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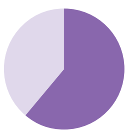
European Countries: U.S.-Related Jobs, Trade and Investment

Europe remains the most attractive region in the world for U.S. companies investing abroad.

Total U.S. FDI stock in Europe (2022)

$4 trillion



61.2%

of total U.S. global investment

Many European economies have exhibited a remarkable degree of resilience over the past few years, having confronted not just a pandemic to start the decade, but also a war in the heart of Europe, a Russian-induced energy shock, disruptions to shipping in the Middle East, a spike in inflation, and ongoing trade tensions with China and the United States. In 2022, in fact, the eurozone economy managed to grow faster than either the U.S. or Chinese economies.

All these pressures, however, are weighing on Europe's economy. Eurozone growth was just 0.5% in 2023, significantly lagging the United States. The German economy, Europe's largest, contracted by 0.3%. For 2024, the IMF forecasts eurozone growth of 0.9%, compared to 2.1% growth in the United States.

Still, euro area debt of 88% of GDP compares favorably to the U.S., where federal, state, and local borrowing will hit 127% of GDP this year, according to the IMF. And European productivity growth, as measured by GDP per hour worked, has been faster than in the U.S.

There are other bright spots: in 2022 and 2023 combined, Italy had the best-performing stock market in the Group of Seven leading advanced economies, in dollar terms, followed by France and the UK.[1] Central and eastern European economies are catching up in terms of growth; GDP per capita in Poland has increased by over 50% since 2010. It is now nearly 70% that of Germany, up from only 42% in 2003.[2]

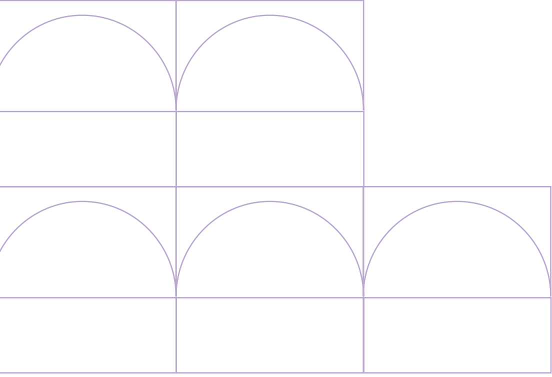
Europe is in a cyclical downturn; the U.S. is on a high. But some European headwinds show signs of easing – inflation, monetary policies, energy shocks. Looking to 2025, the IMF forecasts that each side of the North Atlantic will grow the same amount: 1.7%.

Europe's economic performance is important to the United States for the simple reason that on a global basis, no region of the world offers more opportunities in terms of market size and wealth, and access to skilled resources, than Europe. And outside the United States, no region has more sway on corporate America's bottom line than Europe. Europe remains the most attractive region in the world for U.S. companies investing abroad.

The latest investment figures underscore corporate America's enduring commitment to its long-standing transatlantic partner. Measured on a historic cost basis, the total stock of U.S. foreign direct investment (FDI) in Europe was $4 trillion in 2022, or 61.2% of total U.S. investment abroad. This is more than four times the amount of comparable U.S. investment in the Asia-Pacific region ($951 billion).

Of this overall European total, U.S. FDI in the EU was $2.7 trillion in 2022, a 5.5% increase from 2021, according to the U.S. Trade Representative's office. U.S. FDI in the UK was $1.1 trillion, a 3.9% increase from 2021, and more than U.S. FDI in the Asia-Pacific region. U.S. FDI in Switzerland was $212.2 billion, a 3.7% decrease from 2021.

Global FDI flows into the EU jumped from a negative $150 billion in 2022 to a positive $141 billion in 2023, according to the UN, but the swing was due to large inflows to Luxembourg and the Netherlands, two conduit economies. Excluding both countries from the total, inflows to the rest of the EU were down 23% last year.



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

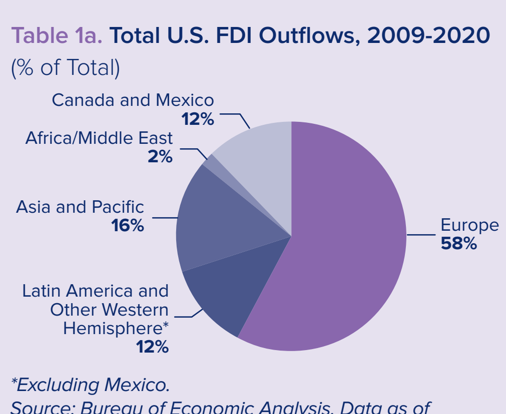
U.S. holding companies have played an important role in the rise of U.S.-Europe FDI over the past few decades. As of 2022, the last year of available data, nonbank holding companies accounted for $2.2 trillion, or about 55% of total U.S. FDI stock in Europe.

As the U.S. Bureau of Economic Analysis notes, "[t]he 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."

Tables 1a and 1b, drawing on BEA data, reflect the significance of holding companies in the composition of U.S. FDI outflows. European markets accounted for roughly 58% of total U.S. FDI outflows between 2009 and 2020. 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 2020, U.S. FDI flows to holding companies in Europe rebounded sharply to $62.8 billion. This represented over half of total U.S. FDI outflows to Europe. In prior years, FDI outflows to Europe were negative (-$189 billion in 2018 and -$87 billion in 2019), as U.S. companies repatriated a large amount of accumulated foreign earnings.

In the long run, when FDI related to holding companies is stripped from the numbers, the U.S. foreign direct investment position in Europe is not as large as typically reported by the BEA. Nonetheless, Europe remains the destination of choice among U.S. firms even after the figures are adjusted. Between 2009 and 2022, Europe still accounted for over half of total U.S. FDI outflows when flows from holding companies are removed from the aggregate. Europe's share was still more than double the share to Asia, underscoring the deep and integrated linkages between the United States and Europe.

