Office for National Statistics

Article

UK foreign direct investment, trends and analysis: (implied rates of return) February 2020

Analysis of trends in implied rates of return for UK foreign direct investment by geographic continent and industry.

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1 . Main points

- There was a notable increase in the implied rate of return on UK foreign direct investment (FDI) assets, from 3.6% in 2016 to 5.5% in 2017, with a further increase to 5.7% in 2018.
- The implied rate of return on UK FDI liabilities also increased between 2017 and 2018, from 3.7% to 4.2%.
- Africa and Asia contributed the most to the change in the implied rate of return on FDI assets in 2018, by 0.2 percentage points and 0.1 percentage points respectively.
- Mining and quarrying industries made the third-highest contribution to the UK's overall rate of return on FDI assets in 2018, as opposed to the smallest contribution to the total rate in 2017.
- The main contributors to the overall rate of return on FDI liabilities since 2010 have been the North Americas and the EU, accounting for 3.1 percentage points of the total rate of return on FDI liabilities (4.2%) in 2018.
- There were mixed contributions across industries to the change in the implied rate of return on FDI liabilities, with financial and insurance industries having fluctuated between positive and negative values in most years between 2011 and 2018.

2 . UK FDI

Foreign direct investment (FDI) refers to cross-border investments made by residents and businesses from one country into another, with the aim of establishing a lasting interest in the country receiving investment. Statistics used in this analysis are presented using the asset and liability principle, published in our Foreign direct investment involving UK companies (asset and liability): 2018 statistical bulletin. This is in line with internationally-agreed best practice and our asset and liability statistics are consistent with the UK Balance of Payments.

The stock of FDI investment that the UK holds abroad is UK FDI assets, and the income generated on those assets is FDI credits. UK FDI liabilities are the stock of FDI investment held in the UK by foreign-owned companies, whereby the income generated on liabilities is FDI debits.

This article explores the implied rate of return on UK FDI assets and liabilities. Implied rates of return indicate how much income is generated per pound of investment. We calculate rates of return on UK assets as the ratio of FDI credits to FDI assets in the same year. Likewise, the calculation for UK liabilities is the ratio of debits to liabilities in the same year. This helps to assess if changes in the value of credits are more the result of changes in FDI assets or changes in the profitability of that investment (implied rate of return).

3 . Implied rates of return on UK FDI

This article updates and extends our analysis on the implied rates of return on UK foreign direct investment (FDI) up to 2018. Our previous analysis published in January 2017 and January 2018 found that implied rates of return on FDI assets had been falling faster than those on FDI liabilities between 2011 and 2016. This led to higher rates on UK liabilities than on assets in 2016.

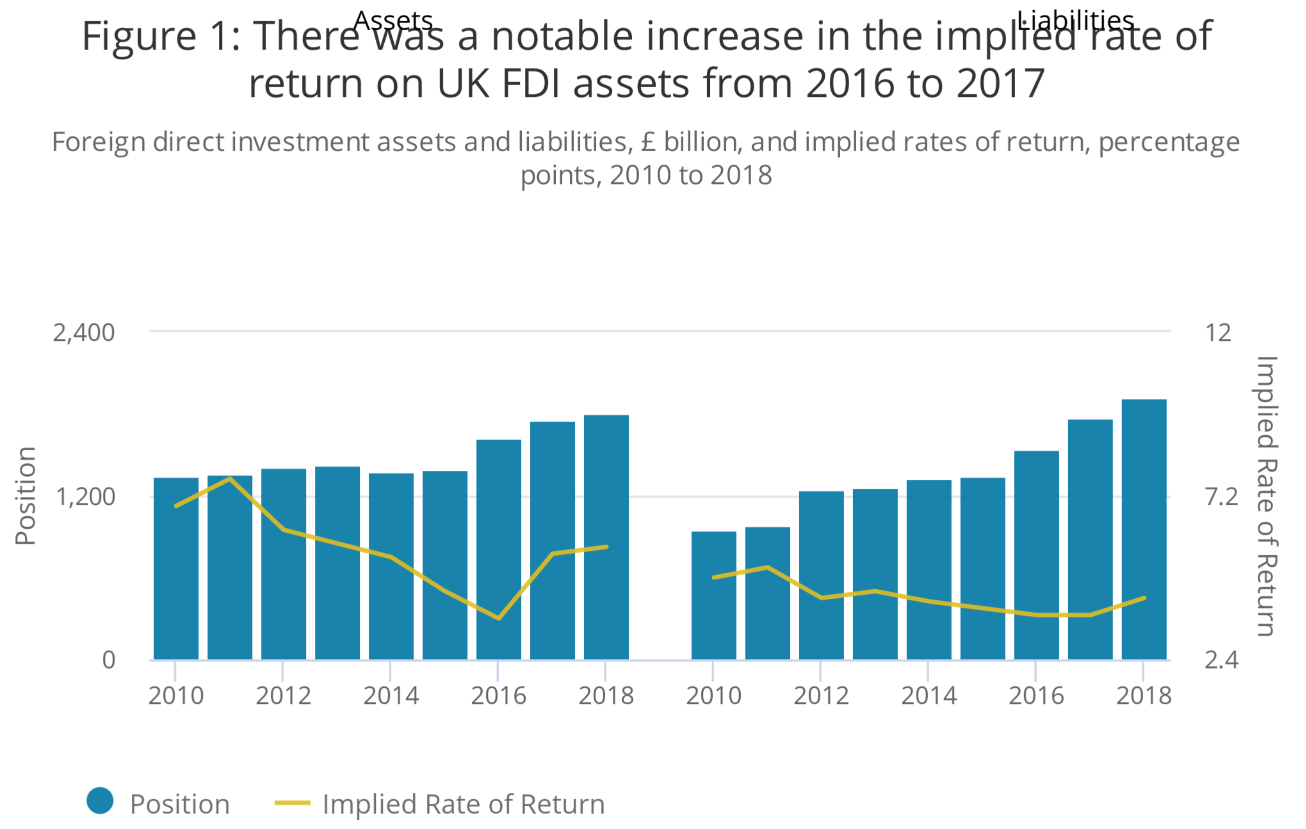
The implied rates of return on UK assets were higher than those on UK liabilities in 2017 and 2018

The implied rate of return on UK assets increased in 2017 and 2018 because of the value of credits rising at a faster rate than assets. This took the implied rates of return on UK assets above those on UK liabilities.

There was a notable rise in the rates of return on assets from 3.6% in 2016 to 5.5% in 2017, followed by a 0.2 percentage point increase to 5.7% in 2018 (Figure 1). In contrast, the rates of return on UK FDI liabilities remained at 3.7% between 2016 and 2017, before increasing to 4.2% in 2018. Both implied rates of return in 2018 were similar to those in 2014 for assets (5.4%) and for liabilities (4.1%).

