Research Insights

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# Global Location Trends

2019 Annual Report: Trade regulations and digital disruptions affect the economic outlook

IBM **Institute for Business Value**

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## Talking points

### Changing tides

The international economic landscape is being fundamentally altered by the twin impacts of changing trade regimes and digital disruption. As such, we are witnessing a transformation of corporate activity and economic globalization.

### Brexit takes its toll

The United Kingdom is seeing a negative impact from the uncertainty caused by the Brexit threat. The country sees its leading position in Europe challenged by various other countries and has lost its European leading position in number of projects to Germany.

### How can leaders respond?

To remain competitive, both corporate investors, as well as economic developers and policy makers, must adapt and respond to global economic shifts.

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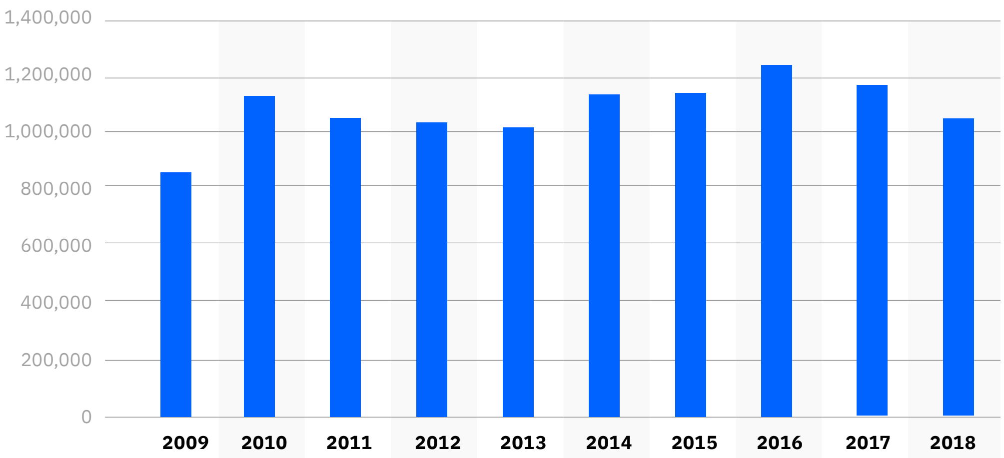
**Figure 1**

New foreign investment activity in number of jobs, 2009-2018




## Foreign direct investment drops

*This year's report highlights several historical changes in foreign investment.* The international economic landscape is being transformed in the face of changing trade regimes and digital disruption. The former is impacting companies' capability to leverage global supply chains, while the latter is changing how and where value creation takes place. In light of this, we are witnessing a transformation of corporate activity and economic globalization. These impacts are changing the patterns of global corporate investment activity as well as companies' decisions to establish and expand operations across different locations.

*As a result of these changes, global foreign direct investment continues to decline.* Accordingly, 2018 saw a decline in overall international investment activity, with the number of overall jobs created falling by 9 percent, to 1.06 million, and the number of new investment projects declining by a more moderate 3 percent (see Figure 1).

The overall reduction in the number of jobs created is partly explained by the structural shift in investment activity. As companies respond to opportunities brought by digital technologies and automation, we see a gradual reduction in the average size of investment projects.

The reduced investment is also a result of uncertainty surrounding potential trade wars as well as regional or local disruptive events, such as Brexit. However, it is also important to emphasize that the investment declines in the last couple of years have followed a period of growth,

**In 2018, global job creation from foreign direct investment declined by 9 percent** and the number of foreign investment projects by 3 percent. China has replaced Japan as the leading Asian outward-investing economy. It has become a top investor along with the United States and Germany.

**Paris is the leading metropolitan** area for the first time in history, replacing the traditional leader, London.

**The transport equipment industry (mostly automotive)** has lost its leading position as job creator.

with a peak in international investment activity in 2016. The lower levels of investment in 2018 may therefore also be partly due to saturation. Many companies have made major investments in previous years and have established the capacity they need for their immediate growth plans.

### Hospitality and Tourism lead job creation

We are seeing more market-seeking investment and relatively less investment in projects that seek to serve wider international markets through trade. This is, for example, reflected in the sectoral composition of investment, where, after moderate growth in 2018, Hospitality and Tourism is now the number-one sector for job creation through foreign direct investment.

This is mostly due to the development of new hotels, which generate a relatively high number of jobs, particularly in growth markets. This sector is strongly driven by economic growth in individual markets and, therefore, typically follows international economic cycles. In response to healthy economic fundamentals, the sector has shown very strong growth globally over the past ten years, and it still performed well in 2018.

The Transport Equipment sector—which is dominated by the automotive industry—has experienced a significant decline in overall investment and is now second (see Figure 2). This is the first time since we started monitoring global investment trends in 2003 that automotive has not been the most important sectoral source of jobs from foreign direct investment. The lower level of international investment reflects a wider transformation of the sector, as customers and companies are moving toward new and more environmentally sustainable mobility options, such as electric vehicles. As part of this transformation, companies are reassessing their future business models and operations and are taking a step back to consider their options before adding major new capacity to their operating footprints.

## Companies are moving toward more environmentally friendly transportation options.

The Information and Communications Technology (ICT) sector ranks third in job creation. Measured by number of projects, ICT continues to be the leading source of global investment, which highlights the prominent role of digital technologies in the global economy.

The changing nature of global investment also has a pronounced effect on the geographic distribution of investment across destination countries, which is subject to more fundamental change.

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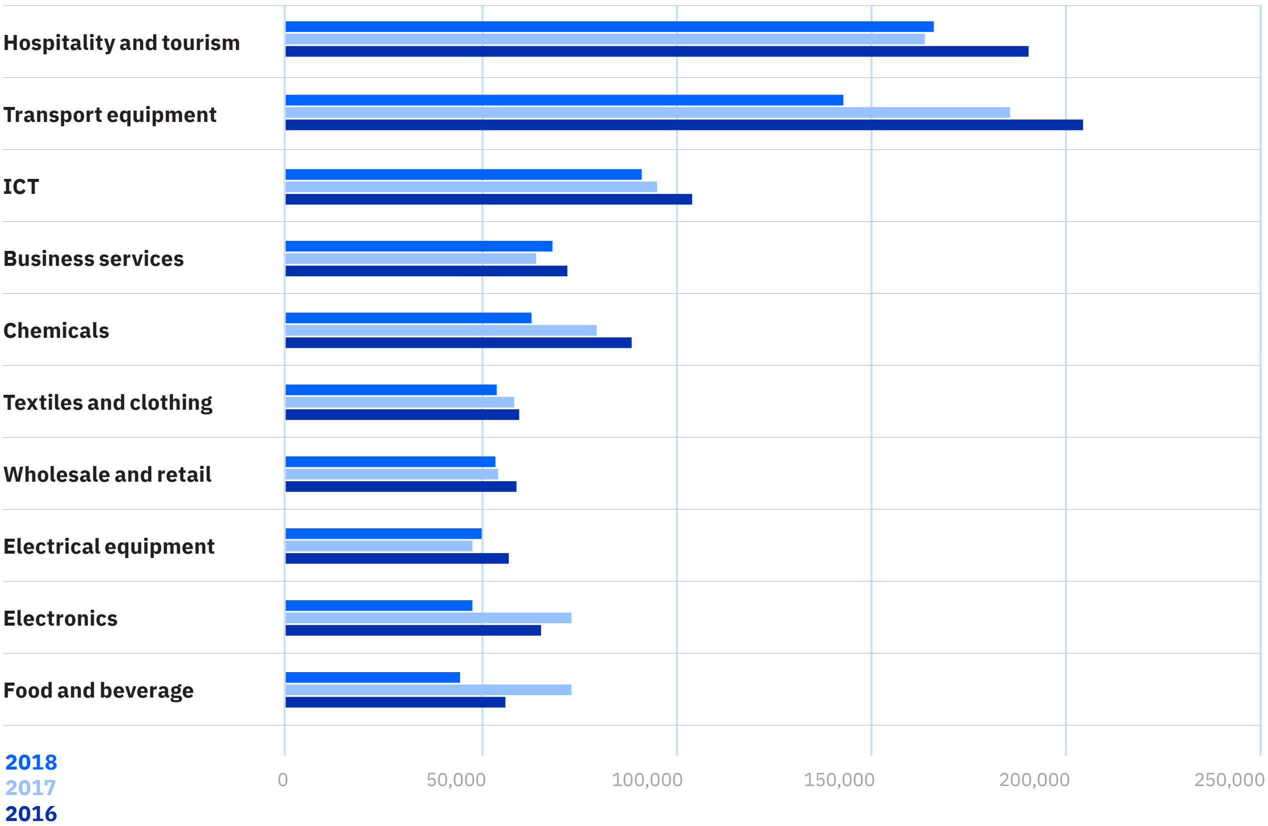
**Figure 2**