Table 1a. Total U.S. FDI Outflows, 2009-2020
(% of Total)



*Excluding Mexico.
Source: Bureau of Economic Analysis. Data as of January 2022.

Table 1b. U.S. FDI Outflows Excluding Flows to Nonbank Holding Companies, 2009-2020
(% of Total)

Canada and Mexico 14%
Africa/Middle East 4%
Asia and Pacific 19%
Latin America and Other Western Hemisphere* 9%
Europe 54%

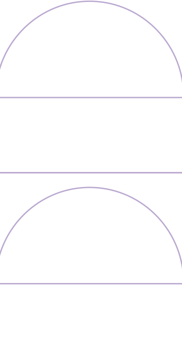
Includes Central America (excluding Mexico) and Other Western Hemisphere.
Source: Bureau of Economic Analysis. Data as of January 2022.

Of the top twenty global export platforms for U.S. multinationals in the world, nine are located in Europe, a trend that reflects Europe's intense cross-border trade and investment linkages and the strategic way U.S. firms leverage their European supply chains.

Phantoms, Ultimates, and Roundtrippers

The overall level of U.S. investment in Europe remains substantial, even accounting for cyclical ups and downs. However, the figures do not tell us much about the reasons for such investment or the countries where U.S. companies focus their investments. As we have stated in previous surveys, official statistics do not distinguish a) between "real FDI" and "phantom FDI;" b) between immediate and ultimate investors; or c) between investments that actually end up in another country and those that simply take a round trip flight to that country and then return home.

Researchers have sought to disentangle what they call "real FDI" – the relation between an investor in one economy and a business in another economy – from what they call "phantom FDI" – investments into corporate shells with no link to the local real economy. According to one estimate, phantom investments accounted for around $15 trillion, or 37.5%, of total global FDI in 2017. For some conduit countries, like Luxembourg and the Netherlands, "phantom FDI" can be significant: more than $3 trillion in each country in 2017, according to these calculations. In that year, for instance, the UK recorded inward FDI of around $160 billion from Luxembourg, even though it was clear that most of those funds passed through Luxembourg from investors based in other countries.[3]



Several countries have sought to address these issues by distinguishing between an "immediate" investor – the direct investor in a foreign economy – and the "ultimate" investor, who controls the immediate investor and who in the last instance is the one bearing the investment's risks and reaping its rewards.[4]

Eleven EU countries have reported inward FDI positions by ultimate investing economy for 2022. The total value of $3.57 trillion came from a small number of countries, led by the United States ($478 billion, with a 13.4% share), followed by Germany ($376 billion, 10.5%), France ($351 billion, 9.8%), the UK ($328 billion, 9.2%) and Switzerland ($222 billion, 6.2%). In contrast, inward FDI positions of these same countries by immediate investing economy – the usual metric employed – offers a very different perspective: total value of $3.57 trillion, led by Luxembourg ($629 billion, 17.6%), the Netherlands ($501 billion, 14%), Germany ($322 billion, 9%), the UK ($318 billion, 8.9%) and France ($229 billion, 6.4%). The fact that the United States was the leading ultimate investor country but not even among the top five immediate investors indicates that U.S. companies use countries like Luxembourg and the Netherlands as conduits for investments that end up in other European countries.[5]

The UK reports similar discrepancies: U.S. companies ultimately controlled $1.12 trillion (40.8%) of the UK's total inward FDI stock in 2021 – $195 billion more than reflected by immediate investor metrics. Official UK analysis shows that ultimate U.S. parent companies directed some of their investments into the UK via Japan and Canada, as well as through EU members Ireland, Luxembourg, the Netherlands, and Germany. This is reflected in the data for these countries. Dutch companies ultimately controlled only $59 billion (2.1%) of UK inward FDI, far less than the $299 billion (10.9%) recorded by immediate investor metrics. Ultimate investor values for Luxembourg were $78 billion less than immediate investor values, and those for Germany were $69 billion less.

Earnings tell a similar tale. Ultimate investors from North America earned $37 billion from their direct investments in 2021, accounting for over one-third (37.7%) of the inward UK FDI total. Ultimate Dutch earnings from inward UK FDI ($3.7 billion) were far lower than immediate earnings ($10.9 billion).

Distinguishing FDI by ultimate and immediate investor also can help clarify how much investment consists of parent companies investing back into their domestic economies through their foreign affiliates, a phenomenon known as

"roundtripping." This practice is so prevalent that roundtripping was the ninth-highest ultimate UK inward FDI position in 2020 ($79.7 billion, 3% of the UK's total inward FDI position), according to the UK Office of National Statistics. The country through which UK companies invested the most into the UK in 2020 was the United States, which accounted for one-fifth of the UK round-tripping value.[6]

Multinational companies employ these practices for a variety of reasons, including tax arbitrage among various jurisdictions. Since 2017, however, the role of offshore financial centers has been declining, due in part to sustained international attempts to illuminate these activities. The most prominent effort began three years ago, when more than 135 countries accounting for more than 90% of global GDP agreed to rewrite global tax rules on corporate income. In 2024, a core group of countries, including the entire EU, the UK, Australia, South Korea, Japan, Canada, and Norway are beginning to apply these rules, the most prominent of which is a 15% minimum tax on profits of large multinationals.[7] If a country taxes multinationals below this rate, other countries can impose a corresponding levy on that company's operations in their jurisdiction, effectively nullifying the original tax advantage and reducing any incentive to shift profits. The OECD estimates that "investment hubs" where inward FDI accounts for more than 150% of GDP – countries like Ireland, Luxembourg, and the Netherlands – initially stand to gain the most from these arrangements, since the global minimum tax could boost government revenues by up to a third. Countries like France, Germany and the UK could receive an additional 7-10% in revenue. The OECD estimates that all countries that adopt the global minimum tax would gain at least 3% in their tax revenues.[8]

Despite these steps, the overall agreement remains uncertain. The world's two largest economies – the United States and China – backed the arrangements in 2021, but have not passed legislation to implement them. Progress has stalled on the other half of what was a two-pillar deal — getting multinationals to pay more tax in countries where they have sales and profits but little physical presence.