Figure 1: There was a notable increase in the implied rate of return on UK FDI assets from 2016 to 2017

Foreign direct investment assets and liabilities, £ billion, and implied rates of return, percentage points, 2010 to 2018



Source: Office for National Statistics - Foreign direct investment involving UK companies (asset and liability)

Notes:

1. Implied rates of return are calculated as the ratio of FDI credits (or debits) to FDI assets (or liabilities) in the same year.

2. Values for assets are in row 8 to 16 and liabilities in row 18 to 26.

Implied rates of return on both UK FDI assets and liabilities experienced a general downward trend between 2010 and 2016, compared with a steady rise in the value of both FDI assets and liabilities. Rates of return on assets declined more steeply than for liabilities from 2011 to 2016, falling by 4.1 percentage points compared with a fall of 1.4 percentage points respectively. This is mostly attributable to falling FDI credit values over the period, along with slower growth of FDI assets than in FDI liabilities.

The net income generated on FDI investments, which is the difference between the values of FDI credits and FDI debits, is one of the components of primary income in the current account. Our previous analysis found that falling net FDI income contributed to the fall in the UK's current account balance between 2010 and 2016. Further analysis on the contribution of FDI to the current account balance can be found in our Foreign direct investment involving UK companies (asset and liability): 2018 statistical bulletin.

4 . FDI by geographic continent

Foreign direct investment (FDI) statistics can be grouped by geographic location to show FDI statistics between the UK and a partner country. This section explores continental contributions to the implied rates of return on both UK assets and liabilities. Details on the list of countries included within each continent can be found in Section 6.

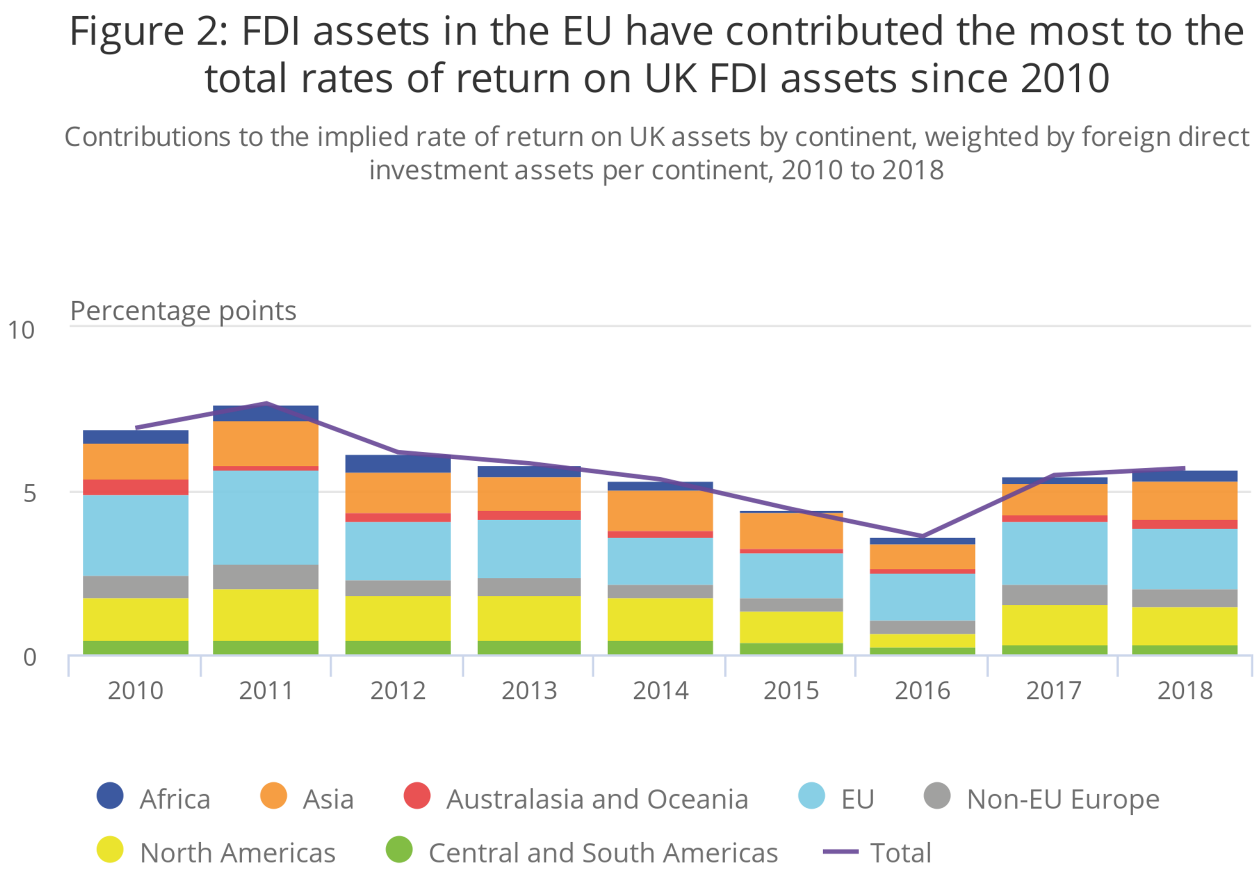
In line with international guidance, this analysis presents geographical UK FDI statistics on an immediate parent company basis. Thus, continent-level trends reflect direct relationships between investing parties rather than the residence of the ultimate parent company or ultimate host country. A rise in the complexity of multinationals' corporate structures often results in investment chains crossing many borders, which in turn can distort geographical compositions. Experimental UK FDI statistics on an ultimate parent basis can be found in our UK foreign direct investment, trends and analysis: July 2019 article.

The EU, the North Americas and Asia contributed the most to the overall rate of return on FDI assets in 2018

The EU was the largest contributor to the implied rate of return on FDI assets, accounting for 1.8 percentage points of the total rate of return of 5.7% in 2018. This was followed by similar contributions of 1.2 percentage points from the North Americas and Asia. These continents were also the three main contributors in 2016 and 2017. This can be seen in Figure 2, which presents the percentage point contribution to the total implied rate of return on UK FDI assets by continent.

Figure 2: FDI assets in the EU have contributed the most to the total rates of return on UK FDI assets since 2010

Contributions to the implied rate of return on UK assets by continent, weighted by foreign direct investment assets per continent, 2010 to 2018



Source: Office for National Statistics - Foreign direct investment involving UK companies (asset and liability)

Notes:

1. The sum of the contributions will not necessarily equal the total rate of return on UK assets because of rounding.

The implied rate of return on FDI assets followed a general downward trend between 2010 and 2016 because of lower contributions across all continents in 2016 compared with 2010. The total rate of return also fell in consecutive years between 2011 and 2016.

The largest decrease in the continental contributions came from the EU and the North Americas, which were 1.0 percentage point and 0.9 percentage points lower in 2016 than 2010 respectively. Nevertheless, the EU remained the largest contributor to the total rate of return over the whole period. The contribution from Asia was also larger than that from assets in the North Americas in 2015 and 2016.

