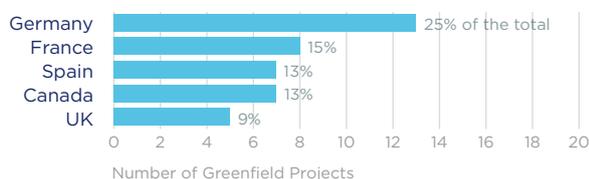
| Country        | Employment |
|----------------|------------|
| Canada         | 3,000      |
| Germany        | 2,900      |
| United Kingdom | 2,400      |
| France         | 2,000      |
| Switzerland    | 1,800      |

On a country basis, German companies operating in New Mexico represented 16% of total foreign affiliate employment in New Mexico, with German multinationals supporting approximately 200 more jobs in 2017 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)



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, 2018

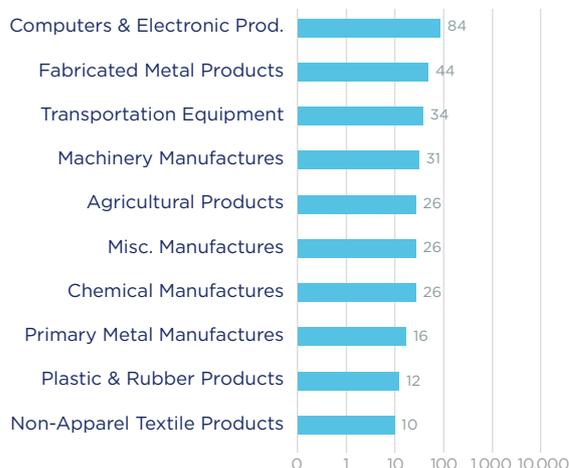
**\$335.4 m**

Exports are relatively small, with computers & electronic products, fabricated metal and transportation equipment the largest export categories for New Mexico.

#### Top European Export Markets, 2018

| Country     | Exports (\$ millions) |
|-------------|-----------------------|
| Germany     | 63                    |
| Poland      | 38                    |
| Belgium     | 36                    |
| Ireland     | 33                    |
| Netherlands | 28                    |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### New Mexico Goods Imports from Europe, 2018

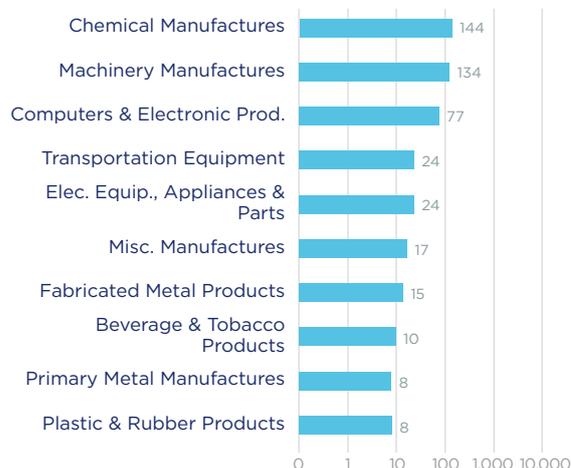
**\$503.1 m**

Chemicals were the largest imported good from Europe, followed closely by machinery.

#### Top European Import Markets, 2018

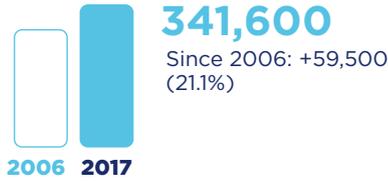
| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Austria        | 99                    |
| Netherlands    | 98                    |
| Germany        | 91                    |
| Switzerland    | 50                    |
| United Kingdom | 49                    |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## New York and Europe



### Employment within New York, 2017

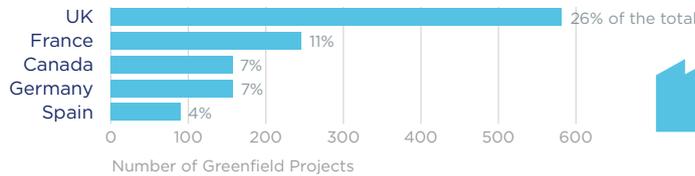
| Country        | Employment |
|----------------|------------|
| United Kingdom | 107,400    |
| France         | 57,100     |
| Canada         | 55,000     |
| Germany        | 43,900     |
| Netherlands    | 41,600     |

On a country basis, U.K. companies operating in New York represented 22% of total foreign affiliate employment in New York, with U.K. multinationals supporting approximately 18,200 more jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



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



### New York Goods Exports to Europe, 2018

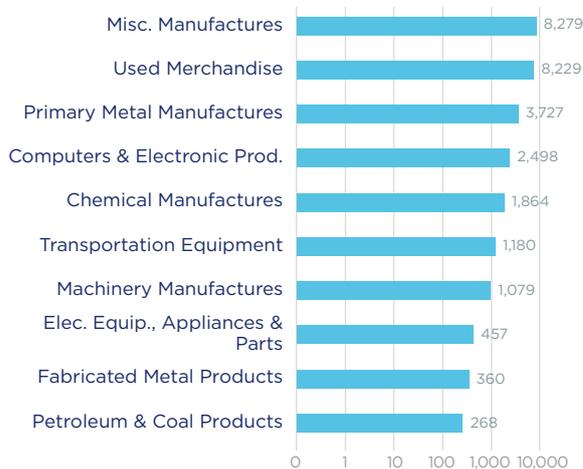
**\$29.6 bn**

Miscellaneous manufactured products and used merchandise were the top goods exports to Europe.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Switzerland    | 7,747                 |
| United Kingdom | 6,431                 |
| Belgium        | 3,768                 |
| Germany        | 2,964                 |
| France         | 2,586                 |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### New York Goods Imports from Europe, 2018

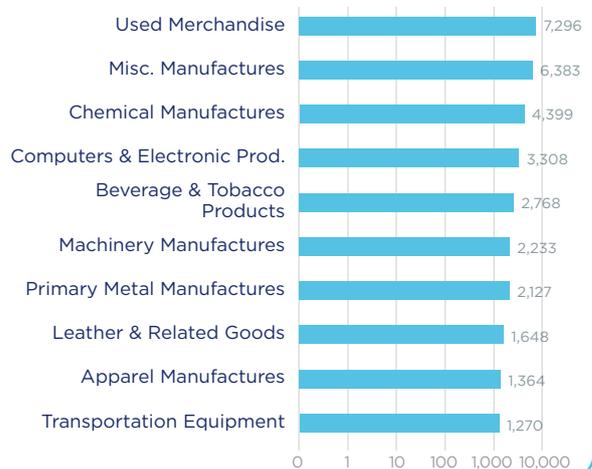
**\$44.7 bn**

New York's imports from Europe are relatively diverse, ranging from used and miscellaneous merchandise to chemicals and computers.

#### Top European Import Markets, 2018

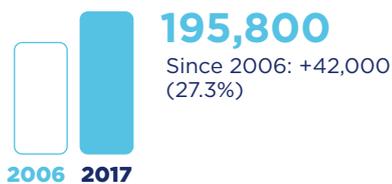
| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| France         | 8,310                 |
| Italy          | 6,032                 |
| Germany        | 5,996                 |
| Switzerland    | 5,638                 |
| United Kingdom | 5,529                 |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## North Carolina and Europe



### Employment within North Carolina, 2017

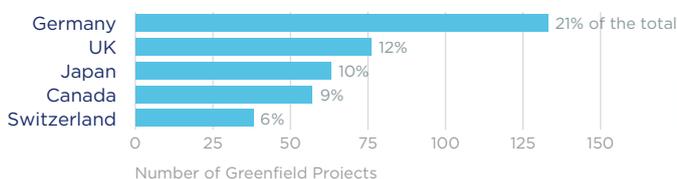
| Country        | Employment |
|----------------|------------|
| Netherlands    | 44,100     |
| United Kingdom | 42,400     |
| Germany        | 37,900     |
| Japan          | 26,000     |
| France         | 19,200     |

On a country basis, Dutch companies operating in North Carolina represented 16% of total foreign affiliate employment in North Carolina, with Dutch multinationals supporting approximately 37,200 more jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



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



### North Carolina Goods Exports to Europe, 2018

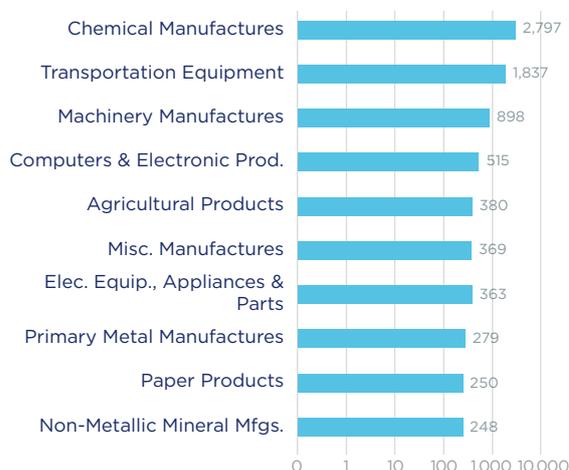
**\$9 bn**

Chemical manufactures account for about 31% of total exports to Europe.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| France         | 1,936                 |
| Netherlands    | 1,046                 |
| Germany        | 1,014                 |
| United Kingdom | 971                   |
| Belgium        | 902                   |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### North Carolina Goods Imports from Europe, 2018

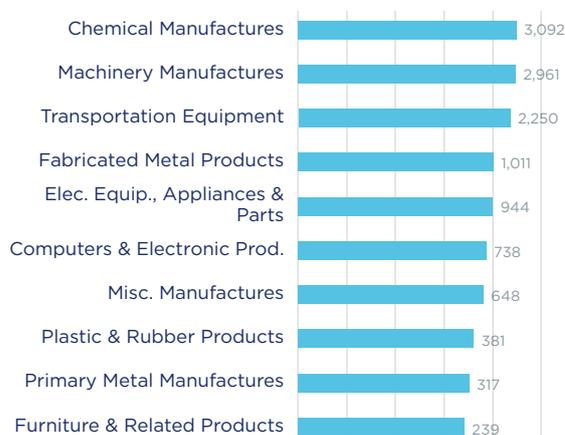
**\$14.2 bn**

Imports from Europe mainly consist of chemicals, machinery and transportation equipment.

#### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Germany        | 3,350                 |
| France         | 2,016                 |
| United Kingdom | 1,718                 |
| Italy          | 1,671                 |
| Turkey         | 589                   |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## North Dakota and Europe



**5,000**  
Since 2006: +1,000 (25%)



European companies account for **39%** of foreign affiliate jobs

### Employment within North Dakota, 2017

| Country        | Employment |
|----------------|------------|
| Canada         | 1,800      |
| Netherlands    | 1,750*     |
| United Kingdom | 1,400      |
| Japan          | 800        |
| France         | 600        |

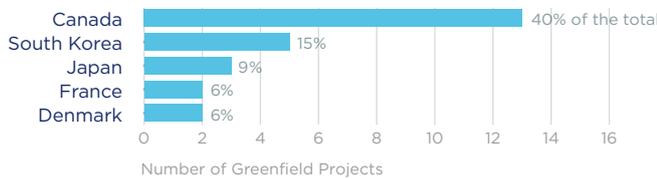
On a country basis, Dutch companies operating in North Dakota represented 14% of total foreign affiliate employment in North Dakota, with Dutch multinationals supporting approximately 1,050 more jobs in 2017 than in 2010.

\*Netherlands employment data suppressed to avoid disclosure of individual company data. Range of 1,000 - 2,499 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



**33**  
Greenfield Projects (October 2009 - September 2019)

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



### North Dakota Goods Exports to Europe, 2018

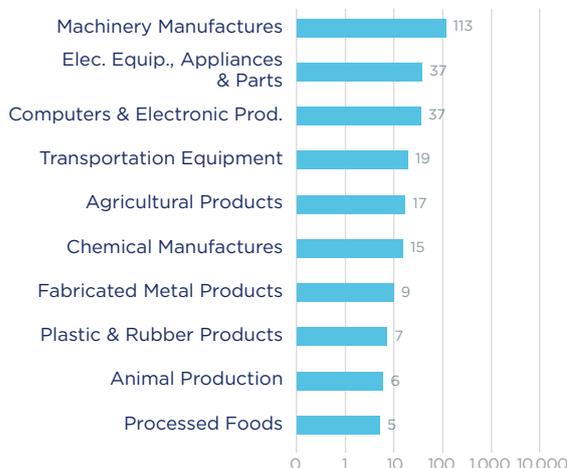
**\$269.8 m**

42% of the state's exports consist of machinery manufactures.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Germany        | 60                    |
| United Kingdom | 36                    |
| Czech Republic | 34                    |
| Russia         | 34                    |
| France         | 18                    |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### North Dakota Goods Imports from Europe, 2018

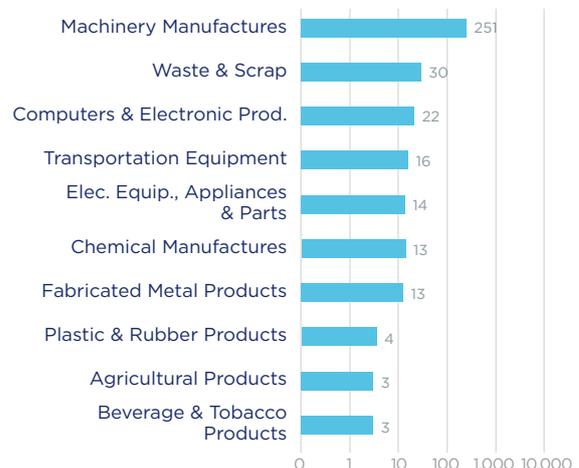
**\$386.4 m**

Machinery is North Dakota's primary product import from Europe, representing about 65% of total imports.

#### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Germany        | 143                   |
| France         | 82                    |
| Italy          | 41                    |
| United Kingdom | 31                    |
| Netherlands    | 14                    |

#### Top Ten Imports from Europe, 2018 (\$ millions)



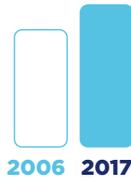
Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.



## Ohio and Europe



Jobs



**162,200**

Since 2006: +28,200 (21%)



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

### Employment within Ohio, 2017

| Country        | Employment |
|----------------|------------|
| Japan          | 64,200     |
| United Kingdom | 46,200     |
| Germany        | 34,700     |
| Canada         | 24,800     |
| Switzerland    | 19,500     |

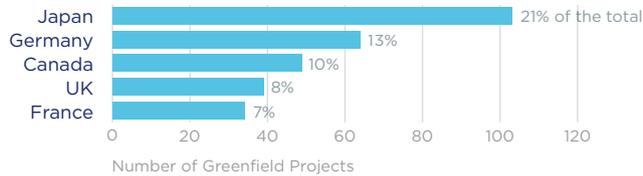
On a country basis, U.K. companies operating in Ohio represented 17% of total foreign affiliate employment in Ohio, with U.K. multinationals supporting approximately 9,600 more jobs in 2017 than in 2010.

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)



**491**

Greenfield Projects (October 2009 - September 2019)

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, 2018

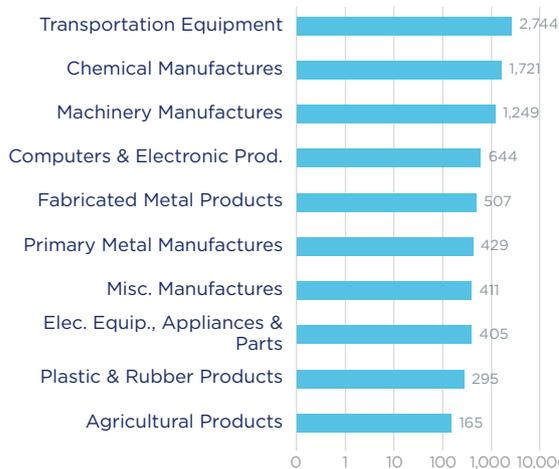
**\$9.7 bn**

Transportation equipment, chemicals and machinery are the state's top exports to Europe.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| United Kingdom | 2,199                 |
| Germany        | 1,619                 |
| France         | 1,181                 |
| Netherlands    | 963                   |
| Belgium        | 839                   |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### Ohio Goods Imports from Europe, 2018

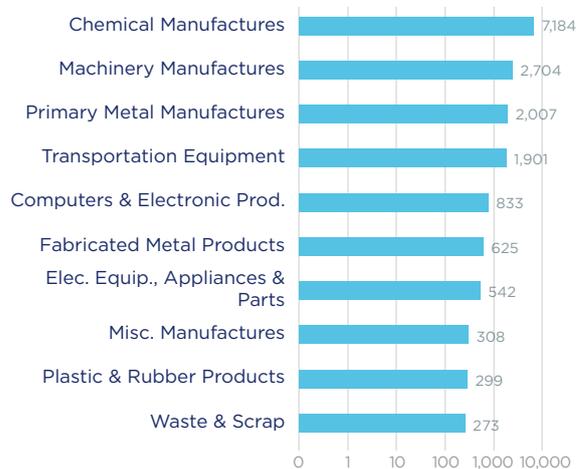
**\$18.7 bn**

Chemical manufactures make up 38% of Ohio's imports from Europe.

#### Top European Import Markets, 2018

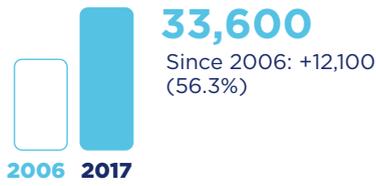
| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Germany        | 5,174                 |
| Ireland        | 3,460                 |
| France         | 1,564                 |
| Italy          | 1,470                 |
| United Kingdom | 1,191                 |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Oklahoma and Europe



### Employment within Oklahoma, 2017

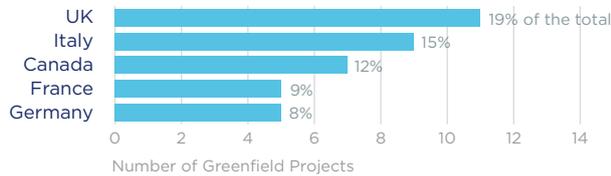
| Country        | Employment |
|----------------|------------|
| United Kingdom | 9,600      |
| France         | 8,600      |
| Germany        | 3,600      |
| Switzerland    | 3,400      |
| Canada         | 3,300      |

On a country basis, U.K. companies operating in Oklahoma represented 19% of total foreign affiliate employment in Oklahoma, with U.K. multinationals supporting approximately 3,800 more jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



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



### Oklahoma Goods Exports to Europe, 2018

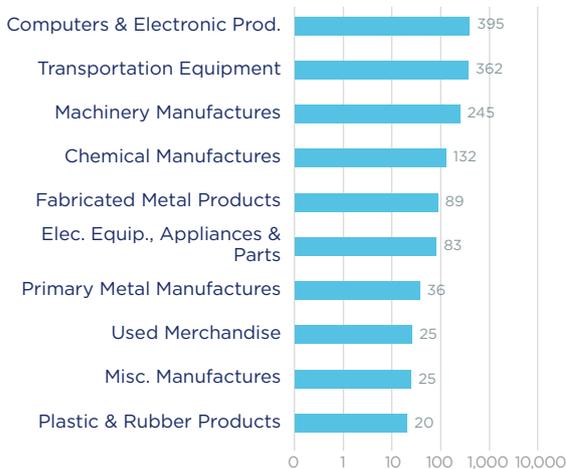
**\$1.5 bn**

Top exports include computers, transportation equipment and machinery.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Germany        | 612                   |
| Netherlands    | 246                   |
| United Kingdom | 157                   |
| France         | 86                    |
| Norway         | 54                    |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### Oklahoma Goods Imports from Europe, 2018

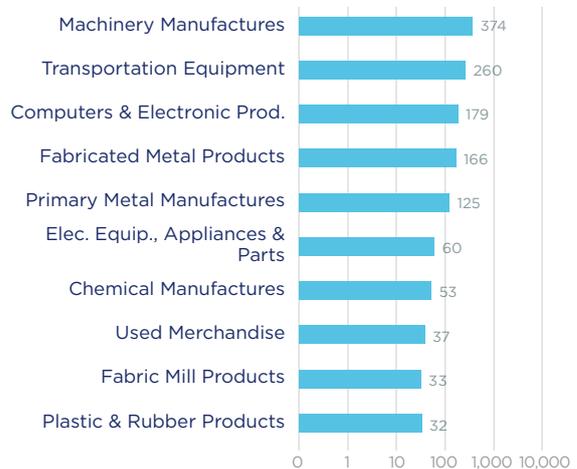
**\$1.5 bn**

Machinery manufactures and transportation equipment are key products imported from Europe.

#### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Germany        | 365                   |
| United Kingdom | 350                   |
| Italy          | 179                   |
| France         | 141                   |
| Belgium        | 51                    |

#### Top Ten Imports from Europe, 2018 (\$ millions)



Sources: Bureau of Economic Analysis; Foreign Trade Division, U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.



## Oregon and Europe



**42,100**  
Since 2006: +11,800 (38.9%)



European companies account for **69%** of foreign affiliate jobs

### Employment within Oregon, 2017

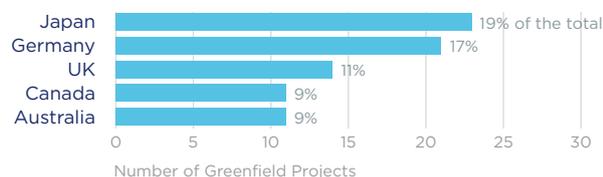
| Country        | Employment |
|----------------|------------|
| United Kingdom | 10,500     |
| Germany        | 10,200     |
| Japan          | 9,600      |
| Switzerland    | 5,800      |
| France         | 4,200      |

On a country basis, U.K. companies operating in Oregon represented 17% of total foreign affiliate employment in Oregon, with U.K. multinationals supporting approximately 2,200 more jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



**123**  
Greenfield Projects (October 2009 - September 2019)

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



### Oregon Goods Exports to Europe, 2018

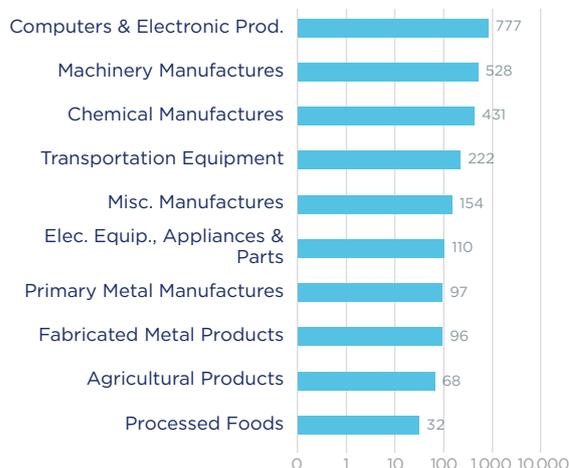
**\$2.7 bn**

Roughly 30% of Oregon's exports to Europe consist of computers & electronic products.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Germany        | 469                   |
| Switzerland    | 350                   |
| Netherlands    | 347                   |
| United Kingdom | 302                   |
| Ireland        | 212                   |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### Oregon Goods Imports from Europe, 2018

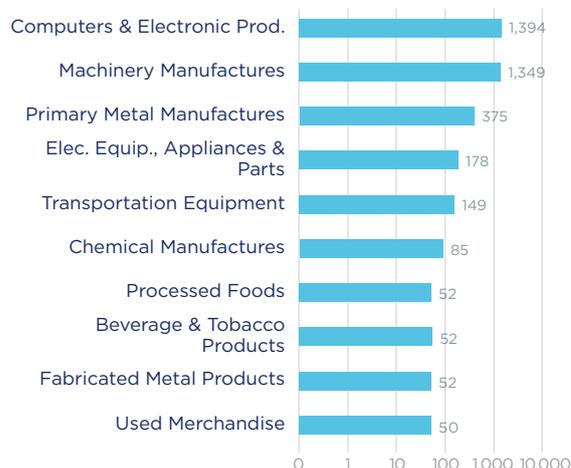
**\$4.8 bn**

Computers & electronic products also represented roughly 30% of Oregon's total European imports.

#### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Ireland        | 1,730                 |
| Netherlands    | 1,097                 |
| Germany        | 639                   |
| Russia         | 406                   |
| United Kingdom | 176                   |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Pennsylvania and Europe

### Jobs



### Employment within Pennsylvania, 2017

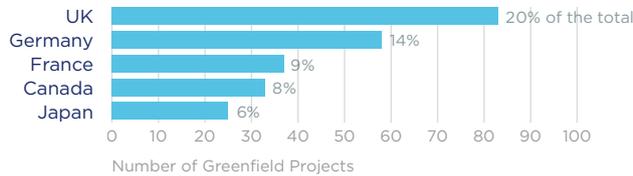
| Country        | Employment |
|----------------|------------|
| United Kingdom | 57,200     |
| Netherlands    | 44,000     |
| Germany        | 38,400     |
| France         | 28,500     |
| Canada         | 24,200     |

On a country basis, U.K. companies operating in Pennsylvania represented 18% of total foreign affiliate employment in Pennsylvania, with U.K. multinationals supporting approximately 4,600 more jobs in 2017 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)



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, 2018

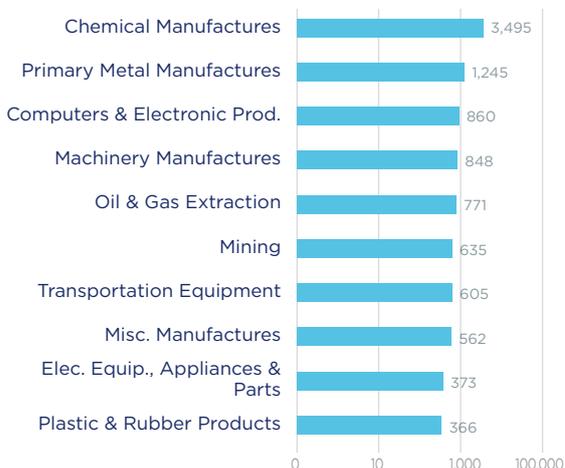
**\$11.2 bn**

Chemicals and primary metals were the state's largest exports to Europe.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| United Kingdom | 2,145                 |
| Netherlands    | 1,714                 |
| Belgium        | 1,534                 |
| Germany        | 1,375                 |
| Italy          | 653                   |

#### Top Ten Exports to Europe, 2018 (\$ millions)



#### Pennsylvania Goods Imports from Europe, 2018

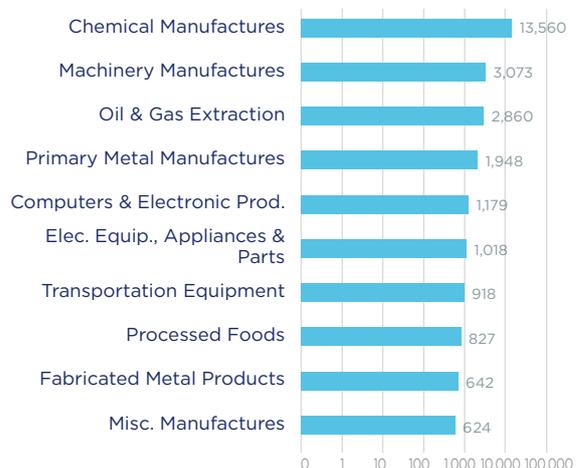
**\$30 bn**

Imports are heavily concentrated, with chemicals making up over 45% of the state's total European imports.

#### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Germany        | 5,785                 |
| Switzerland    | 3,475                 |
| United Kingdom | 3,114                 |
| Italy          | 2,941                 |
| Ireland        | 1,963                 |

#### Top Ten Imports from Europe, 2018 (\$ millions)



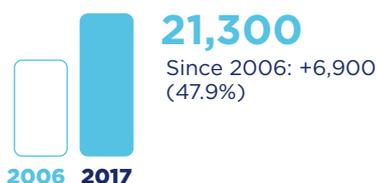
Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.



## Rhode Island and Europe



Jobs



### Employment within Rhode Island, 2017

| Country        | Employment |
|----------------|------------|
| Netherlands    | 7,500*     |
| France         | 4,400      |
| United Kingdom | 4,200      |
| Japan          | 1,800      |
| Canada         | 1,400      |

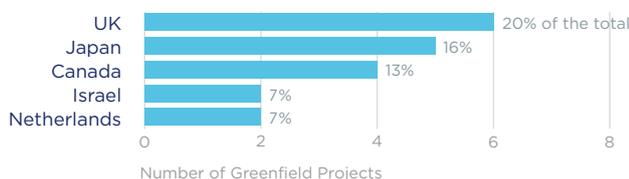
On a country basis, Dutch companies operating in Rhode Island represented 28% of total foreign affiliate employment in Rhode Island, with Dutch multinationals supporting approximately 3,750 more jobs in 2017 than in 2010. \*Netherlands employment data suppressed to avoid disclosure of individual company data. Range of 5,000 - 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)



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, 2018

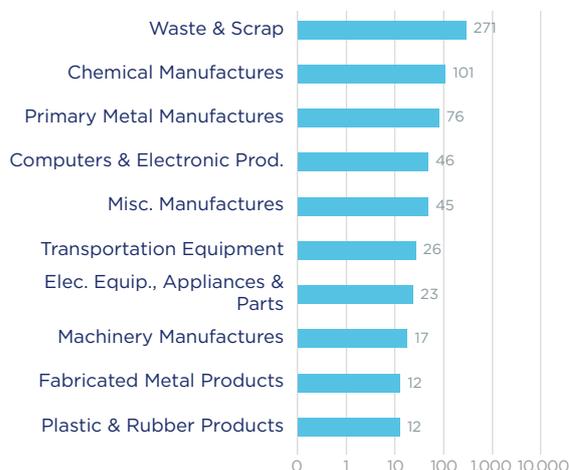
**\$661.6 m**

Waste & scrap account for over 40% of exports to Europe.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Turkey         | 138                   |
| Germany        | 123                   |
| Italy          | 122                   |
| Ireland        | 60                    |
| United Kingdom | 56                    |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### Rhode Island Goods Imports from Europe, 2018

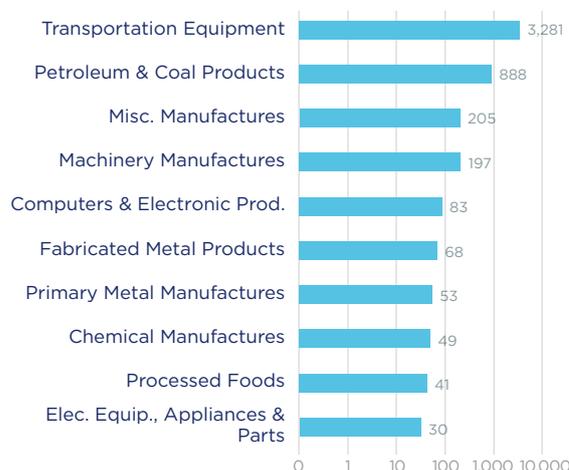
**\$5.1 bn**

The top imported product from Europe is transportation equipment, which represents 65% of the state's total European imports.

#### Top European Import Markets, 2018

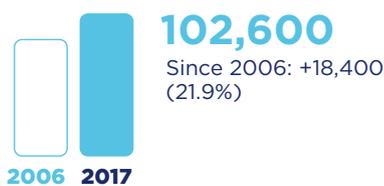
| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Germany        | 2,275                 |
| Slovakia       | 966                   |
| United Kingdom | 453                   |
| France         | 314                   |
| Netherlands    | 156                   |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## South Carolina and Europe



### Employment within South Carolina, 2017

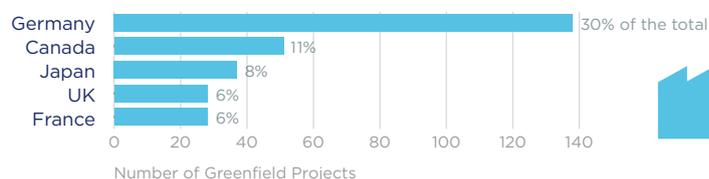
| Country        | Employment |
|----------------|------------|
| Germany        | 31,200     |
| France         | 23,500     |
| Japan          | 15,800     |
| Canada         | 13,800     |
| United Kingdom | 13,100     |

On a country basis, German companies operating in South Carolina represented 21% of total foreign affiliate employment in South Carolina, with German multinationals supporting approximately 11,900 more jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



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



### South Carolina Goods Exports to Europe, 2018

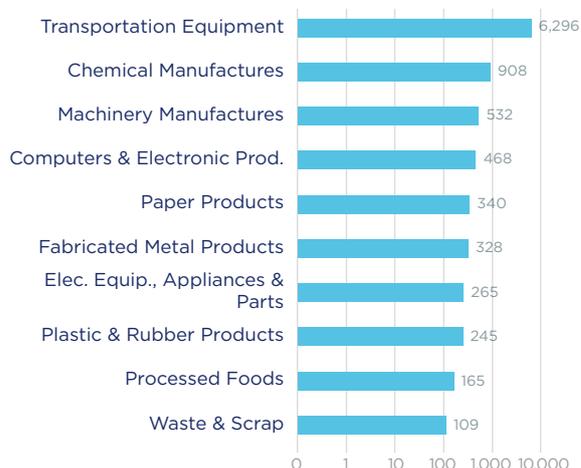
**\$9.9 bn**

63% of the state's exports consist of transportation equipment, reflecting the state's deep linkages with European auto manufacturers.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Germany        | 3,768                 |
| United Kingdom | 2,416                 |
| Belgium        | 764                   |
| France         | 499                   |
| Spain          | 439                   |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### South Carolina Goods Imports from Europe, 2018

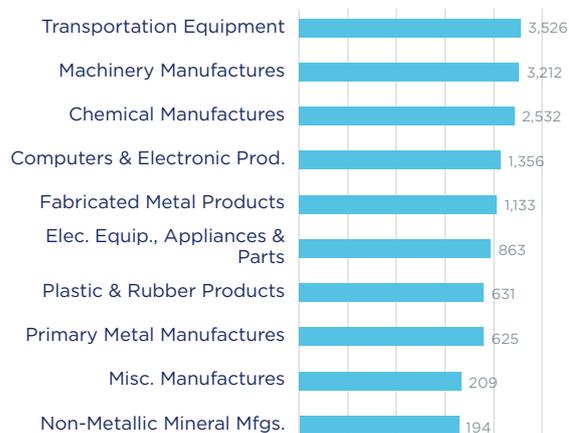
**\$15.8 bn**

Transportation equipment was also the top imported product from Europe, making up 22% of the state's total European imports.

#### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Germany        | 6,922                 |
| Austria        | 982                   |
| France         | 961                   |
| United Kingdom | 928                   |
| Italy          | 783                   |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## South Dakota and Europe

### Jobs



### Employment within South Dakota, 2017

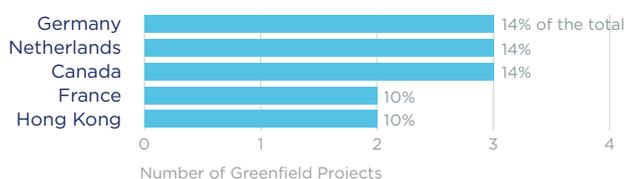
| Country        | Employment |
|----------------|------------|
| Canada         | 2,400      |
| United Kingdom | 1,500      |
| France         | 1,400      |
| Germany        | 700        |
| Switzerland    | 400        |

On a country basis, U.K. companies operating in South Dakota represented 12% of total foreign affiliate employment in South Dakota, with U.K. multinationals supporting approximately the same number of jobs in 2017 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)



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

### Trade

### South Dakota Goods Exports to Europe, 2018

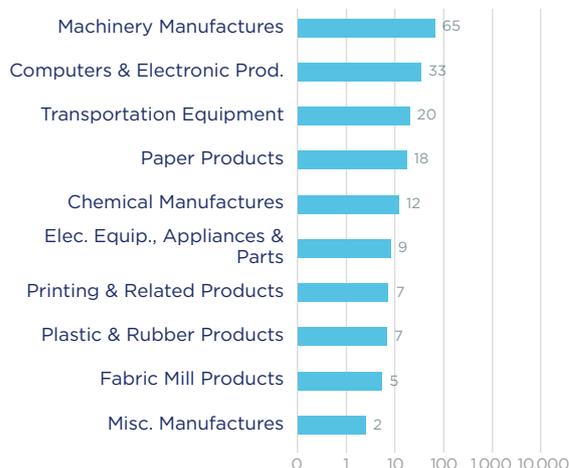
**\$184.1 m**

Machinery manufactures are the state's top export to Europe.

### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Germany        | 47                    |
| Belgium        | 39                    |
| United Kingdom | 36                    |
| Ukraine        | 16                    |
| Netherlands    | 9                     |

### Top Ten Exports to Europe, 2018 (\$ millions)



### South Dakota Goods Imports from Europe, 2018

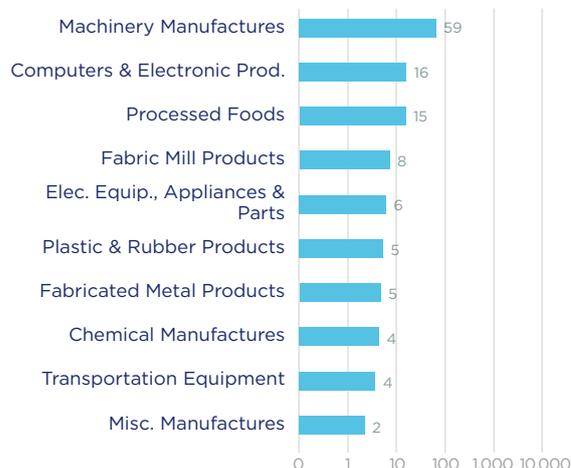
**\$135.8 m**

Machinery manufactures, computers & electronic products, and processed foods make up the bulk of imports from Europe.

### Top European Import Markets, 2018

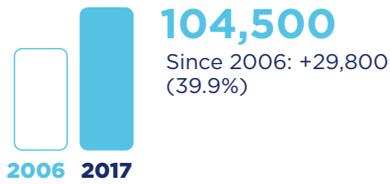
| Country     | Imports (\$ millions) |
|-------------|-----------------------|
| Germany     | 31                    |
| Italy       | 18                    |
| Netherlands | 17                    |
| Poland      | 14                    |
| Spain       | 9                     |

### Top Ten Imports from Europe, 2018 (\$ millions)



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

# Tennessee and Europe



### Employment within Tennessee, 2017

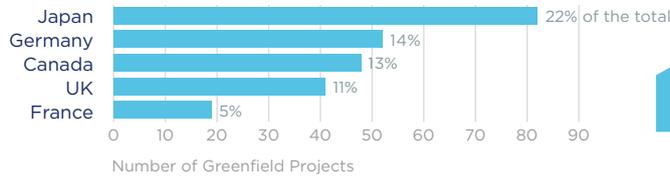
| Country        | Employment |
|----------------|------------|
| Japan          | 46,700     |
| United Kingdom | 21,500     |
| France         | 20,200     |
| Germany        | 19,200     |
| Netherlands    | 12,900     |

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 1,600 more jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



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



### Tennessee Goods Exports to Europe, 2018

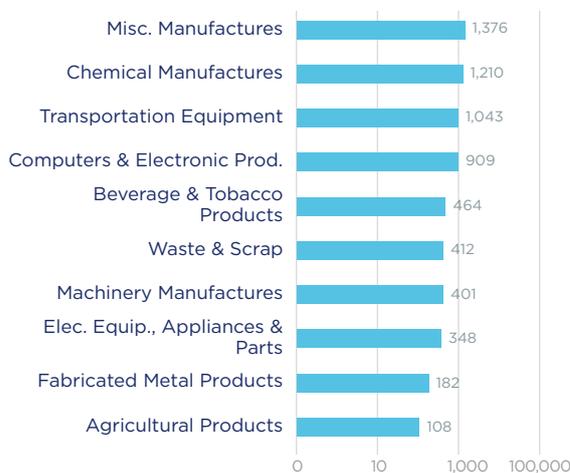
**\$7 bn**

Miscellaneous manufactured goods and chemicals are the largest export categories to Europe.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Netherlands    | 1,366                 |
| United Kingdom | 1,129                 |
| Belgium        | 1,079                 |
| Germany        | 994                   |
| Italy          | 594                   |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### Tennessee Goods Imports from Europe, 2018

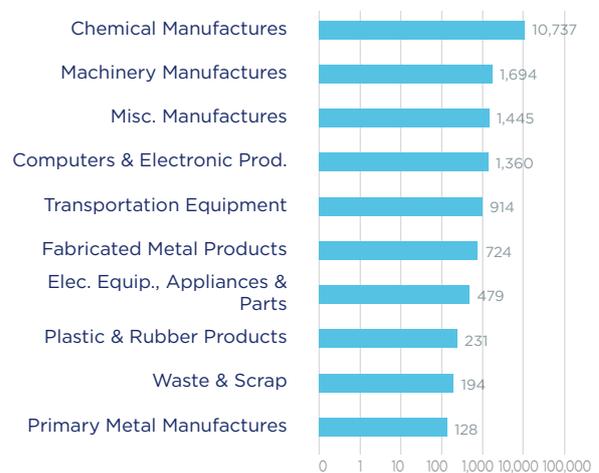
**\$19.8 bn**

Chemicals are the top imported good, comprising over half of the state's total imports from Europe.

#### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Ireland        | 6,530                 |
| Germany        | 3,868                 |
| United Kingdom | 2,016                 |
| Italy          | 1,925                 |
| Spain          | 1,156                 |

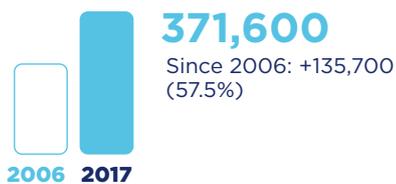
#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Texas and Europe

### Jobs



### Employment within Texas, 2017

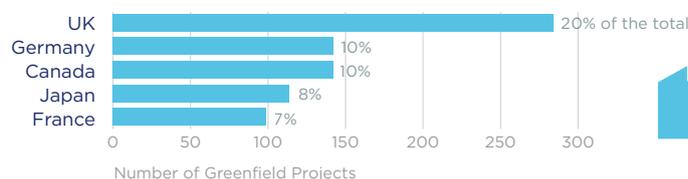
| Country        | Employment |
|----------------|------------|
| United Kingdom | 118,300    |
| France         | 61,300     |
| Japan          | 60,500     |
| Canada         | 51,100     |
| Germany        | 48,300     |

On a country basis, U.K. companies operating in Texas represented 19% of total foreign affiliate employment in Texas, with U.K. multinationals supporting approximately 47,700 more jobs in 2017 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)



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

### Trade

### Texas Goods Exports to Europe, 2018

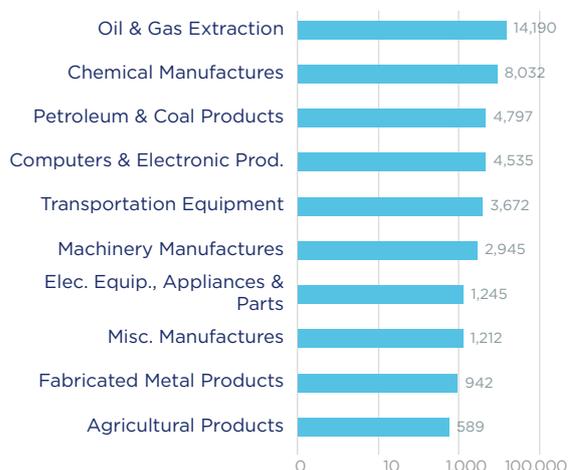
**\$45 bn**

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, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Netherlands    | 9,239                 |
| United Kingdom | 8,436                 |
| Germany        | 4,193                 |
| Belgium        | 3,999                 |
| Italy          | 3,679                 |

### Top Ten Exports to Europe, 2018 (\$ millions)



### Texas Goods Imports from Europe, 2018

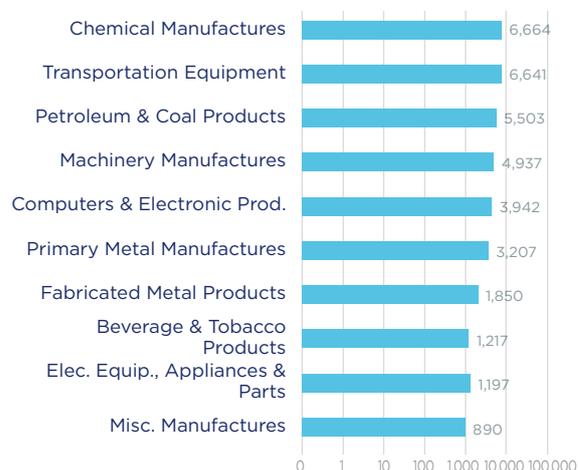
**\$41.7 bn**

Chemicals and transportation equipment are the top product imports, though total imports are relatively diverse with petroleum & coal and machinery also key imports.

### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Germany        | 7,572                 |
| United Kingdom | 5,406                 |
| Italy          | 3,813                 |
| Russia         | 3,661                 |
| France         | 3,459                 |

### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Utah and Europe



**32,600**  
Since 2006: +5,700  
(21.2%)



European companies account for **68%** of foreign affiliate jobs

### Employment within Utah, 2017

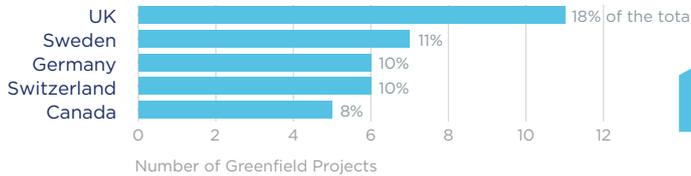
| Country        | Employment |
|----------------|------------|
| United Kingdom | 9,200      |
| France         | 5,800      |
| Germany        | 5,500      |
| Switzerland    | 3,500      |
| Japan          | 2,900      |

On a country basis, U.K. companies operating in Utah represented 19% of total foreign affiliate employment in Utah, with U.K. multinationals supporting approximately 3,400 more jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



**62**  
Greenfield Projects  
(October 2009 - September 2019)

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



### Utah Goods Exports to Europe, 2018

**\$7 bn**

Primary metals dominate the state's exports to Europe, representing over 70% of Utah's total exports.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| United Kingdom | 5,096                 |
| Netherlands    | 447                   |
| Germany        | 404                   |
| France         | 216                   |
| Switzerland    | 165                   |

### Utah Goods Imports from Europe, 2018

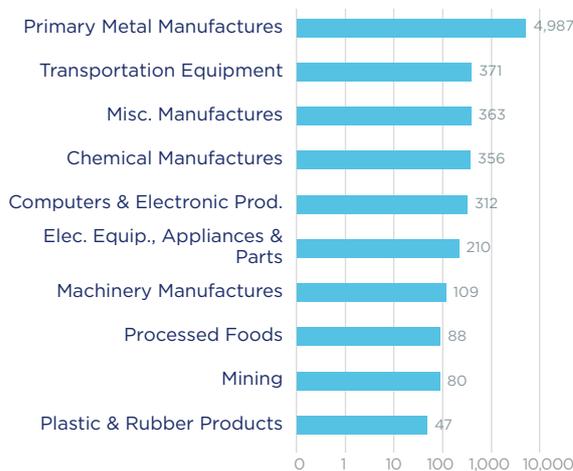
**\$1.5 bn**

Imports are much more diversified than exports. Machinery, chemicals and computers & electronics are the state's top product imports from Europe.