Taking the Long View

These dynamics illustrate the extremely volatile nature of U.S. FDI annual outflows. Table 2 provides a more long-term view of U.S.-European investment ties. As shown in the chart, standard metrics indicate that the share of U.S. FDI in both Germany and France declined sharply this past decade, with France accounting for just 1.9% of U.S. FDI flows to Europe from 2010 through the third quarter of 2023. Germany's share is higher, 4.9%, but still off the levels of previous decades. However, as mentioned, these figures need to be interpreted very carefully, since a good deal of ultimate investment from the United States makes its way to France and Germany via other countries, and a closer look indicates that U.S. FDI that eventually ends up in France and Germany remains robust.

It is also important not to label all small countries receiving sizable U.S. FDI as "conduit countries." Ireland, for instance, has become a favored destination for FDI among U.S. companies looking to take advantage of the country's flexible and skilled English-speaking labor force, low corporate tax rates, strong economic growth, membership in the European Union, and pro-business policies. Even when adjusting U.S. FDI figures to take account of flows of U.S. holding companies, Ireland still ranks as one of the most attractive places in the world for U.S. businesses.

Just as U.S. firms leverage different states across America, with certain activities sprinkled around the Northeast, Midwest, 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 these factors, and more, determine where and when U.S. firms invest in Europe.

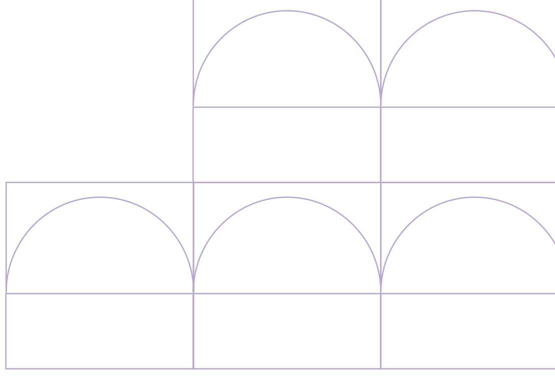
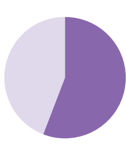


Table 2. U.S. FDI Flows to Europe: The Long View ($Millions, (-) inflows)

Country	1990-1999		2000-2009		2010-3Q2023	
	$ Aggregate Total	% of Total Europe	$ Aggregate Total	% of Total Europe	$ Aggregate Total	% of Total Europe
Europe	465,337		1,149,810		2,003,630	
Austria	2,908	0.6	501	0.0	9,171	0.5
Belgium	12,028	2.6	40,120	3.5	31,140	1.6
Czech Republic	155	0.0	1,941	0.2	4,544	0.2
Denmark	2,798	0.6	5,782	0.5	11,505	0.6
Finland	1,485	0.3	1,598	0.1	4,317	0.2
France	29,063	6.2	42,963	3.7	39,028	1.9
Germany	31,817	6.8	60,363	5.2	97,521	4.9
Greece	413	0.1	943	0.1	2,715	0.1
Hungary	2,929	0.6	1,376	0.1	3,236	0.2
Ireland	21,369	4.6	115,085	10.0	335,345	16.7
Italy	13,825	3.0	26,462	2.3	21,327	1.1
Luxembourg	15,912	3.4	126,989	11.0	340,218	17.0
Netherlands	70,770	15.2	295,889	25.7	431,953	21.6
Norway	4,198	0.9	4,997	0.4	18,092	0.9
Poland	2,681	0.6	4,699	0.4	5,537	0.3
Portugal	1,993	0.4	2,212	0.2	2,907	0.1
Russia	1,555	0.3	11,289	1.0	-4,368	-0.2
Spain	11,745	2.5	28,371	2.5	15,993	0.8
Sweden	10,783	2.3	16,974	1.5	7,266	0.4
Switzerland	32,485	7.0	97,869	8.5	131,413	6.6
Türkiye	1,741	0.4	5,994	0.5	10,204	0.5
United Kingdom	175,219	37.7	237,906	20.7	470,154	23.5
Other	17,465	2.6	19,487	1.4	14,402	0.7

Source: Bureau of Economic Analysis.
Data as of January 2024.

Europe's share of U.S. FDI outflows



55.9%

Table 3 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, nine are in Europe, a trend that reflects Europe's intense cross- border trade and investment linkages and the strategic way U.S. firms leverage their European supply chains. 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.

The cyclical and structural challenges before Europe are substantial – war against Ukraine, energy price hikes, supply-chain shocks, a declining and aging labor force.

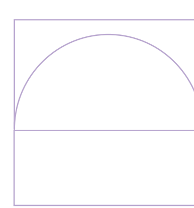
On a standalone basis, U.S. affiliates' exports from Ireland are greater than the total export volumes of most countries. Such is the export-intensity of U.S. affiliates in Ireland and the strategic importance of Ireland to the corporate success of U.S. firms operating in Europe and around the world. Moreover, the UK's exit from the EU may further solidify Ireland's spot as the number one location for U.S. affiliate exports. When exporting from the UK, new barriers to trade, including regulatory checks and rules of origin requirements, in addition to stricter immigration rules, could cause some companies to relocate operations to Ireland in search of easier access to the EU market.