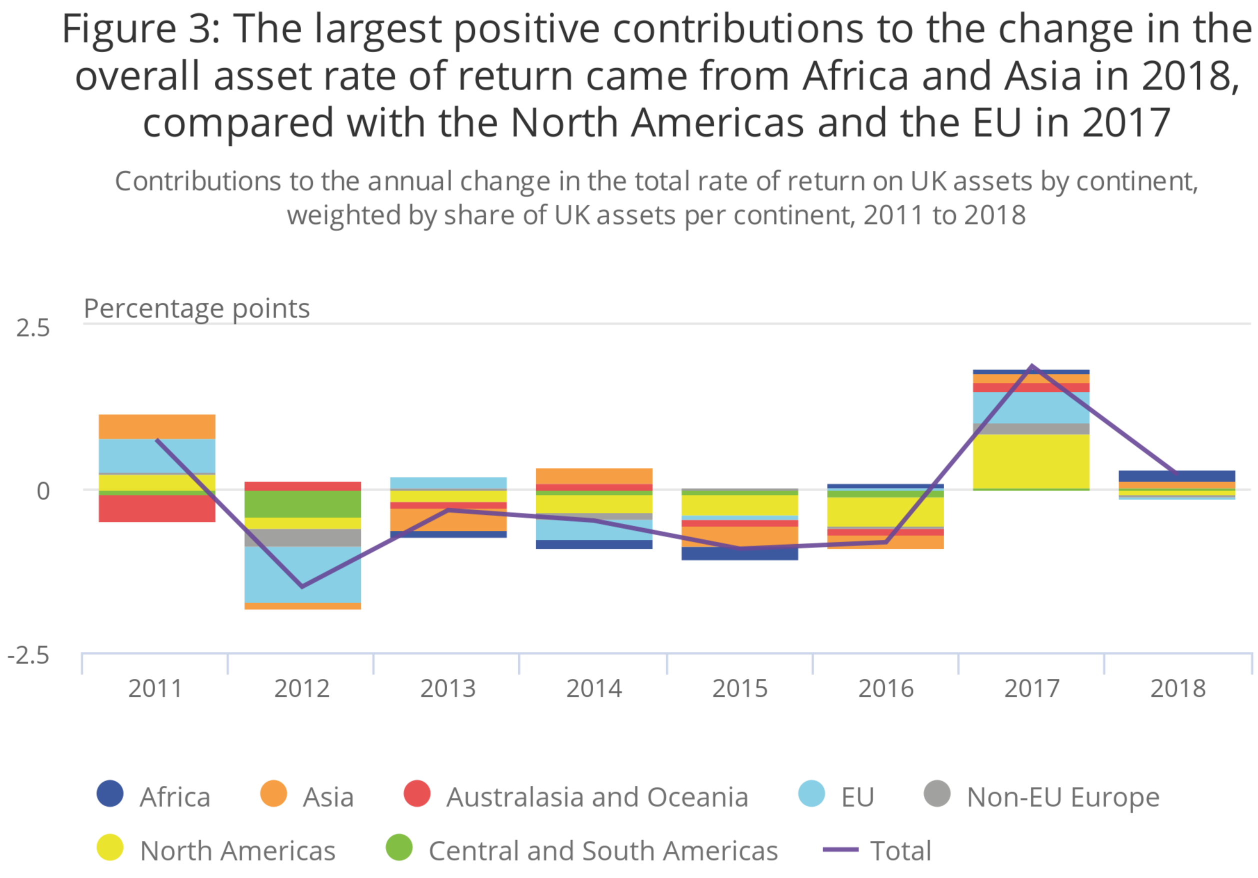
Africa and Asia made the largest positive contributions to the change in the implied rate of return on UK assets in 2018

We can also calculate the percentage point contribution that each continent had on the annual change in the overall rate of return. Figure 3 presents these results for the implied rate of return on FDI assets.

Most continents made much smaller contributions to the change in the total asset rate of return in 2018 compared with the contributions for the other years in Figure 3. Africa and Asia contributed the most to the change in the overall rate, accounting for 0.2 percentage points and 0.1 percentage points respectively. Returns on FDI assets in the North Americas and the EU made a combined negative contribution of 0.1 percentage points to the change between 2017 and 2018.

Figure 3: The largest positive contributions to the change in the overall asset rate of return came from Africa and Asia in 2018, compared with the North Americas and the EU in 2017

Contributions to the annual change in the total rate of return on UK assets by continent, weighted by share of UK assets per continent, 2011 to 2018



Source: Office for National Statistics - Foreign direct investment involving UK companies (asset and liability)

Notes:

1. The sum of the contributions will not necessarily equal the change in the total rate of return on UK assets because of rounding.

The UK implied rate of return on FDI assets in 2017 increased by 1.9 percentage points from 2016. This was the result of positive contributions across all continents.

The North Americas contributed the most (0.8 percentage points), closely followed by the EU (0.5 percentage points). It was also the first time the North Americas contributed positively to the change in the total asset return rate since 2011, where it contributed 0.2 percentage points. Between 2011 and 2016, both the EU and the North Americas contributed negatively in most years, but the EU was often a large contributor (positive of negative) prior to 2015. However, the negative contributions in returns on FDI assets from the North Americas had a bigger effect on the change in rates of return than the EU in recent years, most notably in 2015 and 2016.

