

Executive Summary

- In a global economy wracked by surprises and shocks, the U.S. and Europe remain each other's most important markets and geo-economic base. The transatlantic economy generates \$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, digital links, energy, mutual R&D investment, patent cooperation, technology flows, and sales of knowledge-intensive services.
- Despite the Covid-19 pandemic, inflationary challenges, congested supply chains, and war in Ukraine, the two sides of the North Atlantic are poised for solid economic growth in 2022. According to estimates for 2021, last year was record-breaking on many fronts:
 - Transatlantic trade in goods reached an all-time high of \$1.1 trillion in 2021.
 - U.S. foreign direct investment (FDI) flows to Europe surged to an all-time high of \$253 billion;
 - U.S. foreign affiliate income earned in Europe reached an estimated \$300 billion, a record high;
 - European affiliates in the United States earned a record-breaking \$162 billion;
 - European FDI flows into the United States surged to the highest levels since 2017, hitting an estimated \$235 billion.
- U.S.-based foreign firms generated \$397 billion in U.S. exports to the world in 2019; European firms accounted for 57% of the total. Dutch and British companies each exported more than \$50 billion in exports made in the U.S.A.
- U.S. foreign affiliate sales in Europe of \$3.1 trillion in 2020 were one-third more than total U.S. global exports of \$2.1 trillion and roughly half of total U.S. foreign affiliate sales globally.
- Foreign investment and affiliate sales drive transatlantic trade. 65% of U.S. imports from the EU and UK consisted of intra-firm trade in 2020 - much higher than U.S. intra-firm imports from Asia-Pacific nations (around 40%) and well above the global average (48%). Percentages are notably high for Ireland (85%), the Netherlands (74%) and Germany (69%).
- Intra-firm trade also accounted for 39% of U.S. exports to the EU plus UK, and 58% to the Netherlands, 38% to Germany and to the Netherlands, 35% to France and 31% to the UK.

The U.S. in Europe

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 26% of global exports and 33% of global imports in 2020. But together they accounted for 65% of the outward stock and 64% 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.
- Over many decades no place in the world has attracted more U.S. FDI than Europe. During the past decade Europe attracted 57.3% of total U.S. global investment - more than in any previous decade. We are early in this decade, but thus far, Europe's share of U.S. FDI outflows has actually increased to 62.6% of the total. Part of this dynamic reflects weakening U.S. investment flows to China.
- Measured on a historic cost basis, the total stock of U.S. FDI in Europe was \$3.7 trillion in 2020 - 59% of the total U.S. global investment position and almost four times U.S. investment in the Asia-Pacific region (\$970 billion).
- In the first three quarters of 2021, U.S. companies invested \$190 billion in Europe - 17 times more than what they invested in the BRICs (\$ 11 billion total in Brazil, Russia, India and China) and 37 times more than what they invested in China alone (\$5 billion).
- Despite the pandemic-induced recession, U.S. companies in 2021 earned an estimated \$300 billion from their operations in Europe - 23 times what they earned from operations in China.