The UK still plays an important role for U.S. companies as an export platform to the rest of Europe. However, the introduction of the euro, the Single Market, EU enlargement and Brexit (Box 1) have enticed more U.S. firms to invest directly in EU member states. The extension of EU production networks and commercial

Table 3. Global Export Platforms for U.S. Multinationals (U.S. Affiliate Sales From Abroad to Other Destinations*) ($Millions)

	1982		1990		2000		2021	
Rank	Country	Value	Country	Value	Country	Value	Country	Value
1	United Kingdom	33,500	United Kingdom	51,350	United Kingdom	94,712	Ireland	417,011
2	Switzerland	27,712	Canada	46,933	Canada	94,296	Singapore	376,745
3	Canada	25,169	Germany	41,853	Germany	69,522	Switzerland	300,889
4	Germany	19,117	Switzerland	38,937	Netherlands	67,852	United Kingdom	218,211
5	Netherlands	15,224	Netherlands	33,285	Singapore	56,961	Belgium	163,062
6	Belgium	11,924	France	24,782	Switzerland	56,562	Canada	160,061
7	Singapore	11,579	Belgium	21,359	Ireland	51,139	Netherlands	147,895
8	France	11,255	Singapore	15,074	Mexico	37,407	Germany	127,596
9	Indonesia	8,289	Hong Kong	9,951	France	35,797	Hong Kong	123,264
10	Hong Kong	4,474	Italy	9,562	Belgium	32,010	Mexico	102,298
11	Italy	3,993	Ireland	9,469	Hong Kong	22,470	China	93,169
12	Australia	3,710	Spain	7,179	Malaysia	16,013	France	54,041
13	Ireland	2,842	Japan	7,066	Sweden	15,736	India	43,567
14	United Arab Emirates	2,610	Australia	6,336	Italy	14,370	Australia	36,426
15	Brazil	2,325	Mexico	5,869	Spain	12,928	Brazil	29,668
16	Japan	2,248	Indonesia	5,431	Japan	11,845	Malaysia	25,321
17	Malaysia	2,046	Brazil	3,803	Australia	9,370	Italy	24,407
18	Panama	1,662	Norway	3,565	Brazil	8,987	Spain	23,788
19	Spain	1,635	Malaysia	3,559	China	7,831	Thailand	22,680
20	Mexico	1,158	Nigeria	2,641	Norway	6,238	Japan	21,183
	All Country Total	252,274	All Country Total	398,873	All Country Total	857,907	All Country Total	2,932,183

Source: Bureau of Economic Analysis.
Data as of January 2024.
**Destination = affiliate sales to third markets and sales to U.S. for majority-owned foreign affiliates.*



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 shaping economic policy.

Despite these changes, the UK remains an attractive investment location. It has the third highest stock of assets owned through FDI in the world, behind only the United States and China. Moreover, this stock more than doubled between 2012 and 2021, rising from $1.2 trillion to $2.8 trillion. As a proportion of GDP, the UK's FDI stock is the highest in the G20, at 88% in 2022. The UK has also been the leading European destination for greenfield FDI for 15 consecutive years between 2008 and 2022. In 2022, the UK secured greenfield FDI flows of $108 billion, more than the next two highest European competitors, Spain ($51 billion) and Germany ($37 billion), combined.[9]

In an age of scarce workers, resources, and markets, Europe has never been more important to American businesses.

Why Europe Matters

The cyclical and structural challenges before Europe are substantial: Russia's war against Ukraine, energy price hikes, supply-chain shocks, a declining and aging labor force – these, and other variables, have weighed on growth this decade and generated different growth trajectories for the U.S. and Europe.

Part of the EU's challenge is the unmet promise of completing the Single Market. The European Commission estimates that doing so would boost growth by more than $767 billion between now and 2030. The IMF finds that deeper integration within the EU could boost its GDP by 7%.

That said, it is important to see the forest from the trees, and to recognize that, first, Europe on a standalone basis remains one of the largest and wealthiest economic entities in the world and, second, the region remains a critical cog in the corporate success of U.S. firms.

Europe is home to more than 500 million people across the EU, the UK, Norway, Switzerland, Iceland, and a host of eastern countries. This cohort accounted for roughly 23% of world output in 2022 – slightly lower than the U.S. share of 25%, but greater than that of China (18%). On a purchasing power parity basis, Europe's share was greater than that of the United States but less than that of China in 2022.

Europe remains a key pillar of the global economy and critical component to the corporate success of U.S. firms. As Table 4 highlights, Europe attracts more than half of U.S. aggregate FDI outflows. The region's share of total U.S. FDI during the last decade is still substantial at 55.9%, which is down slightly from the previous decade, but equivalent to the first decade of this century. Part of this dynamic reflects weakening U.S. investment flows to China.

Europe claims a larger resident population of highly-skilled AI professionals than does the U.S.

Table 4. **Cumulative U.S. FDI Outflows** ($Millions)

Decade	All Countries	Europe	Europe as a % of World
1950-1959	20,363	3,997	19.6
1960-1969	40,634	16,220	39.9
1970-1979	122,721	57,937	47.2
1980-1989	171,880	94,743	55.1
1990-1999	869,489	465,337	53.5
2000-2009	2,056,007	1,149,810	55.9
2010-2019	2,404,739	1,378,601	57.3
2020 - Q3 2023	1,142,127	638,034	55.9

Source: Bureau of Economic Analysis. Data as of January 2024.

