



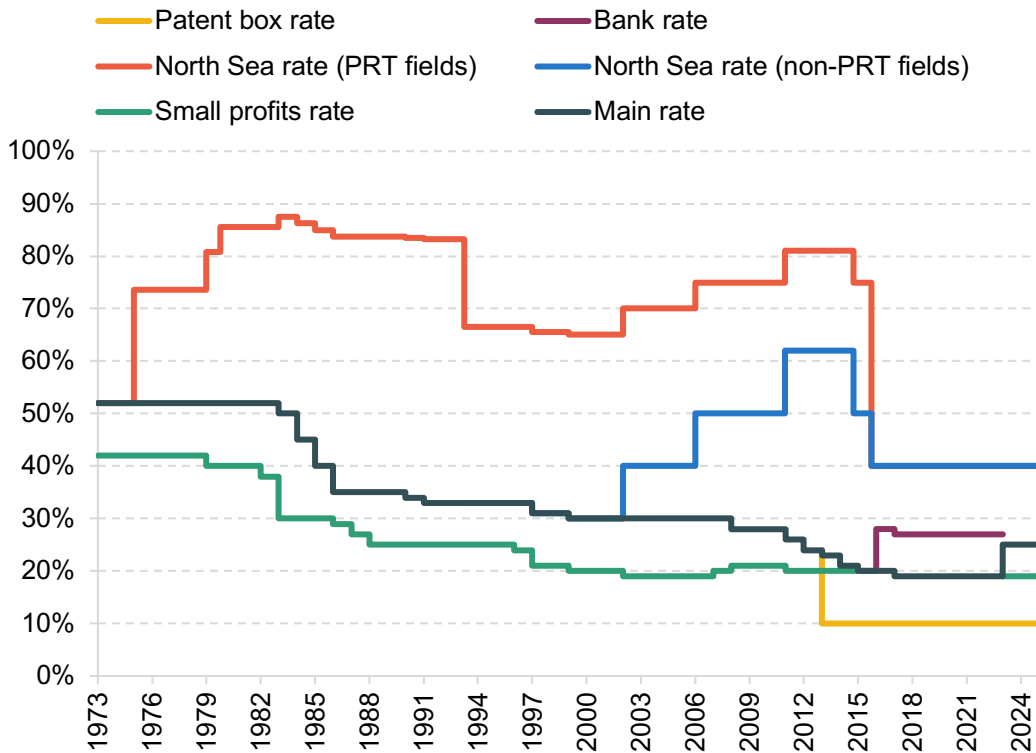
Institute for Fiscal Studies

Corporation tax explained

Corporation tax explained

Corporation tax is the fourth biggest source of revenue for the UK Treasury and is forecast to raise around £40 billion in 2021–22. It is levied on the profits of companies operating in the UK (the profits of unincorporated businesses – sole traders and partnerships – are subject to income tax rather than corporation tax). Companies operating in more than one country are, broadly speaking, taxed on the profits that are deemed to have arisen from UK-based assets and production activities. Different rates of corporation tax have, at various times, been applied to banking, North Sea oil and gas production, companies with small profits, and profits earned from patented technologies. The evolution of these rates is shown in the chart below.

Corporation tax rates over time



Note: The small profits rate has applied up to different thresholds over time. Bank rate is the main rate of corporation tax plus the bank surcharge. North Sea oil and gas production is subject to 'ring-fence' corporation tax (RFCT) and, since 2002, a supplementary charge (SC), which are assessed on a different tax base from standard corporation tax. PRT is petroleum revenue tax, which applies to North Sea oil and gas fields developed before 16 March 1993 (though the rate has been zero since 1 January 2016). For these fields, the tax rate is calculated as $\{PRT \text{ rate} + [(RFCT \text{ rate} + SC) \times (1 - PRT \text{ rate})]\}$. The small profits rate for North Sea oil and gas profits is not shown in the chart. The horizontal axis has April of each year marked; as shown in the chart, some changes to North Sea tax rates took effect in other months.

Source: IFS Fiscal Facts.

Taxable profits

In broad terms, profit is revenue minus costs.