- Official figures can be misleading when it comes to the original source and the ultimate destination of FDI. For instance, Germany officially accounted for only 4% 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 2020, U.S. FDI flows to nonbank holding companies in Europe rebounded sharply to \$62.8 billion. Holding companies accounted for \$2.9 trillion, or about 47% of the global U.S. outward FDI position of approximately \$6.2 trillion, and 54% of total U.S. FDI stock in Europe.
- Excluding holding companies, total U.S. FDI stock in Europe in 2020 amounted to \$1.7 trillion – a much smaller figure but still more than 2.5 times larger than total U.S. investment in the Asia-Pacific region (FDI stock of \$654 billion excluding holding companies).
- From 2009 to 2020, 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.
- Of the top twenty global export platforms for U.S. multinationals in the world, ten are located in Europe. For U.S. companies, Ireland is the number one platform in the world from which their affiliates can reach foreign customers. Switzerland, ranked third, remains a key export platform and pan-regional distribution hub for U.S. firms.
- America’s capital stock in the UK (\$890 billion) in 2020 is more than triple combined investment in South America, the Middle East and Africa (\$278 billion). Total investment stock in China was just \$124 billion in 2020, only about 14% of U.S. investment stock in the UK. The U.S. investment presence in China and India (\$166 billion in 2020) was just 19% of total U.S. investment in the UK.
- In 2020, Europe accounted for roughly 63% – \$17.6 trillion – of Corporate America’s total foreign assets globally. Largest shares: the UK (20%, \$5.5 trillion in 2019) and the Netherlands (12%, \$3.2 trillion in 2019).
- America’s asset base in Germany (\$960 billion in 2019) was more than a third larger than its asset base in all of South America and more than double its assets in China.
- America’s assets in Ireland (\$2 trillion in 2019) were light years ahead of those in China (\$453 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 \$377 billion in 2019, about 5 times more than U.S. affiliate exports from China and about 3.5 times more than affiliate exports from Mexico.
- Total output of U.S. affiliates in Europe (\$655 billion) and of European affiliates in the U.S. (\$678 billion) in 2020 was greater than the total gross domestic product of such countries as the Netherlands, Turkey or Indonesia.
- Aggregate output of U.S. affiliates globally reached \$1.4 trillion in 2020; Europe accounted for 48% of the total.
- U.S. affiliate output in Europe (\$686 billion) in 2019 was roughly 73% larger than affiliate output in the entire Asia-Pacific region (\$396 billion). U.S. affiliate output in China (\$81 billion) and India (\$38 billion) lag behind U.S. affiliate output in the UK (\$164 billion) and Ireland (\$101 billion).
- Sales of U.S. affiliates in Europe were roughly 80% larger than the sales of U.S. affiliates in the entire Asian region in 2019. Affiliate sales in the UK (\$724 billion) were double total sales in South America. Sales in Germany (\$370 billion) were roughly double the combined sales in Africa and the Middle East.
- U.S. affiliate income from Europe in the first nine months of 2021 (\$225 billion) was about 2.7 times more than U.S. affiliate income in all of Asia (\$82.8 billion). Europe accounted for roughly 53% of U.S. global foreign affiliate income in the first nine months of 2021.
- U.S. affiliate income from China and India in 2020 (\$14.3 billion) was a fraction of what U.S. affiliates earned in the Netherlands (\$66 billion), Ireland (\$55 billion), or the UK (\$41 billion).
- U.S. affiliate income in China in the first three quarters of 2021 (\$9.9 billion), however, was more than combined affiliate income in Germany (\$6.6 billion) and Spain (\$2.8 billion), and income in India (\$4.5 billion) was well more than that earned in many European countries.

Europe in the U.S.

- Europe accounted for over 70% of global FDI that flowed into the U.S. in the first three quarters of 2021. Annualizing data, U.S. FDI inflows from Europe are estimated to come in at \$235 billion in 2021, versus just \$87 billion in 2020.
- The U.S. accounted for almost 25% of the EU27's total outward FDI position globally in 2019 – 10 times more than the EU's investment position in China, which accounted for less than 2.5%. Total European stock in the U.S. of \$2.9 trillion in 2020 was more than three times the level of comparable investment from all of Asia. Germany's total FDI stock in the United States totaled \$411 billion in 2020. Chinese FDI stock in the United States was less than one-tenth of that total (\$38 billion).
- UK firms accounted for 25% (\$168 billion) and German companies for 20% (\$129 billion) of total European affiliate output in the U.S. in 2020.
- UK firms were the largest source of greenfield foreign investment projects in 18 U.S. states during the ten-year period from July 2011-June 2021. German companies led in 12 states, followed by Canadian companies in 9 states and Japanese companies in 7.
- Europe accounted for roughly 64% of the \$4.6 trillion of foreign capital invested in the U.S. as of 2020 on a historic cost basis.
- The bulk of the capital was sunk by British firms (with total UK stock amounting to \$487 billion), the Netherlands (\$483 billion), Germany (\$411 billion), Switzerland (\$300 billion).
- In 2019, total assets of European affiliates in the U.S. were an estimated \$8.1 trillion. UK firms ranked first, followed by those from Germany, Switzerland and France.
- In 2019, European assets accounted for about 52% of total foreign assets in the United States.
- We estimate that European-owned assets in the U.S. fell slightly in 2020 to \$7.9 trillion.
- We estimate income of European affiliates in the U.S. in 2021 hit a record \$162 billion.
- The output of British firms in the U.S. in 2019 reached \$172 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 \$132 billion, 19% of the European total.
- European companies operating in the U.S. accounted for 61% of the roughly \$1.1 trillion contributed by all foreign firms to U.S. aggregate production in 2019. European affiliate output (\$694 billion) was more than four times larger than Japanese affiliate output (\$163 billion), 5.4 times larger than Canadian affiliate output (\$127 billion) and over 46 times greater than Chinese affiliate output (\$15 billion).
- Chinese affiliate output in the U.S. of just \$15 billion in 2019 was less than that of Sweden (\$20 billion).
- European companies accounted for 74% of total foreign FDI in U.S. manufacturing in 2019. The U.S. chemicals sector was the biggest recipient of European investment (\$594 billion).
- Affiliate sales, not trade, are the primary means by which European firms deliver goods and services to U.S. consumers. In 2020 European affiliate sales in the U.S. (\$2.6 trillion) were more than triple U.S. imports from Europe (\$852 billion).
- Sales by British affiliates in the U.S. totaled \$684 billion in 2019, followed by German affiliate sales (\$548 billion) and those by Dutch affiliates (\$378 billion).

