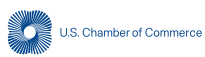


THE TRANSATLANTIC ECONOMY 2023

EXECUTIVE SUMMARY

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

Daniel S. Hamilton and Joseph P. Quinlan



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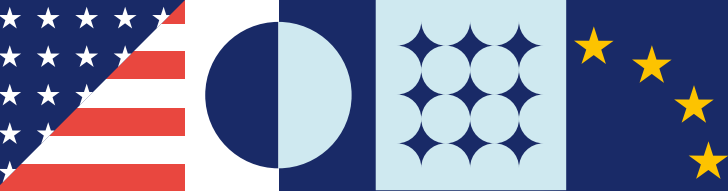
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THE TRANSATLANTIC ECONOMY 2023

4

The \$7.1 trillion transatlantic economy is proving to be remarkably resilient in the face of global economic and strategic disruptions. The U.S. and Europe remain each other's most important markets and geo-economic base. No two other regions in the world are as deeply integrated as the U.S. and Europe.



16 million jobs

on both sides of the Atlantic



Half of total

global personal consumption



\$5.9 trillion

in total commercial sales a year



One third of global GDP

(in terms of purchasing power)

- The transatlantic economy is proving to be remarkably resilient in the face of global economic and strategic disruptions. The U.S. and Europe remain each other's most important markets and geo-economic base. The \$7.1 trillion transatlantic economy employs 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.
- 2022 was record-breaking on multiple fronts:
 - U.S.-Europe trade in goods reached an all-time high of \$1.2 trillion.
 - U.S.-EU goods trade hit a record \$909.5 billion, more than EU-China goods trade and 25% higher than U.S.-China goods trade.
 - U.S. company affiliates in Europe earned an estimated \$325 billion, a record high, while European affiliates in the U.S. earned \$151 billion, the second highest level ever.
 - U.S. exports of liquefied natural gas (LNG) to Europe hit their highest levels ever. The U.S. accounted for more than half of Europe's LNG imports, and Europe accounted for more than half of U.S. LNG exports to the world.

Investment



64%

of global investment into the
U.S. comes from Europe
(2021)



61%

of U.S. global investment goes
to Europe (2021)

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.
 - U.S. and European goods exports to the world (excluding intra-EU trade) accounted for 20% of global exports in 2021. But together they accounted for 66% of the outward stock and 66% 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.
 - Combined output of U.S. foreign affiliates in Europe (est. \$670 billion) and of European foreign affiliates in the U.S. (est. \$665 billion) in 2021 of \$1.35 trillion was larger than the total output of such countries as Mexico, the Netherlands, or Indonesia.
- 8**
- U.S.-based foreign firms generated \$347 billion in U.S. exports to the world in 2020; European firms accounted for 57% of the total. U.S.-based German companies exported over \$47 billion, followed by those from the UK (\$42 billion) and the Netherlands (\$38 billion).
 - U.S. foreign affiliate sales in Europe of \$3.1 trillion in 2021 were 61% more than total U.S. global exports of \$2.5 trillion and roughly half of total U.S. foreign affiliate sales globally.
 - Total transatlantic affiliate sales, estimated at \$5.9 trillion in 2021, easily rank as the most integrated commercial partnership in the world.
 - Foreign investment and affiliate sales drive transatlantic trade. 65% of U.S. imports from the EU+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+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