Top ranking sectors by estimated jobs – 2018 (2016-2017)



## The US continues to lead

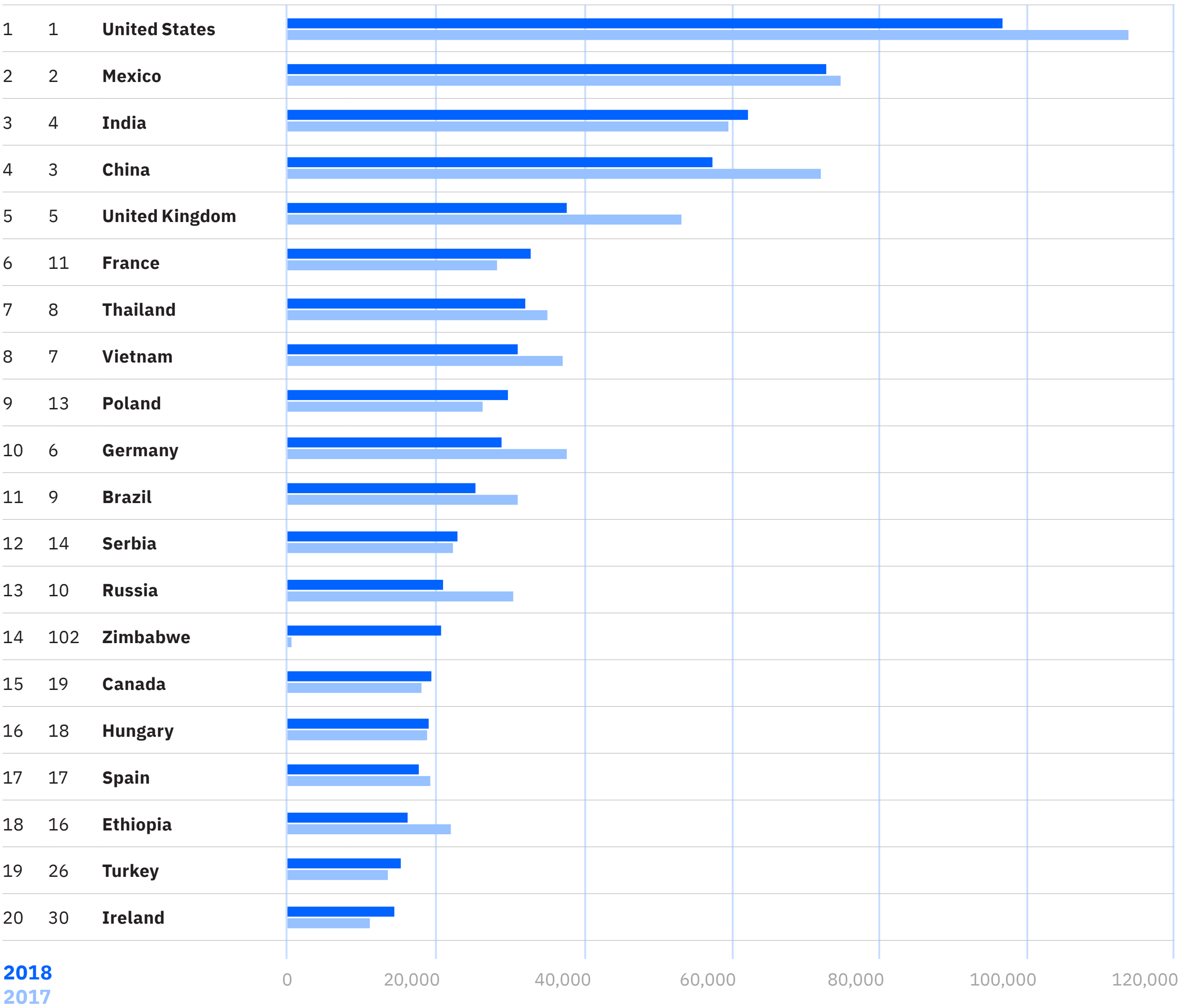
The US continues to be the top destination country globally for estimated jobs (see Figure 3). As the world's largest economy, it remains an attractive destination for companies seeking to tap into its enormous market and to leverage the country's considerable talent pool and innovation capabilities.

Mexico now ranks second globally after maintaining a stable level of inward investment in 2018. This relatively strong performance within a context of global declines is partly driven by companies that locate corporate activities in Mexico that serve the wider North American market. It's also driven by corporate investment that seeks to tap into the growing domestic economy—tourism and logistics, for example.

On an interesting note, the trade disputes between the US and Mexico in 2017 and 2018 do not appear to have had a major impact on inward investment to Mexico, suggesting

**Figure 3**

Top ranking destination countries by estimated jobs – 2018 (2017)



## Costa Rica is a manufacturing "hot spot" in Central America.

companies did not view it as a major threat to their operations. Looking forward, since the controversy around the NAFTA trade agreement now appears to be settled, limited impact on the ability of companies to leverage the opportunities offered by Mexico as an entry to the North American market, companies should be assured of making further significant investments in the country.

India experienced a rebound in inward investment activity in 2018, up from the very low levels recorded the previous year. This is primarily a result of higher investment in financial and business services. The country maintains its global third-place ranking.

In contrast, China continues to see lower levels of inward investment as the country reconfigures its role in the global economy and international value chains. The declines were particularly pronounced in key manufacturing sectors, such as Transport Equipment and Chemicals and Electrical Equipment, suggesting that China's role as the manufacturing hub of the world is changing. Yet, investment focused on domestic-market opportunities in China grew significantly, which highlights the continued shift in investment patterns into China toward more market-seeking investment.

The UK ranks fifth globally and remains number one in Europe measured by jobs creation. This is despite dramatic declines in inward investment. However, the country has been surpassed by Germany as the top destination country in Europe measured by the number of investment projects received. The declines in the UK are substantially greater than in any other European country, reflecting the impact of Brexit uncertainty on the country's ability to attract investment.

France now ranks sixth globally after growth of 16 percent in 2018, measured by jobs created. In that category, France is challenging the UK as the top destination country for foreign direct investment in Europe.

Significant gains were recorded in market-seeking sectors such as Hospitality and Tourism and Wholesale and Retail. Gains were also recorded in key sectors such as ICT and Business Services. Other European countries also saw growth. Belgium, Ireland, Poland, Bulgaria, and Serbia, for example, all posted significant gains.