Transatlantic Trade

- The EU and the United States are each other's most important trading partners. According to 2021 estimates, EU27-U.S. trade in goods and services of €1.1 trillion was 42% higher than EU27 trade with China of €782 billion.
- Transatlantic goods trade soared in 2021, with both U.S. goods exports to Europe (\$386 billion) and U.S. goods imports from Europe (\$670 billion) hitting record highs.
- Most trade today is conducted through intermediaries, known as indirect trade. The United States, Germany, France and the Netherlands are four of the world's top five indirect traders. While conventional trade statistics portray China as the world's leading exporter, it ranks third in terms of indirect exports – and its share is falling.

- Texas is the top U.S. state exporter of goods to Europe, followed by California, New York, New Jersey and Illinois.
- 45 of the 50 U.S. states, including the Pacific coast's largest state of California, export more goods to Europe than to China, in many cases by a wide margin.
- In 2020 Utah exports to Europe were 15 times those to China; New York, Maryland and North Dakota about 8 times more; Florida and Rhode Island 7 times more; Connecticut and New Hampshire 6 times more; Arkansas, Kentucky and Oklahoma over 5 times more; and Arizona and Illinois 4 times more.
- Germany was the top European export market for 21 U.S. states, the UK for 9, and the Netherlands for 8 in 2020.
- Sales of services of U.S. affiliates in Europe totaled \$1 trillion, or 55% of the global total in 2019, and roughly two-thirds more than U.S. services exports to Europe of \$342 billion.
- The UK alone accounted for 29% (\$288 billion) of all U.S. affiliate services sales in Europe in 2019 – more than combined U.S. affiliate services sales in Latin America and the Caribbean (\$178 billion), Africa (\$15 billion) and the Middle East (\$26 billion). Affiliate services sales in Ireland remain quite large – \$182 billion.
- Europe accounted for roughly 55% of total U.S. affiliate services sales globally.
- European affiliate sales of services in the U.S. of \$655 billion in 2019 were about one-third less than U.S. affiliate sales of services in Europe.

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.
- Five of the top ten export markets for U.S. services are in Europe. Europe accounted for 41% of total U.S. services exports and for 43% of total U.S. services imports in 2020.
- U.S. services exports to Europe reached a record \$342 billion in 2019 before plunging 14.7% to \$291 billion in pandemic-year 2020. The U.S. had a \$94 billion trade surplus in services with Europe in 2020, compared with its \$284 billion trade deficit in goods with Europe.
- U.S. imports of services from Europe also plunged 20% in 2020 to \$197 billion. The UK, Germany, Switzerland, Ireland, and France 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.
- Nonetheless, European companies are the key provider of affiliate services in the U.S. Foreign affiliate sales of services in the U.S. totaled \$1.2 trillion in 2019; European firms accounted for 53% of the total. British affiliates lead in terms of affiliate sales of services (\$166 billion), followed closely by Germany (\$157 billion).
- European companies operating in the U.S. generated an estimated \$615 billion in services sales in 2020 – 3 times more than European services exports to the U.S. of \$197 billion.