- 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 64.3% 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 \$4 trillion in 2021 – 61% of the total U.S. global investment position and more than four times U.S. investment in the Asia-Pacific region (\$957 billion). U.S. FDI in the UK alone in 2021 was over 8 times such investment in China.
- New U.S. FDI in Europe in 2022 totaled \$235 billion, 4% less than record-setting U.S. FDI in Europe of \$244 billion in 2021.
- In the first three quarters of 2022, U.S. companies invested \$172 billion in Europe – 10 times more than what they invested in the BRICs (\$16.5 billion total in Brazil, Russia, India and China) and 26 times more than what they invested in China (\$6.7 billion).
- U.S. companies in the first nine months of 2022 earned an estimated \$239 billion from their operations in Europe – 2.7 times what they earned from operations in all of Asia.
- 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 2009-2021 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.
- U.S. and UK firms accounted for 32% and 26%, respectively, of foreign acquisitions in the EU in 2021; Chinese companies accounted for 2%.
- Of the top twenty global export platforms for U.S. multinationals in the world, nine 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.
- In 2021 Europe accounted for roughly 63% – \$19 trillion – of corporate America's total foreign assets globally. Largest shares: the UK (21%, \$6.2 trillion in 2020) and the Netherlands (10%, \$3.1 trillion in 2020).
- America's asset base in Germany (\$1.1 trillion in 2020) 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 2020) were light years ahead of those in China (\$487 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 \$404 billion in 2020, about 5 times more than U.S. affiliate exports from China and about 3.5 times more than affiliate exports from Mexico.

- Aggregate output of U.S. affiliates globally reached \$1.4 trillion in 2021; Europe accounted for half.
- U.S. affiliate output in Europe (\$643 billion) in 2020 was 73% larger than affiliate output in the entire Asia-Pacific region (\$383 billion). U.S. affiliate output in China (\$78 billion) and India (\$38 billion) lags behind U.S. affiliate output in the UK (\$157 billion) and Ireland (\$107 billion).
- Sales of U.S. affiliates in Europe were roughly 70% larger than the sales of U.S. affiliates in the entire Asian region in 2020. Affiliate sales in the UK (\$649 billion) were double total sales in South America. Sales in Germany (\$343 billion) were roughly double combined sales in Africa and the Middle East.
- U.S. affiliate income from Europe reached a record \$325 billion in 2022, about 2.7 times U.S. affiliate income in all of Asia and 48 times what U.S. companies earned from operations in China.
- Europe accounted for roughly 56% of U.S. global foreign affiliate income in the first nine months of 2022.
- U.S. affiliate income from China and India in 2021 (\$17.9 billion) was a fraction of what U.S. affiliates earned in the Netherlands, Ireland, or the UK.
- U.S. affiliate income in the first three quarters of 2022 in Germany (\$8.6 billion) was slightly less than in China (\$9 billion) and more than in India (\$5.8 billion).

Europe in the U.S.

- Europe accounted for over 50% of global FDI that flowed into the U.S. in the first three quarters of 2022. Annualizing data, U.S. FDI inflows from Europe are estimated to come in at \$235 billion in 2022, versus just \$87 billion in 2020.
- The U.S. accounted for almost 25% of the EU27's total outward FDI position globally in 2020 – 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 \$3.2 trillion in 2021 was more than three times the level of Asian investment stock in the U.S. Germany's total FDI stock in the United States totaled \$403 billion in 2021. Chinese FDI stock in the United States was less than one-tenth of that total (\$38 billion).
- Europe accounted for 64% of the \$5 trillion of foreign capital invested in the U.S. as of 2021 on a historic cost basis.
- The bulk of the capital was sunk by Dutch firms (total stock amounting to \$630 billion), British firms (\$512 billion), German (\$403 billion) and Swiss companies (\$282 billion).
- In 2020 total assets of European affiliates in the U.S. were an estimated \$8.3 trillion. UK firms ranked first, followed by those from Germany, Switzerland and France.
- In 2020 European assets accounted for about 51% of total foreign assets in the United States.
- We estimate that European-owned assets in the U.S. rose in 2021 to \$8.4 trillion.
- European affiliates in the U.S. earned an estimated \$151 billion in 2022, the 2nd highest level on record, following a record-breaking \$167 billion in 2021.
- Both UK and German affiliate output in the U.S. rose 5% in 2021. UK firms accounted for an est. 25% (\$158 billion) and German companies for 20% (\$120 billion) of total European affiliate output in the U.S. in 2021.