### The Balkan beat goes on

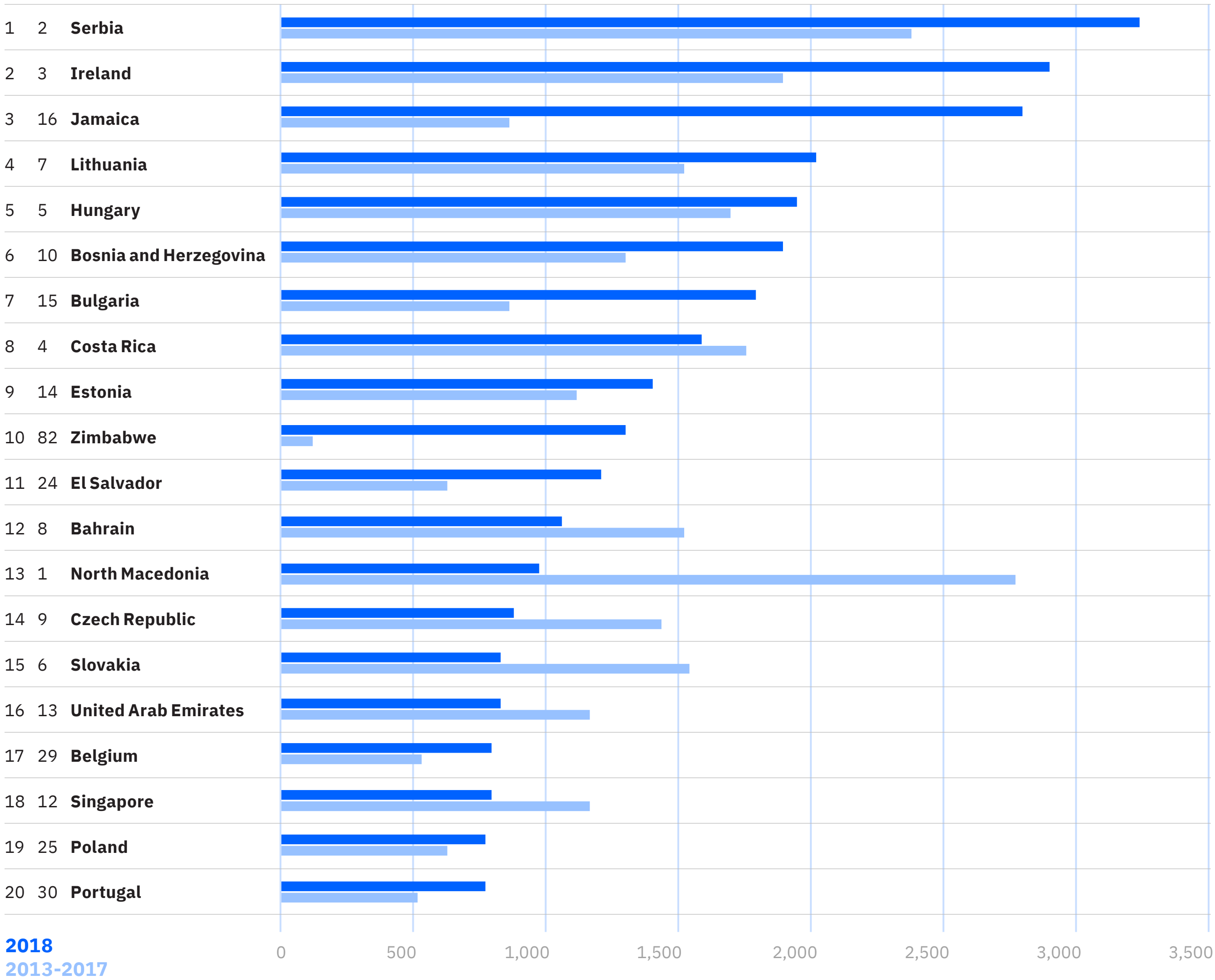
The strong performance of some of the smaller European countries is more evident when looking at jobs created from foreign direct investment relative to population size. The entire global top 10 is made up of smaller European and Latin American countries (see Figure 4). Serbia is once again the top performing country globally after another record number of new jobs. Ireland is second, with growth of more than 25 percent compared to the previous year. Jamaica is third after receiving substantial investment in business services and tourism. The country has been particularly successful in positioning itself as a location for shared services centers in recent years, which accounts for the majority of the inward investment Jamaica receives.

Lithuania and Estonia also performed strongly, with the former being a leading destination for ICT and Financial Services, and the latter positioning itself as a thriving ICT hub. Meanwhile Bosnia and Herzegovina rank sixth, which highlights the impressive position that the Western Balkans have claimed in global value chains.

Hungary and Costa Rica continue to appear among the top-ranking countries in this measure, confirming their positions as "hot spots" for both manufacturing and services in Central Europe and Central America, respectively. Belgium's strong performance in 2018 positions the country as the second highest Western European country (behind Ireland) in this ranking.

## Figure 4

Top-ranking destination countries by estimated jobs, per million inhabitants – 2018 (2013-2017)




*Note: Countries with less than 1 million population were excluded from the analysis*

# Central European countries benefit from a desire to be close to key European markets.

### The Netherlands: The top attractor of quality jobs

For most countries it is not just the number of jobs created that is of interest, but also the type of investment projects and their value to the economy. Comparing countries on what projects they attract, and not just the number of jobs, is an increasingly important metric for gauging inward investment performance. To this end, IBM-Plant Location International has developed a Foreign Direct Investment (FDI) Value Indicator that assigns a value to each investment project, depending on sector and type of business activity. This value indicator assesses the added value and knowledge intensity of the jobs created by the investment project.

On this measure, the Netherlands has moved to the top position globally, after receiving significant investment in ICT and Life Sciences. It is of interest to note that the country saw an overall reduction in the numbers of FDI jobs received after three very successful years. However, the recent investment is more concentrated on higher-value segments.

Singapore is second, with significant inward investment in ICT and Business and Financial Services. Meanwhile, Ireland ranks third in 2018, with continued high investment levels in key sectors such as ICT and Life Sciences. In contrast, investment in Financial and Business Services declined, while investment in sales and services functions increased (see Figure 5).

Interestingly, Bulgaria has jumped to seventh position after receiving substantial manufacturing investment in Transport Equipment and Electrical Equipment as well as several investment projects in ICT. This illustrates that the country has not only managed to increase the volume of inward investment but has done so in a manner focused on higher-value segments. As such, Bulgaria is moving up the value chain as it strengthens its position as a destination for foreign direct investment.

Indeed, while the global ranking for average value of investment projects has traditionally been dominated by mature economies, it is interesting to see that several countries from Central and Eastern Europe are now in the top ten, such as Bulgaria and Czech Republic. These countries benefit from a desire to be closer to key markets in Europe.

The nature of investments going to the region is thus changing as these countries enhance their propositions for higher-value segments, such as better availability of skills and an improved infrastructure quality.

The UK enters the top ten in sixth position, with the average value of projects increasing as the volume is declining. As companies are becoming more discerning about investing in the UK, lower-value investment projects are less likely to take place, while higher-value projects that tap into the country's capabilities in key sectors—such as ICT, Business Services, and Life Sciences—continue to take place.

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**Figure 5**

Top ranking destination countries by average job value of investment projects – 2018 (2017)

World average 5.49

| | | | |
|---|---|---|---|
| 1 | 3 | **Netherlands** | 6.57 |
| 2 | 1 | **Singapore** | 6.43 |
| 3 | 2 | **Ireland** | 6.23 |
| 4 | 7 | **Finland** | 6.06 |
| 5 | 10 | **United Kingdom** | 5.88 |
| 6 | 9 | **Hong Kong** | 5.88 |
| 7 | 14 | **Bulgaria** | 5.86 |
| 8 | 22 | **South Africa** | 5.80 |
| 9 | 8 | **Sweden** | 5.79 |
| 10 | 20 | **Czech Republic** | 5.79 |

*Note: Countries with less than 50 projects were not assessed because of sample size*

## The lights are on in Paris

The last few years have seen Paris getting closer to London as the world's leading metropolitan area for inward investment. In 2018, we saw Paris overtaking London for the first time. London experienced an overall decline of approximately 15 percent, while the decrease in Paris was more moderate.

The metropolitan area of Amsterdam-Rotterdam is third after a moderate increase driven by more investment projects in the ICT sector. Singapore maintains fourth position, despite a significant reduction in the number of projects attracted. Shanghai bucks the wider declining trend in China and sees growth in inward investment. As in previous years, the global top 20 is dominated by European and Asian cities, with Chicago the only North American city in the global top 20 (see Figure 6).