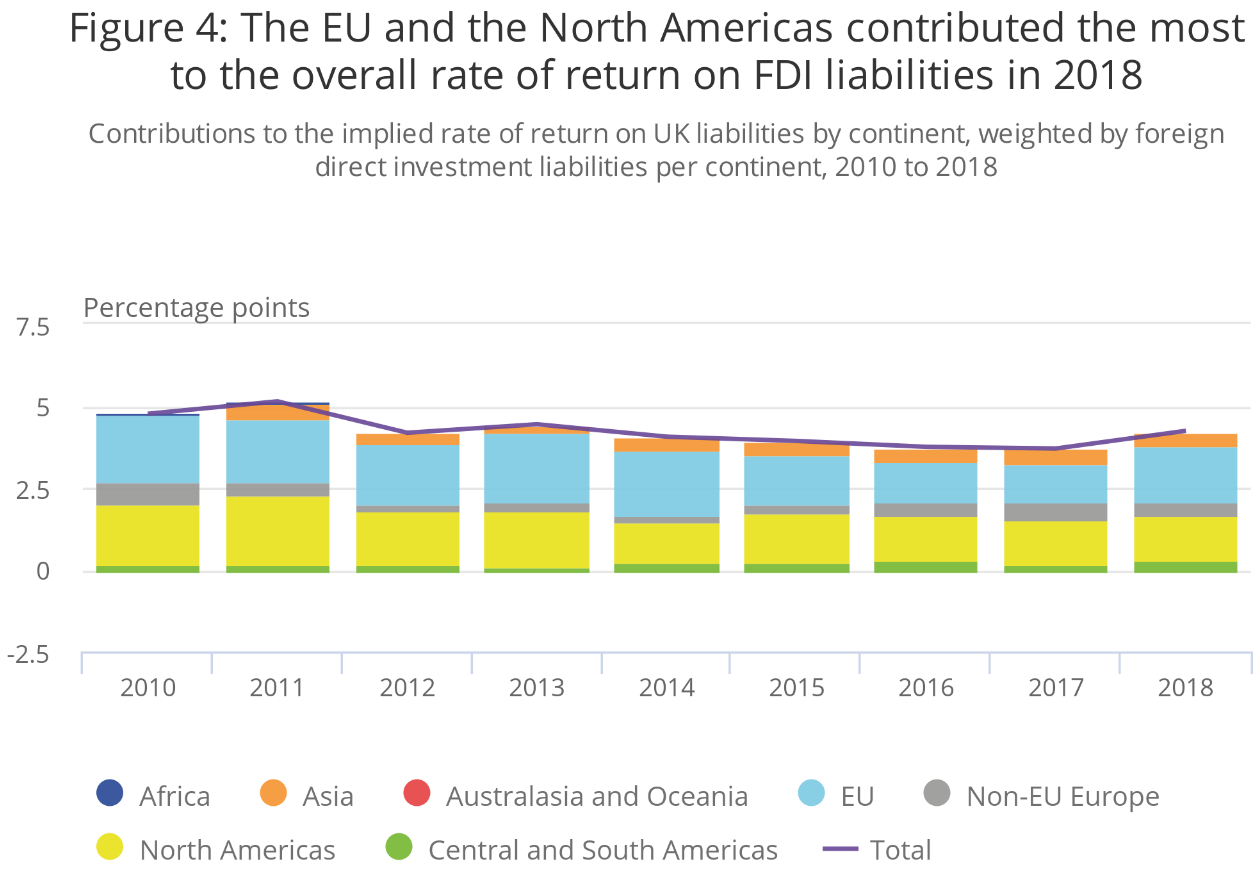
FDI liabilities with the EU have contributed the most to the implied rate of return on UK liabilities since 2010

Implied rates of return on UK FDI liabilities increased from 3.7% in 2017 to 4.2% in 2018 because of general increases in the continent-level contributions to the total return rate.

Similar to assets, the EU (1.7 percentage points) and the North Americas (1.4 percentage points) were the largest positive contributors to the total rate of return on FDI liabilities (Figure 4). This partly reflects the size of their relative investments in the UK. Only the contribution from non-EU Europe fell in 2018 compared with the previous year, whereas returns on liabilities with Asia provided equal positive contributions of 0.5 percentage points in 2017 and 2018.

Figure 4: The EU and the North Americas contributed the most to the overall rate of return on FDI liabilities in 2018

Contributions to the implied rate of return on UK liabilities by continent, weighted by foreign direct investment liabilities per continent, 2010 to 2018



Source: Office for National Statistics - Foreign direct investment involving UK companies (asset and liability)

Notes:

1. The sum of the contributions will not necessarily equal the total rate of return on UK liabilities because of rounding.

During the period between 2010 and 2016, returns on UK liabilities declined by 1.1 percentage points. This was mainly attributable to falls in returns on liabilities with the EU and the North Americas.

Rates of return on FDI liabilities with the EU contributed the most to the overall rate of return in most years since 2010. The main exceptions were 2011, 2016 and 2017, when it was the North Americas. These two continents together accounted for 3.1 percentage points of the total rate of return on liabilities (4.2%) in 2018, compared with 4.0 percentage points in 2011, when the implied rates of return were highest for these continents.

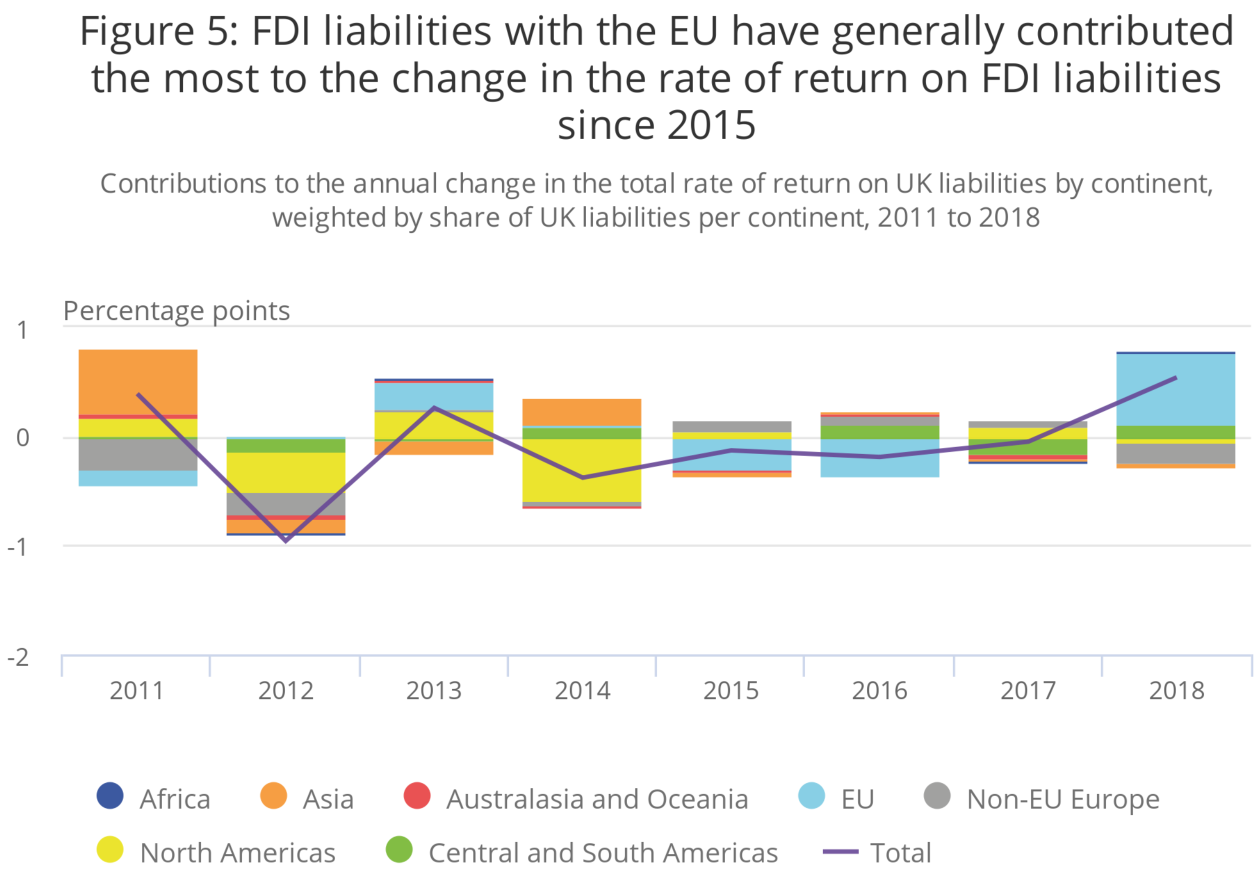
The EU was also the largest positive contributor to the change in the total rate of return on UK liabilities in 2018

The implied rate of return on FDI liabilities increased by 0.5 percentage points between 2017 and 2018. The EU was the largest positive contributor to that change, accounting for 0.7 percentage points. This was the second successive positive contribution to the change from the EU.