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 but false narrative that corporate America prefers low-cost nations in Asia, Latin America, and Africa to developed markets like Europe.

Investing in emerging markets such as China, India, and Brazil remains difficult, with indigenous barriers to growth (poor infrastructure, dearth of human capital, corruption, etc.) as well as policy headwinds (foreign exchange controls, tax preferences favoring local firms) reducing the overall attractiveness of these markets to multinationals. As shown in Table 5, there has been a wide divergence between U.S. FDI to the BRICS (Brazil, Russia, India, China, South Africa) and U.S. FDI to Europe. After a drop in flows to Europe in 2019 due to U.S. domestic tax reform, investment in Europe rebounded in 2020 and continues to gather momentum this decade. In the first three quarters of 2023, U.S. FDI outflows to Europe totaled $110 billion, nearly 20 times more than U.S. FDI outflows to China of $5.6 billion and more than six times U.S. FDI outflows to the BRICS of $18 billion.

Europe is also profitable for U.S. companies. Meta and Apple, for instance, draw 22% and 24% of their revenue, respectively, from Europe – second only to the U.S. Other large U.S. tech firms do not separate out their European revenues in public reporting, but their published figures are consistent with Europe being their most important foreign market.[10]

Table 5. Foreign Direct Investment Outflows to the BRICS vs. Europe ($Billions)

300 — 275 — 250 — 225 — 200 — 175 — 150 — 125 — 100 — 75 — 50 — 25 — 0 — -25 — -50 — -70 —

00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 Q1-3

BRICS Europe* China

**Europe does not include flows to Russia.*
Source: Bureau of Economic Analysis. Data as of January 2024.

Gaining access to wealthy consumers is among the primary reasons why U.S. firms invest overseas, which explains the continued attractiveness of affluent Europe to American companies. Fourteen of the twenty-five wealthiest nations in the world are European. GDP per capita in the EU ($38,234 in 2022) is significantly higher than that in China ($12,556) or India ($2,277).

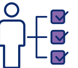
Wealth drives consumption, with the EU+UK accounting for roughly 21% of global personal consumption expenditures in 2022. That is a lower share than that of the U.S. (30%) but well above that of China (12%), India (3.4%) and the BRICS combined (18.6%). Between 2000 and 2022, personal consumption expenditures in the EU+UK have more than doubled from $5.2 trillion to $10.6 trillion, representing an increasing market opportunity for large global corporations.

Wealth in Europe is also correlated with a highly skilled and productive workforce, advanced innovation capabilities, and a world-class R&D infrastructure – underpinning the attractiveness of the EU to corporate America. The EU's labor force is not only more than twenty percent larger than America's; its labor force participation rate is more than ten percentage points higher (74.3%) than it is in the U.S. (62.4%).

Drivers of foreign investment into Europe

Access to a large market

Purchasing power of consumers


Skilled and productive workforce

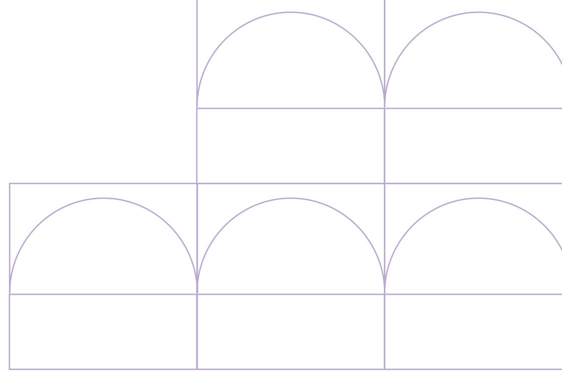
Advanced innovation capabilities

World-class R&D infrastructure

Business-friendly policies

Respect for the rule of law

Strong financial markets



Number of researchers hosted (2021 estimate)

2.5 million
EU + Iceland + Norway + UK + Switzerland

2.3 million
China

1.6 million
U.S.

Business-friendly policies surrounding property rights, the ability to obtain credit, employment regulations, starting a business and cross-border trade have been a major draw for foreign investors over the years. According to the International Institute for Management Development (IMD) latest World Competitiveness Rankings for 2023, fourteen European economies ranked in the top twenty-five. Among the top ten, Denmark was ranked #1, followed by Ireland (2), Switzerland (3), the Netherlands (5), and Sweden (8). Other factors, such as shared values, respect for the rule of law, credible institutions, advanced infrastructure, and strong financial markets continue to set Europe apart when it comes to U.S. business investment. Finally, Europe continues to be a world leader when it comes to innovation and knowledge-based activities. According to the 2023 Global Innovation Index, twelve European economies rank among the top twenty most innovative countries in the world (Table 6). The index considers a wide range of factors such as institutions, education quality, research & development, information & communication technologies (ICT) infrastructure, and more.

A related measure of knowledge-based capabilities is science & technology (S&T) intensity – or the sum of the patent and scientific publication shares divided by the population. By this measure, many European and U.S. regions have more scientific output per capita than their Asian counterparts. In fact, of the world's top 20 science & technology clusters, ranked by S&T intensity, 10 are in Europe, 6 in the United States, and 4 are in Asia (Table 6).

Since R&D expenditures are a key driver of value-added growth, it is interesting to note that EU- and UK-based organizations accounted for more than one-fifth of total global R&D in 2021 in purchasing-power parity terms. That lagged the share of the United States and China but exceeded the share of Japan and South Korea. Over the past two decades, China has steadily advanced its R&D capabilities, and is projected to overtake the United States as the top R&D spender in the world (Table 7).