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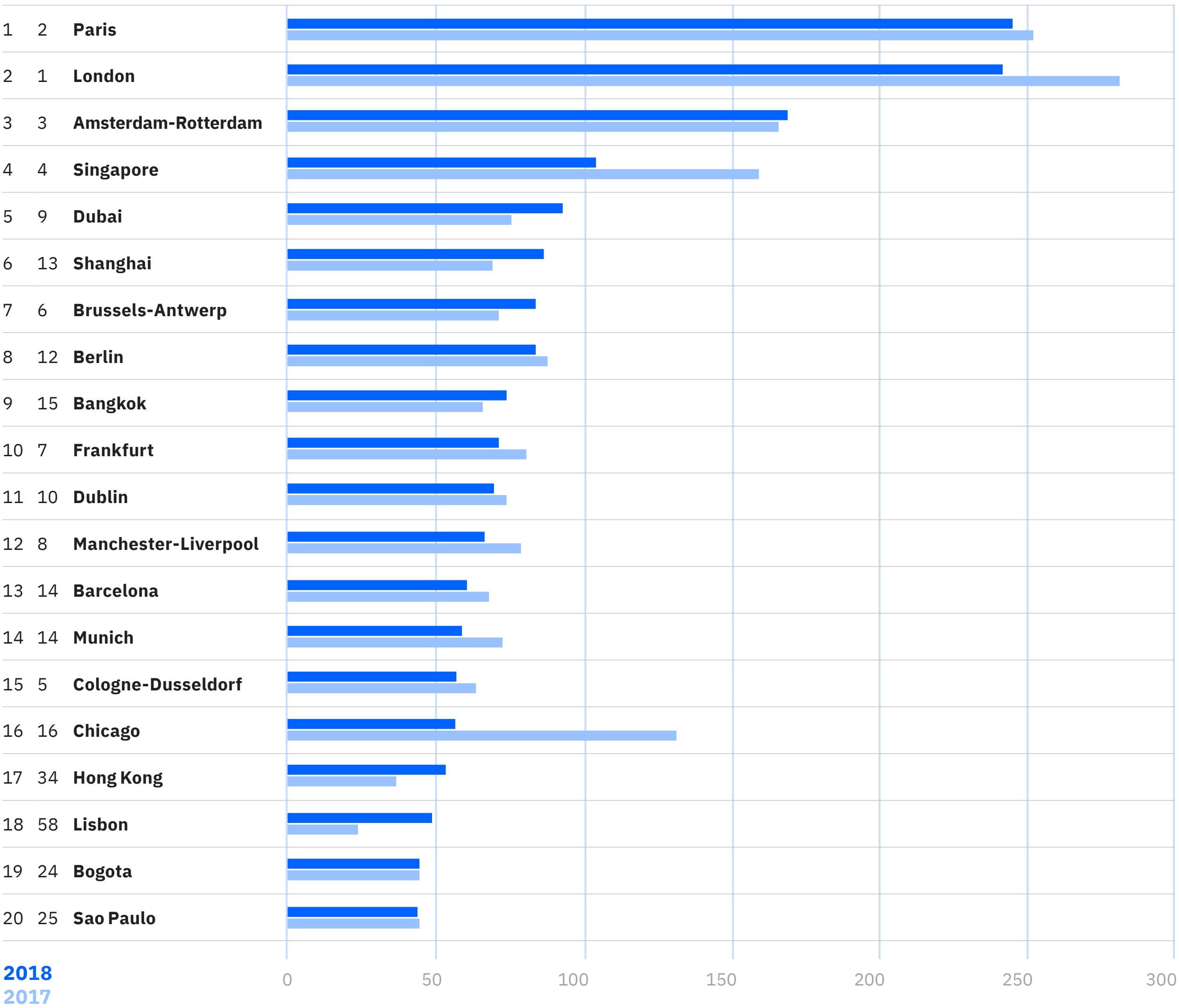
**Figure 6**

Top-ranking metropolitan areas by number of projects – 2018 (2017)



# The US remains the number-one source of foreign investment.

**China now the leading Asian investing economy**

Overall, outward investment declined across most major source countries in 2018, with both US and Japanese companies substantially reducing international investments. Nevertheless, as in previous years, the US remains the number one-source of foreign investment, followed by Germany (see Figure 7).

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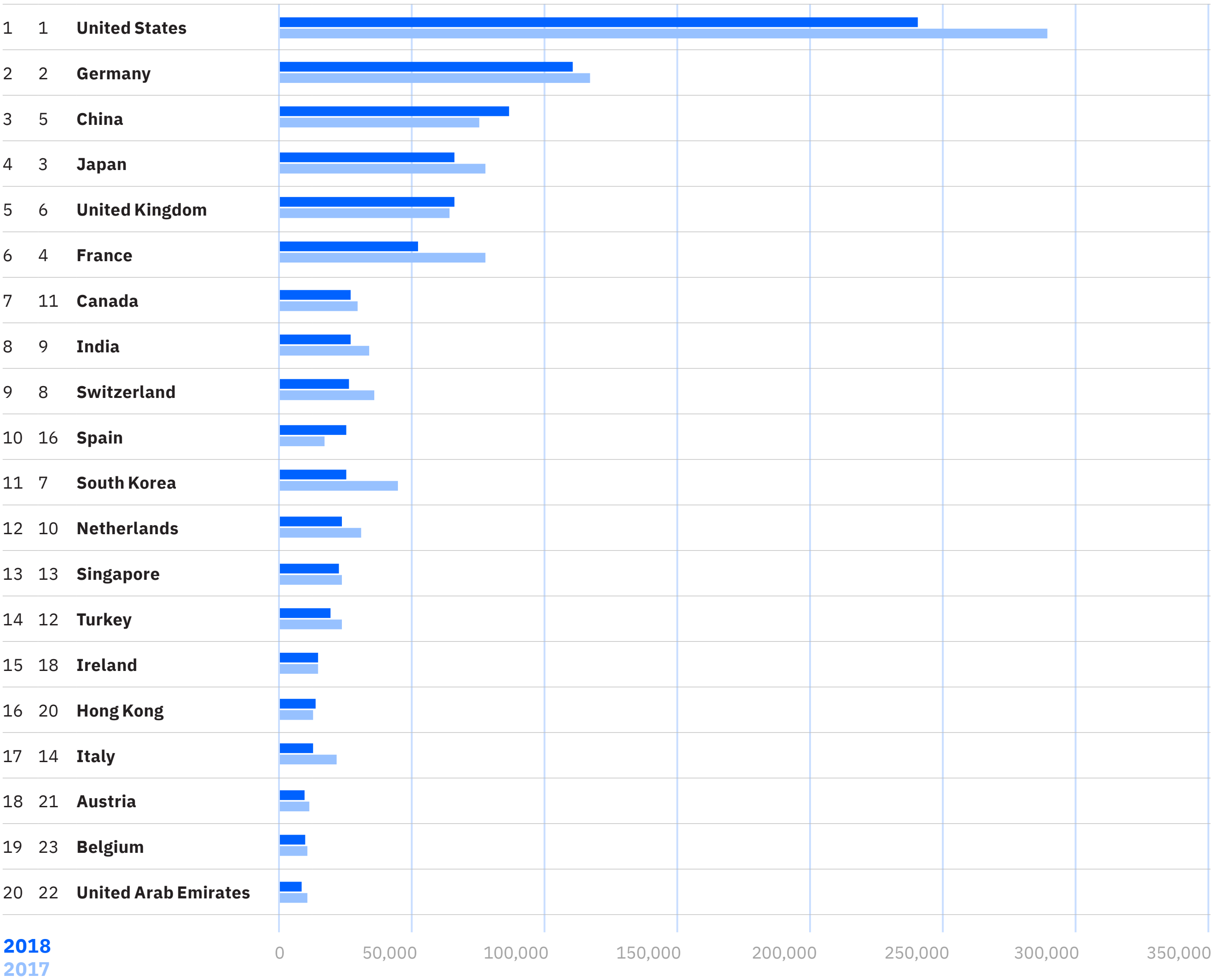
**Figure 7**

Top-ranking origin countries by estimated jobs – 2018 (2017)




*Note: Countries with less than 20 projects were excluded*

It is noteworthy that China has now moved to third place, replacing Japan as the top Asian source country for foreign investment. This may mark a more significant change in the relative position of these countries in the global economy, with China becoming a more dominant actor on the world economic stage (see Figure 8). However, Chinese outward investment remains focused on key manufacturing sectors, such as Electronics, Textiles, Transport Equipment, and Electrical Equipment and Chemicals.

China's outward investments are primarily destined for emerging economies in Africa, Asia, and Latin America. This is largely explained by a strategic aim of Chinese companies to enhance capacity and maintain cost-competitiveness by establishing and expanding operations in locations outside China. Moreover, the number of jobs created by Chinese investment in key mature economies, such as the US and Western Europe, declined in 2018.

Of further interest, UK companies maintained a high level of outward investment, moving to fourth position in the global ranking of source countries. This comes after only a moderate decline in jobs created from UK foreign investment in 2018. Notwithstanding the considerable decline in inward investment to the UK as a result of Brexit uncertainty, the country maintains a significant role in the global economy through its significant outward-investment activity.