This was partly offset by non-EU Europe and the North Americas, which provided the largest negative contributions to the change between 2017 and 2018, of negative 0.2 percentage points and negative 0.1 percentage points respectively. In contrast, the North Americas was the largest positive contributor to the change between 2016 and 2017, whereas returns on UK liabilities with the Central and South Americas provided the largest negative contribution of the year.

Figure 5: FDI liabilities with the EU have generally contributed the most to the change in the rate of return on FDI liabilities since 2015

Contributions to the annual change in the total rate of return on UK liabilities by continent, weighted by share of UK liabilities per continent, 2011 to 2018



Source: Office for National Statistics - Foreign direct investment involving UK companies (asset and liability)

Notes:

1. The sum of the contributions will not necessarily equal the change in the total rate of return on UK liabilities because of rounding.

The contributions to the change in the overall rate of return on FDI liabilities were mixed across continents between 2011 and 2017. However, their magnitude had generally fallen between 2014 and 2017, represented by the narrowing size of the bars in Figure 5, before widening in 2018. Similar to FDI assets, the change in the total liability return rate predominantly came from the EU and the North Americas over the period.

5 . FDI by industry

Foreign direct investment (FDI) statistics can also be grouped to break down trends in the total implied rate of return on UK assets and liabilities by industry. We define industries using the [UK Standard Industrial Classification of Economic Activities 2007: SIC 2007](#) and details of how we group these industries in this article can be found in Section 7. This section analyses industry-level contributions to the implied rates of return on both UK assets and liabilities.

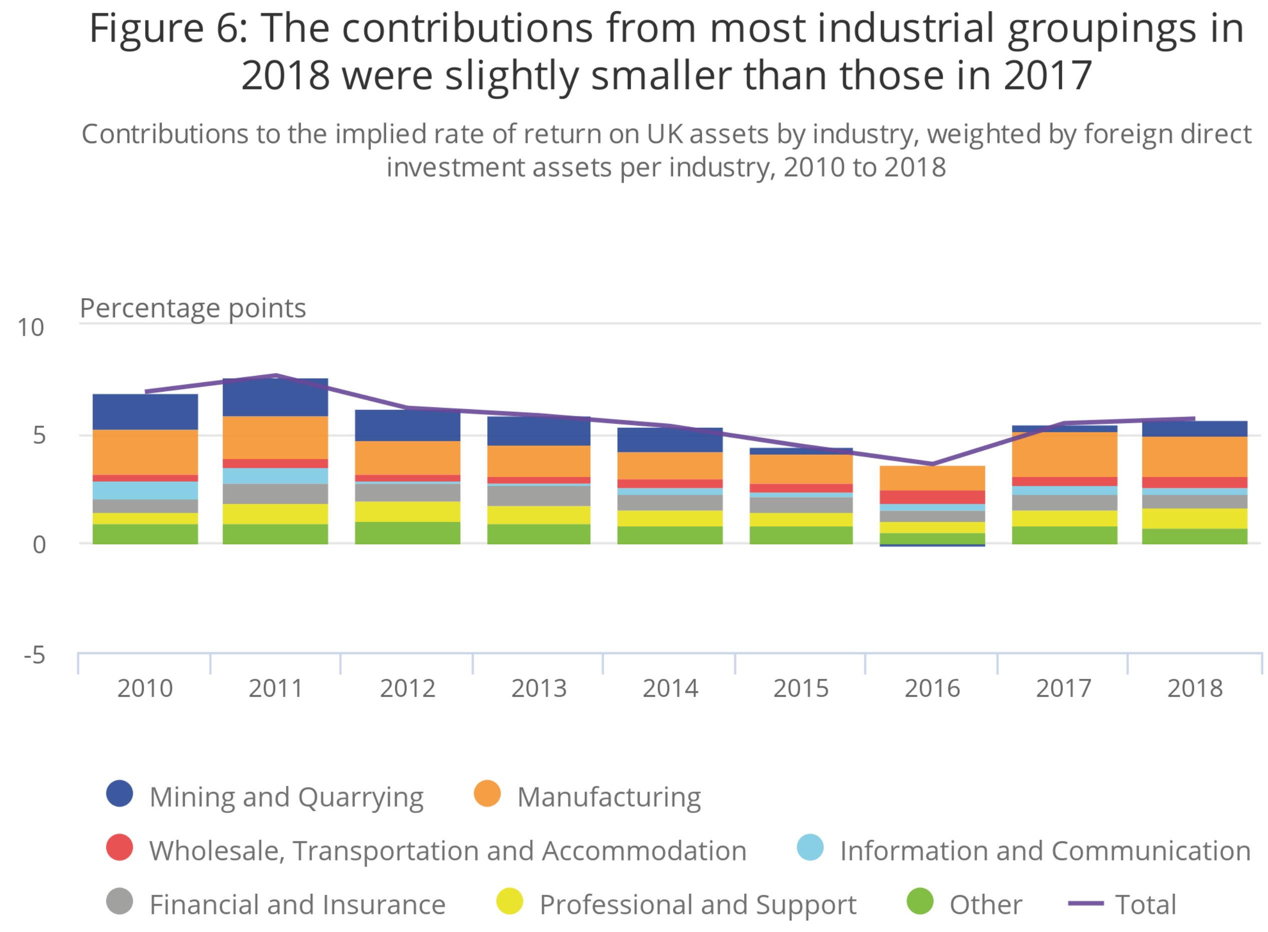
Manufacturing industries contributed the most to the total implied rate of return on UK assets in 2018

There was a notable rise in the total rate of return on UK FDI assets in 2017 and, to a lesser extent, in 2018. The industrial grouping contributing the most to the overall rate of return on UK assets in 2017 was manufacturing (2.1 percentage points), followed by similar contributions of 0.7 percentage points from financial and insurance, and professional and support.

The contributions of manufacturing, financial and insurance, and professional and support in 2018 were similar to 2017. The contribution from mining and quarrying increased from 0.3 percentage points in 2017 to 0.8 percentage points in 2018.

Figure 6: The contributions from most industrial groupings in 2018 were slightly smaller than those in 2017

Contributions to the implied rate of return on UK assets by industry, weighted by foreign direct investment assets per industry, 2010 to 2018



Source: Office for National Statistics - Foreign direct investment involving UK companies (asset and liability)

Notes:

1. The sum of the contributions will not necessarily equal the total rate of return on UK assets because of rounding.

Returns on FDI assets in manufacturing have been the largest contributor since 2010, despite being 0.9 percentage points lower in their contribution in 2016 compared with 2010.

Wholesale, transportation and accommodation was the only grouping where the contribution to the overall rate of return on FDI assets was higher in 2016 than it was in 2010. This grouping contributed 0.6 percentage points in 2016 compared with 0.3 percentage points in 2010. For all of the other industry groupings, the contributions fell in line with the decrease in the overall implied rate of return on UK assets during the same period.