The Transatlantic Digital Economy

- The transatlantic theatre is the fulcrum of global digital connectivity. U.S. and European cities (Frankfurt, London, Amsterdam, Paris, Stockholm, Miami, Marseille, Los Angeles) 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.
- 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.

- U.S. trade in digitally-deliverable services totaled \$850.6 billion in 2020, followed by Ireland (\$524.9 billion), the UK (\$433 billion) Germany (\$387.1 billion), China (\$294 billion), France (\$278.2 billion) and the Netherlands (\$250.8 billion).
- In 2020, digitally-enabled services accounted for 73% of all U.S. services exports, 67% of all services imports, and 87% of the U.S. global surplus in trade in services.
- In 2020, the U.S. registered a \$213.6 billion trade surplus in digitally-enabled services with the world. Its main commercial partner was Europe, to which it exported over \$247 billion in digitally-enabled services and from which it imported \$142 billion, generating a trade surplus with Europe in this area of over \$105 billion.
- U.S. exports of digitally-enabled services to Europe were about 2.7 times greater than U.S. digitally-enabled services exports to Latin America, and roughly double U.S. digitally-enabled services exports to the entire Asia-Pacific region.
- In 2020, EU member states collectively exported €1 trillion and imported €1 trillion in digitally-enabled services to countries both inside and outside the EU. Excluding intra-EU trade, EU member states exported €551 billion and imported €594.5 billion, resulting in a deficit of €43.3 billion for these services.
- Digitally-enabled services represented 61% of all EU services exports to non-EU countries and 68% of all EU services imports from non-EU countries.
- In 2020, the U.S. accounted for 22% of the EU's digitally-enabled services exports to non-EU countries, and 34% of EU digitally-enabled services imports from non-EU countries.
- The U. S. purchased €122.1 billion, making it the largest recipient of EU27 digitally-enabled services exports – ahead of the UK (€121.1 billion) and just slightly behind the entire region of Asia and Oceania (€138.1 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 2020, EU member states imported just over 1 trillion in digitally-enabled services. 41% originated from other EU member states. Another 20% (€204.7 billion) came from the U.S., making it the largest supplier of these services. The EU imports of these services from the U.S. were almost double imports from the UK (€114.2 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. U.S. services supplied by affiliates abroad were \$1.8 trillion, roughly 2.5 times global U.S. services exports of \$705.6 billion. Moreover, half of all services supplied by U.S. affiliates abroad are digitally-enabled.
- 53% of the \$998 billion in services provided in Europe by U.S. affiliates in 2019 was digitally-enabled.
- U.S. affiliates in Europe supplied \$529 billion in digitally-enabled services in 2019, more than double U.S. digitally-enabled exports to Europe.
- European affiliates in the U.S. supplied \$287 billion in digitally-enabled services in 2019, double European digitally-enabled exports to the U.S.
- In 2019, Europe accounted for 71% of the \$303.8 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 66% more than such investment in the entire Western Hemisphere outside the United States, and roughly the same as such investment in all of Asia, the Middle East and Africa combined, and 14 times such investment in China. Equivalent U.S. investment in Germany was 2.7 times more than in China.
- Including all types of e-commerce, the United States is the top market in the world; online sales there are 2.8 times higher than in Japan and 3.7 times higher than in China. North America and Europe account for six of the top 10 e-commerce countries.
- North American and European countries account for 9 of the top 10, and 17 of the top 20, countries when it comes to combined digital and entrepreneurial ecosystem development.
- The U.S. leads the world in international trade in products delivered through data flows, followed by the UK, France, Germany, India, Ireland, the Netherlands, and Switzerland.

