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Europe’s fintech opportunity

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Executive Summary

The deteriorating macroeconomic environment in Europe and around the world is hurting start-ups across sectors and has hit fintechs hard, with valuations declining and access to financing becoming more difficult.[1] Viewed from a long-term perspective, however, European fintechs continue to gain in strength and relevance for customers and the economy. In each of the seven largest European economies, as measured by GDP, at least one fintech ranks among the five top banking institutions.[2]

While some fintechs may not survive the current environment, others will gain market share and benefit from structural trends. Those able to build resilient, profitable business models with solid cash flows will become more competitive in the long term.[3]

Strong fintechs offer customers greater choice and convenience. The competition they bring to banking systems is already helping modernize the financial-sector ecosystem in several European countries. In this report, we focus on three key aspects of Europe's fintech sector: founding, funding, and scaling—that is, the ability of fintechs to set up in the first place, the ease with which they can access capital, and how well they can grow and thrive (see sidebar "Sources for this report").

Our analysis highlights growing fintech activity in every European country (chapter 1)—including some unexpected pockets of strength in a few comparatively small economies such as Estonia, Luxembourg, and Malta. At the same time, we find a wide divergence of maturity and performance among fintech ecosystems by country, with substantial gaps between the top one-third and the rest (Exhibit 1). Two countries in particular stand out for their superior fintech ecosystem performance: the United Kingdom and Sweden.

If fintech ecosystems in all European countries were able to attain the level of performance of the best in the European region, the upside could be substantial (chapter 2). Our analysis suggests that if the

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[1] We define "fintech" in this article as financial-services companies driven by digital technology (excluding direct banks) that were launched after 2000, have raised funding since 2010, and have not yet reached maturity. For the purposes of this paper, Europe includes Switzerland and the United Kingdom post-Brexit as well as the EU-27 countries.
[2] Excluding insurance and stock exchanges; valuation of nonlisted European fintechs determined based on latest funding rounds and market capitalization of the largest banks listed in the STOXX Europe 600 banks index as of June 30, 2022; for Switzerland, we used the market capitalization of the largest banks listed in the SMI Expanded index as of June 30, 2022.
[3] "Fintech value creation in a changed investor climate," McKinsey Global Banking Practice memo (available on request).

Sources for this report

The insights in this report are drawn from three principal sources:

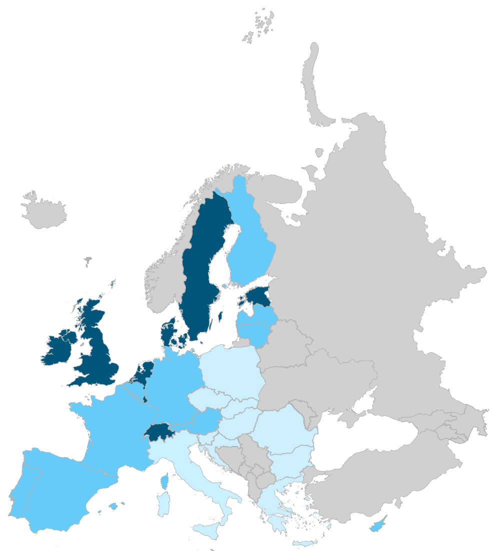
- analyses and assessments of the fintech industry based on public data on key criteria and indicators, focusing on European countries with a comparative look at the United States
- proprietary data from surveys and databases about European fintechs
- more than 30 interviews with fintech founders and management teams, top management of established banks, leading investors, and representatives of regulatory authorities

Exhibit 1

Fintech performance is variable across Europe, with the United Kingdom, Sweden, and northern European countries leading.

Top third[1] | Middle third | Lower third | Not considered

Countries with GDP > $100 billion
Countries with GDP < $100 billion



Fintech ranking by performance

Top third	Middle third	Lower third
United Kingdom	**Germany**	**Italy**
Sweden	*Republic of Cyprus*	**Hungary**
Malta	*Lithuania*	*Slovenia*
Luxembourg	**Finland**	**Czech Republic**
Switzerland	**Austria**	*Croatia*
Estonia	**France**	**Poland**
Ireland	*Latvia*	**Greece**
Netherlands	**Spain**	*Bulgaria*
Denmark	**Belgium**	**Romania**
	Portugal	**Slovakia**

Note: KPIs considered for all EU-27 countries, United Kingdom, and Switzerland: fintechs founded per million capita, 2021; fintech funding per capita in €, 2021; deals per million capita, 2021; unicorns per million capita, 2021; workforce (fintech jobs) as share of total workforce in 2021. The boundaries and names shown on maps do not imply official endorsement or acceptance by McKinsey & Company.
[1]We have also considered the United States as an additional market for comparison (a top-third country based on our analysis).
Source: Dealroom.co

bottom two-thirds in Europe could catch up with the top third, and if the top third could catch up with the United Kingdom, the number of fintech jobs in Europe would grow by a factor of 2.7 to more than 364,000. The potential funding would grow by a factor of about 2.3, adding about €84 billion in investments, and valuations could grow by a factor of 2.3, to about €981 billion—almost twice the combined market capitalization of Europe's top ten banking players with €516 billion.[4]

As they look to boost fintech growth, countries across Europe and stakeholders in the fintech ecosystem need to address some overarching challenges, including market maturity, access to capital, a regulatory and legal framework that does more to foster innovation and growth, the mobility of talent, the requirements for scaling across borders, and customer openness. Existing market prerequisites such as language or currency will also be a factor in determining whether fintechs can emerge and scale.

We conclude with some of the imperatives for the fintech sector in Europe as it seeks to build on its momentum and inject new competition into the financial system (chapter 3). These include the need to foster the harmonization of market structures within the European Union, encourage more diverse "homegrown" capital, foster regulation with an innovative mindset, become a magnet for global talent, enable fintechs to thrive in target markets, and increase customer choice and access.

[4]McKinsey analysis; as of June 30, 2022.

1 Fintechs are a force for growth, modernization, and customer satisfaction in Europe's financial-services sector

Europe's fintech sector has moved quickly from the fringes of the European financial landscape to its core. In each of the seven largest European economies by GDP—France, Germany, Italy, the Netherlands, Spain, Switzerland, and the United Kingdom—at least one fintech now ranks among the top five banking services institutions, as measured by market value.[5] Germany and the Netherlands each has three in its top five—and the leading banking services institution in the Netherlands also ranked as the largest fintech in Europe by market valuation in mid-2022.

Underlying the significant growth of fintechs in Europe and their increasingly mainstream positions are the contributions they make to customers, to the continent's financial sector, and to the overall economy and society.

Fintechs are substantially improving customer satisfaction

For customers, the growing appeal of fintechs is that they create value with superior service at lower costs.

Whereas the average customer satisfaction score (a measurement of customer loyalty and satisfaction) for banking is 30 out of 100, the latest figures show that several fintechs easily outperform leading international banks; one online financial-services platform in the United Kingdom achieved a very strong score of 80.[6] Competitive pricing for existing services is an important part of the attraction. For example, international transfers and the end-customer price of stock trades transacted through fintechs can cost just 10 percent of the rates charged by traditional banking services institutions.[7] This is a significant competitive advantage, because pricing is one of the top two reasons why customers use fintechs. A recent McKinsey retail banking consumer survey in seven large European countries found that 32 percent of respondents listed pricing as a main reason to use fintechs or digital banks; an equivalent number cited easy access (Exhibit 2).[8] Speed of service also ranks high across Europe—although there has been criticism that after a generally customer-friendly onboarding process that includes straight-through processing, after-sales service sometimes lags behind that of incumbent peers.