Furthermore, prior to 2014, mining and quarrying had the second-largest contribution, but consecutive annual falls in its contribution between 2011 and 2016 meant that the 2016 contribution was 1.9 percentage points lower compared with 2010. As a result, mining and quarrying also contributed negatively to the overall rate of return in 2016. Our previous analysis has shown that the implied rate of return on mining and quarrying FDI assets was particularly affected by changes in the oil price.

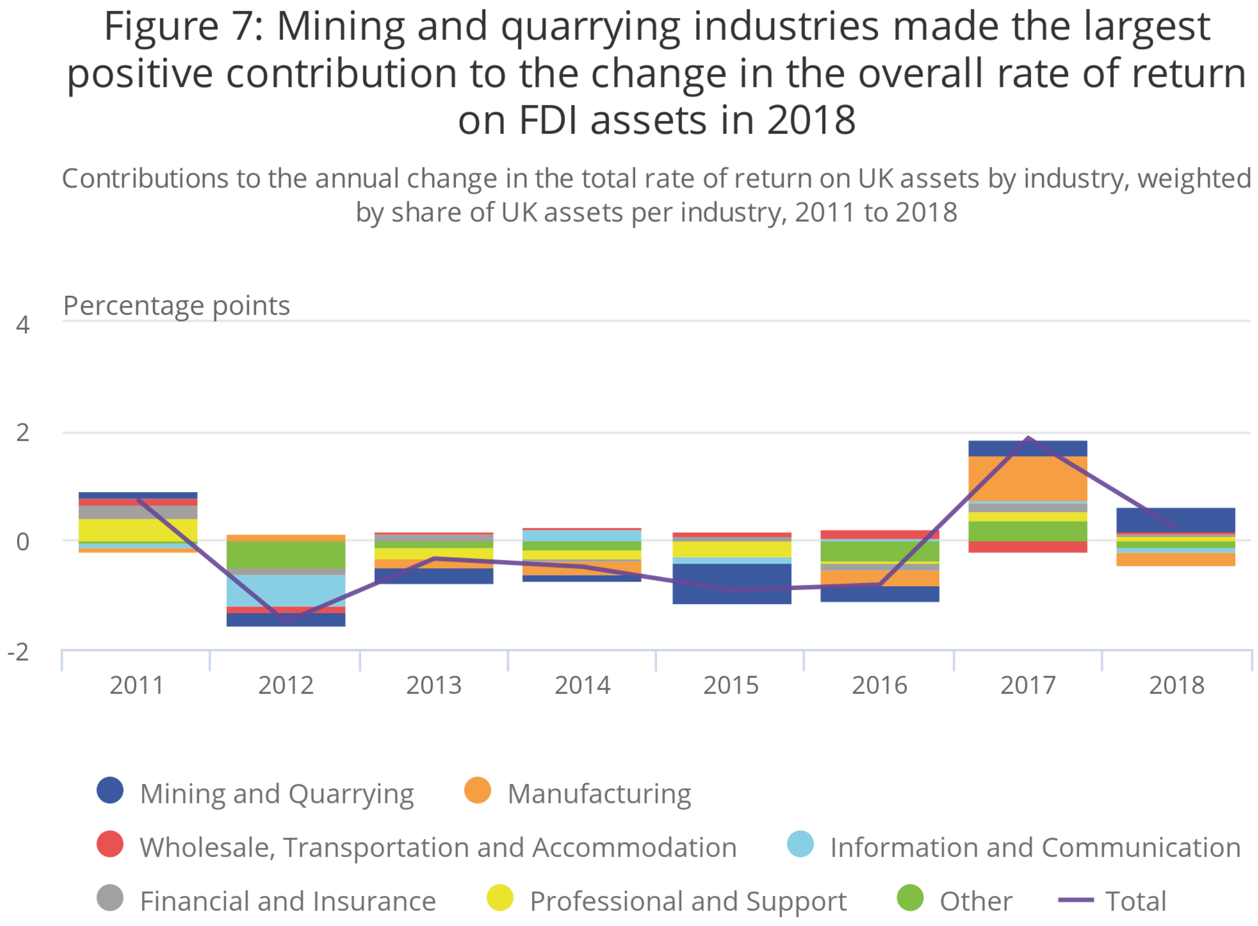
Mining and quarrying industries made the highest positive contribution to the change in the overall rate of return on UK assets in 2018

The contribution of each industrial grouping to the change in the overall implied rate of return on FDI assets highlights the impact of rates in mining and quarrying in 2018. These industries contributed 0.5 percentage points to the change in the overall implied rate of return in 2018. This was after contributing 0.3 percentage points to the change between 2016 and 2017.

Falling implied rates of return from mining and quarrying between 2011 and 2016 led to this industry grouping making a negative contribution to the change in the total rate of return from 2012 to 2016, most notably in 2015 when it contributed negative 0.7 percentage points. Professional and support was the other main industrial grouping to contribute positively to the change in the total implied rate of return in 2018, by 0.1 percentage points. The largest negative contribution to the change in the overall rate of return on FDI assets was manufacturing (negative 0.2 percentage points).

Figure 7: Mining and quarrying industries made the largest positive contribution to the change in the overall rate of return on FDI assets in 2018

Contributions to the annual change in the total rate of return on UK assets by industry, weighted by share of UK assets per industry, 2011 to 2018



Source: Office for National Statistics - Foreign direct investment involving UK companies (asset and liability)

Notes:

1. The sum of the contributions will not necessarily equal the change in the total rate of return on UK assets because of rounding.

For 2017, all industries contributed positively to the change in implied rates of return with the exception of wholesale, transportation and accommodation. Returns from manufacturing contributed the highest amount in 2017, of 0.8 percentage points. However, this grouping made the largest contribution to changes – either positive or negative – in five of the eight years between 2011 and 2018 (Figure 7).