Corporation tax is charged on income from trading (i.e. from the sale of goods and services) and investments, minus day-to-day expenses (known as 'current' or 'revenue' expenditure, which includes wages, raw materials and interest payments

on borrowing) and various other deductions, notably allowances for investment costs. It is also charged on capital ('chargeable') gains, the profit from selling an asset for more than it cost. If a company makes a loss – its costs exceed its revenue – it can, subject to restrictions, set the loss against profits it makes in other years.

While ordinarily current expenditure is deductible, research and development (R&D) tax reliefs allow companies to deduct more than 100% of qualifying current expenditure on R&D. R&D tax reliefs are more generous for small and medium-sized companies than for large companies.

More about R&D tax reliefs

There are two tax schemes that provide a subsidy to R&D activities: the small and medium-sized enterprises (SME) R&D relief scheme and the R&D expenditure credit (RDEC) for larger companies. In both cases, qualifying expenses are those that relate to employing people or buying raw materials or software (but not capital costs or the cost of premises) and that can be shown to contribute to achieving a significant advance in applied science or technology (projects related to social sciences or theoretical fields such as pure mathematics do not qualify).

SME R&D relief allows companies to deduct an additional 130% of qualifying expenditure from taxable profits (on top of the standard 100% deduction of current expenses, making 230% in total). It is available to companies with fewer than 500 employees and either an annual turnover under €100 million or a balance sheet total under €86 million. Total SME R&D relief available on a particular R&D project is capped at €7.5 million.

If a company claiming SME R&D relief makes a loss (after the relief is taken into account), it can choose to give up the right to offset losses equivalent to 230% of its R&D expenditure (or its total losses, if these are smaller) against future profits in return for a cash payment from the government of 14.5% of the losses given up.

For companies that cannot claim SME R&D tax relief, the RDEC provides a tax credit of 13% of qualifying R&D expenditure which can be deducted from the company's tax liability (unlike the SME relief, which is a deduction from taxable profits). This credit is itself taxable, meaning that it is first *added* to the company's taxable profits as taxable income and then *subtracted* from its corporation tax bill. For example, imagine a firm that has £200 of revenue and £100 of qualifying R&D expenditure. The credit will increase taxable profit to £113 (i.e. £200 – £100 + £13). When the corporation tax rate is 19%, the

tax bill is £8.47, calculated as the tax rate multiplied by taxable profit ($19\% \times £113 = £21.47$) minus the credit of £13. With a 19% corporation tax rate, the value of the 13% taxable credit is approximately 10.5% of R&D expenditure. If the company makes a loss (after the RDEC is taken into account), the value of the RDEC can be paid out to the company, up to a limit (equal to the income tax and National Insurance contributions on the R&D workers' salaries); anything in excess of that limit is carried forward to the following year.

Comparing the RDEC with the SME scheme: with a 19% tax rate, the 13% tax credit is equivalent to a deduction of 55% from taxable profits. Conversely, the 130% deduction from taxable profits available under the SME scheme is equivalent to a 30% (taxable) credit against corporation tax liability. The SME scheme is therefore much more generous than that available to larger companies.

In the March 2021 Budget, the government launched a wide-ranging review of the design of the R&D tax reliefs.¹

Unlike current expenditure, investment (or capital) spending on things such as machinery and buildings is not automatically deductible when calculating taxable profits. Instead, capital allowances can be used by companies to deduct their capital expenditure from taxable profits over a number of years.

Capital allowances come in a number of forms that differ in their structure and generosity. In practice, most small and medium-sized companies can deduct most of their investment spending immediately under the annual investment allowance (AIA). Companies can even deduct more than the full cost of some investment – a so-called ‘super-deduction’ – for the two years from 1 April 2021 to 31 March 2023, a policy closely linked to the announcement that the main rate of corporation tax will increase from 19% to 25% in April 2023.

¹ See <https://www.gov.uk/government/consultations/rd-tax-reliefs-consultation>.

More about capital allowances

The capital allowances available for investment depend on the type of asset bought. Some capital allowances can be thought of as crudely allowing for depreciation, the decline in an asset's value over time (e.g. as a result of wear and tear). Others are clearly more generous than that and can better be thought of as treating the asset purchase itself as a business expense, or as encouraging certain kinds of investment over others.