- 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.
- European firms in the United States earned record income in 2021 in a spectacular rebound from pandemic year 2020. Things leveled off somewhat in 2022, but European firms still earned roughly \$151 billion in the United States.
- European companies operating in the U.S. accounted for nearly 61% of the roughly \$1.1 trillion contributed by all foreign firms to U.S. aggregate production in 2020. European affiliate output (\$671 billion) was more than four times larger than Japanese affiliate output (\$152 billion), six times larger than Canadian affiliate output (\$112 billion) and 48 times Chinese affiliate output (\$14 billion).
- Chinese affiliate output in the U.S. of just \$14 billion in 2019 was less than that of Sweden (\$21 billion).
- Affiliate sales, not trade, are the primary means by which European firms deliver goods and services to U.S. consumers. In 2021 European affiliate sales in the U.S. (\$2.7 trillion) were more than triple U.S. imports from Europe (\$555 billion).
- Sales by British affiliates in the U.S. totaled \$555 billion in 2020, closely followed by German affiliate sales (\$554 billion), and those by Dutch affiliates (\$315 billion).

Trade in goods



\$1.2 trillion

U.S.-Europe goods
trade (2022)

\$909.5 billion

U.S.-EU goods
trade (2022)

Transatlantic Trade

- U.S.-Europe goods trade reached an all-time high of \$1.2 trillion in 2022. U.S. goods exports to Europe rose 25%, led by surging U.S. energy flows.
- The EU and the United States are each other's most important trading partners. U.S.-EU trade in goods in 2022 – a record \$909.45 billion – exceeded EU-China goods trade of \$897.34 billion and was 25% higher than U.S.-China goods trade of \$690.56 billion.
- The EU+UK accounted for 19% of U.S. goods imports in 2022, the same as in 2017; China accounted for 16.5% in 2022, a drop from 21.6% in 2017.
- 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.
- 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.
- Texas is the top U.S. state exporter of goods to Europe, followed by California, New York, New Jersey and Illinois.
- In 2021 Utah exported 11 times more goods to Europe than to China. New York exported 8 times more, Florida 6.5 times more, Maryland 4.7 times more. Illinois, Missouri and New Jersey each exported 4 times more, Pennsylvania and Kentucky 3.7 times more, and Texas 3 times more. California exported twice as many goods to Europe as to China.
- Germany was the top European export market for 23 U.S. states, the UK for 9, and Belgium for 6 in 2021. Germany was also the top source of European imports for 30 U.S. states; Switzerland was the leading European supplier for 6 states.

Trade in services



\$332 billion

U.S. to Europe
(2021)

\$230 billion

Europe to the U.S.
(2021)

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 42% of total U.S. services imports in 2021.
- U.S. services exports to Europe reached a record \$332 billion in 2021, a sharp rise from pandemic-year 2020. The U.S. had a \$101 billion trade surplus in services with Europe in 2021, compared with its \$219 billion trade deficit in goods with Europe.
- U.S. imports of services from Europe rebounded in 2021 to \$230 billion, from \$197 billion in 2020. The UK, Germany, Switzerland, Ireland, and France are top services exporters to the U.S.
- EU27 services trade with the U.S. of \$702.12 billion in 2021 was 6 times EU-China services trade of \$115.54 billion.
- 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.
- Sales of services of U.S. affiliates in Europe totaled \$997 billion, or 56% of the global total, in 2020 – 3 times more than U.S. services exports to Europe of \$332 billion.
- Services by U.S. firms based in the UK and UK companies based in the US totaled \$435.4 billion in 2020 – 3.4 times greater than U.S.-UK overall trade in services of \$116.3 billion. The contrast is even greater in terms of U.S.-German commercial ties: services by U.S. companies based in Germany and German firms based in the U.S. totaled \$252.1 billion. That's 4.1 times U.S.-German services trade of \$61.4 billion.