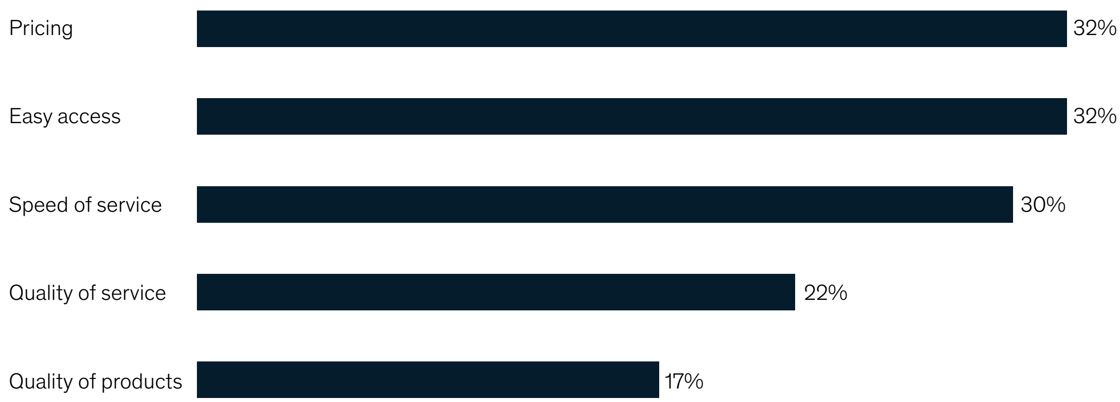
Some fintechs offer financial opportunities to customers who may not have had access to them otherwise, including asset classes previously available only to institutions. For example, one German fintech

[5] Excluding insurance and stock exchanges; valuation of nonlisted European fintechs determined based on latest funding rounds and market capitalization of the largest banks listed in the STOXX Europe 600 banks index as of June 30, 2022; for Switzerland, we used the market capitalization of the largest banks listed in the SMI Expanded index as of June 30, 2022.
[6] Net Promoter Score database, CustomerGauge, 2022.
[7] Average end customer price for international transfers including 90 percent lower foreign-exchange costs at a leading UK-based payment fintech than at incumbents. In Germany, the average end customer price for stock trades is 90 percent lower at a leading German neobroker than at incumbents.
[8] McKinsey Retail Banking Consumer Survey 2021. The seven countries in the survey are France, Germany, Italy, the Netherlands, Portugal, Spain, and the United Kingdom.

Exhibit 2

Customers cite pricing and customer experience as their primary reasons for banking with fintechs.

Top reasons to use fintechs and digital banks[1]
What are the main reasons why you use products or services from a fintech or digital/direct bank?[2]



[1]Results from consumer survey in France, Germany, Italy, Netherlands, Portugal, Spain, and United Kingdom.
[2]Within the group of respondents who answered, “I plan to keep my current exposure,” “I plan/expect to increase my exposure to fintechs,” or “I plan/expect to significantly increase my exposure to fintechs.” User can select up to three reasons. Other reasons include “curiosity, wanted to try them out”; “fintechs or direct/digital banks are cool”; “recommendation from someone I know”; “products not offered by banks.”
Source: McKinsey Retail Banking Consumer Survey 2021

investment platform gives retail investors the opportunity to invest in private-equity funds, venture capital (VC) funds, and infrastructure funds. Other fintechs focus on customer segments previously underserved; for example, a French digital bank is providing online business banking to small and medium-size enterprises. Peer-to-peer lending fintechs offer private and institutional investors the possibility of investing directly in private loans. Fintechs also provide access to cryptocurrencies and innovative value-adding features such as “bill split,” virtual debit cards, and smart chatbots.

For the financial ecosystem, fintechs are a catalyst for disruptive innovation and growth

Fintechs make important contributions to the financial-services ecosystem, help create new revenue pools, and challenge incumbent offerings and operations. In doing so, they contribute to a more vibrant and robust financial sector.

With their agility and speed, fintechs are well equipped to accommodate many new trends in the financial sector, including embedded finance and “distributed ledger” technology. They launch new products and services much faster than incumbent banks, with an average time to market of two to six months versus 12 to 18 months for incumbents, according to our analysis. This enables them to tap into emerging opportunities and markets more quickly.

The ability of fintechs to adopt and adapt technology puts them in a solid starting position to embrace innovation and serve as a long-term catalyst for Europe’s prosperity. For example, one leading UK-based fintech has evolved from serving as a cross-border payments product for retail customers to serving small businesses. It now provides cross-border payment infrastructure to banks, financial institutions, and enterprises of all sizes.

Fintechs can serve as a bellwether for incumbents, signaling which innovations are successful.

Fintechs also act as ongoing challengers and front-runners in providing unique customer experiences and lean-banking processes. For incumbents, fintechs can serve as a bellwether, signaling which innovations are successful and highlighting ways in which incumbents can become more competitive. Today, many leading European banks rely on fintech partnerships across a wide range of areas, particularly in operations and payments. Acquisitions also allow incumbent banks to benefit from fintech know-how. For example, a large banking player in the United Kingdom is targeting new customer groups via the acquisition of a banking fintech that is supporting families in educating their children on healthy savings and spending behavior.

Our analysis suggests that the success of fintechs is not a result of a weak incumbent-banking market. Indeed, leading banking markets can provide a fertile breeding ground for successful fintechs. At the same time, strong fintech ecosystems can also be found in less developed banking markets. Thus, the structure of the banking market is not to blame for a suboptimal development of the fintech ecosystem. Likewise, fintechs per se do not pose a threat to the strength and health of the banking sector.

In the long run, incumbents working together with fintechs as forward-thinking business partners could make the financial sector more robust and vibrant and strengthen the competitiveness of Europe's financial industry. This can be achieved through a successful interplay of the strengths of both incumbents and fintechs—for example, by combining incumbents' expertise and capabilities in credit risk assessments or regulatory processes with the sharp customer focus of fintechs.

Fintechs contribute to economic growth and employment

Fintechs are an important source of potential growth for the overall economy. Across Europe, they have created approximately 134,000 jobs, as well as fostering innovation and creating economic growth momentum.[9]

A growing fintech sector creates future-focused jobs in fields such as data science, IT and programming, and design. Vibrant start-up hubs such as Amsterdam, Berlin, London, Lisbon, Madrid, and Paris also serve as magnets for both domestic and international talent, further strengthening the start-up ecosystems in these regions. Indeed, fintechs in Europe have scaled up their hiring significantly at a time when incumbent banks in Europe have been reducing their workforces by about 3 percent, or 60,000 jobs, annually since 2019.[10] Fintechs are starting from a rather modest base, but job growth is strong: in 2021 alone, the top ten European fintechs employed more than 20,000 individuals,[11] which implies growth of more than 80 percent over two years since 2019. Due to a deteriorating macroeconomic environment, some fintechs have recently reduced staff, but we expect the overall upward trend to continue.

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[9] As of June 30, 2022; Dealroom.co.
[10] "EU structural finance indicators: end of 2021," European Central Bank, June 2, 2022.
[11] Company 2021 reports for the ten largest European fintechs: Adyen, Allfunds, Blockchain.com, Checkout.com, FNZ, Llama, N26, Rapid, Revolut, and SumUp.

As of June 2022, from a value creation perspective, fintechs in Europe represent a total valuation of almost €430 billion. That is more than the combined market capitalization of Europe's seven largest listed banks as of June 30, 2022.[12] The future will show whether fintechs can fulfill the expectations implied by current valuations—especially given rising interest rates and therefore higher investor expectations regarding profitability. Indeed, these adverse macroeconomic conditions will likely persist for some time, affecting various segments unevenly, and valuations of several fintechs have already decreased in the latest funding rounds. Fintech management teams, few of which have experience navigating such environments, will need to pivot from a pure-growth mindset to focus on profitability and scale while meeting increased expectations for operational maturity.

Fintechs' ability to attract venture capital—currently exceeding €57 billion (considering more than 700 European fintechs)—puts them in a position to invest heavily in growth and to create competitive advantages, thereby contributing to the economy with successful business models. For example, fintechs invest substantial resources in modern IT infrastructures to achieve cost advantages, ensure scalability, and foster innovation.

So far, fintechs in Europe have mainly focused on building up successful retail propositions. This leaves further opportunity to disrupt the B2B financial-services market and tap into areas such as monetization of bank and market data, as well as business models that embrace megatrends such as environmental, social, and governance (ESG) investments. An emerging open-banking ecosystem in some countries could also fuel innovation and lower barriers to new customer propositions, such as through low-cost securities trading or foreign interest rate deposits.