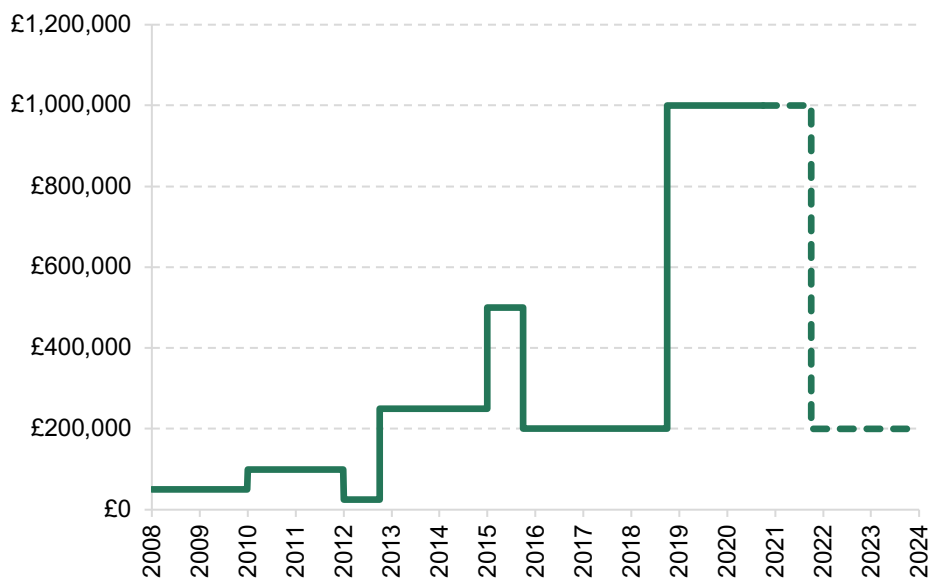
The detailed rules are complicated, but as a broad summary:

- The annual investment allowance (AIA) allows businesses to immediately deduct the first £1,000,000 of plant and machinery investment – the biggest category of investment, covering everything from computers and desks to lorries, industrial equipment and other tools of the trade – each year. The exact amount that can be deducted under the AIA has varied a lot over time and is due to fall to £200,000 in January 2022, as shown in the chart below. Plant and machinery investment in excess of the AIA is deducted on an 18% 'declining-balance' basis, meaning that for each £100 of investment, taxable profits are reduced by £18 in the first year (18% of £100), £14.76 in the second year (18% of the remaining balance of £82) and so on. For a two-year period – 1 April 2021 to 31 March 2023 – a temporary 'super-deduction' is in place which allows companies to deduct 130% of the cost of their total (uncapped) plant and machinery investment.
- Plant and machinery that lasts at least 25 years or is integral to a building (such as lifts, air conditioning or lighting systems) is deducted more slowly, on a 6% declining-balance basis (if it falls outside the AIA). This has been temporarily increased to 50% from 1 April 2021 to 31 March 2023.
- Cars are treated differently from other plant and machinery: they do not qualify for the AIA, and are deducted at 100%, 18% or 6% depending on the car's CO₂ emissions rating, when it was bought and whether it was new or second-hand. Certain other environmentally friendly investments can also be deducted immediately.
- The cost of buying, building or renovating a commercial building can be deducted on a 3% 'straight-line' basis, meaning that for each £100 of investment, profits are reduced by £3 per year for 33½ years. This allowance is only available if contracts for the construction work on the building were signed on or after 29 October 2018; there is no allowance for the purchase of older buildings or of land.
- The treatment of intangible assets (such as intellectual property, software licences, brand assets, customer lists and goodwill) is complicated. Depending on the details,

such expenditure is sometimes treated as plant and machinery (and subject to the allowances described above), sometimes deducted at the rate used in the company's accounts (with an option of using a 4% straight-line deduction instead), sometimes deducted on a 6.5% straight-line basis, and sometimes cannot be deducted at all. There are no capital allowances for financial assets (such as shares in other companies) or other 'non-depreciable' assets.

- Capital expenditure on any assets used for qualifying R&D except land and intellectual property (but including plant, machinery and buildings) can all be deducted immediately.

The annual investment allowance over time



Note: The horizontal axis has April of each year marked; as shown in the chart, some changes took effect in January.