- The UK alone accounted for 30% (\$274 billion) of all U.S. affiliate services sales in Europe in 2020 – more than combined U.S. affiliate services sales in Latin America and the Caribbean (\$158 billion), Africa (\$15 billion) and the Middle East (\$26 billion). Affiliate services sales in Ireland remained quite large – \$172 billion.
- European affiliate sales of services in the U.S. of \$666 billion in 2020 were about one-third less than U.S. affiliate sales of services in Europe.
- Nonetheless, European companies are the key provider of affiliate services in the U.S. (\$170 billion in 2020). German affiliates led in terms of affiliate sales of services (\$170 billion), followed closely by US-based UK firms (\$161 billion).
- European companies operating in the U.S. generated an estimated \$680 billion in services sales in 2021 – roughly 3 times more than European services exports to the U.S. of \$230 billion.

Digital



+50%

of digitally-enabled services between the U.S. and the EU are used to produce export products on each side



55%

more data flows via transatlantic cables than over transpacific routes

The Transatlantic Digital Economy

- Transatlantic data flows are critical to enabling the \$71 trillion EU-U.S. economic relationship. They account for more than half of Europe's data flows and about half of U.S. data flows globally. Over 90% of EU-based firms transfer data to and from the United States.
- European and U.S. cities are major hubs of cross-border digital connectivity. Europe is the global leader, with tremendous connected international capacity. Frankfurt, London, Amsterdam and Paris substantially outpace North American and Asian cities.
- The United States currently accounts for over 53% of the world's operational hyperscale infrastructure, measured by critical IT load. More than one-third of U.S. hyperscale capacity is located in one state – Virginia. Virginia has far more hyperscale data center capacity than either China or all of Europe.
- Transatlantic cable connections are the densest and highest capacity routes, with the highest traffic, in the world. 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 of \$963.4 billion led the world in 2021, followed by that of the UK (\$677.2 billion), Ireland (\$639.9 billion), Germany (\$454.7 billion), China (\$359.3 billion), the Netherlands (\$329.2 billion), and France (\$312.5 billion).
- In 2021 the U.S. registered a \$262.6 billion trade surplus in digitally-enabled services with the world. Its main commercial partner was Europe, to which it exported \$283.3 billion in digitally-enabled services and from which it imported \$134.7 billion, generating a trade surplus with Europe in this area of \$148.6 billion.
- U.S. exports of digitally-enabled services to Europe were more than double U.S. digitally-enabled services exports to the entire Asia-Pacific region, and more than combined digitally-enabled services exports to the Asia-Pacific, Latin America and Other Western Hemisphere, and the Middle East.

- 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 \$1.65 trillion, roughly 2.3 times global U.S. services exports of \$726.43 billion. Moreover, half of all services supplied by U.S. affiliates abroad are digitally-enabled.
- 58% of the \$998 billion in services provided in Europe by U.S. affiliates in 2019 was digitally-enabled.
- U.S. affiliates in Europe supplied \$585.5 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 2020, Europe accounted for 72% of the \$333 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 3.6 times more than in China.
- Including all types of e-commerce, the United States was the top market in the world in 2019; online sales were 2.8 times higher than in Japan and 3.7 times higher than in China. North America and Europe accounted 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.

Jobs



Workers

5 million

U.S. employees of European companies (direct jobs due to investment, 2021 estimate)

4.8 million

European employees of U.S. companies (direct jobs due to investment, 2021 estimate)

Transatlantic Jobs

- 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 9.7 million workers in the pandemic-plagued year of 2020, 300,000 more than in 2019. Employment levels rose further in 2021 and 2022.
- These figures understate 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 2021 – 33% more than in 2000.
- Roughly 34% of the 14.4 million people employed by U.S. majority-owned affiliates around the world in 2020 lived in Europe; that share is down from 41% in 2009.
- U.S. affiliates employed more manufacturing workers in Europe in 2020 (1.8 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. Between 2000 and 2020, U.S. manufacturing affiliates in Poland employed almost 3 times more people (51,000 vs. 138,000). They employed 30,000 fewer people in Germany (388,000 vs. 358,000), 71,000 fewer in France (249,000 vs. 178,000), and 148,000 fewer in the UK (431,000 vs. 283,000).