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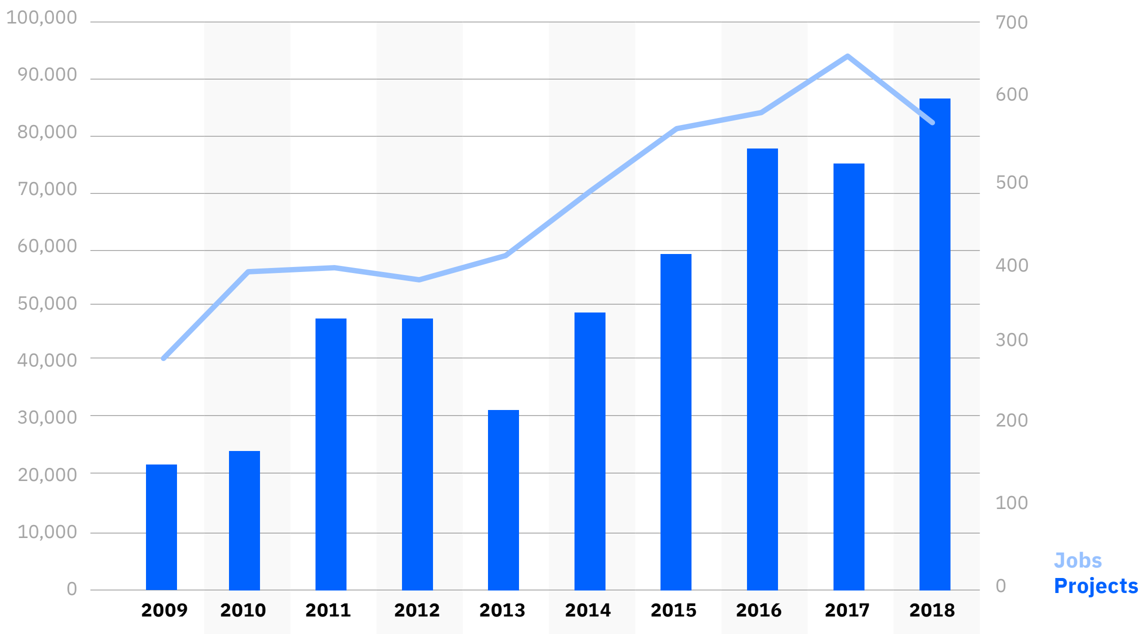
**Figure 8**

Trend in Chinese outward investment



## US companies seem to be investing more within the US rather than internationally.

## Transformative drivers of a new global economy

These global investment trends are being shaped by a number of key transformative drivers. Some of these drivers are the result of new political dynamics, while others reflect more structural changes to the global economy. We have identified four principal drivers that currently have a major impact on global investment patterns:

- Trade uncertainty
- Brexit
- The search for new markets
- Digital disruption

### Trade uncertainty

The global economy continues to be rattled by trade uncertainty and tensions among major economies. The US administration continues to adapt and rebalance its trade with other major economic areas—notably China and the EU—through such trade-inhibiting measures as increased tariffs. The administration is then faced with concomitant retaliations by the other parties.

This results in greater uncertainty about future trading regimes and in opportunities for companies to leverage global supply chains. Consequently, companies are more reluctant to make major new investment commitments or are postponing such investments to a time when there is more clarity. This, in part, explains the overall fall in global investment levels in 2018 compared to previous years.

The particular trade reconfiguration pursued by the US administration, along with the associated emphasis on national economic interests, may also have contributed to a marked change in investment activity by US companies. While overall international investment by US companies declined by more than 15 percent, domestic interstate investment remained stable, suggesting that US companies are focusing more on investing within the US rather than internationally (See Figure 9).

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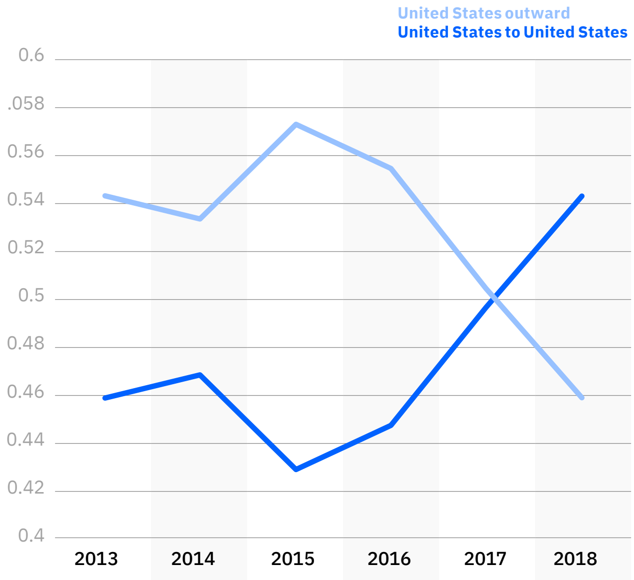
**Figure 9**

United States: share of outward vs domestic investment (% of total jobs created by US companies in US+abroad)



# Brexit is causing uncertainty in European investment patterns.

However, this should be viewed as part of a wider trend by companies to establish and expand operations closer to key markets, of which the US remains the world's largest. Indeed, global trade uncertainty is an accelerating factor for changing the nature of global foreign investment. It is now moving toward a greater emphasis on market-seeking investment—with investment within or in close proximity to key markets—rather than facilities that serve international or global markets through exports.

Trade uncertainty may also explain, in part, some of the reduced investment in China—coupled with moderately higher investment or more limited declines in other Asian countries. This comes as companies seek alternative export platforms for serving mature markets in North America and Europe. However, trade friction is by no means the only or most important factor driving this trend, since this has been going on for some time. Changing operating conditions within China, such as higher costs and greater competition for skills, are likely greater contributors to this trend than any ongoing or expected trade friction.

## Brexit

The continued uncertainty caused by Brexit—and increasing probability of a disruptive no-deal Brexit without a smooth transition—has had significant implications for investment patterns in Europe and the UK in particular.

*Significant decline in inward investment to the UK*
Inward investment to the UK declined substantially in 2018, notably measured by the number of jobs created (-29 percent), but also in number of projects (-17 percent). The reduced investment was particularly pronounced in more contestable sectors and activities, such as manufacturing, R&D, and international headquarters.

*Reduced UK market share in Europe*
It is particularly noteworthy that the considerable decline in inward investment to the UK stands in marked contrast to developments in Europe, where investment levels either increased or were stable for most countries.

The resulting loss of European market share by the UK—the continent's top performer for many years—can only be viewed as a direct consequence of the uncertainty and turmoil created by Brexit.

In contrast, investment in other major European economies increased or was stable, resulting in a significant reconfiguration of investment patterns. Germany has become the top-ranking destination country in Europe for foreign direct investment, measured by number of projects. France, Germany, and Poland are all challenging the UK's number-one position in job creation.

*Changing nature of inward investment to the UK*
A further marked impact of the uncertainty resulting from Brexit is the changing nature of investment in the UK. It is thus of interest to note a marked shift towards more market-driven investment for serving the UK domestic market, while more contestable and export-driven investment that serves wider international markets has declined considerably. While this trend began prior to the Brexit referendum, it has become far more pronounced in the last two years, with market-seeking investment accounting for more than 70 percent of all inward investment to the UK in 2018.

This reflects a response by companies to ensure they are able to service the UK market post Brexit even as they are increasingly uncertain about their ability to serve international markets from their operations in the UK.

*High level of outward investment by UK companies*
The potential difficulties associated with serving international markets from the UK after Brexit are also impacting investment activity by UK companies. Accordingly, UK companies maintained a high level of international investment activity in 2018 across a range of activities such as R&D and Shared Service Centers, whereas most other major economies showed a decrease in outward investing activity.

## A search for market opportunities

Global investment patterns in recent years have changed markedly toward a greater emphasis on market-seeking investment projects. This trend is evident globally but manifests itself differently in various countries. Ten years ago, more than 60 percent of jobs created from foreign investment globally were in projects seeking to serve international operations or markets through trade in goods, services, and tasks. Fewer than 40 percent of jobs were created by projects that seek direct access to an individual domestic market. Today, the balance is close to 50-50, with market-seeking investment taking on a gradually greater share of overall global investment (Figure 10).

The search for market opportunities has been particularly pronounced in some countries, such as China, where a more structural shift in their role in the global economy is taking place (see Figure 11). In addition, some countries, notably the UK and the US, have seen a marked increase in the role of market-seeking investment in the last couple of years as a result of political events, such as Brexit and uncertainty about future market access from abroad.