Source: IFS Fiscal Facts.

More about the super-deduction

The March 2021 Budget announced the creation of a 'super-deduction' to be in place from 1 April 2021 until 31 March 2023.

Under the super-deduction, companies can deduct 130% of investment in most forms of plant and machinery. In other words, for each £1 a company spends on an eligible investment, its taxable profits reduce by £1.30. There is no limit on the amount of investment that is eligible for the super-deduction.

The super-deduction was introduced at the same time as it was announced that the main rate of corporation tax would rise from 19% to 25% in 2023. This matters for the effects of the policy. Preannouncing an increase in the tax rate would tend to discourage investment. This is because, for investments undertaken before the rate rise but generating revenue after the rate rise, the costs would be deducted at a lower rate (19%) than the subsequent revenue was taxed (25%). This would create an incentive not to invest until the rate increased and the cost could be deducted against the 25% tax rate. For investments that would normally qualify for a 100% deduction under the AIA, the super-deduction simply removes this disincentive effect, because deducting 130% of costs at a 19% tax rate is almost equivalent to deducting 100% of costs at a 25% tax rate (i.e. $130 \times 0.19 \approx 100 \times 0.25$). In effect, the super-deduction can be thought of as allowing companies to deduct their investment against the new, higher tax rate, before the higher rate is in place.

This can be seen in a simple example. Imagine a company is looking to buy £100 of equipment this year that will generate £105 of income in 2024 – i.e. a 5% pre-tax return. The effect of tax depends on the treatment of costs and profits:

- If the tax rate is a constant 19%, a company can deduct (using the AIA) the investment cost, saving £19 in tax. £19.95 in tax would be paid on the income (i.e. 19% tax on the £105 income). So, after tax, the investment would cost £81 and yield £85.05: still a 5% return.
- If costs are deducted at 19% this year, but income taxed at 25% in 2024, £26.25 in tax would be paid on the income (i.e. 25% tax on £105). Now, after tax, the investment would cost £81 and yield £78.75: the project would be loss-making and thus discouraged by the tax system.
- But using the super-deduction, a company can deduct 130% of the investment cost this year at a 19% tax rate, giving a tax reduction of £24.70 (almost exactly the same as the £25 that would be available from deducting £100 at 25%). In this case, the investment costs £75.30 and yields £78.75 (after income is taxed at 25%): the project has a return of 4.6%, almost the same as if costs and income were both subject to a tax rate of 25%. The super-deduction roughly neutralises the disincentive effect of the rate rise.

For many investments, the super-deduction is simply a rebasing of the AIA that prevents the preannounced rate rise from discouraging investments. In other cases – including for investments above the AIA – the super-deduction is an incentive to increase or bring forward investment. And for investments that do not qualify for the super-deduction – such as investments in buildings, cars and most intangible assets – the disincentive effect of the forthcoming rate increase has not been neutralised, so that doing such investments before 2023 looks particularly unattractive (including relative to investing in plant and machinery).

The super-deduction does not apply to investment in long-life plant and machinery – but for the same two-year period, the reduced 6% rate of capital allowances that normally applies to such investment (above the AIA) has been increased to 50% in the year of purchase.

If a company sells an asset, it is taxed on any capital gain (the rise in the value of the asset since it was acquired, i.e. the proceeds of sale minus the original purchase cost). If capital allowances have been claimed for the asset, a ‘balancing adjustment’ is made to ensure that the capital gain/loss, the capital allowances and the balancing adjustment together equal the overall change in the value of the asset. So, for example, if the purchase cost of an asset has already been fully deducted through capital allowances (under the AIA, for example) then the full proceeds of sale are taxed, not just the capital gain: the purchase cost is not deducted a second time when the asset is sold.

If a company makes a loss in a given year, it cannot claim a tax refund, but it can offset the loss against profits it makes in other years, subject to various restrictions. Losses can usually be carried back by only one year (temporarily extended to three years in the wake of COVID-19) or carried forward indefinitely.

More about relief for losses

Losses made by companies can be used to offset taxable profits made in other years.