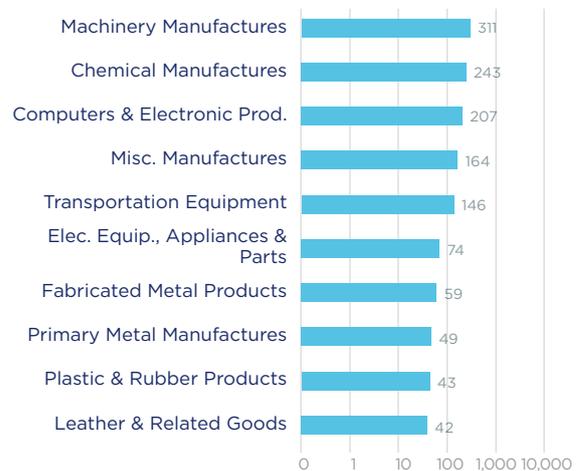
#### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Germany        | 276                   |
| France         | 227                   |
| United Kingdom | 167                   |
| Italy          | 148                   |
| Austria        | 141                   |

#### Top Ten Exports to Europe, 2018 (\$ millions)



#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Vermont and Europe



**7,100**  
Since 2006: +400 (6%)



European companies account for **70%** of foreign affiliate jobs

### Employment within Vermont, 2017

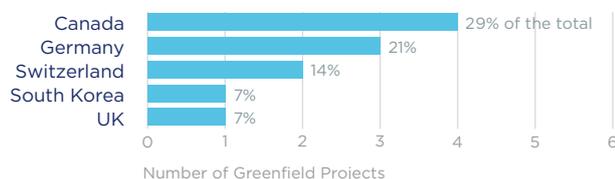
| Country        | Employment |
|----------------|------------|
| Netherlands    | 3,100      |
| Canada         | 1,800      |
| France         | 1,200      |
| Switzerland    | 800        |
| United Kingdom | 800        |

On a country basis, Dutch companies operating in Vermont represented 31% of total foreign affiliate employment in Vermont, with Dutch multinationals supporting approximately 2,600 more jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



**14**  
Greenfield Projects (October 2009 - September 2019)

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



### Vermont Goods Exports to Europe, 2018

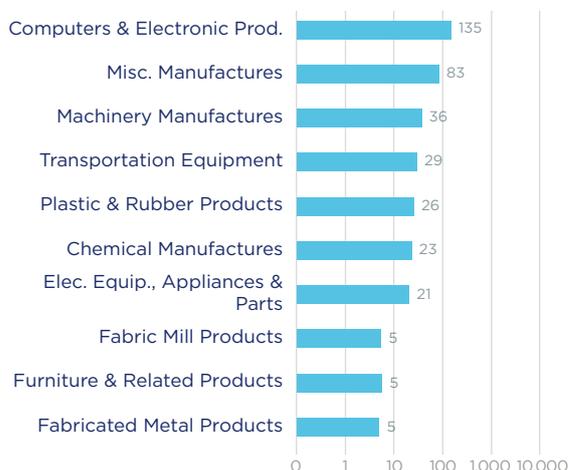
**\$400.7 m**

About one-third of exports consist of computers & electronic products.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| United Kingdom | 88                    |
| Germany        | 77                    |
| Netherlands    | 66                    |
| France         | 52                    |
| Belgium        | 22                    |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### Vermont Goods Imports from Europe, 2018

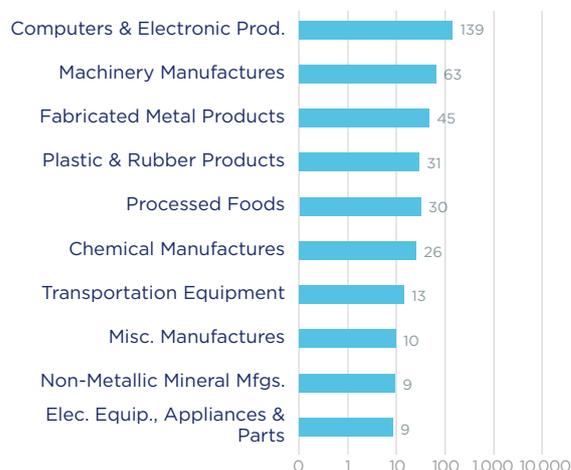
**\$430 m**

Computers & electronics are also the state's top imports from Europe, also representing a roughly 33% share of the total amount imported from Europe.

#### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| France         | 134                   |
| Germany        | 59                    |
| United Kingdom | 38                    |
| Italy          | 31                    |
| Russia         | 28                    |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Virginia and Europe



**141,500**

Since 2006: +29,200 (26%)



European companies account for **73%** of foreign affiliate jobs

### Employment within Virginia, 2017

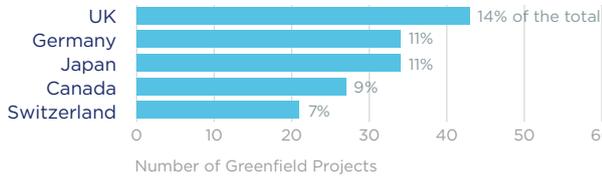
| Country        | Employment |
|----------------|------------|
| United Kingdom | 35,800     |
| Netherlands    | 31,600     |
| Germany        | 21,200     |
| Canada         | 15,700     |
| France         | 15,300     |

On a country basis, U.K. companies operating in Virginia represented 18% of total foreign affiliate employment in Virginia, with U.K. multinationals supporting approximately 7,500 more jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



**305**

Greenfield Projects (October 2009 - September 2019)

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



### Virginia Goods Exports to Europe, 2018

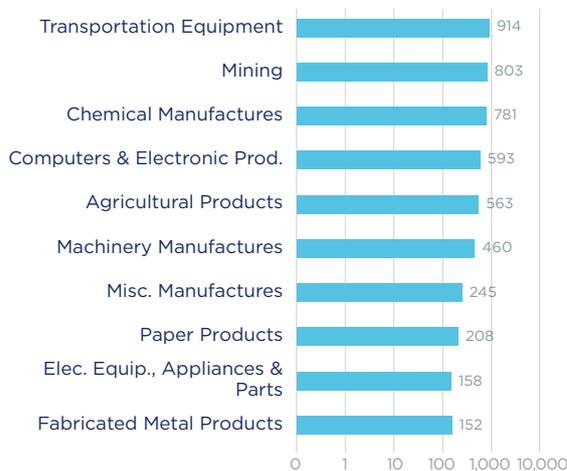
**\$5.8 bn**

Top exports include transportation equipment, mining and chemicals.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| United Kingdom | 1,059                 |
| Germany        | 1,054                 |
| Netherlands    | 678                   |
| Belgium        | 582                   |
| Italy          | 321                   |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### Virginia Goods Imports from Europe, 2018

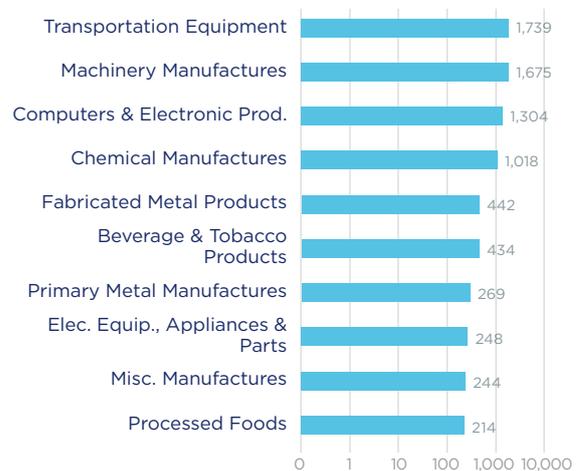
**\$8.9 bn**

Transportation equipment is the largest import from Europe, followed by machinery, computers and chemicals.

#### Top European Import Markets, 2018

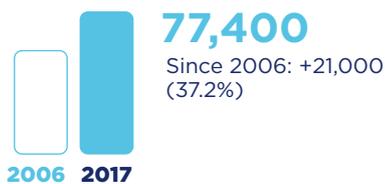
| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Germany        | 2,000                 |
| Austria        | 1,280                 |
| France         | 1,149                 |
| Italy          | 1,013                 |
| United Kingdom | 773                   |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Washington and Europe



### Employment within Washington, 2017

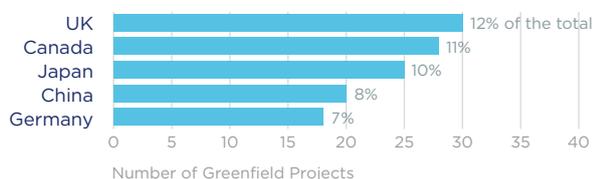
| Country        | Employment |
|----------------|------------|
| United Kingdom | 19,700     |
| Germany        | 18,400     |
| Canada         | 17,500     |
| Japan          | 16,200     |
| France         | 11,200     |

On a country basis, U.K. companies operating in Washington represented 15% of total foreign affiliate employment in Washington, with U.K. multinationals supporting approximately 5,800 more jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



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



### Washington Goods Exports to Europe, 2018

**\$16.2 bn**

Transportation equipment dominates Washington's exports to Europe, making up over 75% of total exports.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| United Kingdom | 4,042                 |
| Ireland        | 1,820                 |
| Russia         | 1,445                 |
| Netherlands    | 1,442                 |
| Turkey         | 1,034                 |

### Washington Goods Imports from Europe, 2018

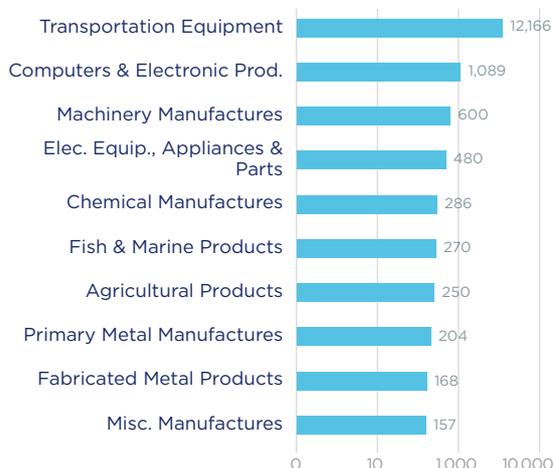
**\$5.4 bn**

Imports from Europe are less concentrated than exports. The state's top import, machinery, makes up only 18% of total goods imports from Europe.

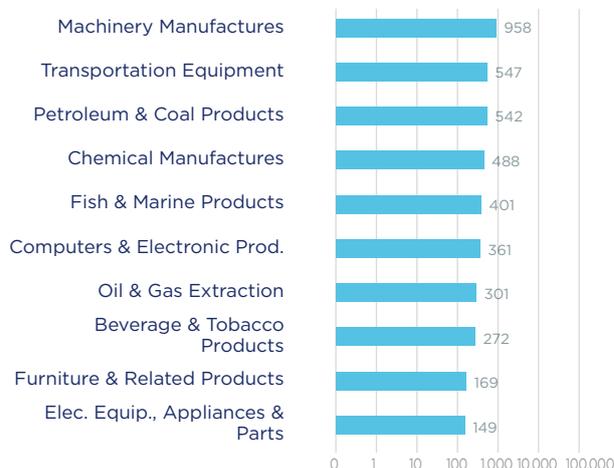
#### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Russia         | 1,311                 |
| Germany        | 908                   |
| France         | 571                   |
| United Kingdom | 496                   |
| Italy          | 461                   |

#### Top Ten Exports to Europe, 2016 (\$ millions)



#### Top Ten Imports from Europe, 2016 (\$ millions)



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

## West Virginia and Europe



**13,300**

Since 2006: +1,000 (8.1%)



European companies account for **47%** of foreign affiliate jobs

### Employment within West Virginia, 2017

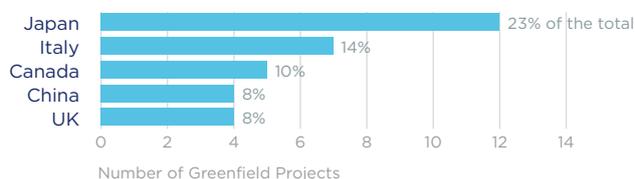
| Country        | Employment |
|----------------|------------|
| Canada         | 5,100      |
| United Kingdom | 4,200      |
| Japan          | 3,800      |
| Netherlands    | 2,000      |
| Germany        | 1,600      |

On a country basis, U.K. companies operating in West Virginia represented 15% of total foreign affiliate employment in West Virginia, with U.K. multinationals supporting approximately 200 fewer jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



**51**  
Greenfield Projects  
(October 2009 - September 2019)

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



### West Virginia Goods Exports to Europe, 2018

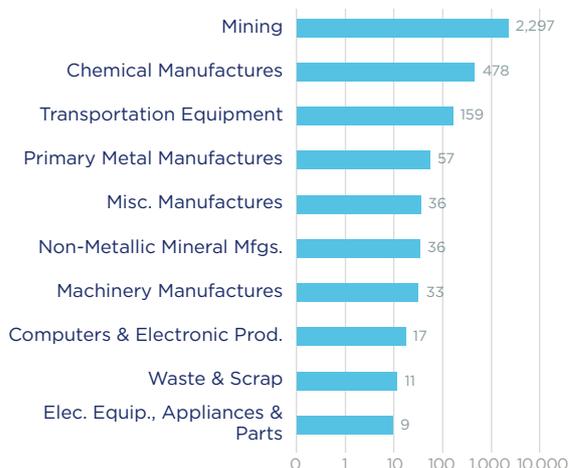
**\$3.2 bn**

Mining products such as minerals and ores accounted for 72% of exports to Europe in 2018.

#### Top European Export Markets, 2018

| Country     | Exports (\$ millions) |
|-------------|-----------------------|
| Netherlands | 675                   |
| Ukraine     | 667                   |
| Belgium     | 327                   |
| France      | 234                   |
| Germany     | 228                   |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### West Virginia Goods Imports from Europe, 2018

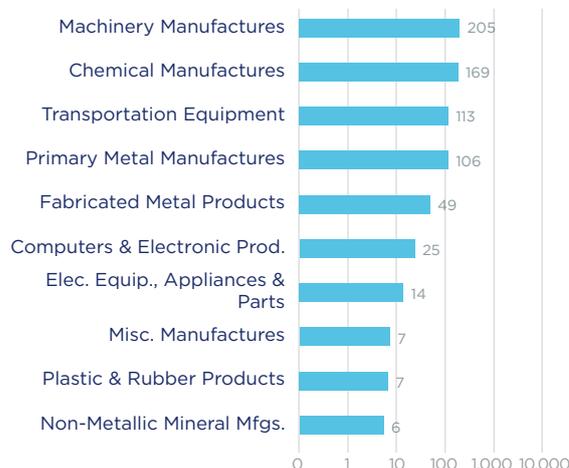
**\$736.1 m**

Machinery and chemicals are West Virginia's top imports from Europe.

#### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Germany        | 241                   |
| France         | 104                   |
| Italy          | 98                    |
| United Kingdom | 59                    |
| Poland         | 49                    |

#### Top Ten Imports from Europe, 2018 (\$ millions)



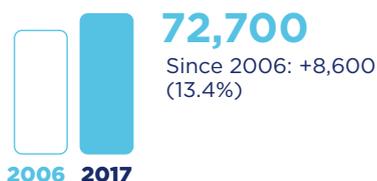
Sources: Bureau of Economic Analysis; U.S. Census Bureau; U.S. Department of Commerce; SelectUSA.



## Wisconsin and Europe



Jobs



### Employment within Wisconsin, 2017

| Country        | Employment |
|----------------|------------|
| United Kingdom | 16,400     |
| Canada         | 14,300     |
| Germany        | 12,600     |
| Switzerland    | 9,000      |
| France         | 8,800      |

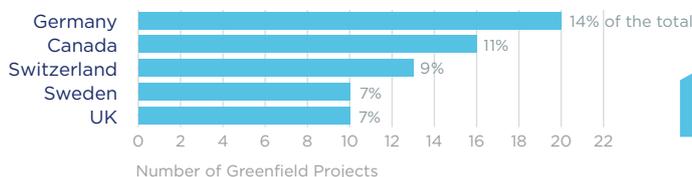
On a country basis, U.K. companies operating in Wisconsin represented 15% of total foreign affiliate employment in Wisconsin, with U.K. multinationals supporting approximately 5,100 more jobs in 2017 than in 2010.

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)



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, 2018

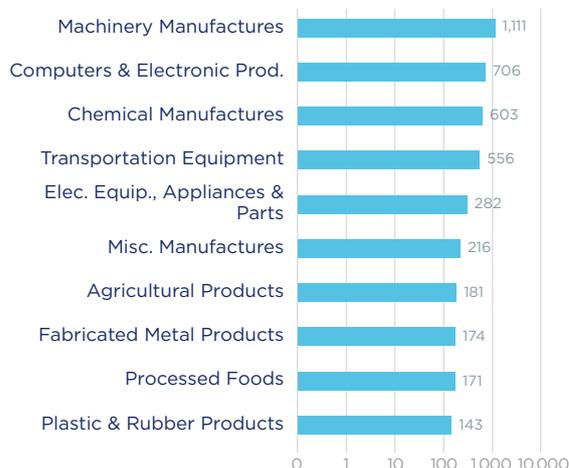
**\$4.6 bn**

Machinery and computers & electronic products are the state's top exports to Europe.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| Germany        | 814                   |
| United Kingdom | 792                   |
| France         | 497                   |
| Netherlands    | 448                   |
| Belgium        | 398                   |

#### Top Ten Exports to Europe, 2018 (\$ millions)



### Wisconsin Goods Imports from Europe, 2018

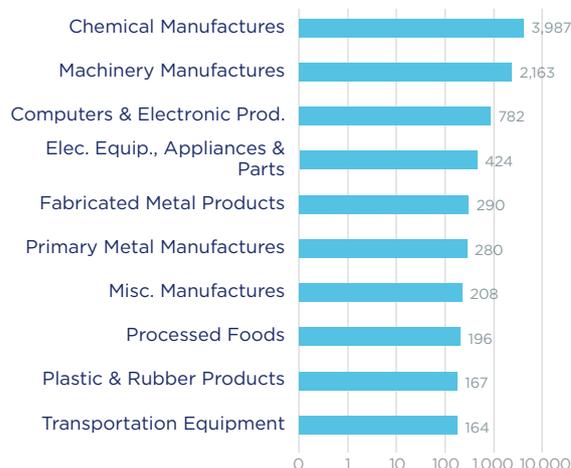
**\$9.3 bn**

Chemicals and machinery accounted for 43% and 23% of total imports from Europe, respectively.

#### Top European Import Markets, 2018

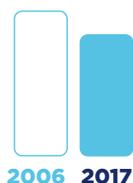
| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Ireland        | 3,249                 |
| Germany        | 1,923                 |
| Italy          | 880                   |
| United Kingdom | 631                   |
| France         | 531                   |

#### Top Ten Imports from Europe, 2018 (\$ millions)



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

## Wyoming and Europe



**4,100**  
Since 2006: -800  
(-16.3%)



European companies account for **53%** of foreign affiliate jobs

### Employment within Wyoming, 2017

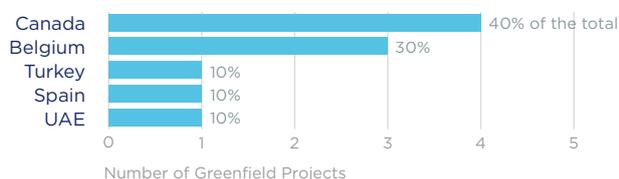
| Country        | Employment |
|----------------|------------|
| United Kingdom | 1,300      |
| Canada         | 600        |
| France         | 600        |
| Switzerland    | 300        |
| Germany        | 200        |

On a country basis, U.K. companies operating in Wyoming represented 17% of total foreign affiliate employment in Wyoming, with U.K. multinationals supporting approximately 400 fewer jobs in 2017 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.



### Sources of Greenfield Foreign Direct Investment (FDI)



**10**  
Greenfield Projects  
(October 2009 - September 2019)

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



### Wyoming Goods Exports to Europe, 2018

**\$65.6 m**

Chemicals account for approximately half of Wyoming's exports to Europe.

#### Top European Export Markets, 2018

| Country        | Exports (\$ millions) |
|----------------|-----------------------|
| United Kingdom | 19                    |
| Belgium        | 10                    |
| Germany        | 10                    |
| Denmark        | 7                     |
| Switzerland    | 6                     |

### Wyoming Goods Imports from Europe, 2018

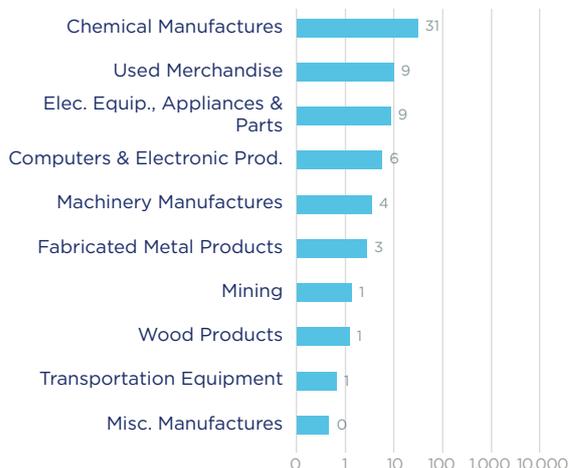
**\$99.1 m**

Machinery and computers & electronic products are Wyoming's top imports from Europe.

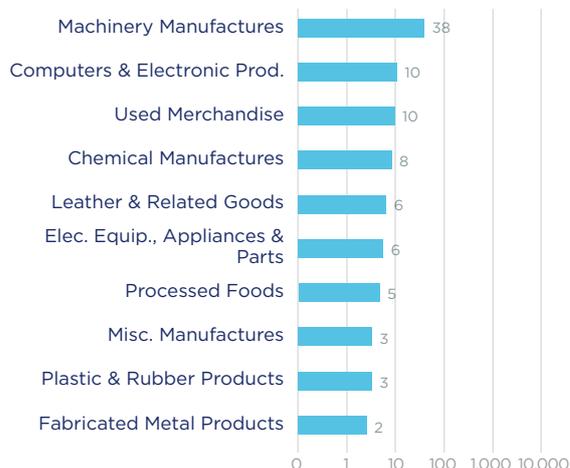
#### Top European Import Markets, 2018

| Country        | Imports (\$ millions) |
|----------------|-----------------------|
| Germany        | 32                    |
| Italy          | 14                    |
| Austria        | 7                     |
| United Kingdom | 6                     |
| Netherlands    | 5                     |

#### Top Ten Exports to Europe, 2018 (\$ millions)



#### Top Ten Imports from Europe, 2018 (\$ 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

## United States in Europe

**4,868,955**



## Europe in the United States

**4,709,850**

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.