In contrast, there are countries, for example, Mexico, Poland, and several other Eastern European countries, where the trend is far less pronounced. In these countries, the vast majority of inward investment remains focused on serving international operations and markets (see Figure 11).

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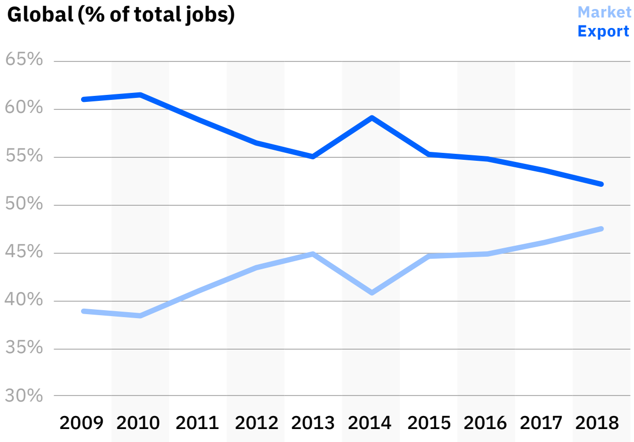
**Figure 10**

Market- vs export-driven investment



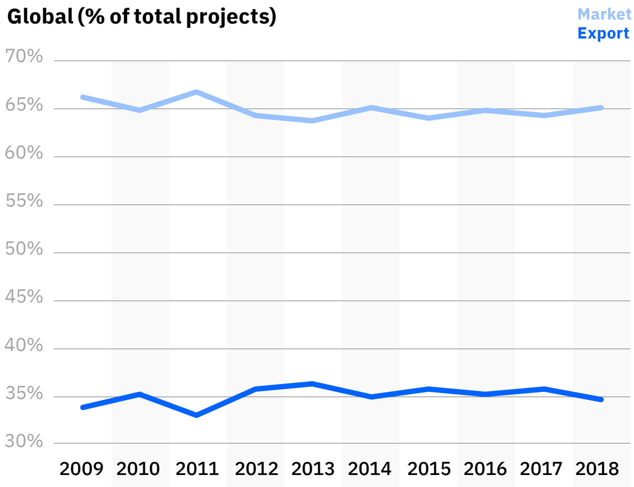



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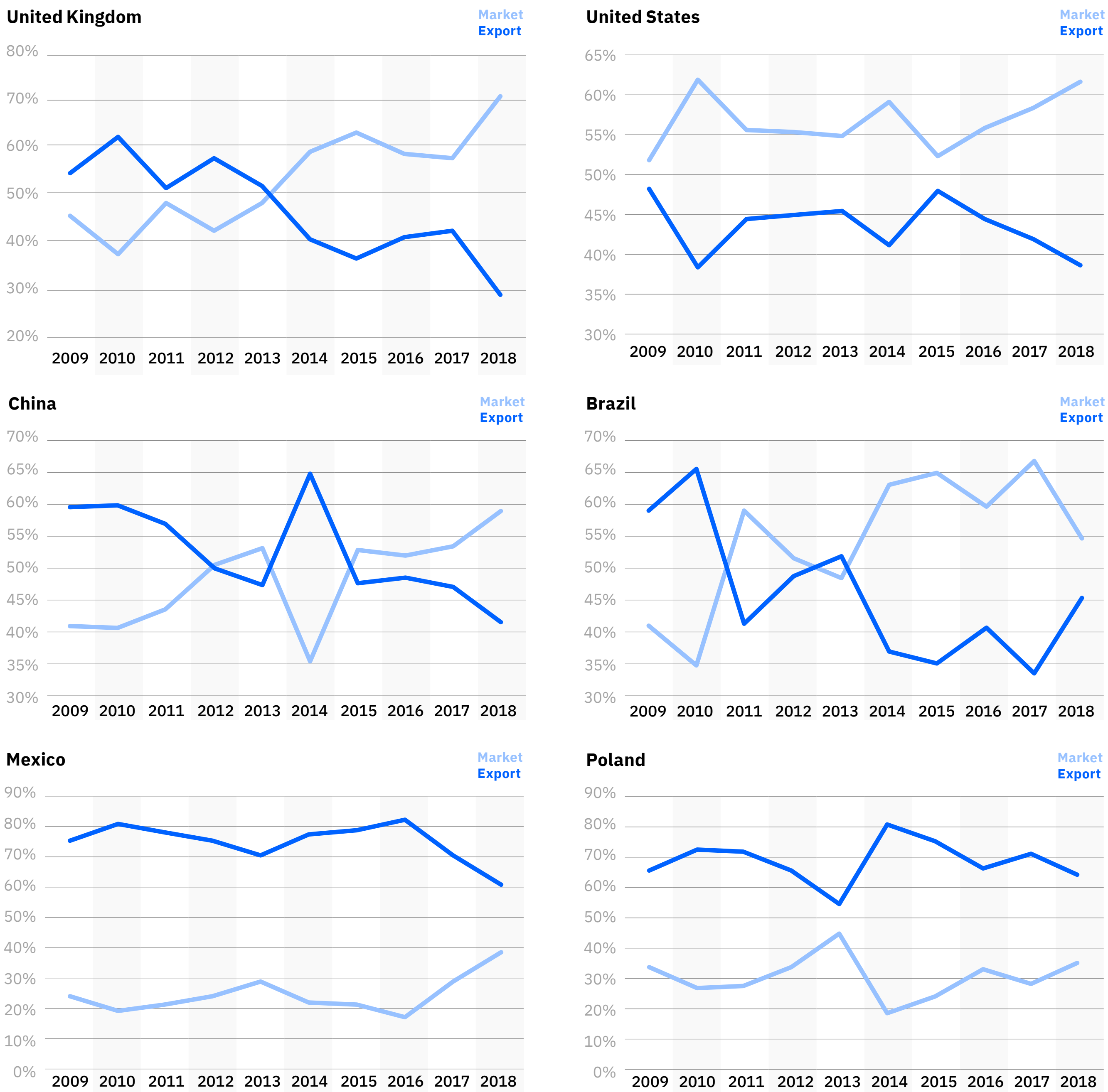
**Figure 11**

Market- vs export-driven investment (% of total jobs)



# Digital disruption is altering global investment patterns.

### Digital disruption

As new technologies are used to optimize operations and automate activities, digital disruption manifests itself in significantly altered global investment patterns. As noted in last year's report, we are moving towards a data-driven global economy, which is now causing significant changes to global value chains and to different locations' and geographic regions' participation. More specifically, the new, emerging global economy has different value drivers than earlier eras, which changes the role of economic scale, the geographic balance in corporate operations, and the manner in which value is created.

In concrete terms, we are seeing the impact of digital disruption in fewer job-intensive investment projects, with the average size of investment projects—as measured by the number of jobs created—declining steadily year-on-year. Consequently, the average number of jobs created per investment project globally in 2018 was approximately 84, compared to 104 in 2014. Moreover, the majority of the reduction in investment is in production and shared service centers, where the adoption of new technologies and automation has been particularly pronounced.

The shift toward less labor-intensive operations, with often higher and different skills requirements, has had a major impact on investment to several emerging economies. These have typically relied on their abundance of cost-competitive labor as a key source of competitive advantage. These locations have in several cases seen their inward investment decline, while others have managed to identify new opportunities for investment and develop skills and capabilities to compete for higher-value investment projects. Meanwhile, many mature economies are benefiting from the greater emphasis on proximity to markets and availability of skills as key drivers of investment and location decisions, rather than a focusing on labor costs.

Additionally, we are seeing an increased role for ICT and technology investment projects across the world. In 2018, ICT was the top sector for global foreign direct investment, as measured by the number of investment projects. Moreover, digital technology investment is no longer confined to the ICT sector but is taking place across sectors.

## Preparing for the future

These shifts and trends have significant implications for both the supply and demand sides of foreign investment. To remain competitive, both corporate investors, as well as economic developers and policy makers, must adapt and respond.

### New corporate imperatives

It is evident from preceding text that companies continue to navigate an uncertain global economy with a variety of disruptive influences that leads to a fundamental reconfiguration of their global operations and location footprints. In responding to such uncertainty, companies must rethink their strategies and adapt their operating principles.