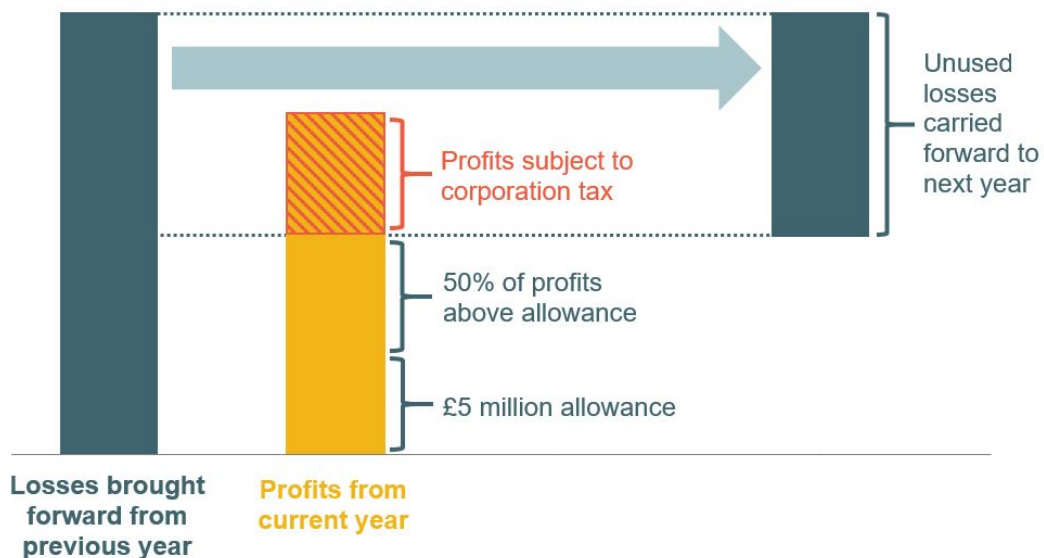
A loss from trading can be set against profits made in the previous year (but generally not earlier). For instance, if a company made a £100,000 profit last year and a £100,000 loss this year, it could choose to pay tax as if it had made zero profits in both years. In this example, that will mean the company receiving a refund from the government for the

corporation tax paid last year. In most circumstances, trading losses can only be carried back one year, except that losses made in the first four years of trading or in the final year of trading can be carried back for up to three years. But in the March 2021 Budget, the Chancellor announced that between 1 April 2020 and 31 March 2022, all companies would be permitted to carry back up to £2 million of trading losses for up to three years instead of the usual one.

Alternatively, losses can be carried forwards. If a company makes a loss this year, it can offset that loss against profits in future years. For instance, if a company makes a £50,000 loss this year and a £200,000 profit next year, it can carry forward its loss so that corporation tax is paid next year on profits of only £150,000. Losses can be carried forward indefinitely as long as the company carries on the same trade.

Companies are limited in the amount of profits they can offset against carried-forward losses. In each year, companies are permitted to offset £5 million of taxable profits against past losses, plus a maximum of 50% (or 25% in the case of banks) of the profits remaining after the £5 million has been deducted. Any unused losses can be carried forward to subsequent years. An example of how these restrictions work is given in the chart below.

Carrying losses forwards: an example



More restrictive rules apply if a company makes a capital loss on the sale of an asset. Capital losses can only be offset against capital gains, even in the same year (though the converse is not true: trading losses can be offset against capital gains as well as against

trading income). Capital losses can be carried forward indefinitely but cannot generally be carried back to past years.

Where companies form part of a group – meaning, broadly speaking, that they have a common owner – loss-making members of the group are able (subject to certain constraints) to offset their losses against the profits of other group members. This practice is known as ‘group relief’.

Companies are generally taxed on the profits they make over the 12 months for which they draw up their company accounts (though it can differ in some cases, notably in the first and last years of business). Most companies choose to start their accounting years in April, matching the tax year. But if a company’s accounting year straddles two tax years (e.g. it produces its accounts on a calendar-year basis) and the tax rate changes, then its profits for the accounting year are in effect taxed at a weighted average of the two tax rates according to the number of days in the accounting period before and after the tax rate change. Large companies are required to pay corporation tax in four equal instalments on the basis of their anticipated liabilities for the accounting year. Small and medium-sized companies pay their total tax bill nine months after the end of the accounting year.