Europe remains a leader in several 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 plus the UK, Switzerland, Norway, and Iceland housed an estimated 2.5 million researchers in 2021, versus 1.6 million in the United States and 2.3 million in China, according to OECD estimates.

Table 6. **Global Innovation Index** (2023)

Overall Global Innovation Index		Science and Technology (S&T) Intensity		
Rank	Country	Rank	S&T Cluster	Country
1	Switzerland	1	Cambridge	UK
2	Sweden	2	San Jose-San Francisco, CA	U.S.
3	United States	3	Oxford	UK
4	United Kingdom	4	Eindhoven	Netherlands
5	Singapore	5	Boston-Cambridge, MA	U.S.
6	Finland	6	Daejeon	Korea
7	Netherlands	7	Ann Arbor, MI	U.S.
8	Germany	8	San Diego, CA	U.S.
9	Denmark	9	Seattle, WA	U.S.
10	Korea	10	Munich	Germany
11	France	11	Kanazawa	Japan
12	China	12	Raleigh, NC	U.S.
13	Japan	13	Göteborg	Sweden
14	Israel	14	Beijing	China
15	Canada	15	Stockholm	Sweden

Source: Cornell University, INSEAD, and the World Intellectual Property Organization, Global Innovation Index 2023. Data as of 2024.

Table 7. 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 Romania.
**2021 authors' estimate for the following countries: Russia, Singapore & South Africa.*
Source: OECD.
Data as of January 2024.

Europe is home to one of the most educated workforces in the world. In countries such as Ireland, Switzerland, Lithuania, Luxembourg, Belgium and the Netherlands, the share of the working age population with a bachelor's degree or higher exceeds 40%. The comparable figure for the U.S. is 39%. 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.

Europe claims a larger resident population of highly-skilled AI professionals than does the U.S. Many of these AI professionals work at the European affiliates of U.S. tech companies. Atomico notes that these European-based pools of AI talent offer a rich breeding ground for the founders and talent behind the next generation of European AI companies. French startup Mistral AI, founded by European former leading AI researchers at Meta and DeepMind, is a prominent example of how cross-fertilization of transatlantic talent can help jumpstart European innovation.[11]

These examples underscore that Europe remains a magnet for talent from the rest of the world. In fact, slightly more talent is moving from the U.S. to work in European tech than European talent is moving to join the U.S. tech scene. Europe is a net gainer of talent from essentially every single region of the world except Australia.[12]

These attributes make Europe an attractive place for innovators. For instance, according to Atomico, more founders have been starting new tech startups in Europe than in the U.S. in every one of the past five years. On average, around 15,200 new tech startups have been founded per year in Europe, compared to 13,700 in the U.S. The UK leads the way, accounting for approximately a quarter of all new tech companies each year in Europe. France is gaining ground, accounting for 22% of new tech startups in 2023, up from 18% in 2019.[13]

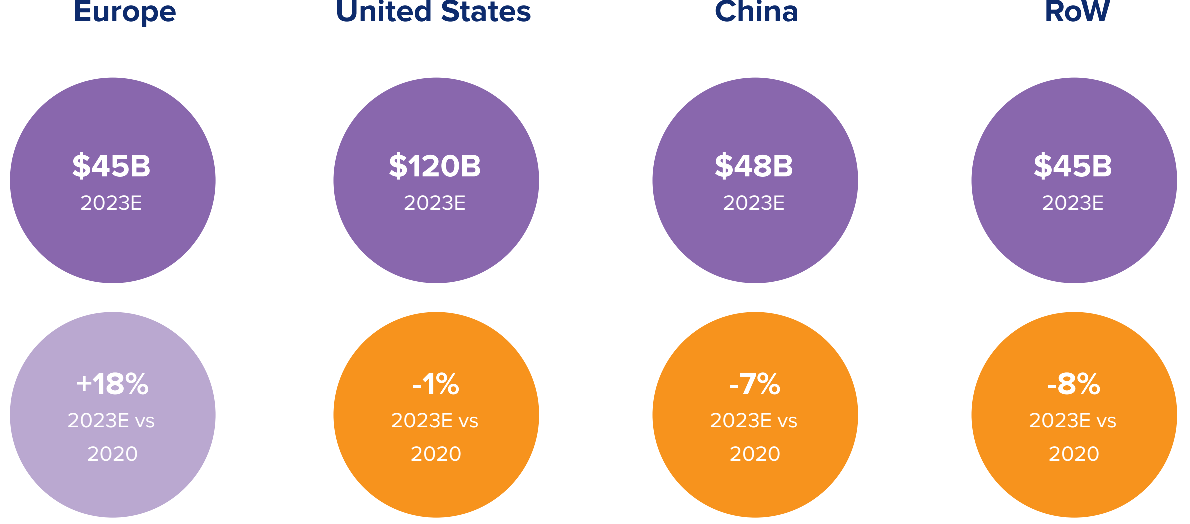
Moreover, while the value of new European tech investments lags the U.S., Europe was the only region of the world to have recorded positive inflows of tech investment in 2023. Investment in European tech companies in 2023 was 18% higher than in 2020, compared to a 1% decline in the U.S., a 7% decline in China, and 8% decline in the rest of the world (Table 8). Although down

from the historic levels of 2021, 2023 was the third-largest year on record by total capital invested in European tech, and was four times the volume of a decade ago. Moreover, investors are sitting on $108 billion worth of dry powder – the largest trove of deployable capital that Europe has ever seen.[14]

U.S. investments are critical to Europe's innovation growth. Capital from U.S. investors accounted for 25% of that going to European start-ups seeking "growth stage" funding in 2023; Asian investors accounted for only 7%. While the U.S. participation in European funding rounds declined from recent record highs, it still topped historical norms (Table 9).[15]