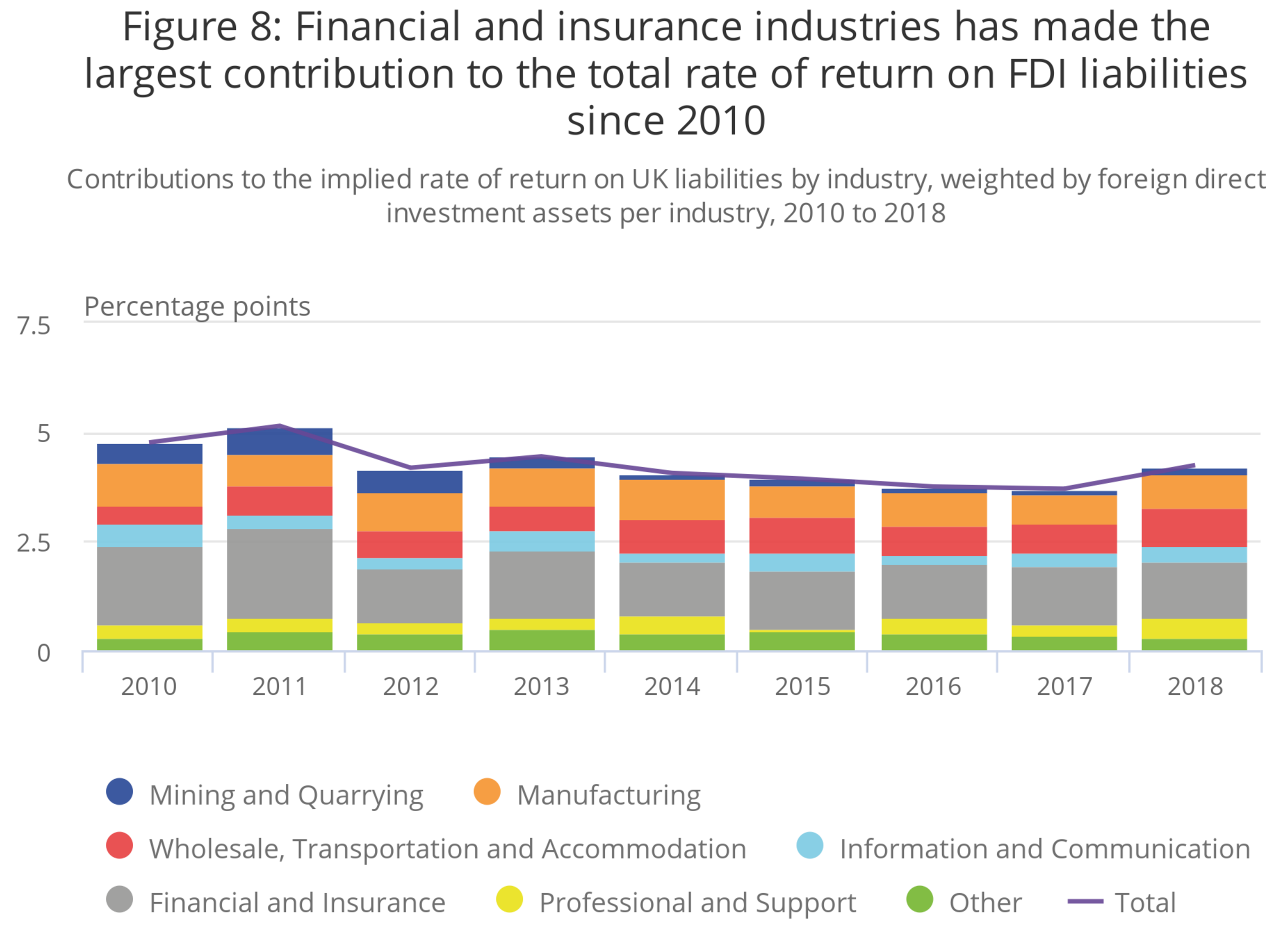
Changes in the implied rates of return on UK assets were negative for all years between 2012 and 2016. This reflected more negative industry contributions to the change than positive ones. Returns on FDI assets in information and communication made the largest negative contribution to the change in 2012 (negative 0.6 percentage points) but were the only notable positive contribution in 2014 (0.2 percentage points). Financial and insurance positively contributed to the change in 2013 and 2015, while the contribution from wholesale, transport and accommodation was also positive in 2015 and 2016.

Financial and insurance industries was the main contributor to the total rate of return on UK liabilities in 2018

Implied rates of return on UK FDI liabilities rose by 0.5 percentage points to 4.2% in 2018 compared with the previous year. Financial and insurance was the largest contributor to the rate of return on liabilities in 2018 (1.3 percentage points), followed by wholesale, transportation and accommodation (0.9 percentage points) and manufacturing (0.8 percentage points). Mining and quarrying contributed 0.2 percentage points in 2018, the smallest contribution of the seven groupings in Figure 8 for the third successive year.

Figure 8: Financial and insurance industries has made the largest contribution to the total rate of return on FDI liabilities since 2010

Contributions to the implied rate of return on UK liabilities by industry, weighted by foreign direct investment assets per industry, 2010 to 2018



Source: Office for National Statistics - Foreign direct investment involving UK companies (asset and liability)

Notes:

1. The sum of the contributions will not necessarily equal the total rate of return on UK liabilities because of rounding.

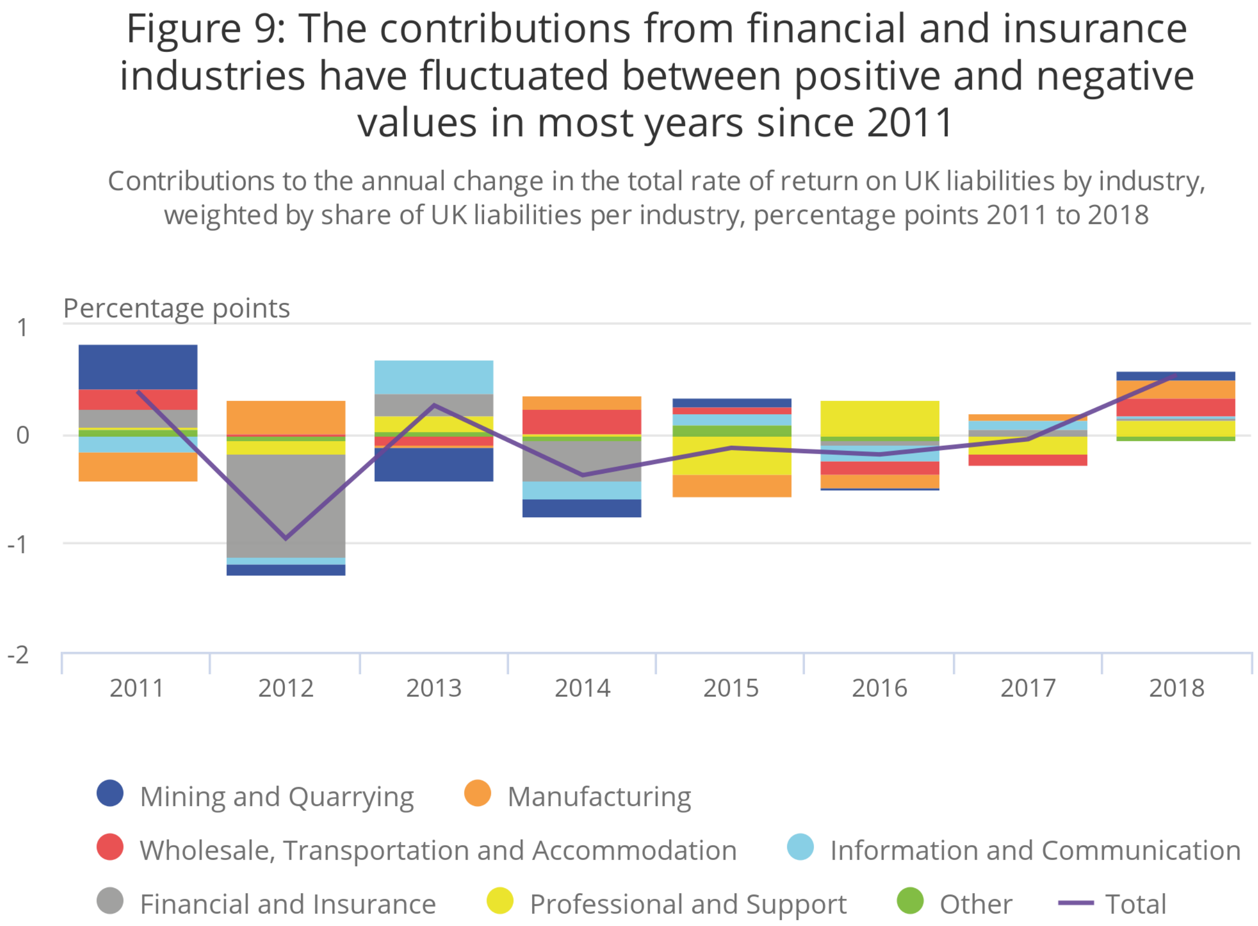
The contributions of the industrial grouping contributions to the overall return rates on UK liabilities were relatively stable from 2011 onwards. Most groupings saw their contribution falling in line with the overall rate (Figure 8). Financial and insurance remained the largest contributor since 2010, followed by manufacturing, in six years of the nine-year period. These two industries together accounted for more than half of the UK's annual implied rate of return on liabilities between 2010 and 2018.