Corporation tax rates

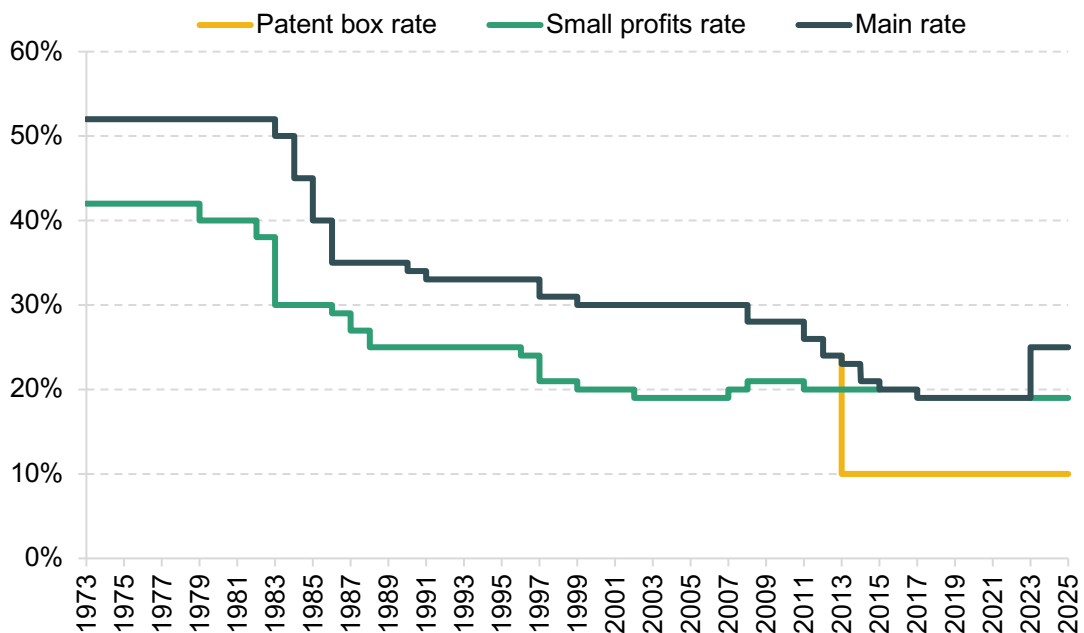
In 2021–22, the main corporation tax rate is 19%. A reduced rate of 10% applies to profits relating to patented technologies, a policy known as the ‘patent box’. Higher rates apply to banks and to North Sea oil and gas production; we discuss these in the following sections.

More about the patent box

A reduced 10% rate of corporation tax applies to profits made from exploiting patents that fall within the UK’s patent box regime. This includes income from selling goods or services that make use of a qualifying patent and, in some cases, income from licensing and royalties. The relief was introduced in phases between 2013 and 2017. The patent box rules

are complex and were revised substantially in 2016. Broadly, in order to qualify for the patent box, a company must own (or exclusively license) a UK- or EU-registered patent relating to an invention that it played a significant part in developing or incorporating into a final product (in other words, the patent cannot simply be purchased from another company). While only UK-resident companies can qualify for the patent box, there is no requirement for the research that led to the patent to have been carried out in the UK.

Main corporation tax rates over time



Note: The horizontal axis has April of each year marked. As well as the rates shown, there was also a 'starting rate' (initially 10%, then 0%) in place from April 2000 to April 2006.

Source: IFS Fiscal Facts.