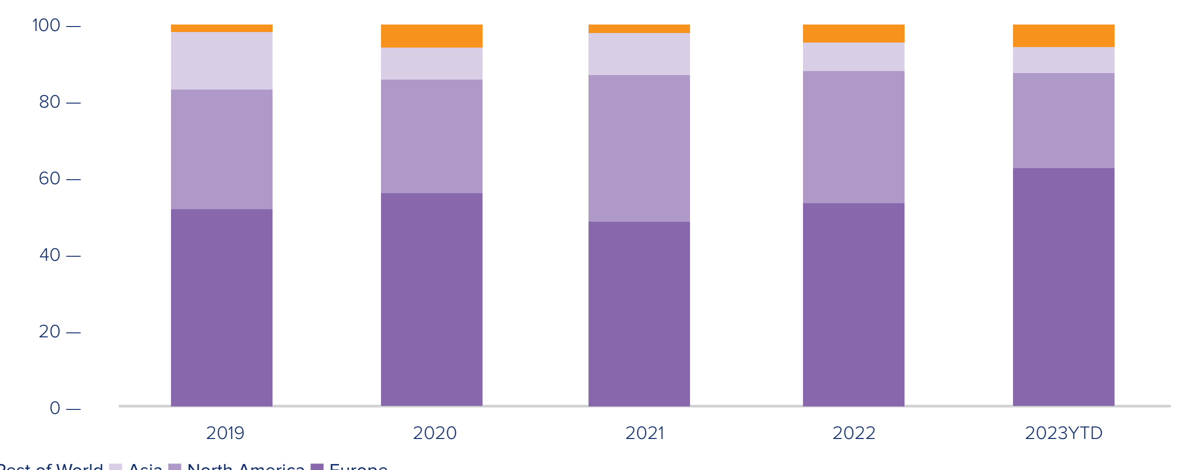
A particularly bright light on Europe's innovation landscape is the purpose-driven digital company, which Atomico defines as a firm trying to address at least one of the UN's 17 Sustainable Development Goals (SDGs). Over the past five years, investment

Table 8. Capital Invested and Change in Capital Invested (%), by Region, 2023 vs. 2020



RoW: Rest of the World
Sources: Atomico; Dealroom.co; crunchbase; State of European Tech 2023.

Table 9. Capital Invested in European Tech by Geographic Source Region, 2019-2023 (% of total)



Data as of September 30, 2023. Excludes biotech, secondary transactions, debt, lending capital, and grants.
Sources: Atomico; Dealroom.co; State of European Tech 2023.

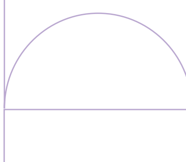


Table 10. Share of Capital Invested in Purpose-Driven Companies by Region, 2019-2023 (% of total)

100
80
60
40
20
0

2019 2020 2021 2022 2023YTD

Rest of World | Asia | North America | Europe

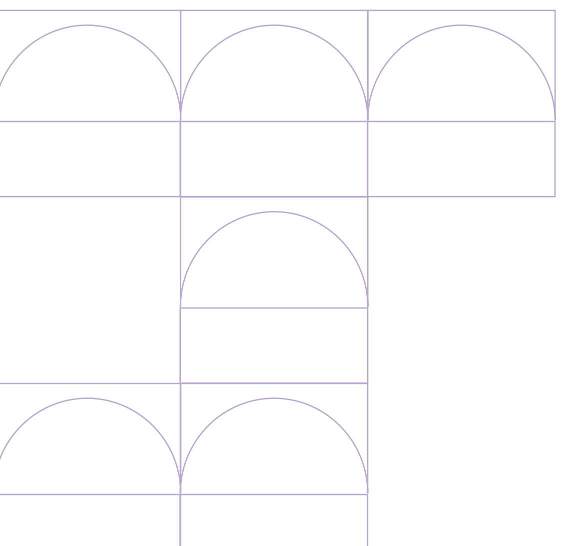
Data as of September 30, 2023. Excludes biotech, secondary transactions, debt, lending capital, and grants.
Source: Dealroom.co; Atomico, State of European Tech 2023.

in these purpose-driven companies has increased at a huge scale globally, but largely in Europe, followed by North America. In 2023, Europe accounted for 41% of worldwide capital invested in purpose-driven tech companies, leapfrogging the U.S. (32%). For the earliest stages rounds of less than $5 million, Europe's share is even more significant, equating to 66% of all capital invested globally (Table 10).

The Bottom Line

These are very challenging times for Europe. The near-term economic outlook remains fraught with risks and uncertainty as the continent struggles with war and its consequences. Slower growth and/or a recession in Europe is a significant risk to U.S. firms. However, bright spots are apparent, and an even greater risk to corporate America is being absent from the continent. In an age of scarce workers, resources, and markets, Europe has never been more important to American businesses.

Add it all up and Europe – large, wealthy, competitive, innovative, and well-endowed with a large pool of skilled labor – remains a formidable economic entity with a great deal of upside. Past and future, America's transatlantic partnership with Europe continues to yield significant dividends.