**\$3.6 tn**

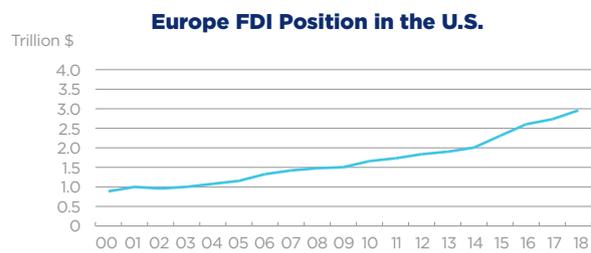
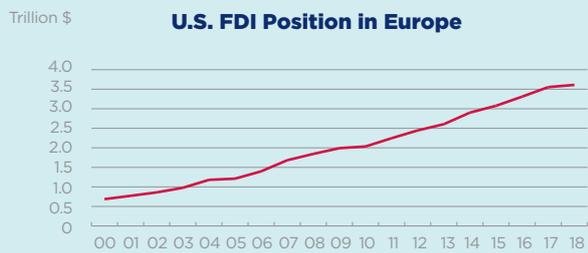


### Foreign Direct Investment (FDI), 2018

In terms of the U.S.-Europe investment balance, the U.S. had a larger net cross-border impact in 2018. U.S. foreign direct investment in Europe totaled a record \$3.6 trillion in 2018, but the pace of growth slowed due to U.S. corporations' repatriation of foreign earnings after the 2017 U.S. Tax Cuts and Jobs Act. Europe's foreign direct investment in the U.S. rose to \$3.0 trillion. According to estimates for 2018, U.S. affiliates employed over 4.8 million workers in Europe while European affiliates employed about 4.7 million Americans.

**\$3.0 tn**

### Foreign Direct Investment (FDI), 2018



Foreign direct investment position, historic-cost basis, 2000-2018.

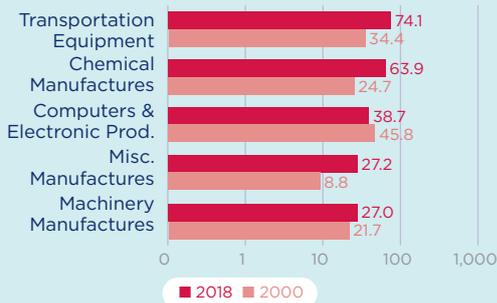
**\$370.1 bn**



### U.S. Goods Exports to Europe, 2018

**5.1%** The U.S. supplied 5.1% of Europe's total imports... **17.7%** ...but the U.S. share increases to 17.7% when intra-Europe trade is excluded from the total.

#### Top Five U.S. Goods Exports to Europe (\$ billions)



#### Top State Trade Partners Exports of Goods (\$ billions)

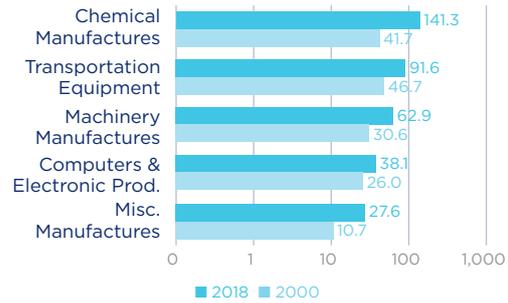


**\$571.9 bn**

### U.S. Goods Imports from Europe, 2018

**7.1%** The U.S. received 7.1% of the total goods Europe exported to the world... **24.5%** ...but the U.S. share increases to 24.5% when intra-Europe trade is excluded from the total.

#### Top Five U.S. Goods Imports from Europe (\$ billions)



#### Top State Trade Partners Imports of Goods (\$ billions)



**\$311.5 bn**



### U.S. Services Exports to Europe, 2018

**\$236.4 bn**

### U.S. Services Imports from Europe, 2018

Europe refers to all 28 members of the European Union in 2018 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 EU and the United States

## United States in the EU

## The EU in the United States

**4,433,825**



**4,226,370**

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.

**\$3.3 tn**



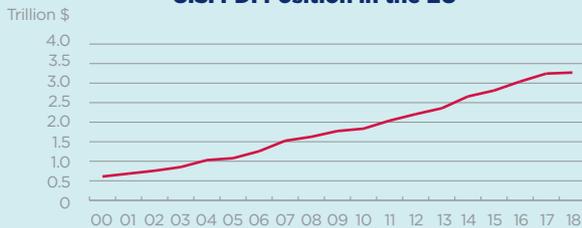
**\$2.6 tn**

### Foreign Direct Investment (FDI), 2018

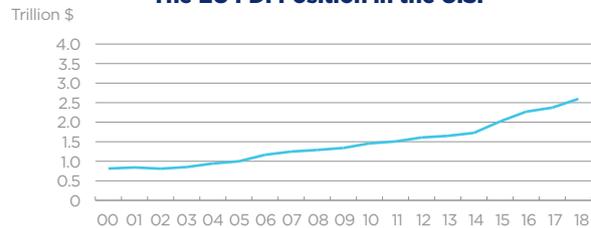
### Foreign Direct Investment (FDI), 2018

In terms of the U.S.-EU investment balance, the U.S. had a larger net cross-border impact in 2018. U.S. foreign direct investment in the EU totaled a record \$3.3 trillion in 2018, and the EU's foreign direct investment in the U.S. rose to \$2.6 trillion. According to estimates for 2018, U.S. affiliates employed almost 4.4 million workers in the EU while EU affiliates employed roughly 4.2 million Americans.

#### U.S. FDI Position in the EU



#### The EU FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2018.

\*The EU FDI trend charts show an increasing number of member countries overtime. 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.

**\$318.4 bn**



**\$487.0 bn**

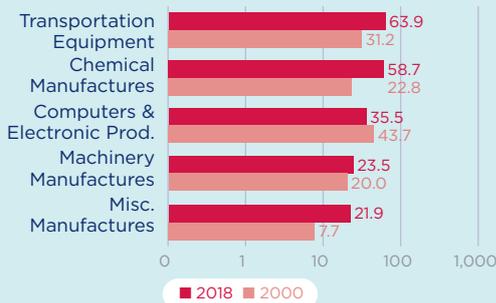
### U.S. Goods Exports to the EU, 2018

### U.S. Goods Imports from the EU, 2018

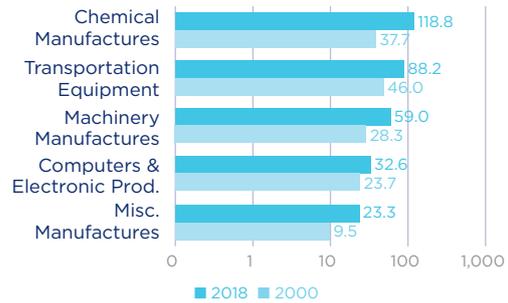
**4.9%** The U.S. supplied 4.9% of the EU's total imports... **13.5%** ...but the U.S. share increases to 13.5% when intra-EU trade is excluded from the total.

**7.4%** The U.S. received 7.4% of the total goods the EU exported to the world... **20.7%** ...but the U.S. share increases to 20.7% 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 Trade Partners Exports of Goods (\$ billions)



#### Top State Trade Partners Imports of Goods (\$ billions)



**\$253.6 bn**



**\$198.6 bn**

### U.S. Services Exports to the EU, 2018

### U.S. Services Imports from the EU, 2018

EU refers to all 28 members of the European Union as of 2018. 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

United States in the EU (ex. UK)

The EU (ex. UK) in the United States

**2,939,237**



**2,979,522**

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.

**\$2.5 tn**

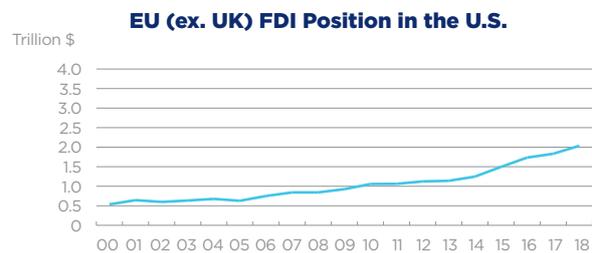
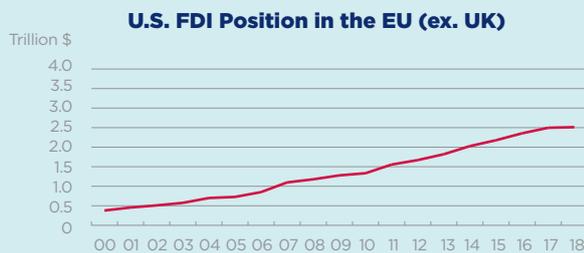


**\$2.0 tn**

**Foreign Direct Investment (FDI), 2018**

**Foreign Direct Investment (FDI), 2018**

When the UK is excluded from the EU data, U.S. outward investment is about 23% lower than the EU28 figure. U.S. outward FDI to the EU excluding the U.S. in 2018 was \$2.5 trillion, supporting roughly 2.9 million jobs. Inward FDI from the 27 EU member states into the U.S. was a bit lower, at \$2.0 trillion, but supported more jobs (3 million).



Foreign direct investment position, historic-cost basis, 2000-2018.

\*The EU (ex. UK) FDI trend excludes the UK from EU data from 2000-2018. 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.

**\$252.1 bn**



**\$426.3 bn**

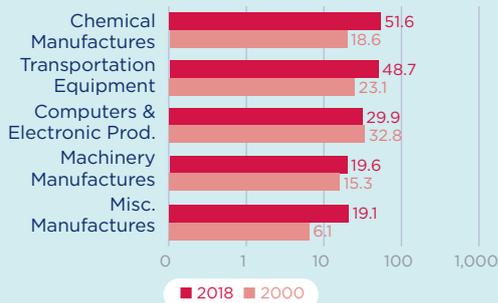
**U.S. Goods Exports to the EU (ex. UK), 2018**

**U.S. Goods Imports from the EU (ex. UK), 2018**

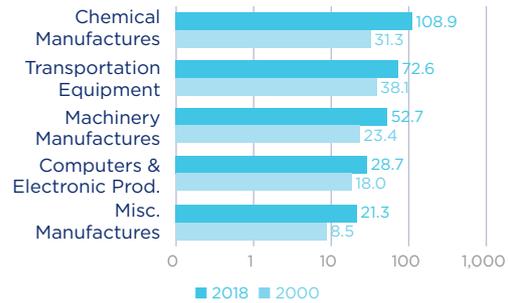
**4.4%** The U.S. supplied 4.4% of the EU's (ex. UK) total imports...  
**11.2%** ...but the U.S. share increases to 11.2% when intra-EU (ex. UK) trade is excluded from the total.

**6.9%** The U.S. received 7.0% of the total goods the EU (ex. UK) exported to the world...  
**17.0%** ...but the U.S. share increases to 24.1% 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 Trade Partners Exports of Goods (\$ billions)**



**Top State Trade Partners Imports of Goods (\$ billions)**



**\$179.5 bn**



**\$137.9 bn**

**U.S. Services Exports to the EU (ex. UK), 2018**

**U.S. Services Imports from the EU (ex. UK), 2018**

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

# Austria and the United States

## United States in Austria

## Austria in the United States

**50,750**



**19,074**

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.

**\$8.6 bn**



**\$12.6 bn**

### Foreign Direct Investment (FDI), 2018

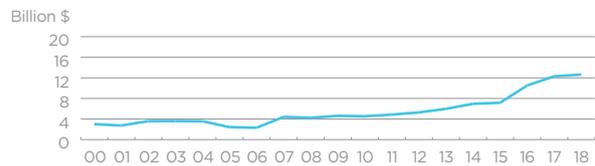
### Foreign Direct Investment (FDI), 2018

America's direct investment position in Austria continued to rebound after a sharp decline from 2013-2015. Austria's investment stake in the U.S. now exceeds America's investment in Austria. However, American affiliates employed roughly two and a half times as many workers in Austria than Austrian firms employed in the U.S., according to 2018 estimates.

#### U.S. FDI Position in Austria



#### Austria FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2018.

**\$3.6 bn**



**\$13.4 bn**

### U.S. Goods Exports to Austria, 2018

### U.S. Goods Imports from Austria, 2018

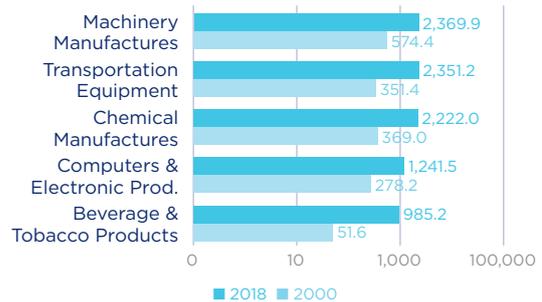
**2.4%** The U.S. supplied 2.4% of Austria's total imports... **10.8%** ...but the U.S. share increases to 10.6% when intra-EU trade is excluded from the total.

**6.3%** The U.S. received 6.3% of the total goods Austria exported to the world... **22.2%** ...but the U.S. share increases to 22.2% 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 Trade Partners Exports of Goods (\$ millions)



#### Top State Trade Partners Imports of Goods (\$ millions)



**\$1.8 bn**



**\$2.0 bn**

### U.S. Services Exports to Austria, 2018

### U.S. Services Imports from Austria, 2018

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

# Belgium and the United States

## United States in Belgium

**123,932**



## Belgium in the United States

**60,588**

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.

**\$64.1 bn**

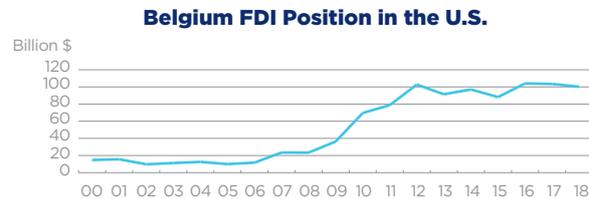
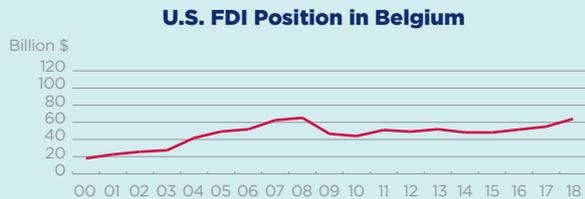


## Foreign Direct Investment (FDI), 2018

U.S. direct investments in Belgium are heavily concentrated in the manufacturing sector, which makes up 57% of U.S. FDI in Belgium. Similarly, the manufacturing sector accounts for 55% of Belgium's FDI stock in the U.S. Foreign affiliate employment by U.S. companies in Belgium was double Belgian companies' employment in the U.S. Affiliate employment by Belgian multinationals in the U.S. fell sharply in 2016, from 147,000 employees to just 51,000, but since then employment is estimated to have picked up slightly to almost 61,000 workers in 2018. Value added by U.S. affiliates in Belgium was an estimated \$28.4 billion in 2018, about three times more than that of Belgian affiliates in the U.S.

**\$100.2 bn**

## Foreign Direct Investment (FDI), 2018



FDI position based on a historic-cost basis, 2000-2016.

**\$31.4 bn**



## U.S. Goods Exports to Belgium, 2018

**6.9%** The U.S. supplied 6.9% of Belgium's total imports...

**19.3%** ...but the U.S. share increases to 19.3% when intra-EU trade is excluded from the total.

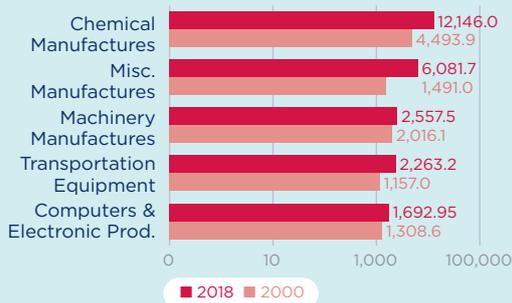
**\$17.2 bn**

## U.S. Goods Imports from Belgium, 2018

**5.2%** The U.S. received 5.2% of the total goods Belgium exported to the world...

**19.2%** ...but the U.S. share increases to 19.2% when intra-EU trade is excluded from the total.

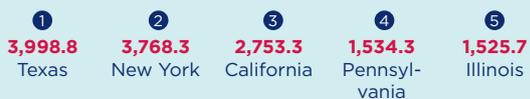
### Top Five U.S. Goods Exports to Belgium (\$ millions)



### Top Five U.S. Goods Imports from Belgium (\$ millions)



### Top State Trade Partners Exports of Goods (\$ millions)



### Top State Trade Partners Imports of Goods (\$ millions)



**\$5.8 bn**



## U.S. Services Exports to Belgium, 2018

**\$5.1 bn**

## U.S. Services Imports from Belgium, 2018

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.



# Bulgaria and the United States

## United States in Bulgaria

**10,049**



## Bulgaria in the United States

**204**

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.

**\$928 m**

**Foreign Direct Investment (FDI), 2018**



**\$29 m**

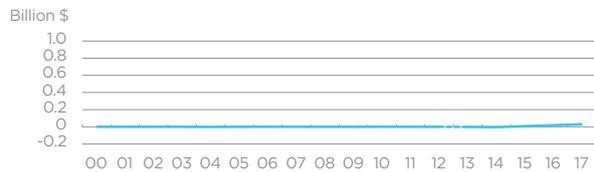
**Foreign Direct Investment (FDI), 2017\***

America's investment base in Bulgaria is relatively small, and foreign affiliate sales totaled just \$2.6 billion in 2018, according to estimates. U.S. affiliates in Bulgaria employed approximately 10,000 workers in 2018, 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, 2000-2018.

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.

**\$370 m**

**U.S. Goods Exports to Bulgaria, 2018**



**0.9%** The U.S. supplied 0.9% of Bulgaria's total imports...

**2.5%** ...but the U.S. share increases to 2.5% when intra-EU trade is excluded from the total.

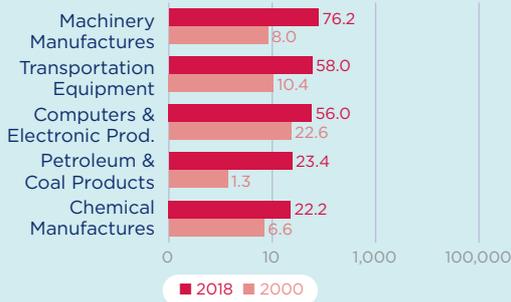
**\$986 m**

**U.S. Goods Imports from Bulgaria, 2018**

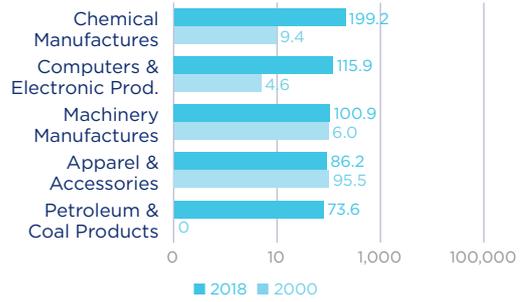
**1.7%** The U.S. received 1.7% of the total goods Bulgaria exported to the world...

**5.2%** ...but the U.S. share increases to 5.2% when intra-EU trade is excluded from the total.

**Top Five U.S. Goods Exports to Bulgaria (\$ millions)**



**Top Five U.S. Goods Imports from Bulgaria (\$ millions)**



**Top State Trade Partners Exports of Goods (\$ millions)**



**Top State Trade Partners Imports of Goods (\$ millions)**



**\$481 m**

**U.S. Services Exports to Bulgaria, 2018**



**\$577 m**

**U.S. Services Imports from Bulgaria, 2018**

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.



# Croatia and the United States

## United States in Croatia

## Croatia in the United States

**1,929**



**< 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.

**\$187 m**



**-\$12 m**

### Foreign Direct Investment (FDI), 2018

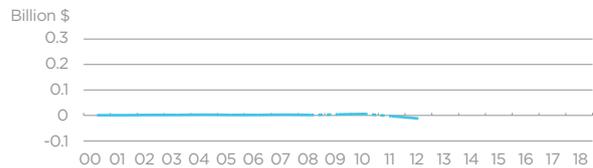
### Foreign Direct Investment (FDI), 2012\*

U.S. direct investment in Croatia has been flat in recent years. The latest data on Croatia's direct investment position in the U.S. shows near-zero foreign direct investment. U.S. foreign affiliates in Croatia employed an estimated 1,929 workers in 2018, ranking 25th among the 28 EU countries. 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, 2000-2018.

Note: Dotted line indicates that data has been suppressed for a particular year to avoid disclosure of individual company data. 2013 - 2018 data has also been suppressed for Croatia FDI position in the U.S.

\*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.

**\$615 m**



**\$466 m**

### U.S. Goods Exports to Croatia, 2018

### U.S. Goods Imports from Croatia, 2018

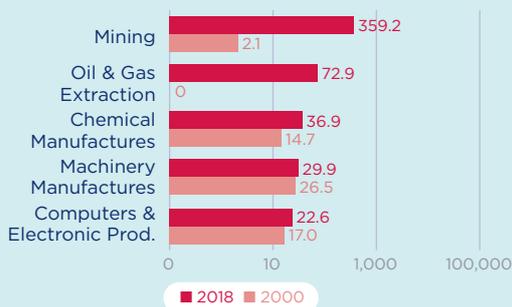
**0.8%** The U.S. supplied 0.8% of Croatia's total imports...

**3.4%** ...but the U.S. share increases to 3.4% when intra-EU trade is excluded from the total.

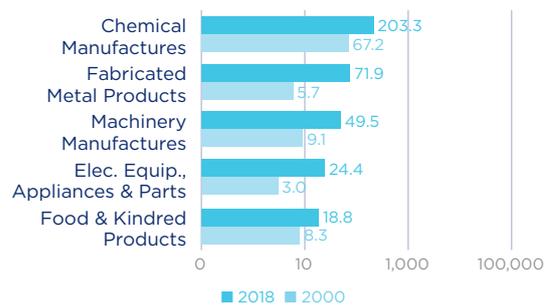
**2.3%** The U.S. received 2.3% of the total goods Croatia imported to the world...

**7.2%** ...but the U.S. share increases to 7.2% when intra-EU trade is excluded from the total.

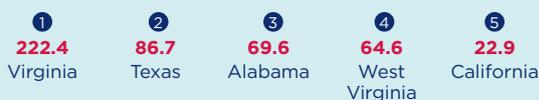
#### Top Five U.S. Goods Exports to Croatia (\$ millions)



#### Top Five U.S. Goods Imports from Croatia (\$ millions)



#### Top State Trade Partners Exports of Goods (\$ millions)



#### Top State Trade Partners Imports of Goods (\$ millions)



**\$374 m**



**\$368 m**

### U.S. Services Exports to Croatia, 2018

### U.S. Services Imports from Croatia, 2018

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

## United States in Cyprus

**1,624**



## Cyprus in the United States

**2,958**

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.

**\$3.5 bn**



### Foreign Direct Investment (FDI), 2018

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 rebounded in 2018 to surpass its prior peak of \$2.7 billion in 2014. Cyprus's FDI in the U.S., meanwhile, has continued to decline and is now at the lowest level in 15 years. That said, Cyprus-based companies continued to support roughly 1,300 more jobs in the U.S. than American corporations supported in Cyprus.