*Adopt agile ways of working, supported by technology*
Individual industries, and the global economy as a whole, continue to be transformed by technology, politics, and new transformative events. In light of this, companies must embrace new ways of working and adopt the strategic pursuit of the new opportunities such disruption brings. This will require a transformation towards agile ways of working as well as the continual adaption of global operating models to reflect emerging opportunities and risks. In support of agility and greater resilience, companies are now able to leverage better management systems and have access to more data and insight than ever before. The systems and the data help them arrive at appropriate strategic decisions and provide key input into their day-to-day operations. As a result, companies should aim to create enterprise-wide architectures that allow them to respond to disruption and to play a proactive role in disrupting their industries. These architectures also allow them to shape their future roles in an increasingly uncertain global economic landscape.

*Use scenario-based strategic planning*
More generally, as uncertainty becomes a more prescient feature of the global economy, companies will need to continuously monitor new risks and opportunities and think strategically about different scenarios for moving forward. Such scenario-based strategic planning must be a central feature of future operating models and corporate footprints.

*Locate for talent*
There is growing competition for skills, with a tightening in many labor markets for critical talent. This makes it more difficult for companies to recruit and retain key staff and results in less predictable salary inflation. Consequently, companies need to critically assess whether their current operations are located in labor markets that pose particular risks in their ability to hire and retain required talent. If future growth in these locations are at risk due to a potential talent shortage, it is important to take mitigating actions, including the possible expansion or relocation of certain corporate activities to locations with a greater availability of required skills.

*Engage in talent development*
Where companies are making significant long-term commitments with core corporate functions, they should make concerted efforts to proactively engage in shaping and developing the required talent. This should include partnering with education providers to ensure that skills-development programs are aligned with their corporate needs. Examples of such partnerships are increasingly emerging around the world. But the continued mismatch between supply and demand of skills and the expectation of an accelerating need for new technology skills enforces the need for a more urgent intervention. Companies should not wait for education providers or governments to solve these issues but should take more ownership of the issue and play an active role in shaping relevant solutions.

## A new approach to economic development

The new emerging global economic landscape will also require policy makers to reassess their approach to economic development and job creation. This constitutes more than a change in approach to inward investment. It encompasses a more substantial paradigm shift in how to position a location for value creation in the future.

*Integrate inward investment attraction with wider economic development efforts*
Inward investment strategies have to be much more firmly embedded within a wider economic development approach that links efforts to attract foreign corporate investment with localized efforts to support innovation, entrepreneurship, and the growth of indigenous companies. This should allow for greater synergies among different pillars of corporate activity within a location. It should also support sector and job growth in a more holistic manner, supported by different economic development capabilities, such as skills development, innovation support, investment attraction and, expansion, as well as local cluster development. Indeed, ensuring that different economic development efforts are aligned and moving in the same direction will be critical for success to avoid fragmented initiatives within different silos.

*Foster ecosystems of economic actors*
Moreover, future economic development efforts must recognize that the global economy is shifting to new value drivers, where the role of different factors of production, scale, and geographic proximity is fundamentally changing. In particular, digital technologies will change how and where value is created and give rise to new plaform-based business models that unlock value within and between economic actors. In so doing, the role of data as a resource of insight, engagement, and operational optimization will become increasingly more important and act as a key resource for economic growth.

In supporting such a transformation of business activity, economic development efforts must focus on fostering the ecosystems of economic actors and enable the required links for partnerships and cooperation. Successful economic development in the future will require the successful involvement of different actors from the public, private, and non profit sectors working in collaboration.

*Focus on skills and competencies for competitive advantage*
Economic development efforts should be further underpinned by a strong commitment to skills development to ensure that the economy's rapidly changing skills needs are met by a responsive and relevant skills supply. As noted in our recent publication, "Agility, Skills and Cybersecurity," "industry, technology, and economic disruption has created a perfect storm that significantly impacts the types of skills required, as well as the demand for and availability of skills in global labor markets. As one

It will become increasingly important to think beyond traditional education providers.

of the most critical topics for organizations globally today, skills will become increasingly important in the future."[1] In responding to this challenge, it will be important to support education providers and engage them as instrumental parts of the economic development effort. However, it will also become increasingly important to think beyond traditional education providers and explore how learning can become an integral part of peoples' working experience and make lifelong learning a reality in future labor markets.

*Adopt agile economic development programs*
Given the pace of change and the level of uncertainty about the future, policy makers should adopt agile economic development programs for continuous innovation and rapid realization of value. Such programs should be developed based on the principle: *think big, start small, and scale fast*. Rather than base programs on large-scale capital-intensive improvement projects that take a long time before they generate impact, the emphasis should be first on identifying a clear vision and then developing innovative improvement projects and initiatives that can generate value quickly. If they prove successful, these can later be scaled for larger impact. Such innovation and scaling should be a continuously repeatable process that drives economic development forward in bursts of value realization and improved economic performance.

*Leverage the Economic Development Garage as vehicle for innovation, collaboration, and growth*
Within IBM we have captured the new agile way of working with the "Garage" concept, which allows organizations to innovate and develop new initiatives at the speed of a start-up, combined with the scale and rigor of an enterprise. It works as a platform that integrates access to the right people, technologies, and to scalable ways of working. Going forward, we anticipate the "Economic Development Garage" to be a primary vehicle for driving an agile economic development process. This process will engage multiple stakeholders through a platform that enables continuous cycles of innovation and collaboration for job creation and prosperity.

# Appendix: regional perspectives

## Africa

Inward investment to Africa in 2018 overall remained at the same record levels as recorded in 2017. As usual, some African countries have attracted some very large individual projects this year, resulting in, for example, an exceptional performance for Zimbabwe (with two very large projects in Mining and Extraction and Metals), Burkina Faso, and Congo. Recent star performers, such as Ethiopia and Nigeria, continue to attract a high number of projects but were unable to repeat their strong job creation of recent years. And similarly, the North African countries Algeria and Morocco experienced declines in job creation. Finally, South Africa did not show a recovery from its weak performance in the past few years.

## Asia-Pacific

Overall, foreign investment in Asia-Pacific fell considerably in 2018 (12 percent), with all the major drivers of lower global investment, such as digital disruption, automation, and trade disputes, having a particularly strong impact on investment in many Asian countries. However, India overtook China as the continent's top destination country. India experienced moderate growth, while China saw investment levels decline. Meanwhile, Vietnam and Thailand posted somewhat lower, but still strong, inward investment levels and rank third and fourth on the continent. Both countries have positioned themselves in recent years as strong international export platforms within the Asia-Pacific region.

The Philippines continued its considerable decline, which is in part due to the country's excessive reliance on investment in one particular segment, Shared Service Centers and Business Process Outsourcing. These sectors have experienced significant declines in investment globally as companies seek to restructure their services delivery capability and to take advantage of increasing opportunities for automation of services functions. However, the lower investment levels in the Philippines may also reflect a perceived greater risk and uncertainty about the country's political environment.

## Europe

Europe saw an overall decrease of 9 percent in job creation from foreign investment. The UK saw dramatic declines in inward investment but managed to maintain its top position in Europe for inward investment measured by the number of jobs created. However, Germany is now the top destination country in Europe as measured by the number of projects received (see Figure 12).

France experienced growth in job numbers while the number of projects decreased. This was, among other factors, caused by several large distribution centers. While Germany took the UK's lead position in number of projects, France nearly took over in the ranking based on new job creation. Germany and Poland also came close to the level of jobs in UK and France, creating a leading group of four countries considerably ahead of the rest of Europe.

Other European countries that experienced growth include Belgium, Ireland, and Serbia, which all recorded the highest levels of inward investment in the last 10 years.

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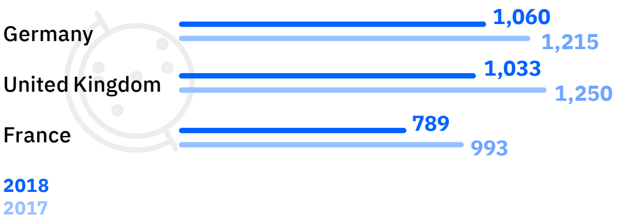
### Figure 12

Top destination countries in Europe, by number of projects




## Latin America

Overall, foreign investment in Latin America remained stable in 2018, with several countries experiencing growth in inward investment, such as Jamaica, El Salvador, Colombia, and the Dominican Republic. In contrast, Brazil continued the downward trend of previous years with inward investment levels now at close to only one-third what they were in 2012. Mexico is the top destination country after a stable year for foreign investment in 2018. It has seen continued investment for serving the North American market as well as the growing domestic market.