[12] Dealroom fintech database, Dealroom.co.

2 The divergent national performance of fintech ecosystems in Europe points to considerable untapped potential

Our research highlights a huge variance across European fintech ecosystems. For example, the United Kingdom and Sweden significantly outperform their European peers across all critical performance areas. We compare and discuss in detail these performance factors, which are common to fintech ecosystems in every country, and subsequently focus on a number of country-specific market realities that help explain why some places are ahead and others behind (see sidebar "Our analysis of fintech performance").

Exhibit 3 provides an overview of the performance of European fintech ecosystems based on five KPIs. As well as showing that the United Kingdom and Sweden are clear leaders across all the dimensions, it also highlights a second tier of countries with strong fintech sectors across most of the dimensions we examine: Switzerland, Ireland, the Netherlands, and Denmark. Together with the top-ranked countries, they constitute the top one-third of fintech performers in Europe.

This exercise reveals several notable findings. First, our heat map suggests that there is a correlation between geography and performance. Countries in northern Europe tend to significantly outperform other geographies. Central Europe and the Mediterranean countries are in the midfield, and eastern Europe has a significant gap compared with the leaders. Switzerland, a leader despite its location in central Europe, is a geographic outlier to this pattern.

Second, based on this analysis, strong ecosystem performance does not seem to be significantly influenced by market size in terms of GDP. Indeed, some of the smaller European economies in terms of GDP—Denmark, Ireland, and the Netherlands—significantly outperform France and Germany, two of Europe's largest economies.

Third, some smaller countries show singular strengths. For example, the Republic of Cyprus ranks eighth in the number of fintechs founded per million capita, Lithuania is a top-five country with a relatively high number of 6.5 deals per million capita, and Austria is in the top one-third with fintech funding of €46 per capita.

Taking a deeper look, our analysis suggests, unsurprisingly, that countries with stronger market prerequisites—for example, stronger scores in international rankings such as the Global Entrepreneurship Index and the Global Talent Competitiveness Index 2021, as well as the level of digital bank usage—are also those that tend to show higher performance along the growth stages (and vice versa).[13] The United Kingdom, Sweden, Switzerland, Ireland, the Netherlands, and Denmark—all of which are leaders—rank in the top third for these indicators.

[13] See Zoltan Acs et al., Global Entrepreneurship Index 2019, Global Entrepreneurship and Development Institute, January 2020; and Bruno Lanvin and Felipe Monteiro, The Global Talent Competitiveness Index 2021, INSEAD, 2021. Digital usage is based on McKinsey proprietary research.

Exhibit 3

By the end of 2021, a few European countries outperformed others across all dimensions.

Ranking by relative strength for five KPIs along the three fintech growth path stages

Top third | Middle third | Bottom third | Countries with GDP > $100 billion | *Countries with GDP < $100 billion*

Country	Filling the pipeline: **Fintechs founded** per million capita 2021	Funding growth: **Fintech funding** per capita	Funding growth: **Deals** per million capita	Scaling fintechs: **Unicorns** per million capita	Scaling fintechs: **Workforce (fintech jobs)** as share of total workforce	Total: **Average ranking**
United Kingdom	6	3	4	4	3	4.0
Sweden	7	2	8	2	2	4.2
Malta	3	1	6	1	11	4.4
Luxembourg	1	12	2	N/A	4	4.8
Switzerland	5	8	3	8	7	6.2
Estonia	2	6	1	15	8	6.4
Ireland	4	9	7	7	5	6.4
Netherlands	11	7	14	5	6	8.6
Denmark	10	5	9	6	14	8.6
Germany	17	11	15	11	9	12.6
Republic of Cyprus	8	22	11	N/A	10	12.8
Lithuania	14	17	5	N/A	16	13.0
Finland	12	13	12	N/A	18	13.8
Austria	18	10	19	9	15	14.2
France	19	14	16	10	12	14.2
Latvia	13	24	13	N/A	13	15.8
Spain	20	16	18	12	19	17.0
Belgium	16	19	17	N/A	17	17.3
Portugal	21	15	20	N/A	26	20.5
Italy	26	20	22	13	22	20.6
Hungary	22	18	23	N/A	21	21.0
Slovenia	15	23	26	N/A	N/A	21.3
Czech Republic	23	21	21	N/A	24	22.3
Croatia	25	26	25	N/A	20	24.0
Poland	27	25	24	N/A	23	24.8
Greece	30	28	29	14	25	25.2
Bulgaria	24	27	28	N/A	28	26.8
Romania	29	29	27	N/A	28	28.3
Slovakia	28	30	30	N/A	28	29.0
United States	9	4	10	3	1	5.4

Note: Data as of the end of 2021.
Source: Dealroom.co; World Bank

Our analysis of fintech performance

For the analysis of overall performance, we ranked the EU-27 countries, the United Kingdom, and Switzerland based on the performance of their fintech ecosystems along the three growth stages: founding, funding, and scaling. We used five key performance indicators:

Stage 1: Filling the pipeline

— number of fintechs founded per million capita in 2021

Stage 2: Funding growth

— fintech funding per capita in 2021 in euros

— number of deals per million capita in 2021

Stage 3: Scaling fintechs

— number of fintech unicorns per capita in 2021[1]

— size of the fintech workforce as a percentage of the total workforce in 2021

To obtain an overall score, we averaged the countries' rankings across the five KPIs and classified them as top, middle, or bottom third, according to their score. We acknowledge that these KPIs do not in themselves constitute a comprehensive analysis of all factors that can contribute to overall performance. Nonetheless, they are indicative of the key strengths and weaknesses of fintech performance.

Some countries with a GDP of less than $100 billion performed relatively well on some of our KPIs. Since these numbers may be affected by the low sample size of fintechs in these countries in the observed time frame, we acknowledge their performance but do not include them in the exhibits, which focus on countries with GDP greater than $100 billion.

[1] Fintech unicorns are defined here as fast-growing, technology-based companies with a valuation exceeding $1 billion (based on recent funding rounds).

The variations in Europe's fintech ecosystem performance are evident at all three growth stages