Manufacturing, and wholesale, transportation and accommodation made the largest positive contributions to the change in the total rate of return on UK liabilities in 2018

All industries except the other industries grouping, which contributed 0.0 percentage points, had a positive contribution to the change in the implied rate of return on FDI liabilities between 2017 and 2018. Manufacturing, and wholesale, transportation and accommodation made the largest positive contributions (each by 0.2 percentage points).

Figure 9: The contributions from financial and insurance industries have fluctuated between positive and negative values in most years since 2011

Contributions to the annual change in the total rate of return on UK liabilities by industry, weighted by share of UK liabilities per industry, percentage points 2011 to 2018



Source: Office for National Statistics - Foreign direct investment involving UK companies (asset and liability)

Notes:

1. The sum of the contributions will not necessarily equal the change in the total rate of return on UK liabilities because of rounding.

While the overall implied rate of return on FDI liabilities followed a downward trend between 2010 and 2017, the contributions to the change were mixed in most years. Implied rate of return on financial and insurance in particular has fluctuated between positive and negative contributions in most years since 2011, with notable negatives in 2012 (negative 0.9 percentage points) and 2014 (negative 0.4 percentage points). Information and communication, and professional and support have also seen similar fluctuations.

6 . Details of countries within each continent for this analysis

Africa:

Algeria, Angola, Benin, Botswana, British Indian Ocean Territory, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo, The Democratic Republic of the Congo (Zaire), Djibouti, Egypt, Equatorial Guinea, Eritrea, Eswatini, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea Bissau, Côte d'Ivoire (Ivory Coast), Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, South Sudan, St Helena, Ascension and Tristan da Cunha, Sudan, Tanzania, Togo, Tunisia, Uganda, Zambia, Zimbabwe.

Asia:

Abu Dhabi, Afghanistan, Armenia, Azerbaijan, Bahrain, Bangladesh, Bhutan, Brunei Darussalam, Myanmar (Burma), Cambodia, China, Dubai, Georgia, Hong Kong, India, Indonesia, Iran, Iraq, Israel, Japan, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Laos, Lebanon, Macao, Malaysia, Maldives, Mongolia, Nepal, North Korea, Oman, Pakistan, Palestinian Territory, Philippines, Qatar, Saudi Arabia, Singapore, South Korea, Sri Lanka, Syria, Taiwan, Tajikistan, Thailand, Timor-Leste, Turkmenistan, United Arab Emirates, Uzbekistan, Vietnam, Yemen.

Australasia and Oceania:

American Samoa, Antarctica, Australia, Bouvet Island, Christmas Island, Cocos (Keeling) Islands, Cook Islands, Fiji, French Polynesia, French Southern and Antarctic Lands, Guam, Heard Island and McDonald Islands, Kiribati, Marshall Islands, Micronesia, Nauru, New Caledonia, New Zealand, Niue, Norfolk Island, Northern Mariana Islands, Palau, Papua New Guinea, Pitcairn, Samoa, Solomon Islands, South Georgia and The South Sandwich Islands, Tokelau, Tonga, Tuvalu, US Minor Outlying Islands, Vanuatu, Wallis and Futuna.

EU Europe:

Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden.

Non-EU Europe:

Albania, Andorra, Belarus, Bosnia and Herzegovina, Faroe Islands, Gibraltar, Guernsey, Holy See (Vatican City State), Iceland, Isle of Man, Jersey, Liechtenstein, North Macedonia, Moldova, Montenegro, Norway, Russian Federation, San Marino, Serbia, Switzerland, Turkey, Ukraine.

North Americas:

Canada, Greenland, United States.

Central and South Americas:

Anguilla, Antigua and Barbuda, Argentina, Aruba, Bahamas, Barbados, Belize, Bermuda, Bolivia, Bonaire, Sint Eustatius and Saba, Brazil, Cayman Islands, Chile, Colombia, Costa Rica, Cuba, Curacao, Dominica, Dominican Republic, Ecuador, El Salvador, Falkland Islands, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Montserrat, Nicaragua, Panama, Paraguay, Peru, Saint Lucia, Sint Maarten, St Kitts and Nevis, St Vincent and the Grenadines, Suriname, Trinidad and Tobago, Turks and Caicos Islands, Uruguay, Venezuela, British Virgin Islands, U.S. Virgin Islands.

7 . Details of SIC 2007 industries for each FDI industrial grouping used

Table 1: Details of Standard Industrial Classification (SIC 2007) industries for each FDI industrial grouping used

Industry grouping	Section(s) within SIC07
Mining & Quarrying	B - Mining and quarrying
Manufacturing	C - Manufacturing
Wholesale, Transportation & Accommodation	G - Wholesale and retail trade; repair of motor vehicles and motorcycles
	H - Transportation and storage
	I - Accommodation and food service activities
Information & Communication	J - Information and communication
Financial & Insurance	K - Financial and insurance activities
Professional & Support	M - Professional, scientific and technical activities
	N - Administrative and support service activities
Other	A - Agriculture, forestry and fishing
	D - Electricity, gas, steam and air conditioning supply
	E - Water supply, sewerage, waste management and remediation activities
	F - Construction
	L - Real estate activities
	O - Public administration and defence; compulsory social security
	P - Education
	Q - Human health and social work activities
	R - Arts, entertainment and recreation
	S - Other service activities
	T - Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use
	U - Activities of extra-territorial organisations and bodies

Source: Office for National Statistics

8 . Acknowledgements

Authors: Laura Garcia Blasco and Andrew Jowett.

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