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Box 2. Exceptional: UK-EU Commercial Relations

Three years after the UK left the EU, commercial ties between the two parties remain exceptional, in two ways. First, the EU remains the UK's top trading partner, accounting for 46% of the UK's total trade, and the UK remains the EU's third largest trading partner overall, behind the US and China.[16] Second, the parties continue to carve out exceptions, generate new rules, and institute phase-ins and delays to the original terms they negotiated under the EU-UK Withdrawal Agreement and its Northern Ireland Protocol, and under their Trade and Cooperation Agreement (TCA), which governs trade and other forms of bilateral cooperation. The TCA is the most valuable preferential trade arrangement to both the UK and the EU. Among the EU's preferential trade partners, the UK accounts for 46% of all value in services trade and 22.5% of all value in goods.[17]

Points of convergence and divergence continue to emerge as the two parties recraft their relationship. One example of convergence is that the UK has rejoined the EU's $104 billion Horizon Europe research program as an "associate country." Another has been agreement on sensitive issues surrounding Northern Ireland. The Withdrawal Agreement treats Northern Ireland, which is part of the UK, as being within the EU customs area, to prevent the need for a hard border on the island of Ireland. But it also required checks on goods within the UK flowing from Great Britain to Northern Ireland. To prevent a customs border from being established in the middle of the Irish Sea, London and Brussels in 2023 completed a "Windsor Framework" that simplifies and clarifies arrangements. Chief among them was agreement to channel goods within the UK coming from Great Britain to Northern Ireland through paperwork-light "green lanes" if destined for Northern Ireland and paperwork-heavy "red lanes" if intended for the EU. The EU will accept the UK's public health standards so agri-food can enter Northern Ireland, although those goods must be labeled "not for EU" by 2025. These provisions entered into force on October 1, 2023. In January 2024, London and Northern Ireland's Democratic Unionist Party, which had been blocking the work of the local parliament, agreed to abandon the "green lane" term, affirmed unfettered access for flows between Northern Ireland and Great Britain, and further reduced checks on those flows to instances related to potential crime or disease. The arrangement enabled the Northern Ireland parliament to resume, with Sinn Féin's Michelle O'Neill now serving as the region's first prime minister to favor unity with the country of Ireland.[18]

Another area of convergence in 2023 was UK-EU agreement to extend the TCA's current rules of origin for electric vehicles and batteries until the end of 2026. This prevented the entry into force from January 1, 2024 of more stringent rules that would have required at least 60% of batteries and 45% of overall parts of electric vehicles shipped between the UK and the EU to be sourced from within the two regions or face 10% tariffs. The battery limit was of particular concern, as the UK and EU still import most from China, South Korea, or Japan. The EU sweetened the pot by offering its manufacturers $3.25 billion to expand EU-sourced EV battery production.

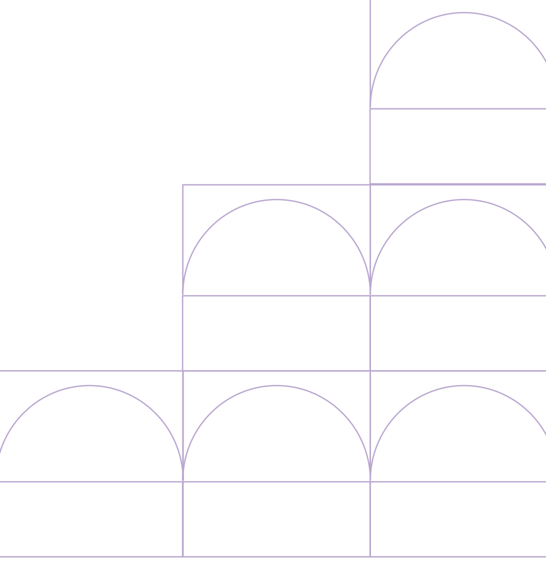
These changes are happening amidst broader signs of divergence. On January 1, 2024, the UK's Retained EU Law (Revocation and Reform) Act came into effort. It repeals the principle of the supremacy of EU law, revokes specific EU pieces of EU-derived legislation, and re-labels and downgrades what remains as "assimilated law," giving UK courts wider powers to depart from EU-retained case law. By 2026 the government seeks to revoke or remove over 2,000 items, reform another 1,000, and keep about 2,000 unchanged.[19]

Also in January, the UK began to put into place long-delayed controls at the UK-EU border. While Brussels had instituted controls on goods from Great Britain to the EU already in January 2021, London delayed checks on goods coming the other way due to concerns about disruptions. On January 31, London began to phase in implementation of its Border Target Operating Model, which restricts animal products, plants, and foods of non-animal origin from the EU. Physical checks and additional document checks will be introduced on April 30, and safety and security import declarations will become mandatory on October 31.[20]

Another area where divergence is increasingly likely is the financial sector, which was excluded from the TCA. The two parties signed a memorandum of understanding on financial services regulatory cooperation, but are moving sluggishly on sector-by-sector arrangements instead of reaching an overall agreement on equivalence. In the meantime, regulatory changes in each jurisdiction are beginning to pull the two sides further apart.

The nature of UK-EU arrangements is important to the UK's economic relationship with the United States. In recent years, U.S. companies in Europe have expressed concerns about new regulatory barriers to trade, geographic restrictions on services, and rules-of-origin requirements. The loss of access to the EU Single Market from the UK had repercussions for U.S. services companies and manufacturers operating in Europe. U.S.-UK talks on a possible free trade agreement are still on hold.

Still, U.S.-UK commercial ties are robust and thriving. Measured on an historic cost basis, U.S. companies had invested a record $1.1 trillion in the UK economy and British firms roughly $663 billion in the U.S. economy by 2022 – directly supporting 2.59 million jobs in both countries. Estimated sales of American and British affiliates in each other's markets were a combined $1.4 trillion in 2022. U.S. FDI in the UK of $1.1 trillion in 2022 was more than U.S. FDI in the entire Asia-Pacific region. The United States is the UK's top trading partner in both goods and services, with total bilateral trade reaching an estimated $295.6 billion in 2022.



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