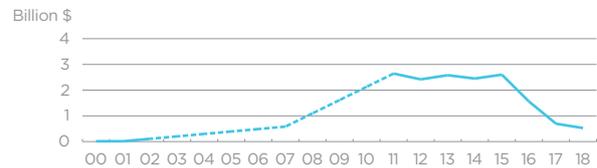
**\$526 m**

### Foreign Direct Investment (FDI), 2018

#### U.S. FDI Position in Cyprus



#### Cyprus FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2018.

Note: Dotted line indicates that data has been suppressed for a particular year to avoid disclosure of individual company data.

**\$132 m**



### U.S. Goods Exports to Cyprus, 2018

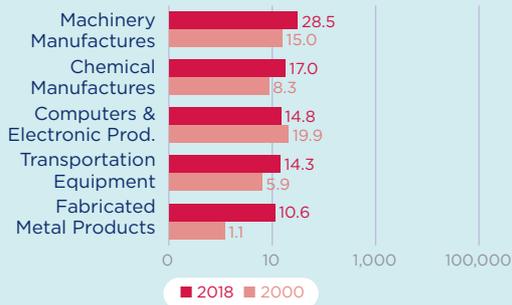
**0.9%** The U.S. supplied 0.9% of Cyprus's total imports...  
**2.2%** ...but the U.S. share increases to 2.2% when intra-EU trade is excluded from the total.

**\$68 m**

### U.S. Goods Imports from Cyprus, 2018

**2.0%** The U.S. received 2.0% of the total goods Cyprus exported to the world...  
**2.6%** ...but the U.S. share increases to 2.6% when intra-EU trade is excluded from the total.

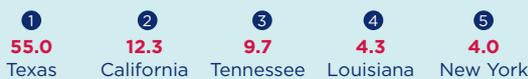
#### Top Five U.S. Goods Exports to Cyprus (\$ millions)



#### Top Five U.S. Goods Imports from Cyprus (\$ millions)



#### Top State Trade Partners Exports of Goods (\$ millions)



#### Top State Trade Partners Imports of Goods (\$ millions)



**\$315 m**



### U.S. Services Exports to Cyprus, 2018

**\$584 m**

### U.S. Services Imports from Cyprus, 2018

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

# Czech Republic and the United States

## United States in Czech Republic

**88,610**



## Czech Republic in the United States

**< 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.

## Foreign Direct Investment (FDI), 2018

**\$6.7 bn**



## Foreign Direct Investment (FDI), 2016\*

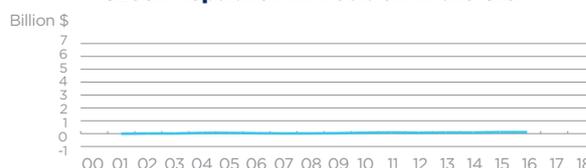
**\$112 m**

America's investment base in the Czech Republic is small but has risen by one-third over the past ten years to \$6.7 billion in 2018, the highest level on record. Czech Republic FDI in the U.S. amounted to just \$112 million, as of the latest data in 2016. Affiliate employment by U.S. multinationals in the Czech Republic fell moderately in 2016 to 87,000 the prior year. However, this is estimated to have picked up slightly to roughly 89,000 workers in 2018.

### U.S. FDI Position in Czech Republic



### Czech Republic FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2018.  
\*Latest year of available data.

## U.S. Goods Exports to Czech Republic, 2018

**1.9%** The U.S. supplied 1.9% of Czech Republic's total imports...

**7.8%** ...but the U.S. share increases to 7.8% when intra-EU trade is excluded from the total.

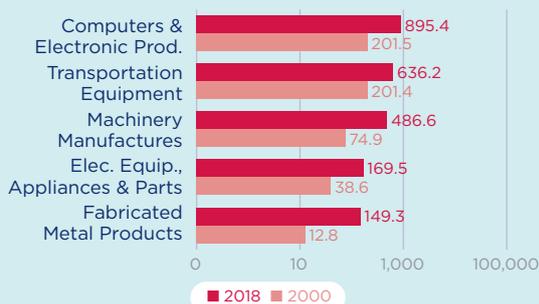


## U.S. Goods Imports from Czech Republic, 2018

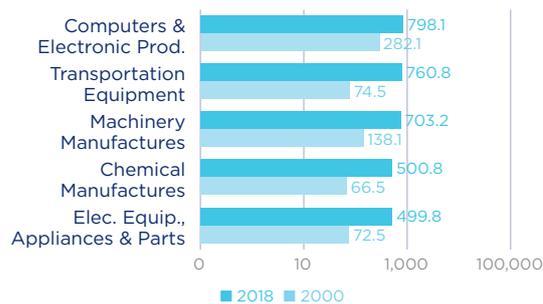
**2.0%** The U.S. received 2.0% of the total goods Czech Republic exported to the world...

**13.0%** ...but the U.S. share increases to 13.0% when intra-EU trade is excluded from the total.

### Top Five U.S. Goods Exports to Czech Republic (\$ millions)



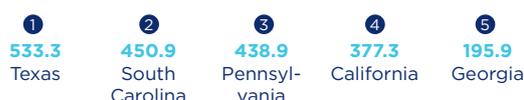
### Top Five U.S. Goods Imports from Czech Republic (\$ millions)



### Top State Trade Partners Exports of Goods (\$ millions)



### Top State Trade Partners Imports of Goods (\$ millions)



## U.S. Services Exports to Czech Republic, 2018

**\$1.3 bn**



## U.S. Services Imports from Czech Republic, 2018

**\$1.6 bn**

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.



# Denmark and the United States

## United States in Denmark

## Denmark in the United States



**41,209**

**40,800**

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.



**\$13.2 bn**

**\$20.1 bn**

### Foreign Direct Investment (FDI), 2018

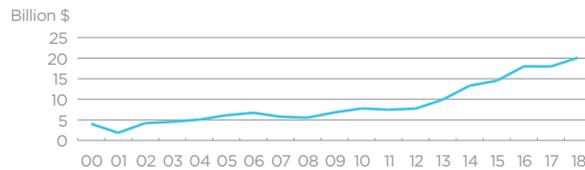
### Foreign Direct Investment (FDI), 2018

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 2018, Danish firms' affiliate sales in the U.S. market were an estimated \$28 billion while U.S. foreign affiliate sales in Denmark were \$21 billion. The affiliate employment balance favors Denmark slightly, with U.S. affiliates in Denmark employing just 400 more people than Danish affiliates employ in the U.S., according to 2018 estimates.

#### U.S. FDI Position in Denmark



#### Denmark FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2018.



**\$2.6 bn**

**\$8.9 bn**

### U.S. Goods Exports to Denmark, 2018

### U.S. Goods Imports from Denmark, 2018

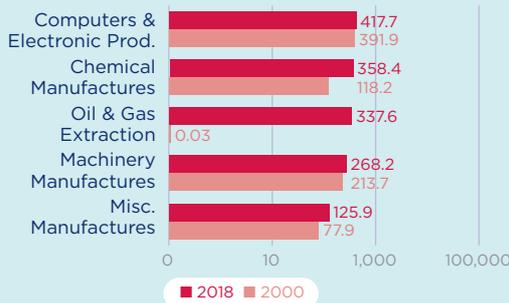
**2.9%** The U.S. supplied 2.9% of Denmark's total imports...

**9.6%** ...but the U.S. share increases to 9.6% when intra-EU trade is excluded from the total.

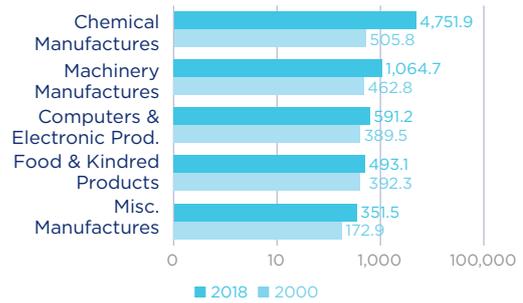
**8.1%** The U.S. received 8.1% of the total goods Denmark exported to the world...

**20.8%** ...but the U.S. share increases to 20.8% when intra-EU trade is excluded from the total.

#### Top Five U.S. Goods Exports to Denmark (\$ millions)



#### Top Five U.S. Goods Imports from Denmark (\$ millions)



#### Top State Trade Partners Exports of Goods (\$ millions)



#### Top State Trade Partners Imports of Goods (\$ millions)



**\$5.8 bn**

**\$3.1 bn**

### U.S. Services Exports to Denmark, 2018

### U.S. Services Imports from Denmark, 2018

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

# Estonia and the United States

## United States in Estonia

**3,654**



## Estonia in the United States

**< 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.

**\$76 m**



**-\$5 m**

### Foreign Direct Investment (FDI), 2018

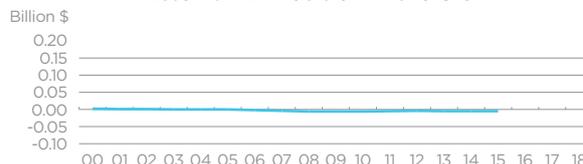
### Foreign Direct Investment (FDI), 2015\*

America's direct investment base in Estonia is one of the smallest of the European Union. U.S. affiliates employed roughly 3,700 people in 2018, placing Estonia 24th among the EU28 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, 2000-2018.

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.

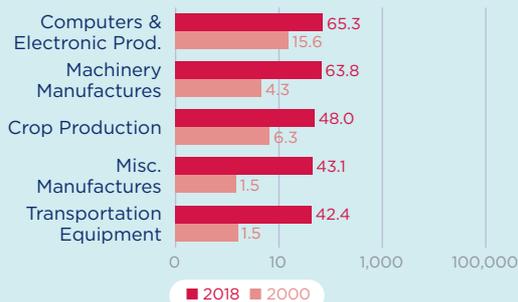
**\$346 m**



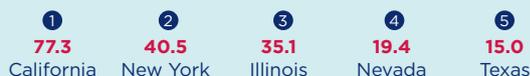
### U.S. Goods Exports to Estonia, 2018

**1.0%** The U.S. supplied 1.0% of Estonia's total imports...  
**4.4%** ...but the U.S. share increases to 4.4% when intra-EU trade is excluded from the total.

#### Top Five U.S. Goods Exports to Estonia (\$ millions)



#### Top State Trade Partners Exports of Goods (\$ millions)

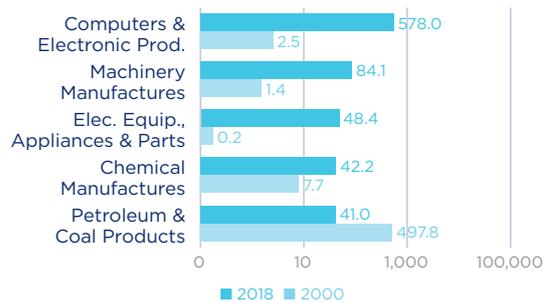


**\$954 m**

### U.S. Goods Imports from Estonia, 2018

**6.4%** The U.S. received 6.4% of the total goods Estonia exported to the world...  
**19.7%** ...but the U.S. share increases to 19.7% when intra-EU trade is excluded from the total.

#### Top Five U.S. Goods Imports from Estonia (\$ millions)



#### Top State Trade Partners Imports of Goods (\$ millions)



**\$249 m**



### U.S. Services Exports to Estonia, 2018

**\$137 m**

### U.S. Services Imports from Estonia, 2018

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

# Finland and the United States

## United States in Finland

## Finland in the United States

**19,590**



**28,764**

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.

**\$2.5 bn**



**\$13.4 bn**

### Foreign Direct Investment (FDI), 2018

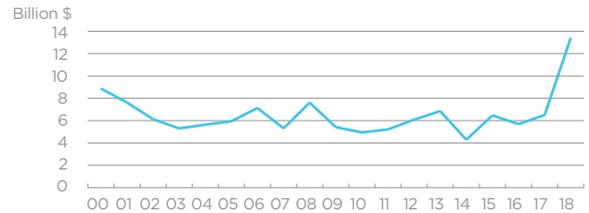
### Foreign Direct Investment (FDI), 2018

The direct investment balance favors the United States, with Finnish investment in the U.S. surging in 2018 to over \$13 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 almost 29,000 in 2018. Finnish direct investment in the U.S. is heavily concentrated in the wholesale trade and manufacturing industries, representing 19% and 60% of total FDI, respectively.

#### U.S. FDI Position in Finland



#### Finland FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2018.

**\$1.9 bn**



**\$7.2 bn**

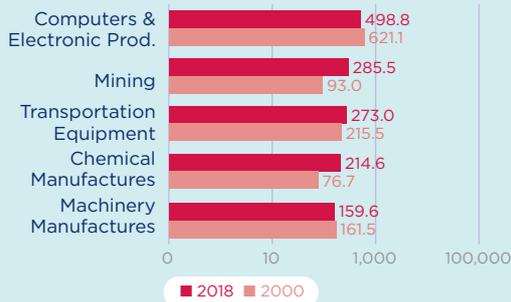
### U.S. Goods Exports to Finland, 2018

### U.S. Goods Imports from Finland, 2018

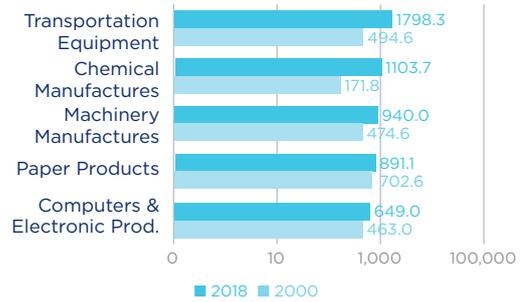
**2.1%** The U.S. supplied 2.1% of Finland's total imports...  
**7.0%** ...but the U.S. share increases to 7.0% when intra-EU trade is excluded from the total.

**7.0%** The U.S. received 7.0% of the total goods Finland exported to the world...  
**16.8%** ...but the U.S. share increases to 16.8% when intra-EU trade is excluded from the total.

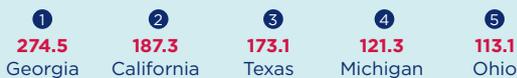
#### Top Five U.S. Goods Exports to Finland (\$ millions)



#### Top Five U.S. Goods Imports from Finland (\$ millions)



#### Top State Trade Partners Exports of Goods (\$ millions)



#### Top State Trade Partners Imports of Goods (\$ millions)



**\$1.9 bn**



**\$1.7 bn**

### U.S. Services Exports to Finland, 2018

### U.S. Services Imports from Finland, 2018

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

# France and the United States

## United States in France

**502,933**



## France in the United States

**748,884**

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.

**\$86.9 bn**



## Foreign Direct Investment (FDI), 2018

The direct investment balance favors the U.S., with U.S. investment in France (\$86.9 billion) just 30% of total French investment in the U.S. in 2018 (\$292.7 billion). The U.S. is a significant market for French firms, with U.S. affiliates of French firms recording an estimated \$306 billion in sales during 2018. The manufacturing sector makes up almost half, or \$142 billion, of French FDI in the U.S. In terms of jobs, U.S. and French affiliates combined employed over 1.2 million workers, with the employment balance favoring the U.S. by about 250,000 jobs, according to 2018 estimates.

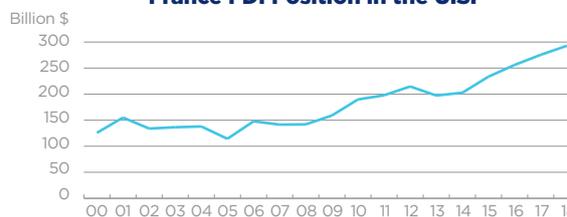
**\$292.7 bn**

## Foreign Direct Investment (FDI), 2018

### U.S. FDI Position in France



### France FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2018.

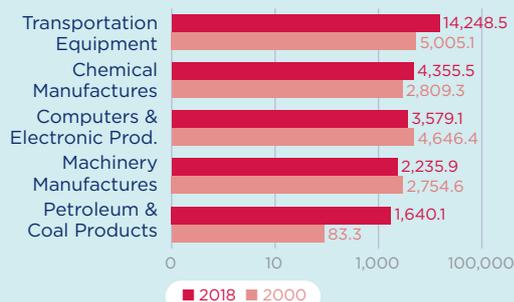
**\$36.6 bn**



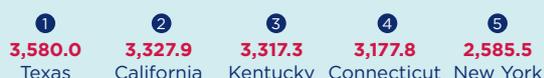
## U.S. Goods Exports to France, 2018

**5.0%** The U.S. supplied 5.0% of France's total imports...  
**16.2%** ...but the U.S. share increases to 16.2% when intra-EU trade is excluded from the total.

### Top Five U.S. Goods Exports to France (\$ millions)



### Top State Trade Partners Exports of Goods (\$ millions)

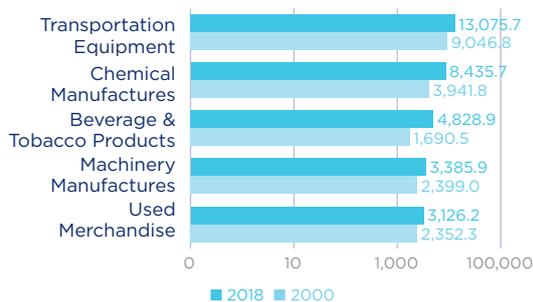


**\$52.4 bn**

## U.S. Goods Imports from France, 2018

**7.8%** The U.S. received 7.8% of the total goods France exported to the world...  
**19.1%** ...but the U.S. share increases to 19.1% when intra-EU trade is excluded from the total.

### Top Five U.S. Goods Imports from France (\$ millions)



### Top State Trade Partners Imports of Goods (\$ millions)



**\$21.1 bn**



## U.S. Services Exports to France, 2018

**\$18.5 bn**

## U.S. Services Imports from France, 2018

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.



# Germany and the United States

## United States in Germany

## Germany in the United States

**713,241**



**789,276**

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.

**\$140.3 bn**



**\$324.2 bn**

### Foreign Direct Investment (FDI), 2018

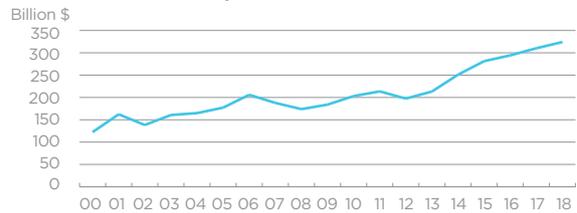
### Foreign Direct Investment (FDI), 2018

The investment balance favors the U.S., with Germany's investment in the U.S. more than double the size of U.S. investment in Germany. Transportation equipment manufacturing is the largest industry 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 (\$117 billion) was slightly higher than that of U.S. affiliates operating in Germany (\$90 billion), according to 2018 estimates. The employment picture is also relatively balanced, with affiliates of both countries employing a combined workforce of about 1.5 million employees, according to estimates.

#### U.S. FDI Position in Germany



#### Germany FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2018.

**\$57.8 bn**



### U.S. Goods Exports to Germany, 2018

**\$125.8 bn**

### U.S. Goods Imports from Germany, 2018

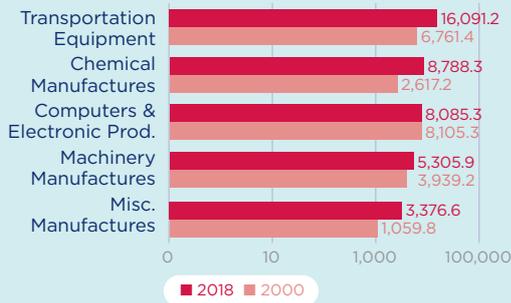
**4.5%** The U.S. supplied 4.5% of Germany's total imports...

**13.3%** ...but the U.S. share increases to 13.3% when intra-EU trade is excluded from the total.

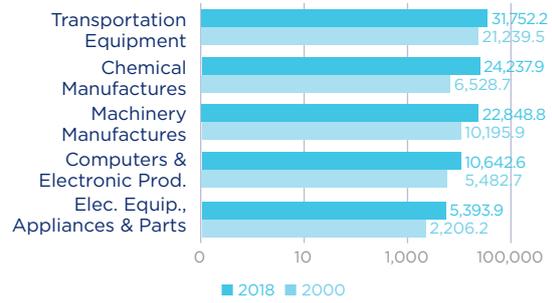
**8.7%** The U.S. received 8.7% of the total goods Germany exported to the world...

**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 Germany (\$ millions)



#### Top Five U.S. Goods Imports from Germany (\$ millions)



#### Top State Trade Partners Exports of Goods (\$ millions)



#### Top State Trade Partners Imports of Goods (\$ millions)



**\$34.8 bn**



### U.S. Services Exports to Germany, 2018

**\$33.6 bn**

### U.S. Services Imports from Germany, 2018

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

# Greece and the United States

## United States in Greece

**15,834**



## Greece in the United States

**3,264**

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.

**\$1.4 bn**

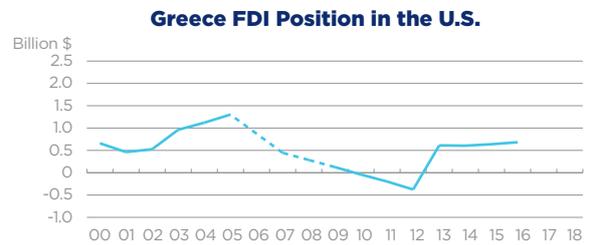
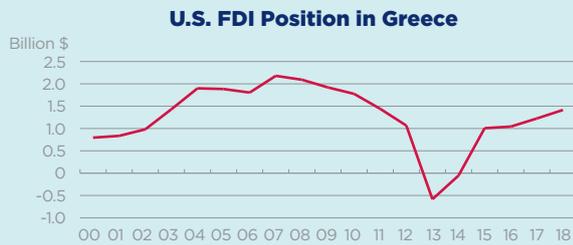


### Foreign Direct Investment (FDI), 2018

Greece's economic woes were reflected in its foreign direct investment links to the U.S., but investment ties are on the rebound. In 2018, America's foreign direct investment position in Greece was \$1.4 billion, and has been steadily rising since 2013. Greece's FDI position in the U.S. has also improved since the recession to \$682 million in 2016, the latest year of available data. Estimated U.S. affiliate sales in Greece of just \$5.7 billion in 2018 ranked among the lowest in the EU.

**\$682 m**

### Foreign Direct Investment (FDI), 2016\*



Foreign direct investment position, historic-cost basis, 2000-2018.  
 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.

**\$1.1 bn**



### U.S. Goods Exports to Greece, 2018

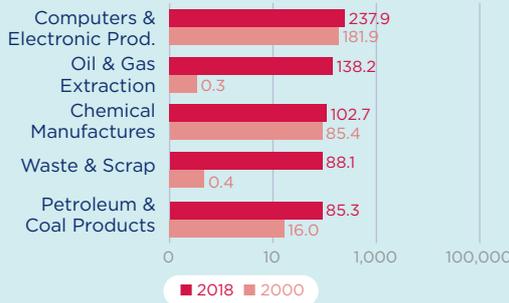
**1.3%** The U.S. supplied 1.3% of Greece's total imports...  
**2.7%** ...but the U.S. share increases to 2.7% when intra-EU trade is excluded from the total.