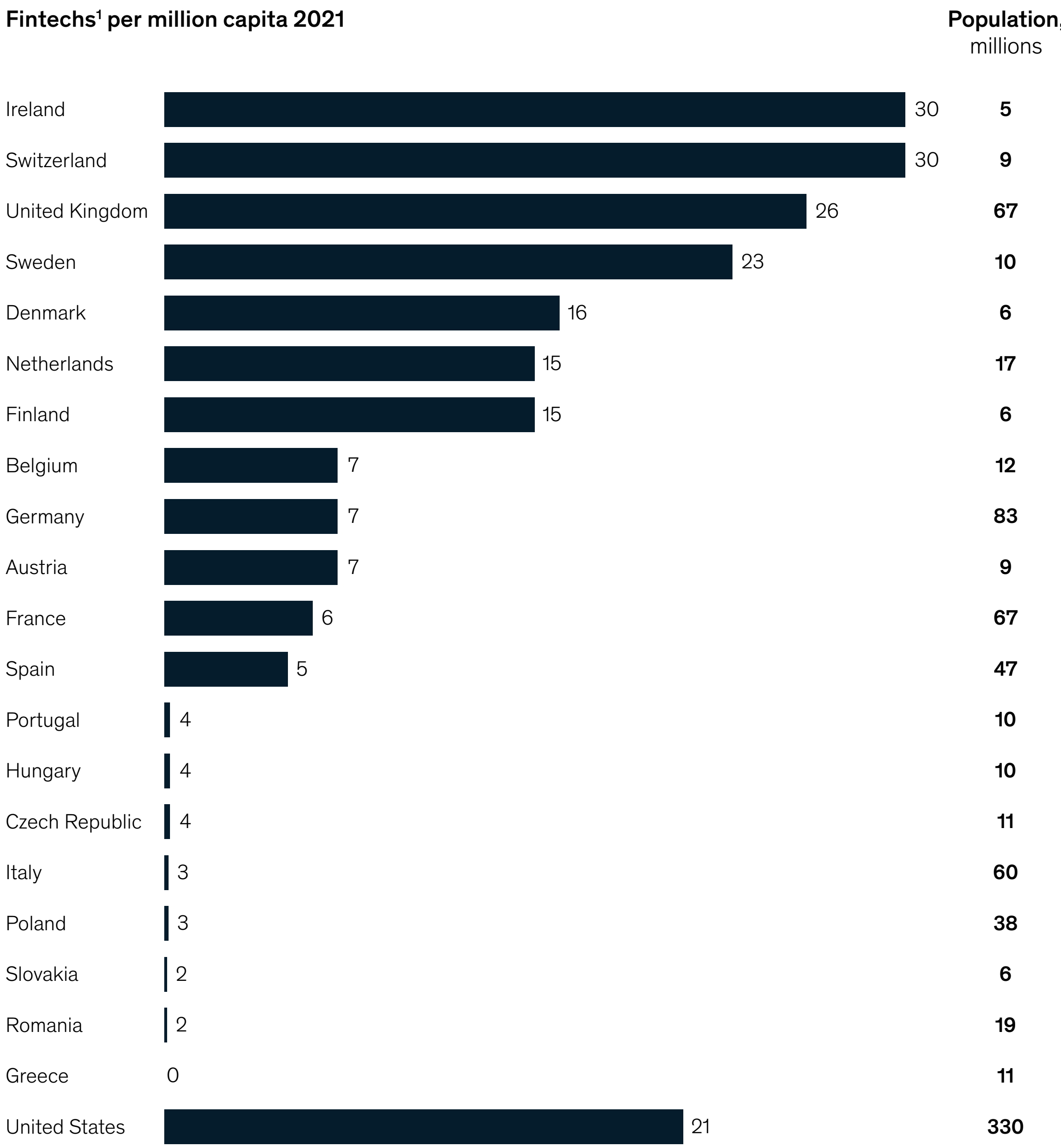
Our analysis shows wide performance gaps in each of the three stages of founding, funding, and scaling.

Filling the fintech pipeline. For this founding criterion, we used the number of fintechs in 2021 per million people as the key performance metric. The analysis shows that more than half of European countries have fewer than ten fintechs per million residents, creating a significant gap compared with best-in-class countries; for example, Ireland and Switzerland each has 30 fintechs per million residents, and the United Kingdom has 26 (Exhibit 4). On average, the top five countries (with a GDP greater than $100 billion) have 25 fintechs per million residents. Neither GDP nor R&D spending appears to be correlated with a "founding spirit" within the countries, because there is no recognizable pattern. Nevertheless, as expected, an examination of the Global Entrepreneurship Index—an indicator of the entrepreneurial attitudes, abilities, and aspirations of the local population as they affect the establishment of new companies—reveals that countries with a higher entrepreneurial index also seem to produce more fintechs per capita.[14]

[14] Global Entrepreneurship Index, January 2020.

Exhibit 4

The number of fintechs per capita varies widely among European countries.

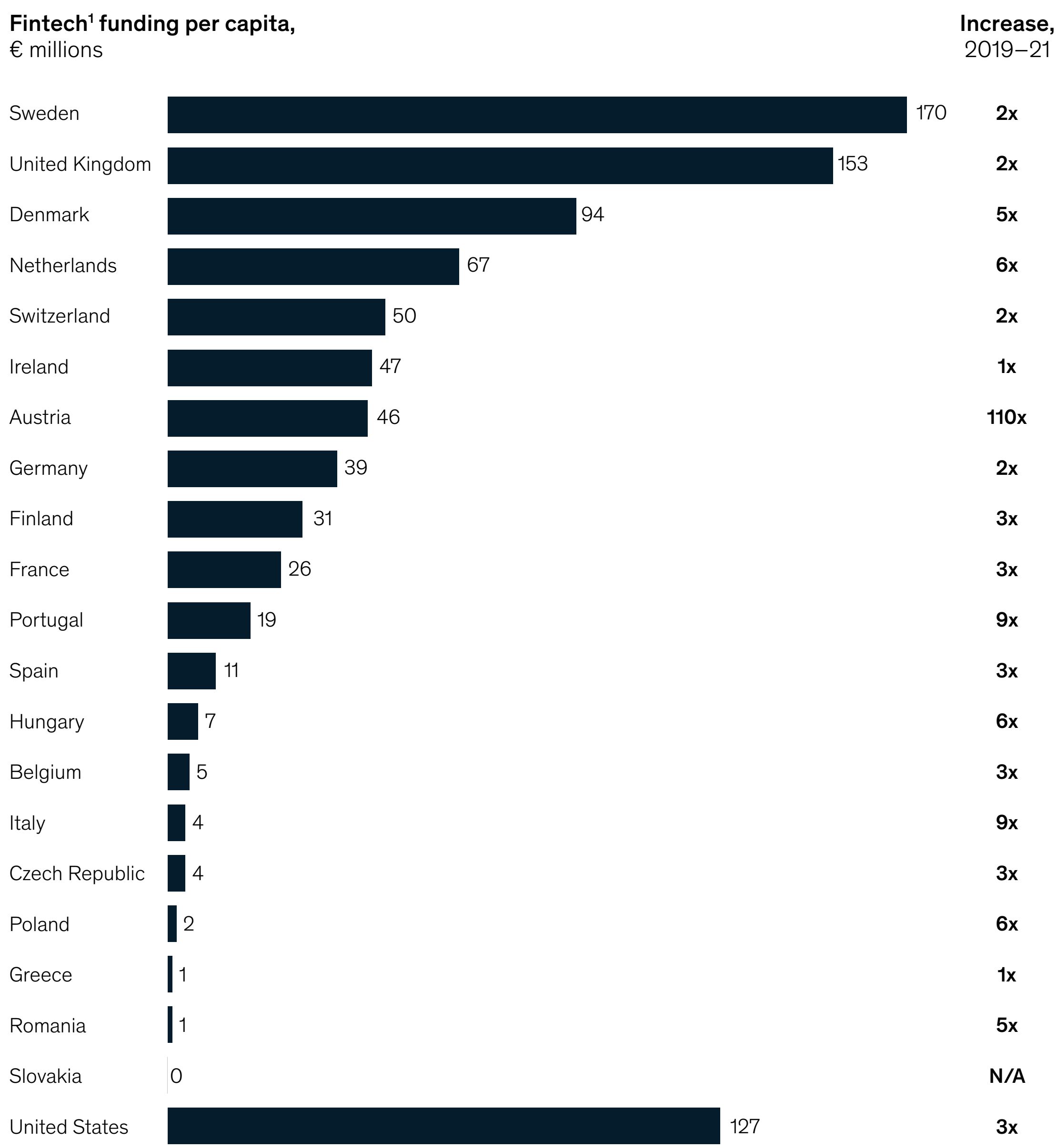


[1] Fintechs founded after 2000 that have raised at least one funding round since 2010. This reflects only countries with a GDP > $100 billion.
Source: Dealroom.co; World Bank

Funding growth. Access to capital plays a key role in our ranking of fintech ecosystem performance. The countries in Europe that perform the best have among the highest funding per capita, as do the others in the top one-third of our ranking (Exhibit 5). In countries that perform less well, including Greece, Poland, and Romania, per capita funding is significantly lower. While some countries have managed to increase per capita funding by as much as a factor of six in the past three years, Hungary, Italy, Poland, and Portugal still lag behind their peers significantly because the total volume of funding is still low.

Exhibit 5

By the end of 2021, Sweden and the United Kingdom were the leading fintech ecosystems for funding per capita.