- 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 2020. U.S. affiliates employed nearly 336,000 European workers in transportation and 257,000 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 5 million U.S. workers in 2021, up from 4.9 million in 2020.
- European firms employed roughly 61% of all U.S. workers on the payrolls of majority-owned foreign affiliates in 2022.
- The top five European employers in the United States in 2021 were firms from the UK (1.2 million jobs), Germany (885,000), France (740,000), the Netherlands (569,000) and Switzerland (487,000).
- UK firms were the largest sources of onshored jobs in 22 U.S. states in 2021. Canadian companies led in ten states, Japanese companies in nine, German firms in five, and Dutch companies in three states.
- The top five U.S. states in terms of jobs provided directly by European affiliates in 2020 were California (473,000), Texas (393,000), New York (361,000), Pennsylvania (245,000), and Illinois (228,000).

Energy



2.5 times more

LNG supplies from the U.S. to Europe than in 2021 (2022)



+50%

long-term renewable energy purchase agreements in Europe with U.S. companies

The Transatlantic Energy Economy

- U.S. liquefied natural gas (LNG) exporters supplied more than three-fourths of Europe's additional gas needs in the critical months following the outbreak of Russia's war, and accounted for more than 50% of Europe's LNG supplies for 2022 as a whole. More than half of U.S. global LNG exports went to Europe in 2022. U.S. exporters shipped roughly 2.5 times more LNG supplies to Europe in 2022 than in 2021, and 3 times more than they supplied to all of Asia in 2022.
- U.S. crude oil exports to Europe jumped 70% in 2022, and now account for 12% of Europe's oil supplies. In the first six months of 2022 Europe surged ahead of Asia as the top purchaser of U.S. crude oil.
- U.S. companies in Europe have become a driving force for Europe's green revolution, accounting for more than half of the long-term renewable energy purchase agreements signed in Europe since 2007.
- European companies are the leading source of foreign direct investment (FDI) in the U.S. energy sector.
- Between 2017 and 2022, U.S. investors participated in 758 EU-based cleantech deals and EU investors joined 682 U.S.-based cleantech deals. On average, U.S. and EU companies that received transatlantic investments reached growth stage, and received growth funding, faster than those that did not: 20% faster for EU-based companies; 8% faster for U.S.-based companies. Deal sizes for EU innovator investment rounds that included U.S. risk capital were significantly larger than those that did not involve a U.S. investor.

Innovation



R&D spending

\$31.6 billion

U.S. affiliate R&D in Europe
(2020)

\$47.8 billion

European affiliate R&D in
the U.S. (2020)

The Transatlantic Innovation Economy

- Bilateral U.S.-EU flows in R&D are the most intense between any two international partners. In 2020 U.S. affiliates spent \$31.6 billion on R&D in Europe, 54% of total U.S. R&D conducted globally by affiliates.
- R&D expenditures by U.S. affiliates were the greatest in the UK (\$6.0 billion), Germany (\$5.7 billion), Switzerland (\$5.5 billion), Ireland (\$4.0 billion), Belgium (\$2.2 billion) and France (\$1.9 billion). These six nations accounted for roughly 80% of U.S. spending on R&D in Europe in 2020.
- In the U.S., R&D expenditures by majority-owned foreign affiliates totaled \$71.4 billion in 2020; European affiliates accounted for 67% of that total.
- German-owned firms were the largest foreign source of R&D in the United States in 2020, spending some \$12.7 billion, or 26% of the total of European R&D. Swiss firms ranked second (\$10.2 billion or 21.5% of total), followed by British firms (\$6.6 billion or 13.5%).

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20th Anniversary Edition



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IRELAND



A M C H A M  LUXEMBOURG
AMERICAN CHAMBER OF COMMERCE IN LUXEMBOURG A.S.B.L.

30  CONCEIVED
years 30 YEARS AND BEYOND

AMCHAM 
AMERICAN CHAMBER OF COMMERCE IN SWEDEN

 **JOHNS HOPKINS**
SCHOOL of ADVANCED
INTERNATIONAL STUDIES

TRANSATLANTIC
LEADERSHIP
NETWORK