**\$1.6 bn**

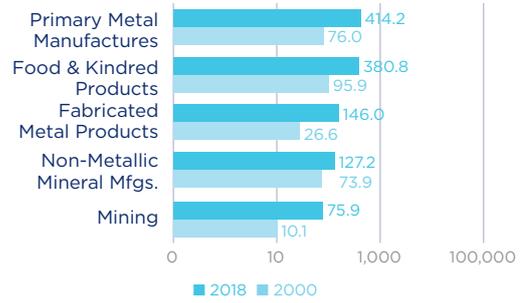
### U.S. Goods Imports from Greece, 2018

**4.1%** The U.S. received 4.1% of the total goods Greece exported to the world...  
**8.7%** ...but the U.S. share increases to 8.7% when intra-EU trade is excluded from the total.

#### Top Five U.S. Goods Exports to Greece (\$ millions)



#### Top Five U.S. Goods Imports from Greece (\$ millions)



#### Top State Trade Partners Exports of Goods (\$ millions)



#### Top State Trade Partners Imports of Goods (\$ millions)



**\$1.2 bn**



### U.S. Services Exports to Greece, 2018

**\$4.0 bn**

### U.S. Services Imports from Greece, 2018

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

# Hungary and the United States

## United States in Hungary

**68,614**



## Hungary in the United States

**<500**

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.

**\$7.8 bn**

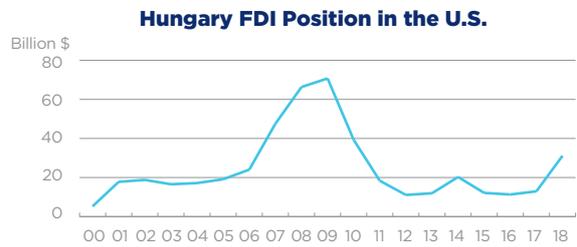
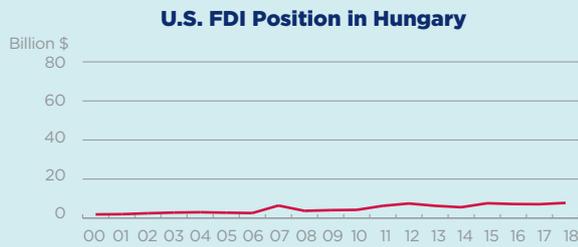


## Foreign Direct Investment (FDI), 2018

America's investment base in Hungary amounted to \$7.8 billion, the largest amount on record. U.S. affiliate employment in Hungary ranked fourth among EU13 countries. Value added by U.S.-owned affiliates in Hungary totaled \$4.5 billion in 2018, according to estimates. Meanwhile, Hungarian investment in the U.S. more than doubled in 2018 to over \$31 billion, though total investment remains well below its peak of \$70.7 billion in 2009.

**\$31.1 bn**

## Foreign Direct Investment (FDI), 2018



Foreign direct investment position, historic-cost basis, 2000-2018.

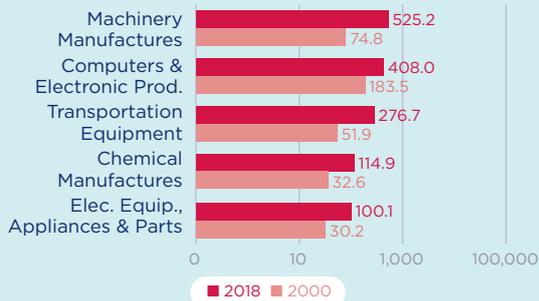
**\$1.8 bn**



## U.S. Goods Exports to Hungary, 2018

**1.4%** The U.S. supplied 1.4% of Hungary's total imports...  
**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 Exports to Hungary (\$ millions)



### Top State Trade Partners Exports of Goods (\$ millions)

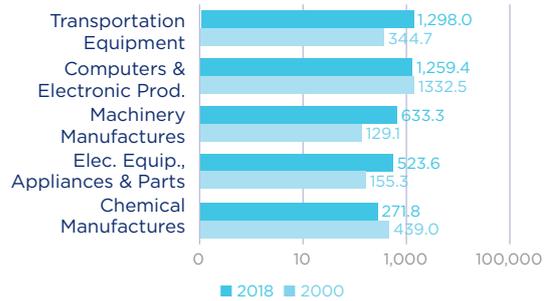


**\$5.1 bn**

## U.S. Goods Imports from Hungary, 2018

**2.3%** The U.S. received 2.3% of the total goods Hungary exported to the world...  
**12.9%** ...but the U.S. share increases to 12.9% when intra-EU trade is excluded from the total.

### Top Five U.S. Goods Imports from Hungary (\$ millions)



### Top State Trade Partners Imports of Goods (\$ millions)



**\$1.2 bn**



## U.S. Services Exports to Hungary, 2018

**\$1.1 bn**

## U.S. Services Imports from Hungary, 2018

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

# Ireland and the United States

## United States in Ireland

**132,052**



## Ireland in the United States

**300,798**

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.

**\$442.2 bn**

### Foreign Direct Investment (FDI), 2018



**\$235.7 bn**

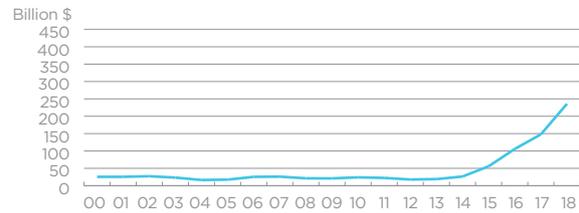
### Foreign Direct Investment (FDI), 2018

The investment balance favors Ireland, with U.S. investment in Ireland totaling some \$442.2 billion in 2018 versus \$235.7 billion of Irish investment in the U.S. Total U.S. FDI in Ireland dropped slightly in 2018, on account of U.S. tax reform and American companies' repatriation of foreign profits. Recent research from the IMF indicates that a large portion of total FDI into Ireland is in Special Purpose Entities (62% of global inward investment). Value added by U.S. affiliates in Ireland totaled an estimated \$102 billion in 2018, 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 over 150,000 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, 2000-2018.

**\$10.7 bn**

### U.S. Goods Exports to Ireland, 2018



**18.4%** The U.S. supplied 18.4% of Ireland's total imports...

**50.5%** ...but the U.S. share increases to 50.5% when intra-EU trade is excluded from the total.

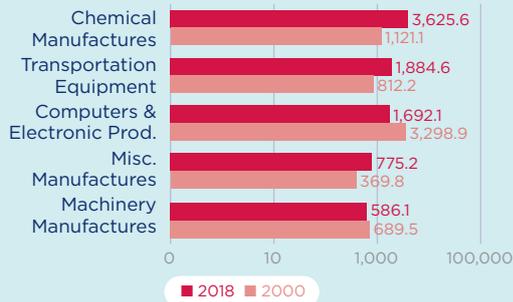
**\$57.5 bn**

### U.S. Goods Imports from Ireland, 2018

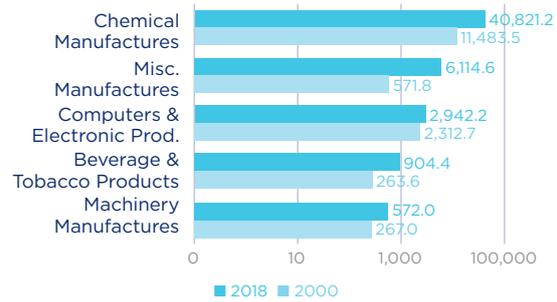
**28.0%** The U.S. received 28.0% of the total goods Ireland exported to the world...

**56.2%** ...but the U.S. share increases to 56.2% when intra-EU trade is excluded from the total.

#### Top Five U.S. Goods Exports to Ireland (\$ millions)



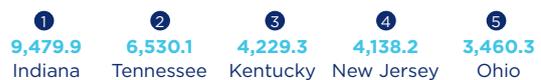
#### Top Five U.S. Goods Imports from Ireland (\$ millions)



#### Top State Trade Partners Exports of Goods (\$ millions)



#### Top State Trade Partners Imports of Goods (\$ millions)



**\$48.5 bn**

### U.S. Services Exports to Ireland, 2018



**\$19.0 bn**

### U.S. Services Imports from Ireland, 2018

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

# Italy and the United States

## United States in Italy

**237,003**



## Italy in the United States

**77,418**

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.

**\$38.5 bn**



### Foreign Direct Investment (FDI), 2018

America's FDI position in Italy jumped in 2018, after stalling since the start of the century. Meanwhile, Italian investment in the U.S. has been climbing steadily, up almost 375% since 2000. In 2018, 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 amount that affiliates of Italian companies contributed in the U.S. Also, affiliates of U.S.-owned companies supported about 160,000 more jobs in Italy than affiliates of Italian multinationals provided in the U.S., according to 2018 estimates.

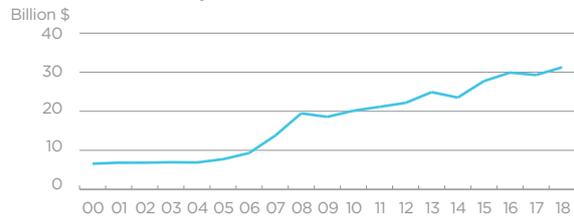
**\$31.3 bn**

### Foreign Direct Investment (FDI), 2018

#### U.S. FDI Position in Italy



#### Italy FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2018.

**\$22.8 bn**



### U.S. Goods Exports to Italy, 2018

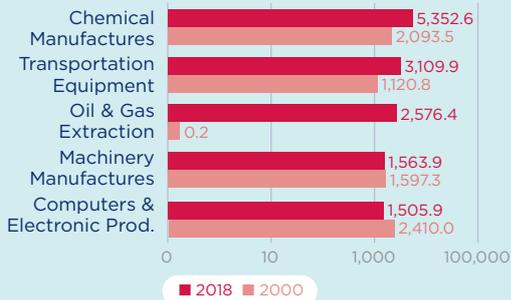
**3.7%** The U.S. supplied 3.7% of Italy's total imports... **9.1%** ...but the U.S. share increases to 9.1% when intra-EU trade is excluded from the total.

**\$54.7 bn**

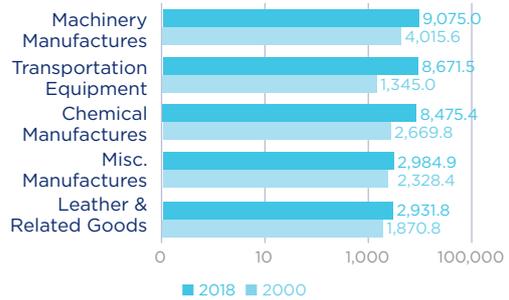
### U.S. Goods Imports from Italy, 2018

**9.1%** The U.S. received 9.1% of the total goods Italy exported to the world... **20.8%** ...but the U.S. share increases to 20.8% 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 Trade Partners Exports of Goods (\$ millions)



#### Top State Trade Partners Imports of Goods (\$ millions)



**\$10.0 bn**



### U.S. Services Exports to Italy, 2018

**\$13.4 bn**

### U.S. Services Imports from Italy, 2018

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

# Latvia and the United States

## United States in Latvia

**1,320**



## Latvia in the United States

**< 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.

**\$70 m**

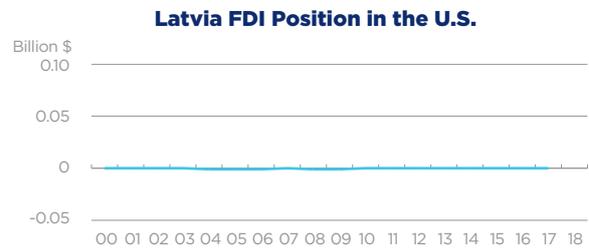


## Foreign Direct Investment (FDI), 2018

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. That said, jobs supported by American firms have increased 65% since 2010.

**\$0 m**

## Foreign Direct Investment (FDI), 2018



Foreign direct investment position, historic-cost basis, 2000-2018. Note: Dotted line indicates that data has been suppressed for a particular year to avoid disclosure of individual company data.

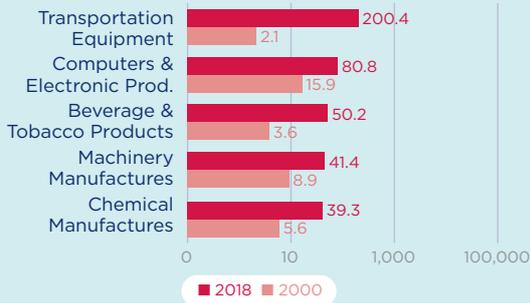
**\$510 m**



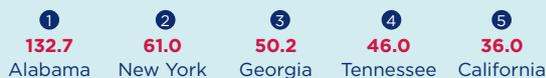
## U.S. Goods Exports to Latvia, 2018

**1.6%** The U.S. supplied 1.6% of Latvia's total imports...  
**6.4%** ...but the U.S. share increases to 6.4% when intra-EU trade is excluded from the total.

### Top Five U.S. Goods Exports to Latvia (\$ millions)



### Top State Trade Partners Exports of Goods (\$ millions)

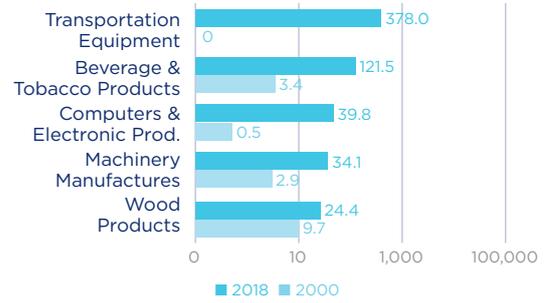


**\$727 m**

## U.S. Goods Imports from Latvia, 2018

**3.8%** The U.S. received 3.8% of the total goods Latvia imported to the world...  
**11.2%** ...but the U.S. share increases to 11.2% when intra-EU trade is excluded from the total.

### Top Five U.S. Goods Imports from Latvia (\$ millions)



### Top State Trade Partners Imports of Goods (\$ millions)



**\$221 m**



## U.S. Services Exports to Latvia, 2018

**\$111 m**

## U.S. Services Imports from Latvia, 2018

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.



# Lithuania and the United States

## United States in Lithuania

## Lithuania in the United States

**4,263**



**0**

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.

**\$171 m**



**-\$4 m**

### Foreign Direct Investment (FDI), 2018

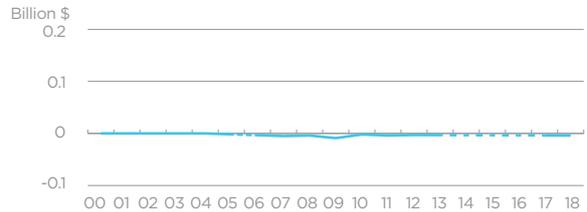
### Foreign Direct Investment (FDI), 2018\*

The U.S. FDI position in Lithuania remains small, but has steadily increased in recent years. U.S. affiliate employment in Lithuania has almost doubled since 2016, jumping from roughly 2,200 employees to an estimated 4,300 workers in 2018. Not surprisingly, Lithuania receives more inward direct investment than it invests in other countries. On a global basis, Lithuania's inward stock of foreign direct investment totaled \$17.7 billion, versus its global outward investment stock of just \$4.2 billion in 2018.

#### U.S. FDI Position in Lithuania



#### Lithuania FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2018.

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.

**\$706 m**



**\$1.3 bn**

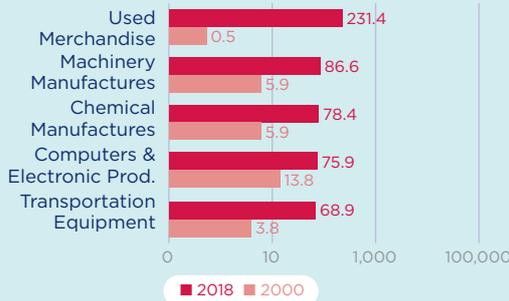
### U.S. Goods Exports to Lithuania, 2018

### U.S. Goods Imports from Lithuania, 2018

**1.3%** The U.S. supplied 1.3% of Lithuania's total imports...  
**4.3%** ...but the U.S. share increases to 4.3% when intra-EU trade is excluded from the total.

**5.0%** The U.S. received 5.0% of the total goods Lithuania exported to the world...  
**12.2%** ...but the U.S. share increases to 12.2% when intra-EU trade is excluded from the total.

#### Top Five U.S. Goods Exports to Lithuania (\$ millions)



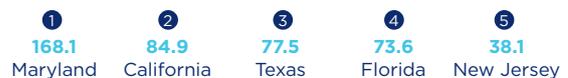
#### Top Five U.S. Goods Imports from Lithuania (\$ millions)



#### Top State Trade Partners Exports of Goods (\$ millions)



#### Top State Trade Partners Imports of Goods (\$ millions)



**\$270 m**



**417 m**

### U.S. Services Exports to Lithuania, 2018

### U.S. Services Imports from Lithuania, 2018

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

## United States in Luxembourg

## Luxembourg in the United States

**28,319**



**13,464**

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.

**\$713.8 bn**



**\$356.0 bn**

### Foreign Direct Investment (FDI), 2018

### Foreign Direct Investment (FDI), 2018

Investment between the U.S. and Luxembourg is skewed in favor of Luxembourg. Much of the total investment in Luxembourg, however, is not for the local economy but instead passes through Luxembourg to go onto other European countries. According to estimates by the IMF, less than 5% of global FDI into Luxembourg was "real" FDI (Damgaard, Elkjaer and Johannesen, 2019). In terms of Luxembourg's investment in America, total affiliate employment has fallen from a peak of 38,300 in 2010 to an estimated 13,464 in 2018. This is in contrast to the 72% rise in U.S. affiliate employment in Luxembourg since 2010, and explains the large shift in the employment balance from 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, 2000-2018.

**\$1.1 bn**



**\$553 m**

### U.S. Goods Exports to Luxembourg, 2018

### U.S. Goods Imports from Luxembourg, 2018

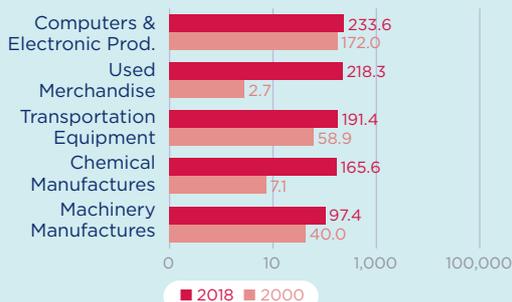
**4.0%** The U.S. supplied 4.0% of Luxembourg's total imports...

**32.5%** ...but the U.S. share increases to 32.5% when intra-EU trade is excluded from the total.

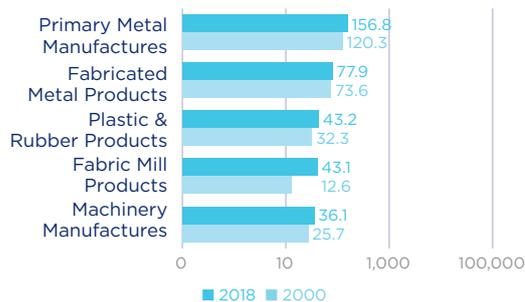
**2.7%** The U.S. received 2.7% of the total goods Luxembourg exported to the world...

**16.7%** ...but the U.S. share increases to 16.7% 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 Trade Partners Exports of Goods (\$ millions)



#### Top State Trade Partners Imports of Goods (\$ millions)



**\$7.2 bn**



**\$1.8 bn**

### U.S. Services Exports to Luxembourg, 2018

### U.S. Services Imports from Luxembourg, 2018

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.



# Malta and the United States

## United States in Malta

## Malta in the United States

**1,624**



**1,224**

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.

**\$620 m**



**\$1.5 bn**

### Foreign Direct Investment (FDI), 2018

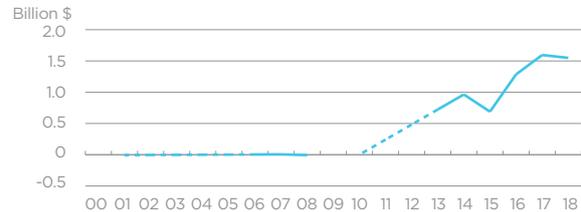
### Foreign Direct Investment (FDI), 2018

Despite the country's tiny population (just 494,000 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 \$620 million in 2018. In addition, American investment supported jobs for roughly 1,600 workers, according to estimates. Meanwhile, Malta's direct investment position in the U.S. totaled \$1.5 billion as of 2018, 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, 2000-2018.

Note: Dotted line indicates that data has been suppressed for a particular year to avoid disclosure of individual company data.

**\$201 m**



**\$197 m**

### U.S. Goods Exports to Malta, 2018

### U.S. Goods Imports from Malta, 2018

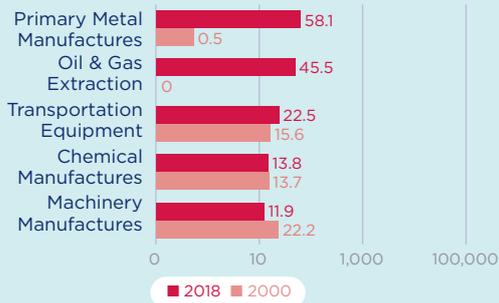
**2.1%** The U.S. supplied 2.1% of Malta's total imports...

**7.7%** ...but the U.S. share increases to 7.7% when intra-EU trade is excluded from the total.

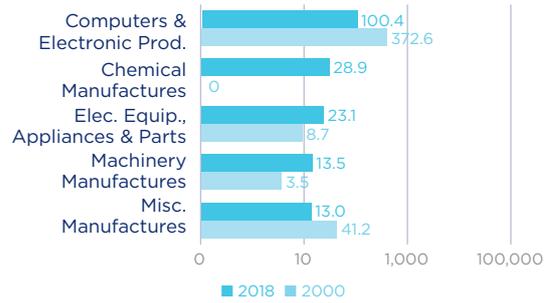
**5.8%** The U.S. received 5.8% of the total goods Malta exported to the world...

**12.4%** ...but the U.S. share increases to 12.4% when intra-EU trade is excluded from the total.

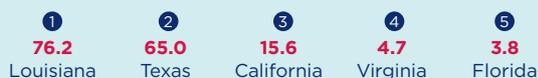
#### Top Five U.S. Goods Exports to Malta (\$ millions)



#### Top Five U.S. Goods Imports from Malta (\$ millions)



#### Top State Trade Partners Exports of Goods (\$ millions)



#### Top State Trade Partners Imports of Goods (\$ millions)



**\$210 m**



**\$236 m**

### U.S. Services Exports to Malta, 2018

### U.S. Services Imports from Malta, 2018

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

# Netherlands and the United States

## United States in Netherlands

**267,859**



## Netherlands in the United States

**582,114**

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.

**\$883.2 bn**

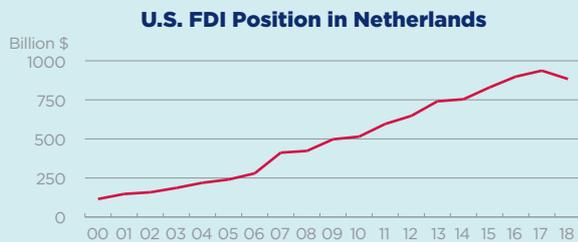


### Foreign Direct Investment (FDI), 2018

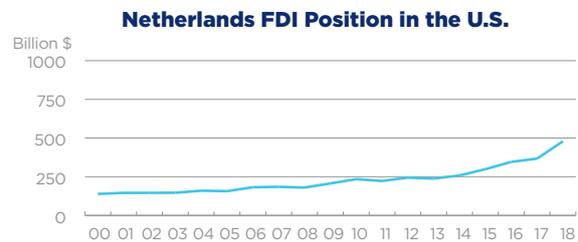
Investment between the U.S. and the Netherlands is skewed toward the latter, with America's investment stake in the Netherlands almost double the amount of Dutch investment in the U.S. However, a large portion of FDI into the Netherlands is considered "phantom investments," or investments that pass through corporate shells with no real business activities. In 2017, \$750 billion of inward FDI from the U.S. to the Netherlands was in Special Purpose Entities (SPEs), while just \$200 billion was in non-SPEs (Damgaard, Elkjaer and Johannesen, 2019). Still, the U.S. is a prime foreign destination for Dutch firms, which recorded an estimated \$356.9 billion in affiliate sales in the U.S. during 2018. The employment balance clearly favors the U.S. with the gap as wide as 314,000 jobs, according to estimates. Amsterdam was ranked by fDi Markets in 2018 as the 3rd most attractive city in Europe for foreign direct investment.