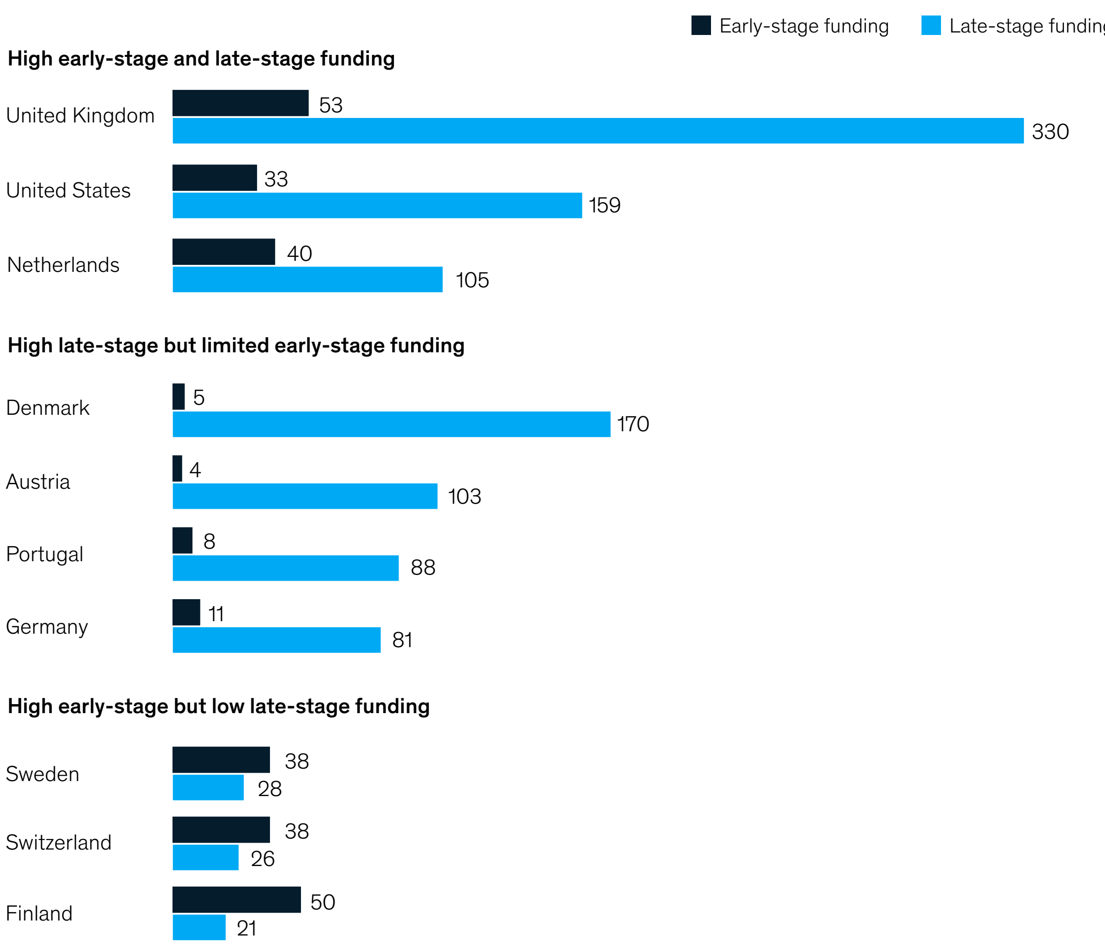
[1]Fintechs founded after 2000 that have raised at least one funding round since 2010. This reflects only countries with a GDP > $100 billion.
Source: Dealroom.co; World Bank

The growth rate in recent years of fintech funding in some countries—such as Germany, Greece, and Ireland—has been lower in comparison with markets such as the Netherlands and France. This lower growth rate makes it harder to launch future fintechs and more challenging for existing ones to scale. When it comes to different growth stages, the United Kingdom is the top performer in both early-stage (seed and series A) and late-stage (series B+) per capita funding (Exhibit 6). The United Kingdom led the European market with a total volume of approximately €1.3 billion for early-stage funding and €8.3 billion for late-stage funding in 2021. That performance compares favorably with other countries, including the United States: while US GDP is about ten times larger than that of the United Kingdom, US spending on funding is only four times larger (see sidebar "How fintech in Europe compares with the United States"). By contrast, several countries in Europe, particularly in eastern Europe, had very little early-stage funding in 2021 and no late-stage funding at all.

Exhibit 6

The United Kingdom led in both early- and late-stage funding in 2021.

Early-stage (seed and series A) and late-stage (series B+) fintech[1] funding for countries with highest overall fintech funding, 2021 in 1/100,000 of GDP



[1]Fintechs founded after 2000 and raised at least one funding round since 2010. This reflects only countries with a GDP > $100 billion.
Source: Dealroom.co; World Bank

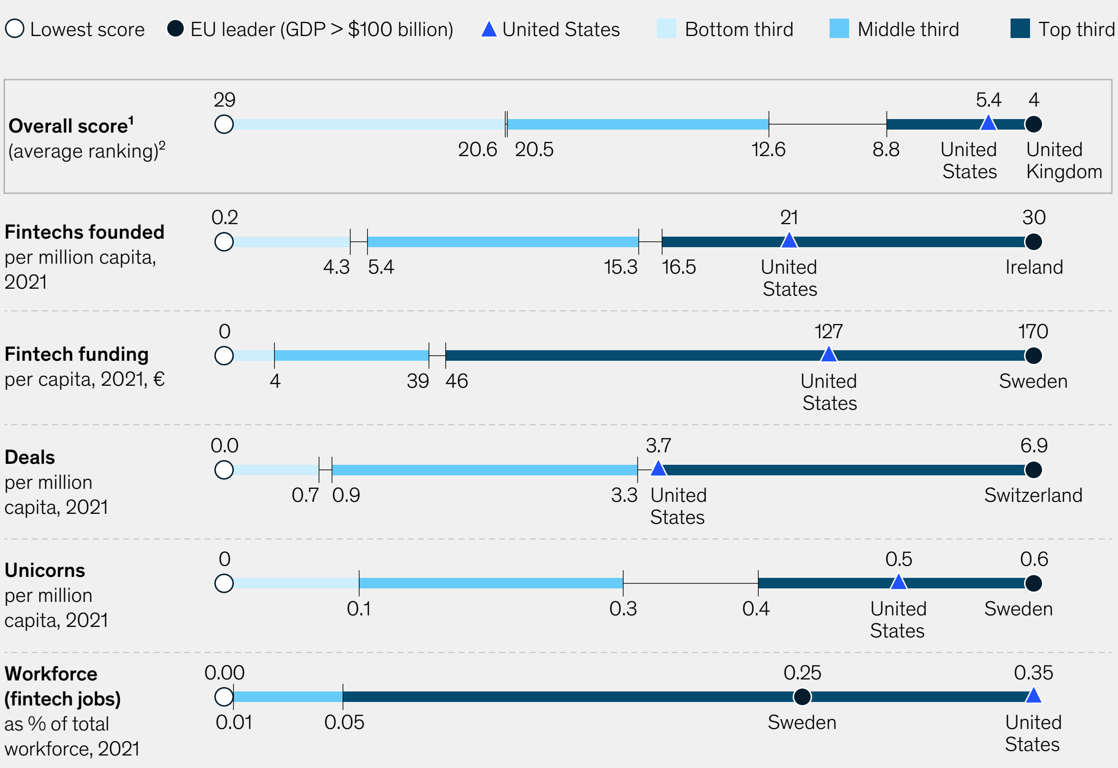
How fintech in Europe compares with the United States

Using the same three life cycle aspects of founding, funding, and scaling, a comparison between Europe and the United States is instructive (exhibit). The United States exceeds the European average and is within the top third across all KPIs—with particular strength when it comes to the contribution of US fintechs to the economy and the workforce.

How to explain the strength of the United States compared with the European average? Many factors could be at play here that correspond to similar factors in Europe. For example, the United States has a large home market, but it also has just one primary language and largely harmonized banking regulation—thus benefiting from favorable market structure conditions. Market maturity is also stronger than in various European countries, with the venture capital (VC) community, especially in the tech sector, perfecting funding mechanisms from earliest seed funding through to IPOs. The United States has strong connections with all the other large economies and has long served as a magnet for investors, making access to capital easier: US pension funds and other institutional investors provide venture capital in ways that are restricted in some parts of Europe, where risk concerns tend to be larger. Nevertheless, our analysis shows that some individual countries, including the United Kingdom, outperform the United States in the funding stage. In addition, US companies can easily attract talent from the world's best universities; regions such as Silicon Valley, south of San Francisco, or New York City, as the US financial center, exert a strong pull on foreign talent, although immigration measures have somewhat limited the flow.