## North America

Overall foreign investment to the US declined in 2018, while Canada experienced a moderate increase. Within North America, Alabama is the top destination state for foreign investment, with Tennessee second, as both states received substantial investment in Transport Equipment (see Figure 13). Illinois is third, which high-lights the strong position of the state and, notably, the Chicago metropolitan area, as a destination for invest-ment across a range of segments, such as ICT and Business Services.

It is of particular interest to note that, while foreign invest-ment to the US has declined, domestic intestate investment within the US has increased. When looking at this domestic interstate investment, Virginia is the top destination state, mainly as a result of its success in attracting a major new headquarters project by Amazon.

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### Figure 13

Top destination states in the United States, 2018

| Foreign investment: Overall | Foreign investment: Per capita | Rank | Foreign and domestic investment: Overall | Foreign and domestic investment: Per capita |
|---|---|---|---|---|
| Alabama | Alabama | 1 | Virginia | Virginia |
| Tennessee | Tennessee | 2 | Texas | Alabama |
| Illinois | Connecticut | 3 | Ohio | Tennessee |

**Overall** Per capita

## About the authors

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## Contributors

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## The IBM Global Location Trends database monitors global location trends through new foreign investment

For many years, the only available data for analyzing FDI trends around the world has been the capital investment data as published by the United Nations. These data measure the capital flows through various forms of FDI, including mergers and acquisitions (M&A) and portfolio (dis)investment. Often, these FDI flows are used to measure the success of geographical entities (countries, states and even cities) in attracting foreign investment. However, this can lead to misleading conclusions on the capacity of the locations to attract foreign companies. M&As and portfolio investments are driven mostly by an interest from the investor in a target company with the objective to gain market share, acquire technology, and so on. The business location of the target company is typically not the main driver for the investment, and a location decision is rarely part of M&A or portfolio investment decisions.

A better approach to measure the performance of individual countries in attracting foreign investment is, therefore, to focus on those investment projects for which a clear decision on the investment location has been made. This is the case for most so-called greenfield investment projects as well as new expansions of existing operations

The analysis of volumes of foreign investment from IBM-PLI focuses on job creation. From an economic development perspective, job creation is the best indicator of the local economic impact of the investment. Job positions created through the investment are typically filled by employees in the local labor market (or staff who relocate to that market) and, consequently, generate income and welfare in the region around the investment location.

Capital investment only relates the initial spending by the investing company to build and/or start up an operation and does not reflect the longer-term impact. Of more importance, the investment that companies make for a new operation often flows to other markets where equipment, construction services, and more are procured. As such, large portions of the capital investment don't end up in the investment destination. In recent years, many investment promotion agencies have stopped using capital investment as one of their performance targets or stopped tracking this altogether. They key focus of these organizations has shifted toward the number and the quality of jobs created by new investors.

Data from the Global Location Trends database is used to produce annual Global Location Trends reports. Besides this executive summary report, IBM-PLI produces individual country or state reports (on request), and a detailed Facts & Figures report, which includes a wider variety of international rankings based on investment activity, as well as many country and state/province profiles. For more information on how to access these reports, please contact Roel Spee at roel.spee@be.ibm.com or visit the IBM-PLI website:www.ibm.com/services/pli.

We have introduced an online tool—the Global Location Trends Analyzer—with which users can perform analysis on the basis of the data in the Global Location Trends database, This tool does not provide access to the raw data, since many data in our database are confidential, Its purpose is to perform accurate analysis of international trends in location selection and performance of geographies in attracting business operations.

## How do we gather the data for the Global Location Trends database?

The Global Location Trends database registers data for new greenfield investment projects and expansions of existing operations owned by foreign enterprises. To gather this information multiple sources are screened on an ongoing basis. This includes industry specific news sources and databases, as well as country specific business news media. For every country around the world we maintain an overview of relevant data sources, which are researched for information on investment project announcements. This included research in native languages for many countries.

Additionally, at the completion of a calendar year we reach out to all key investment promotion agencies (IPAs) around the world at national, regional, and local levels with a request for data on inward investment projects that have been announced for their location in the previous year. This provides an opportunity to these IPAs to ensure that their locations are represented in the best possible way in the Global Location Trends database and the annual reports that are produced on the basis of these data.

Many IPAs are prepared to support us with their data, because IBM-PLI does not provide access to the raw data in the database to external parties and treats the data as confidential. Several hundreds of IPAs are already supporting us with their data on this basis and this number has been increasing every year.

## Latest updates on the Global Location Trends database

The Global Location Trends database is a dynamic database. This means that we are continually making updates and improvements to the data that we gather to increase the opportunities for relevant analysis from the database.

On a permanent basis, we include new data for projects that were missed in past years and make updates on missing data for projects that were announced in the past. Important to note is that missed projects from the past are registered in the correct year when the projects were announced. They are not included as a new project in the latest year.

On annual basis, we perform a review of the contents of the database to identify any needs for structural improvements or opportunities to introduce new data points or new analytical features. This year we have made some further improvements to our classifications of sectors and activities of projects to reflect new business models and operations that have shown increasing investment activity. This has, for example, lead to new changes in the ICT sector classification (with permanent new niche areas), additions in the transport equipment industry (with new segments around electric vehicles), and multiple new niche areas (such as cannabis production, and business accelerators).

We have also introduced more selectivity on our eligibility criteria for projects, which are purely focused on serving a local market (one city or even neighborhood within a city). Since the key focus is the Global Location Trends database is not on such “micro-market” driven projects, we wish to avoid that these projects are causing disturbance in the data and distraction from the main analytical purposes.

As a consequence, small retail stores, restaurants, cinemas, gyms, and such are not included in the database (as before). Also not included are local retail bank outlets, office space providers, rental car offices, and the like.

We regularly introduce new data points to test whether it is feasible to gather additional data, or whether a new analytical approach can be introduced. Our IBM-PLI job value indicator, introduced several years ago, is an example of an improvement that has been shown to offer great value and has become a standard analysis in the annual Global Location Trends report (see Figure 5 in this report). Several investment promotion agencies have started to use this indicator as one of their key performance indicators.

A new element that we tested recently, and are now launching for the first time, is a data point that indicates whether an investment project is fully focused on serving a local market (national or in-country), or whether the project is also export focused. This allows us now to analyze which countries attract more market or export focused investment, and to assess which share locations are attracting from the export driven investment, which is mostly considered as contestable investment. This will provide further insight in the international competitiveness of locations.

Examples of this analysis are included in this report for the first time. We are testing other data points and analytical features and hope to introduce some of these at a later point.

## IBM-Plant Location International

IBM-Plant Location International (PLI) is a global service of IBM Services, specializing in corporate location and economic development strategies. With a global center of excellence in Brussels-Belgium, IBM-PLI provides location strategy and site selection services to corporate clients, analyzing international business locations to help expanding or consolidating companies select the optimal location (country/city). IBM-PLI also advises economic development organizations on improving their areas' competitiveness, strategic marketing, developing value propositions, and marketing tools.

IBM-PLI maintains a proprietary Global Location Trends database, which has tracked cross-border "greenfield" and expansion investments around the world since 2002. Every year, the data are used to produce the Global Location Trends annual report, a detailed Global Location Trends Facts & Figures report, as well as multiple country reports. The analysis of foreign investment presented in these reports focuses on job creation. From an economic development perspective, job creation is the best indicator of the local economic impact of the investment. For more information, visit **ibm.com**/services/pli.

## For more information

To learn more about this IBM Institute for Business Value study, please contact us at iibv@us.ibm.com. Follow @IBMIBV on Twitter, and for a full catalog of our research or to subscribe to our monthly newsletter, visit: **ibm.com**/iibv.

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The IBM Institute for Business Value (IBV), part of IBM Services, develops fact-based, strategic insights for senior business executives on critical public and private sector issues.

## Notes and sources

1 “Agility, Skills and Cybersecurity.” IBM Institute for Business Value. February 2019. https://www.ibm.com/downloads/cas/4NO54G6X

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