**\$479.0 bn**

### Foreign Direct Investment (FDI), 2018



U.S. FDI Position in Netherlands



Netherlands FDI Position in the U.S.

Foreign direct investment position, historic-cost basis, 2000-2018.

**\$48.7 bn**



### U.S. Goods Exports to Netherlands, 2018

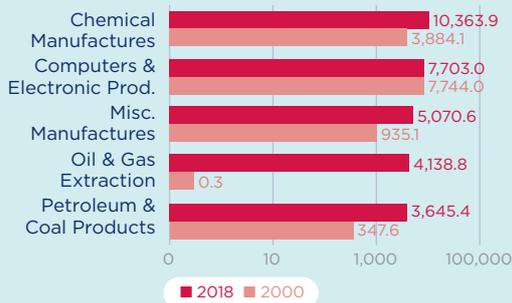
**7.2%** The U.S. supplied 7.2% of Netherlands's total imports...  
**13.1%** ...but the U.S. share increases to 13.1% when intra-EU trade is excluded from the total.

**\$24.5 bn**

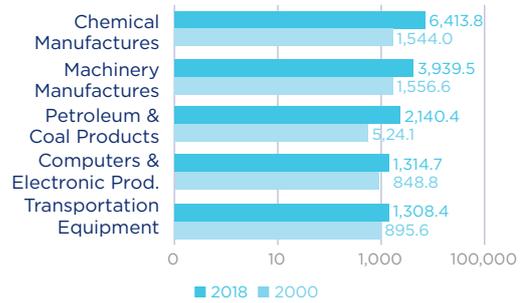
### U.S. Goods Imports from Netherlands, 2018

**4.3%** The U.S. received 4.3% of the total goods Netherlands exported to the world...  
**16.5%** ...but the U.S. share increases to 16.5% when intra-EU trade is excluded from the total.

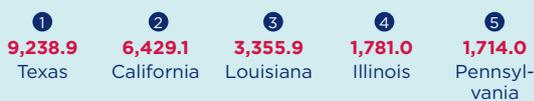
#### Top Five U.S. Goods Exports to Netherlands (\$ millions)



#### Top Five U.S. Goods Imports from Netherlands (\$ millions)



#### Top State Trade Partners Exports of Goods (\$ millions)



#### Top State Trade Partners Imports of Goods (\$ millions)



**\$17.9 bn**



### U.S. Services Exports to Netherlands, 2018

**\$12.6 bn**

### U.S. Services Imports from Netherlands, 2018

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

# Norway and the United States

## United States in Norway

**41,108**



## Norway in the United States

**6,936**

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.

**\$27.9 bn**

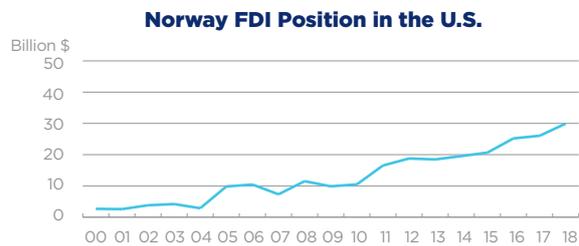
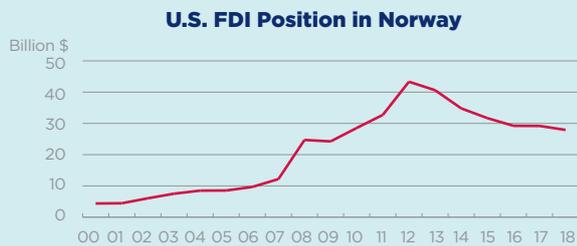


## Foreign Direct Investment (FDI), 2018

The investment balance now favors the U.S., with Norway's FDI in the U.S. exceeding U.S. FDI in Norway in 2018. The employment balance is heavily skewed in favor of Norway, however, with U.S. foreign affiliates employing roughly 41,000 Norwegian workers, according to 2018 estimates, a significant figure compared to 7,000 workers employed by Norwegian companies in the U.S.

**\$29.9 bn**

## Foreign Direct Investment (FDI), 2018



Foreign direct investment position, historic-cost basis, 2000-2018.

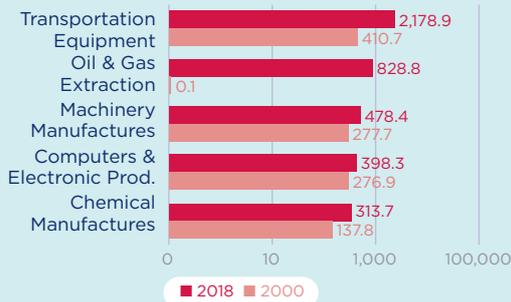
**\$5.4 bn**



## U.S. Goods Exports to Norway, 2018

**7.2%** The U.S. supplied 7.2% of Norway's total imports...  
**19.8%** ...but the U.S. share increases to 19.8% when trade with the EU is excluded from the total.

### Top Five U.S. Goods Exports to Norway (\$ millions)



### Top State Trade Partners Exports of Goods (\$ millions)

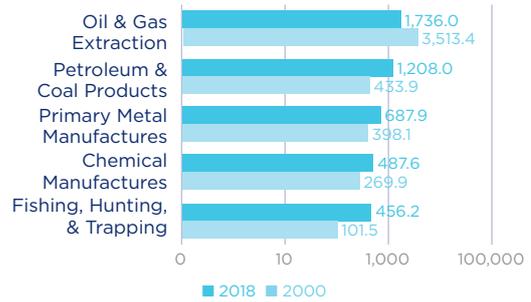


**\$6.8 bn**

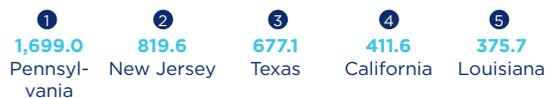
## U.S. Goods Imports from Norway, 2018

**4.6%** The U.S. received 4.6% of the total goods Norway exported to the world...  
**25.6%** ...but the U.S. share increases to 25.6% when trade with the EU is excluded from the total.

### Top Five U.S. Goods Imports from Norway (\$ millions)



### Top State Trade Partners Imports of Goods (\$ millions)



**\$3.2 bn**



## U.S. Services Exports to Norway, 2018

**\$3.3 bn**

## U.S. Services Imports from Norway, 2018

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

# Poland and the United States

## United States in Poland

**208,989**



## Poland in the United States

**816**

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.

**\$13.0 bn**



### Foreign Direct Investment (FDI), 2018

As one of the largest markets in central Europe, Poland has attracted significant sums of market-seeking 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 2018. Polish companies have yet to make significant investments in the U.S.

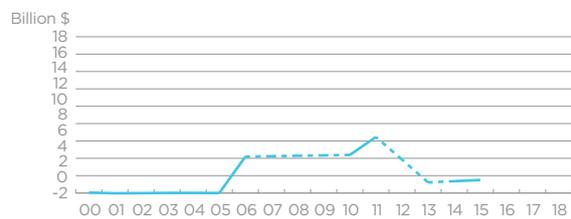
**\$1.5 bn**

### Foreign Direct Investment (FDI), 2015\*

#### U.S. FDI Position in Poland



#### Poland FDI Position in the U.S.



Foreign direct investment position, historic-cost basis, 2000-2018.

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.

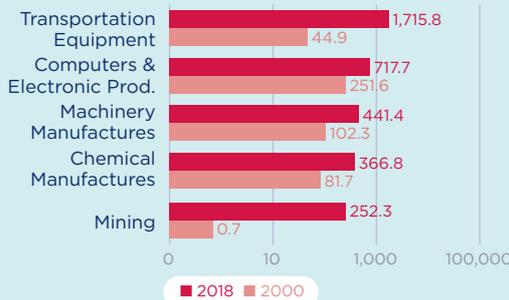
**\$5.4 bn**

### U.S. Goods Exports to Poland, 2018

**2.0%** The U.S. supplied 2.0% of Poland's total imports...

**6.6%** ...but the U.S. share increases to 6.6% when intra-EU trade is excluded from the total.

#### Top Five U.S. Goods Exports to Poland (\$ millions)



#### Top State Trade Partners Exports of Goods (\$ millions)



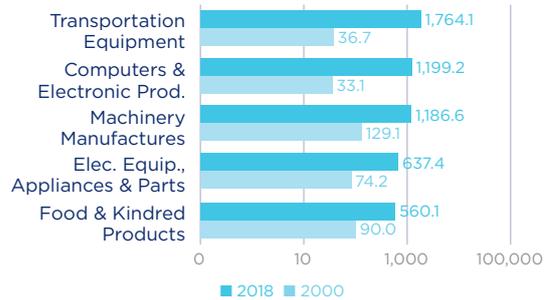
**\$8.0 bn**

### U.S. Goods Imports from Poland, 2017

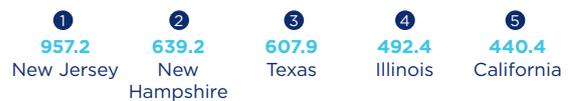
**2.7%** The U.S. received 2.7% of the total goods Poland exported to the world...

**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 Imports from Poland (\$ millions)



#### Top State Trade Partners Imports of Goods (\$ millions)



**\$3.1 bn**



### U.S. Services Exports to Poland, 2018

**\$2.9 bn**

### U.S. Services Imports from Poland, 2018

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.



# Portugal and the United States

## United States in Portugal

**33,597**



## Portugal in the United States

**720**

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.

**\$2.8 bn**

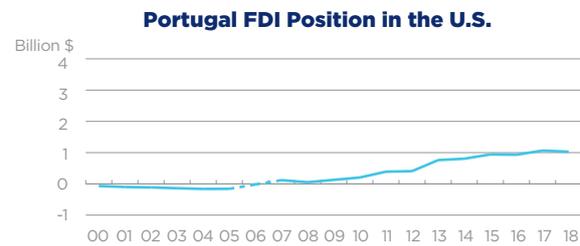
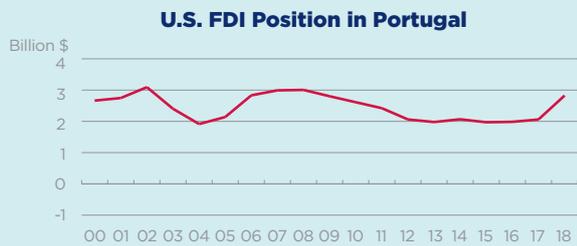


### Foreign Direct Investment (FDI), 2018

The investment balance is favored towards Portugal. U.S. direct investment in Portugal totaled \$2.8 billion in 2018, which is largely concentrated in manufacturing, wholesale trade, and professional services. U.S. affiliates employed an estimated 33,597 Portuguese workers in 2018 compared to Portuguese affiliate employment of just 720 Americans. Portugal's direct investment in the U.S. has increased eight-fold since 2009 but decreased 3% in 2018.

**\$1.0 bn**

### Foreign Direct Investment (FDI), 2018



Foreign direct investment position, historic-cost basis, 2000-2018. Note: Dotted line indicates that data has been suppressed for a particular year to avoid disclosure of individual company data.

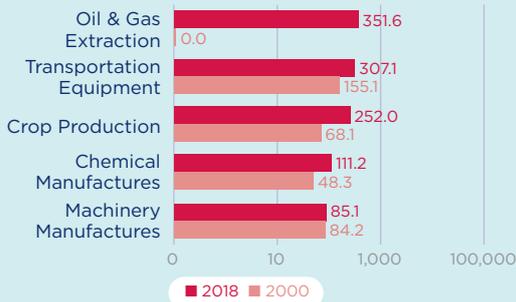
**\$1.6 bn**



### U.S. Goods Exports to Portugal, 2018

**1.9%** The U.S. supplied 1.9% of Portugal's total imports... **7.7%** ...but the U.S. share increases to 7.7% when intra-EU trade is excluded from the total.

#### Top Five U.S. Goods Exports to Portugal (\$ millions)



#### Top State Trade Partners Exports of Goods (\$ millions)

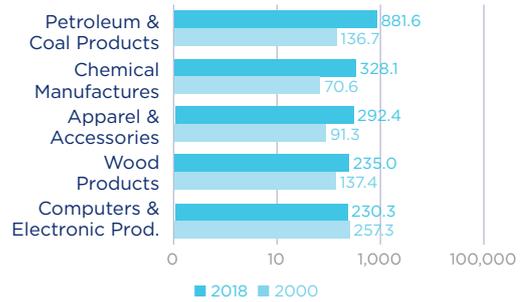


**\$3.9 bn**

### U.S. Goods Imports from Portugal, 2018

**5.0%** The U.S. received 5.0% of the total goods Portugal exported to the world... **20.0%** ...but the U.S. share increases to 20.0% when intra-EU trade is excluded from the total.

#### Top Five U.S. Goods Imports from Portugal (\$ millions)



#### Top State Trade Partners Imports of Goods (\$ millions)



**\$1.5 bn**



### U.S. Services Exports to Portugal, 2018

**\$2.4 bn**

### U.S. Services Imports from Portugal, 2018

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

# Romania and the United States

## United States in Romania

**83,433**



## Romania in the United States

**< 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.

**\$4.0 bn**

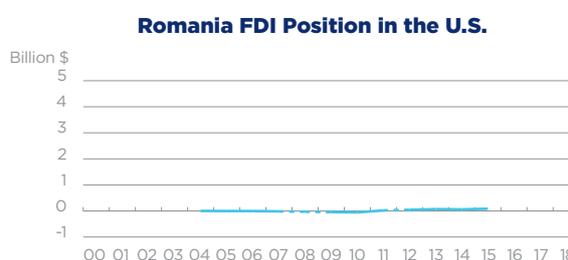
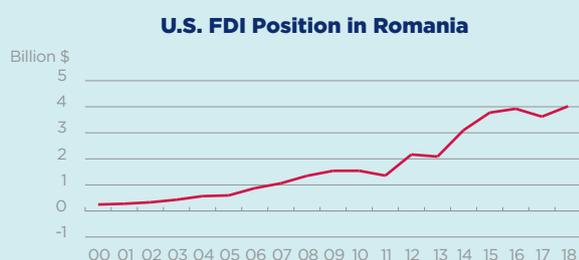


### Foreign Direct Investment (FDI), 2018

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 44,000 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 at just \$85 million in 2015, the latest year of available data. Romanian multinationals employed fewer than 50 employees in the U.S. in 2018.

**\$85 m**

### Foreign Direct Investment (FDI), 2015\*



Foreign direct investment position, historic-cost basis, 2000-2018.

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.

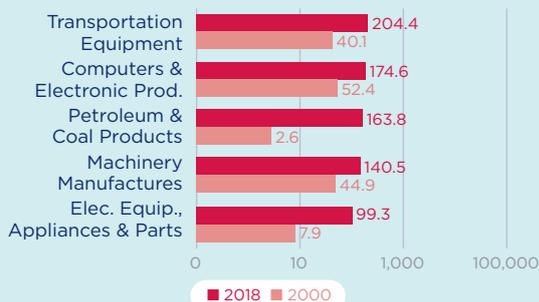
**\$1.1 bn**



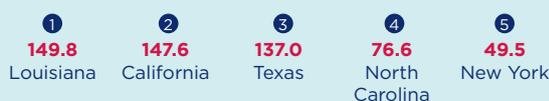
### U.S. Goods Exports to Romania, 2018

**1.1%** The U.S. supplied 1.1% of Romania's total imports...  
**4.2%** ...but the U.S. share increases to 4.2% when intra-EU trade is excluded from the total.

#### Top Five U.S. Goods Exports to Romania (\$ millions)



#### Top State Trade Partners Exports of Goods (\$ millions)

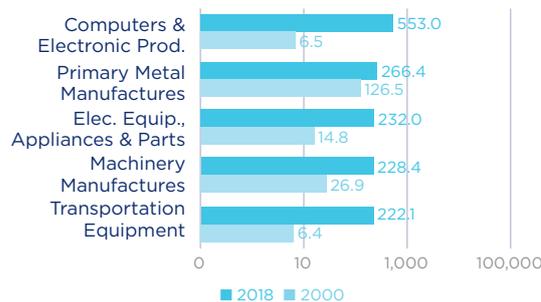


**\$2.6 bn**

### U.S. Goods Imports from Romania, 2018

**1.9%** The U.S. received 1.9% of the total goods Romania exported to the world...  
**8.5%** ...but the U.S. share increases to 8.5% when intra-EU trade is excluded from the total.

#### Top Five U.S. Goods Imports from Romania (\$ millions)



#### Top State Trade Partners Imports of Goods (\$ millions)



**\$1.0 bn**



### U.S. Services Exports to Romania, 2018

**\$1.2 bn**

### U.S. Services Imports from Romania, 2018

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.



# Slovakia and the United States

## United States in Slovakia

**43,950**



## Slovakia in the United States

**< 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.

**\$847 m**

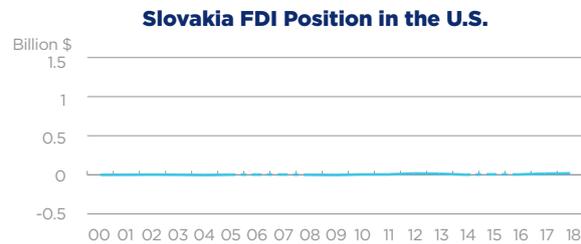
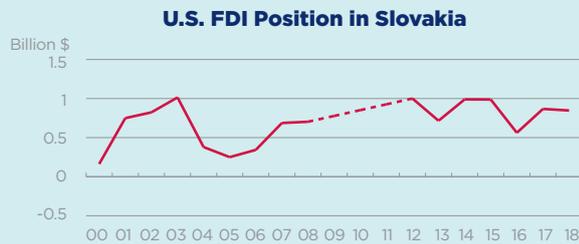


### Foreign Direct Investment (FDI), 2018

America's investment stock in Slovakia is relatively small, with foreign affiliate sales amounting to \$9.8 billion, according to estimates. However, located in the heart of central Europe, the nation is well positioned to capture U.S. investment in areas such as distribution, transportation, wholesale trade and other service-like activities. U.S. foreign affiliates in Slovakia employed an estimated 44,000 workers overall, the 5th largest among the EU13 countries. Meanwhile, Slovakia's direct investment position in the U.S. was relatively small in 2018, or just \$18 million, and affiliate employment amounted to fewer than 50 workers.

**\$18 m**

### Foreign Direct Investment (FDI), 2018



Foreign direct investment position, historic-cost basis, 2000-2018. Note: Dotted line indicates that data has been suppressed for a particular year to avoid disclosure of individual company data.

**\$289 m**



### U.S. Goods Exports to Slovakia, 2018

**0.4%** The U.S. supplied 0.4% of Slovakia's total imports...  
**2.2%** ...but the U.S. share increases to 2.2% when intra-EU trade is excluded from the total.

**\$4.2 bn**

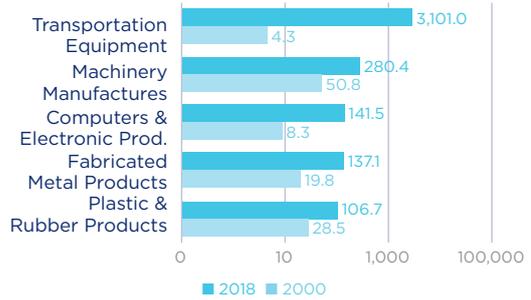
### U.S. Goods Imports from Slovakia, 2018

**3.3%** The U.S. received 3.3% of the total goods Slovakia exported to the world...  
**22.4%** ...but the U.S. share increases to 22.4% when intra-EU trade is excluded from the total.

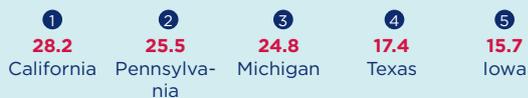
#### Top Five U.S. Goods Exports to Slovakia (\$ millions)



#### Top Five U.S. Goods Imports from Slovakia (\$ millions)



#### Top State Trade Partners Exports of Goods (\$ millions)



#### Top State Trade Partners Imports of Goods (\$ millions)



**\$357 m**



### U.S. Services Exports to Slovakia, 2018

**\$211 million**

### U.S. Services Imports from Slovakia, 2018

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

# Slovenia and the United States

## United States in Slovenia

**4,771**



## Slovenia in the United States

**< 500**

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.

**\$369 m**

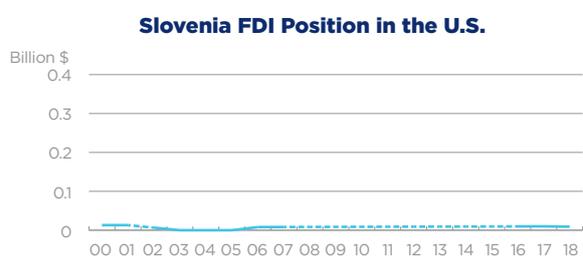
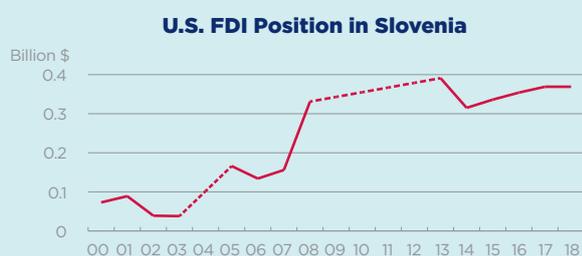


### Foreign Direct Investment (FDI), 2018

U.S. foreign direct investment in Slovenia was \$369 million in 2018, the same amount as the prior year. Meanwhile, Slovenia's FDI stock in the U.S. was just \$9 million, with affiliates supporting fewer than 500 jobs. U.S. direct investment in Slovenia supported about 4,800 jobs in 2018, but the employment figure was down over 20% from a recent peak in 2014. Estimated U.S. foreign affiliate sales in Slovenia were \$900 million, compared with less than \$500,000 worth of foreign affiliate sales made by Slovenian firms in the U.S.

**\$9 m**

### Foreign Direct Investment (FDI), 2018



Foreign direct investment position, historic-cost basis, 2000-2018.

Note: Dotted line indicates that data has been suppressed for a particular year to avoid disclosure of individual company data.