Exhibit

In 2021, the United States would have ranked in the top one-third of Europe for all of the performance indicators we evaluated.



[1]For details on our scoring system based on parameters of founding, funding, and scaling, see Exhibits 1 and 3.
[2]Ranked from worst to first.
Source: Dealroom.co; World Bank

The limited scale of fintechs may be related to the relatively low level of internationalization of business models, which can serve as a constraint on growth.

Scaling fintechs. As a proxy to judge the ability of countries in Europe to scale their fintech ecosystems, we looked at the prevalence of fintech unicorns.[15] Most countries with more than one unicorn show a timeline between six and eight years from funding to becoming a unicorn. The United Kingdom has the best scaling track record by far with 32 unicorns in total—four times as many as France and the Netherlands, the countries with the next largest numbers of unicorns.

In some countries, the limited scale of fintechs may be related to the relatively low level of internationalization of business models, which can serve as a constraint on growth. Europe's fintech leaders, including the United Kingdom and Sweden, tend to have a global footprint. For example, the leading neobank in the United Kingdom had a presence in 34 countries including the United States and three Asian markets in 2021. In Sweden, an open-banking platform is present in 18 countries.

Country-specific market conditions explain some of the differences in ecosystem performance across Europe

Closing the gap between leading European countries and those in the bottom or middle third of the rankings requires an examination of the factors inhibiting the sector's success. Here we focus on six factors that can have an impact on the ecosystem, and for which strategic improvements can make a difference in both the short and medium term. The six factors are market structure and maturity; access to capital; the regulatory and legal framework; talent mobility and acquisition; requirements for scaling, including internationalization; and customer openness.

Market structure and maturity. These elements can depend partly on culture, language, and history. For example, having a widely spoken language or a common currency and harmonized regulation can help—and the lack of those factors can be a hindrance. We see three main dimensions to this aspect. The first is how long a fintech or broader start-up scene has been present, since markets learn and improve over time. Second, mature markets can differentiate themselves by the extent to which a second generation of entrepreneurial founders is emerging that can learn from the previous generation and count on them to be mentors, supporters, advisers, or investors. Such networks do exist: for example, more than 15 former employees of two of the largest UK fintechs are now active with their own start-ups.[16] This demonstrates that fintech hubs can be developed around unicorns and decacorns, with new start-ups providing complementary services to them and their customers. It also shows the potential of clustering effects

[15] Fintech unicorns are defined here as fast-growing, technology-based companies with a valuation exceeding $1 billion (based on recent funding rounds).
[16] Isabel Woodford, "Digital bank 'mafia': Monzo and Revolut employees who have become founders," *Sifted*, September 2, 2020.

emerging in regions such as Zurich, where prominent tech giants have headquarters or large local offices.[17] For example, McKinsey analysis shows that the Netherlands already has a strong start-up ecosystem, with a high number of start-ups per capita and a society in which starting a business is highly valued. Market maturity may be one contributing factor to the Netherlands' strong fintech landscape.[18]

Access to capital. Fintech funding in Europe has significantly increased over the past five years, but not uniformly and with sizable funding gaps between European leaders and their peers. Looking at the various funding stages, we find that less than 20 percent of all capital raised goes to early-stage financing, which points to risk aversion among some European investors. More than one-third of all European countries—most of them in eastern Europe—did not have any late-stage funding. This unevenness threatens to dry up the pipeline for early-stage fintechs because they have less access to funding than the overall investment numbers might suggest. In addition, some late-stage fintechs may need to seek funding from countries outside their home market.

The source of funding is as important as the recipient, and the little funding available in some of these underserved markets mostly comes from abroad—as much as 81 percent in 2021.[19] Significant European money pools such as pension funds and life insurance policies tend not to be sufficiently tapped because of more restrictive regulations compared with the United States—although here too there is some movement. Pension funds in the United States are large investors in private markets with sophisticated investment teams and board members who are familiar with the risks and returns of VC. Some European countries are trying to build similar strengths. In Scandinavia in particular, capital accumulation institutions are already taking a more active role. Sweden, for example, allows pension funds to invest up to 40.0 percent of their capital in illiquid assets—compared with just 7.5 percent in Germany (excluding a 25.0 percent limit for real estate investments).

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[17] A decacorn is defined in this context as a grown unicorn with a valuation greater than $10 billion.
[18] "Building a world-class Dutch start-up ecosystem," McKinsey, forthcoming.
[19] Venture capital database, PitchBook, 2022.

A tale of two countries: Fintech lessons from France and the United Kingdom

Regulators and other authorities in both France and the United Kingdom have played important roles in helping develop local markets.

In France, rapid growth of unicorns

In 2019, the French government set a goal for start-up growth in France: 25 unicorns by 2025.[1] That number had been exceeded by January 2022—well ahead of schedule. Behind this success story are several government initiatives that support young tech companies, including fintechs, in key ways:

Process guidance. The regulatory landscape can be complex and overwhelming for fintech start-ups. To address this issue, regulators in France set up a body to support fintechs and help them navigate the landscape by directing them to the relevant authority. This body also convenes ecosystem players in the Fintech Regulation Forum to discuss the current regulatory requirements, review the appropriateness of the measures, and initiate adjustments if necessary.

A tale of two countries: Fintech lessons from France and the United Kingdom (continued)

Business-creation simplification. Enacted in 2019, the Business Growth and Transformation Action Plan (Loi PACTE) aims to simplify business creation for start-ups and adapt labor laws and regulations as necessary. One update has made employee savings plans more attractive to prospective employees—strengthening fintechs by helping them secure top talent.

Innovation enablement. Loi PACTE also ushered in a regulatory change that supports fintechs' product offerings in the cryptocurrency space. This change is related to initial coin offering regulations and creates special visas that allow the issuance of digital tokens. Banque de France launched an experiment using central bank digital currency, and various fintechs participated.

Building on the ambition set in 2019, the French government launched the Scale-Up Europe initiative in 2021. In collaboration with the European Commission and other member states, the initiative has convened more than 300 founders, investors, researchers, and corporations with the goal of Europe becoming home to ten tech giants, each valued at more than €100 billion, by 2030.

In the United Kingdom, a focus on greater sustainability

The United Kingdom has historically been an attractive market for fintechs in Europe and a front-runner in promoting open banking. It interacts with fintechs in a relatively nonbureaucratic way. For example, it states licensing requirements clearly and provides legal support to help entrepreneurs easily understand the process. To further pave the way for a green and technologically advanced financial sector, the government in 2021 announced that the United Kingdom will be implementing many of the recommendations made in the Kalifa review of UK fintech and the UK listing review. These include the following:

Policy and regulation. Plans call for the design of a digital finance package for emerging technology and implementation of a "scale box" to support firms focusing on innovative technologies. The goal is to integrate fintechs into trade policy.

Investments. The United Kingdom will expand R&D tax credits, establish a fintech growth fund of £1 billion, and reduce the percentage of capital freely available to the public to improve the listing environment.

International attractiveness and competitiveness. Steps include the design of an international action plan for fintechs, launch of an international fintech credential portfolio, and international collaboration through the Centre for Finance, Innovation and Technology.

National connectivity. The government will nurture the top ten fintech clusters; enhance the national coordination strategy through the Centre for Finance, Innovation and Technology; and accelerate the development and growth of fintech clusters.

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[1] Fintech unicorns are defined here as fast-growing, technology-based companies with a valuation exceeding $1 billion (based on recent funding rounds).