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 an estimated 9.4 million workers in 2020.
 - 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 4.8 million workers in Europe in 2020 – 30% more than in 2000.
 - Roughly 33% of the 14.4 million people employed by U.S. majority-owned affiliates around the world in 2019 lived in Europe; that share is down from 41% in 2009.
 - U.S. affiliates employed more manufacturing workers in Europe in 2019 (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 almost three times between 2000 and 2019, rising from 51,000 to over 140,000.
 - Manufacturing employment among U.S. affiliates in Germany has remained relatively steady (360,000 in 2019). U.S. manufacturing affiliates employed 7,000 more people in the UK in 2019 (301,500) than 2018 (295,000) and 7,000 fewer in France (194,000 in 2018 vs. 187,000 in 2019).
 - U.S. affiliates employ more Europeans in services than in manufacturing and this trend is likely to continue. Manufacturing accounted for 38% of total employment by U.S. affiliates in Europe in 2019.
- U.S. affiliates employed nearly 340,000 European workers in transportation and 274,000 in chemicals. Wholesale employment was among the largest sources of services-related employment, which includes employment in such areas as logistics, trade, insurance and other related activities.
- European majority-owned foreign affiliates directly employed an estimated 4.6 million U.S. workers in 2020.
 - In 2019, the top five European employers in the U.S. were firms from the United Kingdom (1.3 million jobs), Germany (860,000), France (765,000), the Netherlands (542,000), and Switzerland (491,000).
 - European firms employed roughly two-thirds of all U.S. workers on the payrolls of majority-owned foreign affiliates in 2019.
 - UK firms were the largest sources of onshored jobs in 24 U.S. states. Japanese companies led in 10 states, Canadian companies in 9, Dutch companies in 3, German and French companies each led in 2 states.
 - European companies directly supported 275,000 jobs in the U.S. transportation equipment industry in 2019 – 46% of total foreign affiliate employment in this industry.
 - The top five U.S. states in terms of jobs provided directly by European affiliates in 2019 were California (474,200), Texas (399,000), New York (360,300), Pennsylvania (237,700), and Florida (227,600).

The Transatlantic Energy Economy

- The U.S. has become Europe's largest supplier of liquefied natural gas (LNG), accounting in 2021 for 26% of all LNG imported by EU member countries and the UK. In January and February 2022, the U.S. supplied more than half of all LNG imports into Europe, shipping more to Europe than ever before. Europe accounted for about 75% of all U.S. LNG exports, far outpacing exports to Asia. Moreover, for the first time ever, U.S. exports of liquefied natural gas to Europe exceeded Russia's overall natural gas pipeline deliveries.
- U.S. companies in Europe have also become a driving force for Europe's green revolution, accounting for more than half of the long-term renewable energy purchase agreements in Europe since 2007. U.S. companies account for three of the top four purchasers of solar and wind capacity, and five of the top ten purchasers of renewable energies, in Europe.

- European companies are the top source of FDI in the U.S. energy sector. German companies lead the way, accounting for 16% of 813 greenfield investment projects. Other notable European investors include France (9%), the UK (8%), and Spain (6%).
- Europe and the U.S. made up 67% of all green bonds issued in 2020, and 68% of the total \$1.7 trillion in green, social and sustainable debt issuance.

The Transatlantic Innovation Economy

- Bilateral U.S.-EU flows in R&D are the most intense between any two international partners. In 2019 U.S. affiliates spent \$32.5 billion on R&D in Europe, 56% of total U.S. R&D conducted globally by affiliates.
- R&D expenditures by U.S. affiliates were the greatest in Germany (\$7.1 billion), the UK (\$5.6 billion), Switzerland (\$4.6 billion), Ireland (\$4.2 billion), and France and Belgium with \$2 billion each. These six nations accounted for roughly 80% of U.S. spending on R&D in Europe in 2019.
- In the U.S., R&D expenditures by majority-owned foreign affiliates totaled nearly \$71.4 billion in 2019; European affiliates accounted for two-thirds of that total.
- German-owned firms were the largest foreign source of R&D in the United States in 2019, spending some \$11.0 billion, or 23% of the total of European R&D. Swiss firms ranked second (\$10.3 billion or 21.5% of total), followed by British firms (\$7.1 billion or 15%).