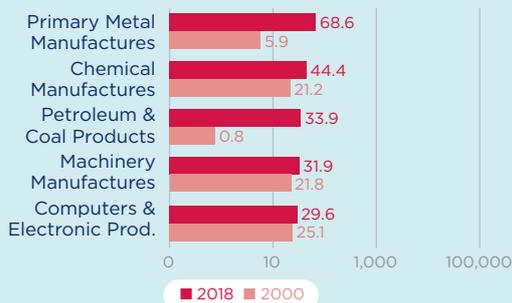
**\$322 m**



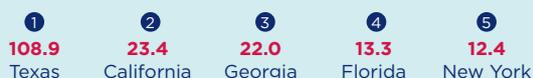
### U.S. Goods Exports to Slovenia, 2018

**1.6%** The U.S. supplied 1.6% of Slovenia'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 Slovenia (\$ millions)



#### Top State Trade Partners Exports of Goods (\$ millions)

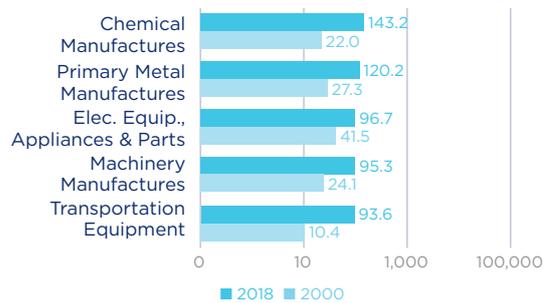


**\$847 m**

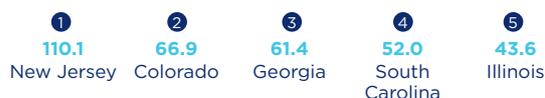
### U.S. Goods Imports from Slovenia, 2018

**1.5%** The U.S. received 1.5% of the total goods Slovenia exported to the world... **6.5%** ...but the U.S. share increases to 6.5% when intra-EU trade is excluded from the total.

#### Top Five U.S. Goods Imports from Slovenia (\$ millions)



#### Top State Trade Partners Imports of Goods (\$ millions)



**\$191 m**



### U.S. Services Exports to Slovenia, 2018

**\$98 m**

### U.S. Services Imports from Slovenia, 2018

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

## United States in Spain

**177,422**



## Spain in the United States

**85,782**

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.

**\$37.0 bn**

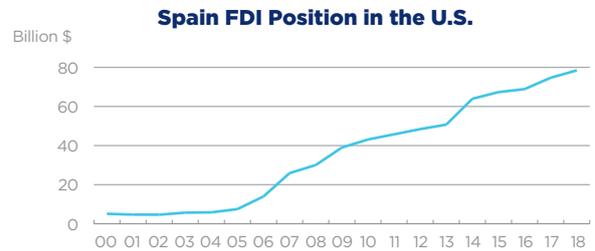
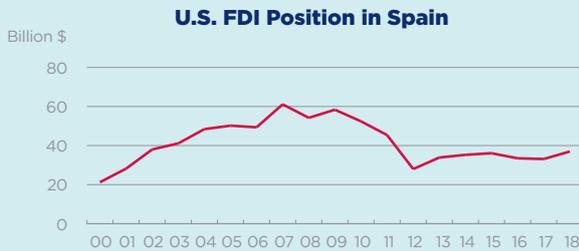


## Foreign Direct Investment (FDI), 2018

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 \$37 billion in 2018. Originally not a strategic priority to Spanish firms, the U.S. has seen foreign direct investment stock almost triple over the last ten years. Spanish investment in the U.S. has increased every year since 2002. U.S. affiliates based in Spain added roughly 2,600 workers to their payrolls in 2018, and employ about 2.1 times as many workers as Spanish affiliates employ in the U.S., according to estimates.

**\$78.5 bn**

## Foreign Direct Investment (FDI), 2018



Foreign direct investment position, historic-cost basis, 2000-2018.

**\$13.1 bn**

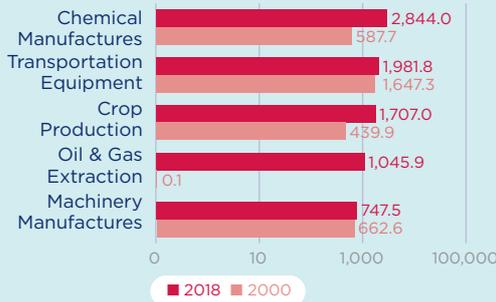


## U.S. Goods Exports to Spain, 2018

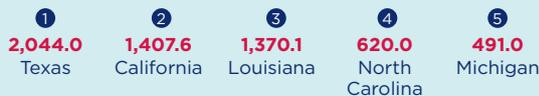
**3.3%** The U.S. supplied 3.3% of Spain's total imports...

**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 Spain (\$ millions)



### Top State Trade Partners Exports of Goods (\$ millions)



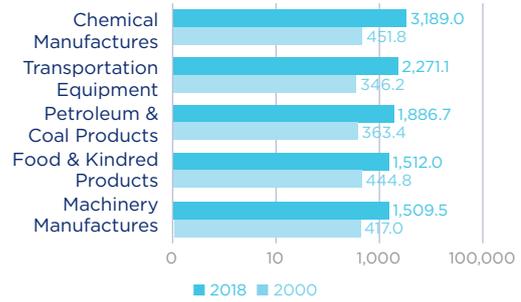
**\$17.2 bn**

## U.S. Goods Imports from Spain, 2018

**4.4%** The U.S. received 4.4% of the total goods Spain exported to the world...

**12.6%** ...but the U.S. share increases to 12.6% when intra-EU trade is excluded from the total.

### Top Five U.S. Goods Imports from Spain (\$ millions)



### Top State Trade Partners Imports of Goods (\$ millions)



**\$6.9 bn**



## U.S. Services Exports to Spain, 2018

**\$7.9 bn**

## U.S. Services Imports from Spain, 2018

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

# Sweden and the United States

## United States in Sweden

**72,573**



## Sweden in the United States

**223,074**

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.

**\$39.3 bn**

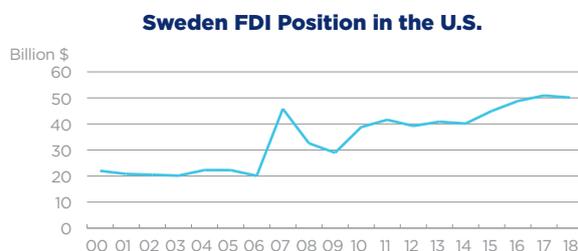
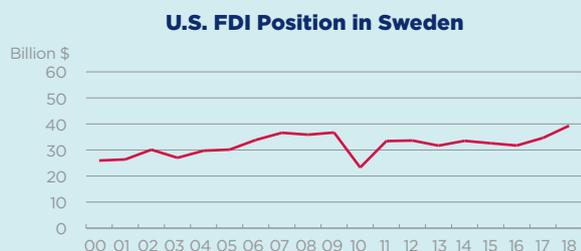


### Foreign Direct Investment (FDI), 2018

The investment balance favors the U.S., with Swedish direct investment in the U.S. totaling \$50.1 billion, while the U.S. investment stock in Sweden was \$39.3 billion in 2018. The value added of Swedish affiliates in the U.S. also exceeded that of U.S. foreign affiliates in Sweden. The employment balance is heavily skewed in favor of the United States, with Swedish firms estimated to have employed over 200,000 workers in the U.S. in 2018.

**\$50.1 bn**

### Foreign Direct Investment (FDI), 2018



Foreign direct investment position, historic-cost basis, 2000-2018.

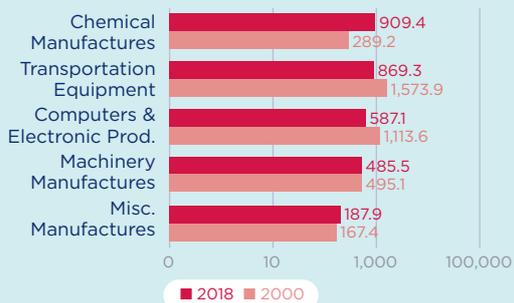
**\$4.5 bn**



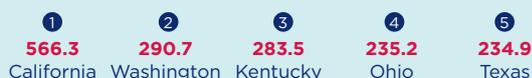
### U.S. Goods Exports to Sweden, 2018

**2.7%** The U.S. supplied 2.7% of Sweden's total imports...  
**9.1%** ...but the U.S. share increases to 9.1% when intra-EU trade is excluded from the total.

#### Top Five U.S. Goods Exports to Sweden (\$ millions)



#### Top State Trade Partners Exports of Goods (\$ millions)

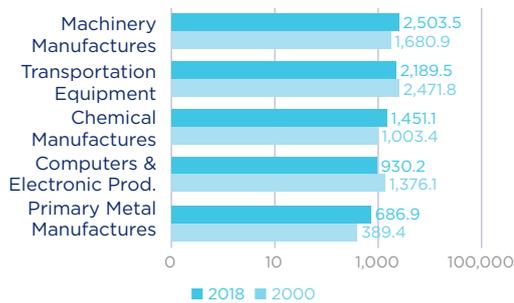


**\$11.0 bn**

### U.S. Goods Imports from Sweden, 2018

**6.8%** The U.S. received 6.8% of the total goods Sweden exported to the world...  
**16.6%** ...but the U.S. share increases to 16.6% when intra-EU trade is excluded from the total.

#### Top Five U.S. Goods Imports from Sweden (\$ millions)



#### Top State Trade Partners Imports of Goods (\$ millions)



**\$5.8 bn**



### U.S. Services Exports to Sweden, 2018

**\$3.3 bn**

### U.S. Services Imports from Sweden, 2018

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

# Switzerland and the United States

## United States in Switzerland

## Switzerland in the United States



**99,470**

**463,386**

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.



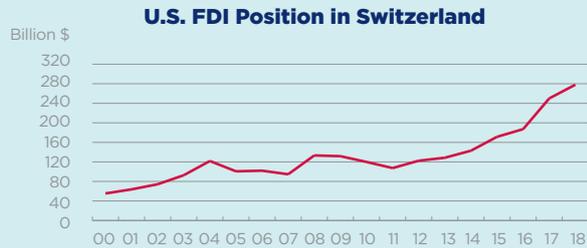
**\$278.0 bn**

**\$309.7 bn**

### Foreign Direct Investment (FDI), 2018

### Foreign Direct Investment (FDI), 2018

The investment balance favors the U.S.—direct investment stock in Switzerland totaled \$278.0 billion in 2018 versus \$309.7 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 both U.S. affiliates in Switzerland and Swiss affiliates in the U.S. added thousands of additional workers to their payrolls in 2018.



Foreign direct investment position, historic-cost basis, 2000-2018.



**\$22.2 bn**

**\$41.1 bn**

### U.S. Goods Exports to Switzerland, 2018

### U.S. Goods Imports from Switzerland, 2018

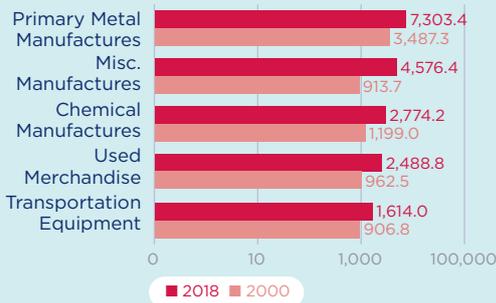
**7.6%** The U.S. supplied 7.6% of Switzerland's total imports...

**20.6%** ...but the U.S. share increases to 20.6% when trade with the EU is excluded from the total.

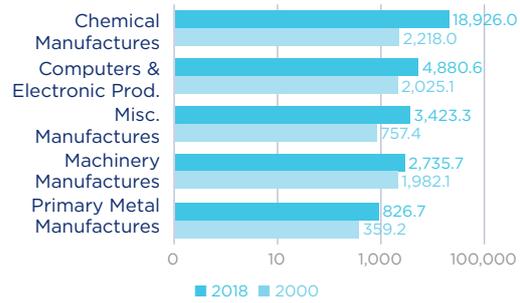
**13.2%** The U.S. received 13.2% of the total goods Switzerland exported to the world...

**23.8%** ...but the U.S. share increases to 23.8% when trade with the EU 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 Trade Partners Exports of Goods (\$ millions)



#### Top State Trade Partners Imports of Goods (\$ millions)



**\$39.3 bn**

**\$21.5 bn**

### U.S. Services Exports to Switzerland, 2018

### U.S. Services Imports from Switzerland, 2018

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

# Turkey and the United States

## United States in Turkey

**55,724**



## Turkey in the United States

**4,182**

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.

**\$4.7 bn**

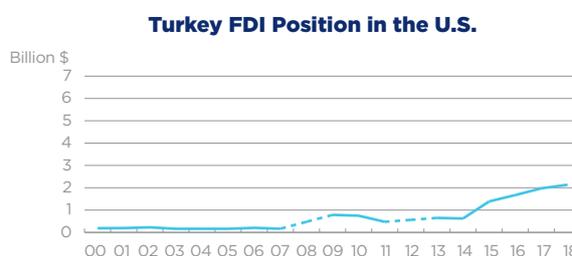
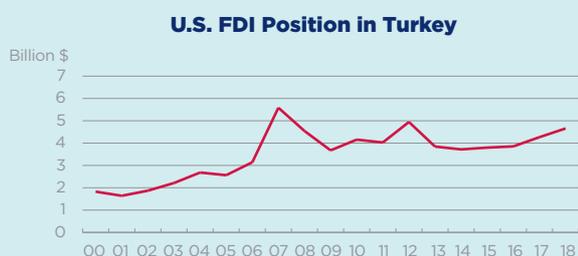


### Foreign Direct Investment (FDI), 2018

The investment balance favors Turkey — the U.S. had \$4.7 billion of foreign direct investment in Turkey in 2018 versus Turkey's \$2.1 billion of investment in the U.S. According to 2018 estimates, affiliates of U.S. multinationals had sales of \$29.5 billion in Turkey compared to Turkey's affiliate sales in the U.S. of only \$1.3 billion. U.S. affiliate employment in Turkey declined slightly in 2015, but has since rebounded and is now at all-time highs.

**\$2.1 bn**

### Foreign Direct Investment (FDI), 2018



Foreign direct investment position, historic-cost basis, 2000-2018.

Note: Dotted line indicates that data has been suppressed for a particular year to avoid disclosure of individual company data.

**\$10.3 bn**

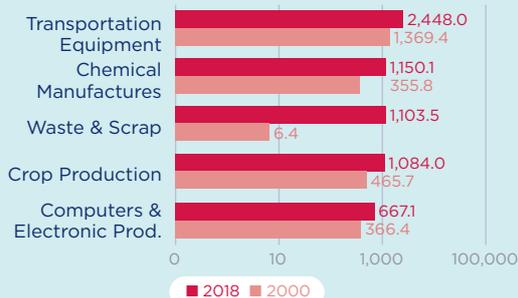


### U.S. Goods Exports to Turkey, 2018

**5.5%** The U.S. supplied 5.5% of Turkey's total imports...

**8.7%** ...but the U.S. share increases to 8.7% when trade with the EU is excluded from the total.

#### Top Five U.S. Goods Exports to Turkey (\$ millions)



#### Top State Trade Partners Exports of Goods (\$ millions)



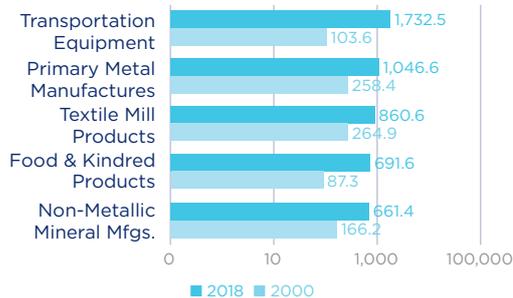
**\$10.3 bn**

### U.S. Goods Imports from Turkey, 2018

**4.9%** The U.S. received 4.9% of the total goods Turkey exported to the world...

**9.9%** ...but the U.S. share increases to 9.9% when trade with the EU is excluded from the total.

#### Top Five U.S. Goods Imports from Turkey (\$ millions)



#### Top State Trade Partners Imports of Goods (\$ millions)



**\$3.1 bn**



### U.S. Services Exports to Turkey, 2018

**\$1.8 bn**

### U.S. Services Imports from Turkey, 2018

Sources: Bureau of Economic Analysis; U.S. Commerce Department; International Monetary Fund; Office of Trade and Economic Analysis.

# United Kingdom and the United States

## United States in United Kingdom

## United Kingdom in the United States

**1,494,588**



**1,246,848**

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.

**\$757.8 bn**

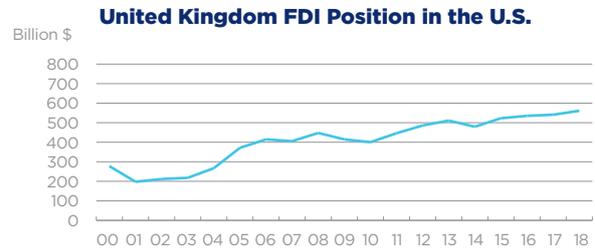
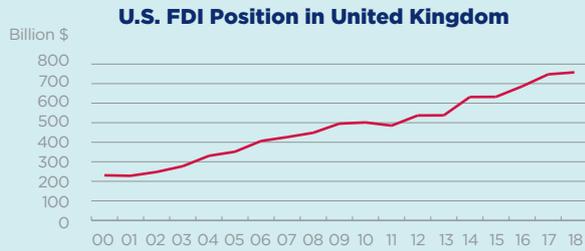


**\$560.9 bn**

### Foreign Direct Investment (FDI), 2018

### Foreign Direct Investment (FDI), 2018

In terms of the U.S.-U.K. investment balance, the U.S. had a larger cross-border impact in 2018. U.S. foreign direct investment in the United Kingdom totaled a record \$757.8 billion in 2018, and the U.K.'s foreign direct investment in the U.S. increased to \$560.9 billion. Estimated sales of American and British affiliates in each other's markets totaled more than \$1.2 trillion in 2018. According to estimates for 2018, U.S. affiliates employed roughly 1.5 million workers in the U.K. while U.K. affiliates employed about 1.2 million Americans.



Foreign direct investment position, historic-cost basis, 2000-2018.

**\$66.3 bn**



**\$60.8 bn**

### U.S. Goods Exports to United Kingdom, 2018

### U.S. Goods Imports from United Kingdom, 2018

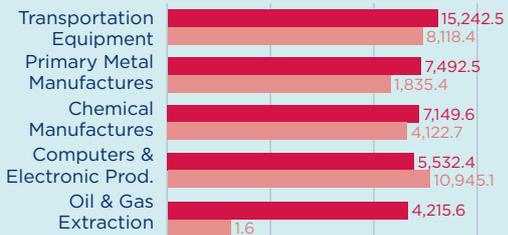
**9.7%** The U.S. supplied 9.7% of United Kingdom's total imports...

**20.4%** ...but the U.S. share increases to 20.4% when intra-EU trade is excluded from the total.

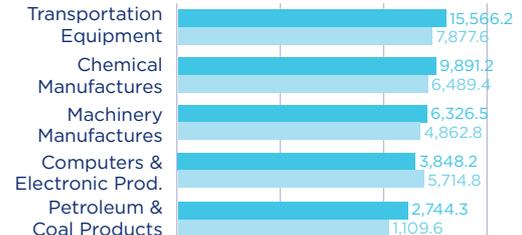
**13.4%** The U.S. received 13.4% of the total goods United Kingdom exported to the world...

**25.3%** ...but the U.S. share increases to 25.3% when intra-EU trade is excluded from the total.

#### Top Five U.S. Goods Exports to United Kingdom (\$ millions)



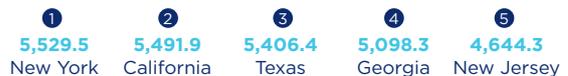
#### Top Five U.S. Goods Imports from United Kingdom (\$ millions)



#### Top State Trade Partners Exports of Goods (\$ millions)



#### Top State Trade Partners Imports of Goods (\$ millions)



**\$74.1 bn**



**\$60.7 bn**

### U.S. Services Exports to United Kingdom, 2018

### U.S. Services Imports from United Kingdom, 2018

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 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; this 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 28, 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 2018. For certain countries where there was no discernable FDI position trend between the European country and the U.S., data on global outward and inward stock was used from the United Nations Conference on Trade and Development (UNCTAD) database. 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 term “EU” refers to all 28 member states of the European Union, including the United Kingdom. Although the UK left the EU formally in early 2020, our data covers 2019, when the UK was still part of the EU. 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.

In addition to the above, the term “Europe” in this report refers to the following: all 28 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, 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.



**Daniel S. Hamilton** is the Austrian Marshall Plan Foundation Professor and Senior Fellow at the Foreign Policy Institute Johns Hopkins University's Paul H. Nitze School of Advanced International Studies. He also serves as Richard von Weizsäcker Fellow at the Robert Bosch Academy in Berlin. He was the Founding Director of the SAIS Center for Transatlantic Relations and for 15 years he served as Executive Director of the American Consortium on EU Studies. He is President of the Transatlantic Leadership Network, and has been a consultant for Microsoft and an advisor to the

U.S. Business Roundtable, the Transatlantic Business Dialogue, and the European-American Business Council. Recent books include *Europe Whole and Free: Vision and Reality*; *Exiting the Cold War, Entering a New World*; *Open Door: NATO and Euro-Atlantic Security After the Cold War*; *Turkey in the North Atlantic Marketplace: Creating a North Atlantic Marketplace: Three Paths, One Detour, A U-Turn and the Road to Nowhere*; *The Transatlantic Digital Economy 2017*; *Rule-Makers or Rule-Takers? Exploring the Transatlantic Trade and Investment Partnership*, edited with Jacques Pelkmans; *Domestic Determinants of Foreign Policy in the European Union and the United States*, edited with Teija Tiilikainen; *Forward Resilience: Protecting Society in an Interconnected World*; *The Geopolitics of TTIP*; *Transatlantic 2020: A Tale of Four Futures*, and *Europe 2020: Competitive or Complacent?* He has served as U.S. Deputy Assistant Secretary of State and Associate Director of the Policy Planning Staff for two U.S. Secretaries of State.



**Joseph P. Quinlan** is Senior Fellow with the Transatlantic Leadership Network, with extensive experience in the U.S. corporate sector. He is a leading expert on the transatlantic economy and well-known global economist/strategist on Wall Street. He specializes in global capital flows, international trade and multinational strategies. He lectures at Fordham University, and his publications have appeared in such venues as *Foreign Affairs*, the *Financial Times* and the *Wall Street Journal*. He is the author of *The Last Economic Superpower: The Retreat of Globalization, the End of American Dominance, and What We Can Do About It* (New York: McGraw Hill, 2010).

# THE TRANSATLANTIC ECONOMY 2020

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

Daniel S. Hamilton and Joseph P. Quinlan

*The Transatlantic Economy 2020* annual survey offers the most up-to-date set of facts and figures describing the deep economic integration binding Europe and the United States. It documents European-sourced jobs, trade and investment in each of the 50 U.S. states, and U.S.-sourced jobs, trade and investment in each member state of the European Union and other European countries. It reviews key headline trends and helps readers understand the distinctive nature of transatlantic economic relations.

Key sectors of the transatlantic economy are integrating as never before, underpinning a multi-trillion-dollar economy that generates millions of jobs on both sides of the Atlantic and is registering heightened growth opportunities, despite a whirlwind of political uncertainty about the direction of U.S., EU and UK policies.

*The Transatlantic Economy 2020* explains

- what trade spats and Brexit mean for the transatlantic economy
- how U.S.-European commercial relations compare with those each has with China and other rising powers
- how the digital economy is revolutionizing economic relations
- how European and U.S. companies are powering the transatlantic energy economy, and
- how decision-makers and business leaders can address current opportunities and challenges.

*The Transatlantic Economy 2020* provides key insights about the United States and Europe in the global economy, with often counterintuitive connections with important implications for policymakers, business leaders, and local officials.



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