The regulatory and legal landscape. Some European countries see their regulators as an important facilitator of innovation. For example, in France, financial regulators are evolving to become strategic partners for the financial sector, and in the Netherlands, local regulators have recognized that fintechs' products and services do not always fit with existing rules; Dutch regulators thus interpret obligations for fintechs in proportion to their size and complexity. In other countries, existing regulatory frameworks to support the establishment, growth, and value of fintechs have room for improvement. Regulators and political actors serve as crucial enablers for the creation and protection of an innovative fintech ecosystem. Mandates of relevant bodies can reflect the ambition of finding the right balance between enabling fintech innovation and ensuring customer protection. While mandates define key goals and boundaries, responsible actors are asked to set priorities and translate ambitions into actions (see sidebar "A tale of two countries: Fintech lessons from France and the United Kingdom").

European payment service directives for data exchanges in financial industries may create new opportunities for fintechs. These directives will enable fintechs to access customer data from all financial players in Europe, giving rise to new business models. This has happened in the United Kingdom, a pioneer in open data for finance. Other countries with advance regulation include Switzerland. The Swiss Financial Market Supervisory Authority (FINMA) was among the first regulators to approve token trading on distributed-ledger technology (DLT) and has since spearheaded a technology-agnostic regulation approach enabling DLT and other new technologies to flourish.

But obstacles to fintech growth remain. Collaboration models with regulators are not always structured optimally, especially for small fintechs. For example, these collaborations might lack a clearly defined fintech–regulator interface. Overall, there is still a heavy focus on risks and control, while support for innovation tends not to be considered to the same extent. As a result, standardized processes associated with regulations often inhibit fintechs' ability to move quickly in an environment in which agility is essential.

Talent mobility and acquisition. Europe as a region has a major skills gap that needs to be closed, and not just for fintechs.[20] Along with an overall shortage of talent, visa requirements and bureaucratic processes for obtaining work permits in some countries can act as a brake on talent acquisition, as can high income taxes. Perceptions about the attractiveness of financial centers like London or Zurich as places to live and work also play a role. While one in four graduates in Europe finishes higher education with a STEM degree, the share of STEM graduates varies widely across European countries, especially in computing and information technology (IT), which are critical for fintechs. Fintech ecosystems in some European countries thus rely heavily on foreign talent—although attracting that talent is challenging.

Remote work has increased the competition between fintechs and other tech firms for IT talent. The United Kingdom, for one, has announced a new visa scheme that allows workers in the fintech industry to come to the United Kingdom without employer sponsorship. However, talent can come to the country not only through attractive employers and working conditions but also through active university promotion. Switzerland is home to ETH Zurich and EPFL in Lausanne, two of the highest-ranked universities in the world. The high level of state support for these universities helps produce top talent and create new start-ups. At ETH alone, 34 start-up spin-offs were created in 2020.[21]

In general, European countries have great appeal. Many European cities appear year after year in the rankings of the world's most livable cities, which makes them favorable locations for fintechs. Nevertheless, the downside to an area concentrated with attractive employers is an emerging competition for talent. This

[20] David Chinn, Solveigh Hieronimus, Julian Kirchherr, and Julia Klier, "The future is now: Closing the skills gap in Europe's public sector," McKinsey, April 27, 2020.
[21] Heike Schrader, "ETH Zürich bringt rekordviele Ausgründungen hervor," Switzerland Global Enterprise, January 6, 2021.

To scale up, fintechs in Europe need to be able to expand beyond their home market.

may be one reason why some fintechs have decided to build new hubs in attractive but lower-cost regions such as Portugal.

Requirements for scaling and internationalization. To scale up, fintechs in Europe need to be able to expand beyond their home markets. Even within a single market such as the European Union, differences in language, regulation, culture, and sometimes currency can create barriers. Export agencies can support companies in their global ambitions with advice but are not yet equipped to meet the needs of fintechs; their expertise is in more typically established trade relations based on physical goods. Fintechs may therefore be tempted to limit their international growth or focus only on markets where they feel comfortable because of factors such as a common language or cultural similarities. For example, one large European neobank is scaling from Barcelona to Latin America by taking advantage of the shared Spanish language.

Customer openness. Different levels of digital maturity, the lack of broadband infrastructure, and other structural challenges in some countries can limit the reach of fintechs. Customers may also have limited understanding of risks, including data security. Such issues play out in favor of incumbent banks, which tend to have a higher level of trust among the public than fintechs. Research from the United Kingdom shows that fintechs need to offer significantly superior products that provide clear benefits or convenience to customers to overcome this lack of trust. In other countries, customer protection associations or governments may be pushing fintechs to provide solutions that increase customer trust. Regulatory differences can be factors, too. For example, customer protection laws are tougher in some countries than in others. Know-your-customer stipulations in some countries, including Estonia and Sweden, are more digital, making it easier for customers to switch to new offers from fintechs. In Estonia, for example, residents and “e-residents”—who do not have to live in Estonia—can open a bank account with minimal requirements without going to a branch. All they need is an e-ID card, which 99 percent of the Estonian population has. With the help of the e-ID card, customers can verify their identity in a few minutes and at any time, and thus open an account completely digitally.

Calculating the upside: Europe’s fintech opportunity promises more jobs, larger funding volumes, and higher valuations

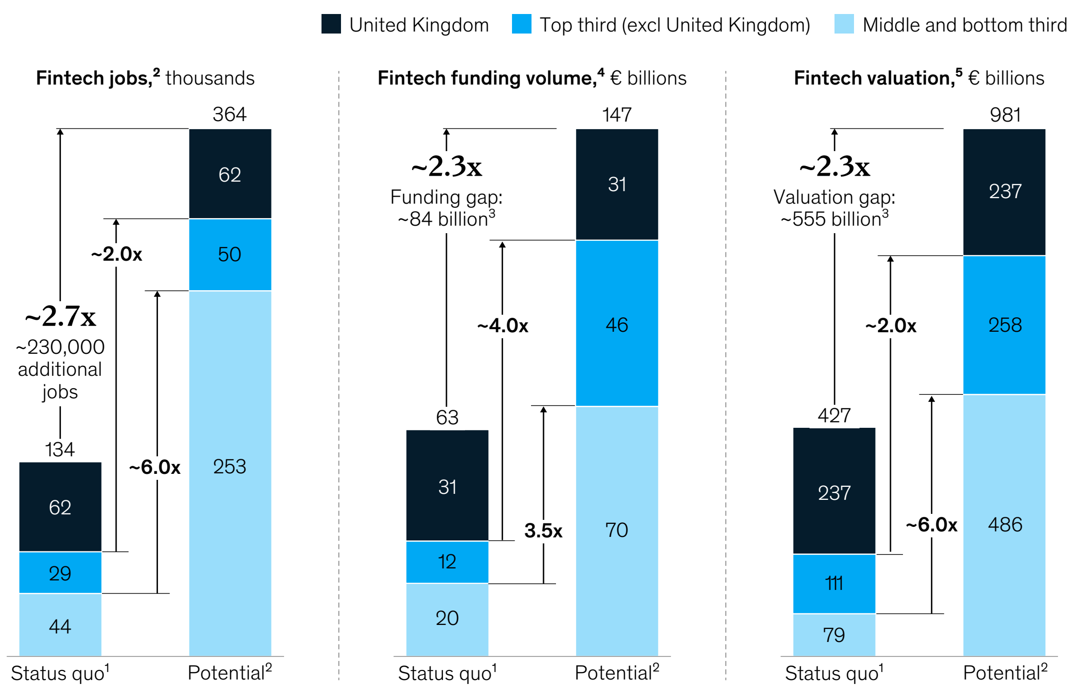
What is the potential upside for European fintechs if the lower-performing countries could rise to the level of the best in region and if the leading countries could catch up with the United Kingdom? We have built a model that estimates what could happen to fintech jobs, fintech funding volume, and fintech valuations if all countries in Europe attained the levels per capita of the best-performing countries.

Exhibit 7 shows the result of this hypothetical exercise. The overall number of jobs could grow by a factor of 2.7, to more than 364,000, and the number of jobs in the "follower" countries—those catching up with the leaders—could increase as much as sixfold. These would be next-generation jobs in fields such as data science, digital marketing, IT, and design. Potential funding would grow by a factor of about 2.3, adding about €84 billion in investments. The relative strength of the United Kingdom is evident here—funding volume for the top third of European countries would grow fourfold if lifted to the United Kingdom's level. Showing a potential of more than half a trillion euros, valuations in Europe could grow by approximately 2.3 times to €981 billion. Getting there is possible, but it requires the aligned and collective push of multiple stakeholders along a clear action plan.

Exhibit 7

European fintechs could have significant growth potential if all countries caught up with the best in region.

Relative ambition of countries compared with United Kingdom and leading European fintech ecosystems, as of end of June 2022[2]



Note: Figures may not sum, because of rounding.
[1]Numbers current as of end of June 2022 for United Kingdom, top third (Denmark, Estonia, Ireland, Luxembourg, Netherlands, Sweden, and Switzerland), and middle and bottom third (Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Poland, Portugal, Romania, Slovakia, Slovenia, and Spain).
[2]Ambition level determined as EU followers compared with EU leaders' potential and EU leaders compared with UK's potential.
[3]Normalized to total employment in respective market's financial industry.
[4]Normalized to gross fixed capital formation of respective market.
[5]Normalized to GDP of respective market.
Source: Dealroom.co; McKinsey analysis

3 A focused push along six strategic areas could help all European countries catch up with fintech leaders

For lower- and middle-performing countries, catching up with the leaders will require a clearly defined programmatic agenda and ongoing commitment. In the process, established structures will need to be further developed. The success of this agenda requires the buy-in and active participation of all stakeholders—including investors, incumbent banks, political players, regulatory bodies, and fintechs themselves. In this final chapter, we examine several strategic options that fintechs and their stakeholders in Europe can consider as they look to grow and develop the sector.

Drive the alignment of market structures within the European Union
The goal: a European market structure that is easy for fintechs to navigate and that enables them in developing a truly scalable business model.

An overall simplification and harmonization of fragmented national country regulation is already taking place in the European Union, enabling fintechs to understand key pillars of legal frameworks and to focus on regional specifics. The further development of cultural exchanges among countries will better equip fintechs to understand key customer needs outside their home market. Meanwhile, customers may catch up with a more digitalized way of living.

Encourage more diverse, 'homegrown' capital
The aim here is to increase funding for fintechs along all stages (seed, series A, and later stages) for the protection of influence and local interests and, at the same time, reduce exposure to geopolitical developments. In addition, successful and sustainable growth depends on an effective support ecosystem beyond capital injections—for example, strong adviser networks and access to experts.

Local political players and regulators have an important role to play in shaping restrictions on institutional investors' access to growth capital. For example, they could create stronger incentives for venture capital and private-equity investments compared with debt investments. Relaxing investment restrictions for capital accumulation institutions and aligning them with those of other countries could also make a difference. For example, only about 10 percent of German insurers' investments are currently in alternative assets such as venture or private capital, whereas in the United Kingdom this share is at approximately 30 percent.[22]

Increased attention to diversity in society can also lead investors to use their interest, and ultimately capital, in a fair way without disadvantaging specific groups. Politics can play a supporting role in this through campaigns and other activities.

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[22] *Investing in private markets: A road map for insurance companies*, StepStone Group, October 2021.

Foster regulation with an innovative mindset

The goal: a regulatory framework that fosters innovation and provides companies with the necessary conditions to compete domestically and internationally while ensuring stability and protecting both investors and customers.

Fintechs can actively work to make regulators even more aware of the societal benefits of their products and services. They can also commit to taking regulatory considerations into account early in their product development process. In addition, fintechs can use their customer orientation to implement regulatory requirements in a user-friendly way.

Political actors and customer-based regulation with a systematic focus on growth and innovation can contribute to an environment that fosters fintech start-ups and their growth. Programmatic coordination aimed at strengthening the fintech ecosystem is particularly important in this context. Specifically, this can mean minimizing the administrative burden and associated costs for fintechs and adapting regulatory requirements where necessary as well as making implementation more customer friendly. Likewise, innovation for better capital intermediation and mobilization is required to ensure fintechs have the necessary capital composition at the right time.

Whereas some countries, such as Estonia and the United Kingdom, try to reduce bureaucratic hurdles in the licensing process, the United Kingdom also provides a support structure between regulators and fintechs to create trust. For example, regulators provide “sandboxes” that allow fintechs to test and demonstrate innovative business models with dummy customer data. This keeps regulators informed about innovations in the financial sector and helps them align regulation with the latest market developments.

Become a magnet for global talent

The goal: a fintech ecosystem that can compete with global tech hubs for top talent from around the world.

Fintechs can do their part by offering attractive jobs with excellent development opportunities. They can also commit to creating a modern work culture that responds to a diversity of backgrounds and needs. For example, the ability to work remotely with no in-person office requirement can be a valuable offering for prospective employees. Likewise, fintechs could meet the special needs and requirements of international hires. A holistic program that offers support in obtaining a visa, for example, could be a very attractive perk.

Political players and regulators can also help establish modern ways of working within their countries. For example, remote working could include working from another country. This is currently easier in some countries than others due to regulatory restrictions, but more flexibility in labor laws could make it easier for fintechs—especially for those based in less attractive cities or regions—to attract the right talent.

Furthermore, local political players are in a position to make the tax framework appealing to foreign talent. For example, reducing the individual tax burden on income or employee stock ownership plans provides incentives for talented people to apply for jobs in such countries; low income tax rates in Switzerland may be a contributing factor to the country’s relative strength in fintech ecosystem performance. Additionally, political players and regulators could consider simplifying visa processes. This move would not only allow companies to more easily integrate foreign hires but also signal to the world that the country values international diversity in its fintech ecosystem. The promotion of talent exchange programs at universities or international internships within the European Union may also help attract talent.

Enable fintechs to thrive in target markets

The aim: a support structure of hubs in target markets that advise fintechs on market requirements and help them to adjust their business model accordingly.

Fintechs may be able to make more informed decisions about future target markets if all stakeholders—from investors to incumbent banks to public players and regulatory bodies—bundled their insights on foreign markets with the respective foreign regulations and industry requirements in one central hub. The establishment of internationalization hubs in key areas could create central points of access where fintechs and other start-ups could receive legal advice, get market insights on customer segments, and connect to support networks in the target country. A European institution such as the Enterprise Europe Network could serve as a potential central point of contact for this purpose.

Increase customer choices and access

The goal: a wider range of innovative, safe, high-quality, and convenient-to-use offers with low barriers and minimal risk for customers switching to or participating in fintech.

If fintechs put as much focus on product safety and stability as they do on customer experience, they might be able to avoid some regulatory challenges from the start. For example, they could go beyond established data and customer protection norms and be more transparent about securities and the inherent risk to customers before trading. By using their capabilities in customer communication and implementing customer requirements, fintechs can even turn regulatory compliance into a competitive advantage. Incumbent banks have an opportunity to partner with fintechs to drive innovative B2C and B2B propositions, because each can learn from the other. Such partnerships also foster customer trust in fintechs and new digital business models.

Political players and regulators could also develop Europe-wide initiatives to make it easier for fintech companies to demonstrate their credibility to customers—for example, by recognizing fintechs with official certifications or awards such as Singapore's SFF Global FinTech Awards, announced by the Monetary Authority of Singapore and the Singapore FinTech Association.[23] Such prizes, awarded by public authorities, can increase customer trust in fintechs.

Fintechs have made major inroads into Europe's banking landscape and are becoming central to its core. That is good news for customers, who will benefit from increased choice, and for financial systems, which will become more competitive and modern. But this is just the start: while a few countries have already emerged as leaders in Europe's fintech space, the potential for growth is strong everywhere in the region. If countries could rise to the level of the best in region, the upside could be significant for the economy as well as for fintechs themselves. In the coming months and years, it will be critical for all stakeholders—including public institutions, established financial industry players, and fintechs—to combine their strengths by establishing the enabling structure and mechanisms the sector needs to reach its full potential.

[23] "MAS and SFA announce award winners at Singapore FinTech Festival," Monetary Authority of Singapore, November 12, 2021.

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