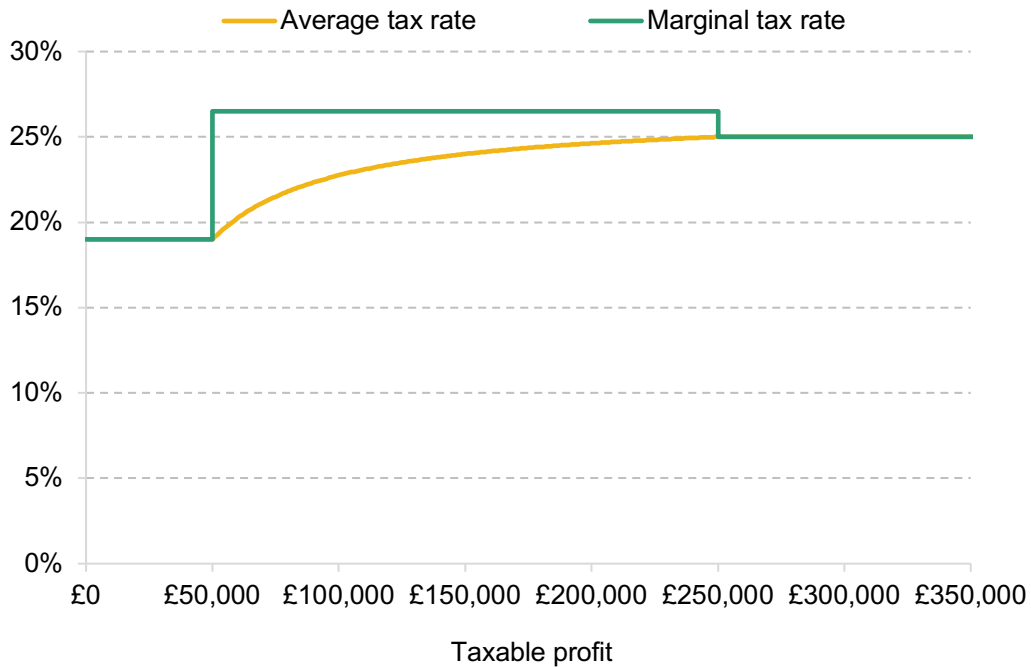
The chart above shows that the main rate of corporation tax has fallen substantially over the last four decades, from 52% in the 1970s to 19% now. The March 2021 Budget announced that in April 2023 the main rate of corporation tax will rise to 25% – that would be the first rise in the main rate of corporation tax for half a century.

This rate increase will not apply to all companies, however. For companies with profits below £50,000, the rate will stay at 19% and become the 'small profits rate'.

And for companies with profits between £50,000 and £250,000 a system of ‘marginal relief’ will operate, such that an effective marginal tax rate of 26.5% applies on profits in excess of £50,000. This acts to increase the average tax rate gradually until it reaches 25% (see chart and table below). Only companies with profits above £250,000 will face the 25% main rate of tax. Operating a small profits rate and a marginal relief system adds unnecessary complexity, creates unnecessary economic distortions (why have a stronger disincentive to increase profits between £50,000 and £250,000 than above or below that range?), and cannot be justified on distributional grounds: companies with low profits are not akin to people with low incomes.

Corporation tax had a small profits rate in the past, until it was abolished in April 2015 (see chart above). However, it applied up to a much higher profit threshold: for the twenty years prior to its abolition, the small profits rate applied to profits up to £300,000, with marginal relief between £300,000 and £1,500,000 (the thresholds were lower before 1994).

Corporation tax schedule, 2023–24



Corporation tax schedule, 2023–24

Annual profit	Marginal tax rate	Average tax rate
£0–£50,000	19%	19%
£50,000–£250,000	26.5%	19–25%
Above £250,000	25%	25%

Legislation passed in 2015 put in place the legal apparatus to devolve corporation tax rate-setting powers to Northern Ireland. The UK government committed to provide the Northern Ireland Assembly with these rate-setting powers once its finances are on a ‘sustainable footing’. In November 2015, the Northern Ireland Executive stated an intention to reduce the rate to 12.5% for most trading profits from April 2018 (in line with the rate in the Republic of Ireland), but so far the power to do so has not actually been devolved. The process was complicated by the collapse of the Northern Ireland Executive in 2017 and other political

developments, but since the restoration of power-sharing in 2020 there seems to have been little impetus to implement the devolution of corporation tax.

Taxation of banks

Since April 2016, banks and building societies have been subject to an 8% surcharge levied on the same base of taxable profits as corporation tax. The first £25 million of a bank's taxable profits are exempt from the surcharge.

The March 2021 Budget announced that the bank surcharge will be reviewed so that, when the main rate of corporation tax increases from 19% to 25% in 2023, 'the combined rate of tax on the United Kingdom banking sector doesn't increase significantly from its current level'. This appears to imply a reduction in the bank surcharge; the government said it will set out its plans in the autumn.

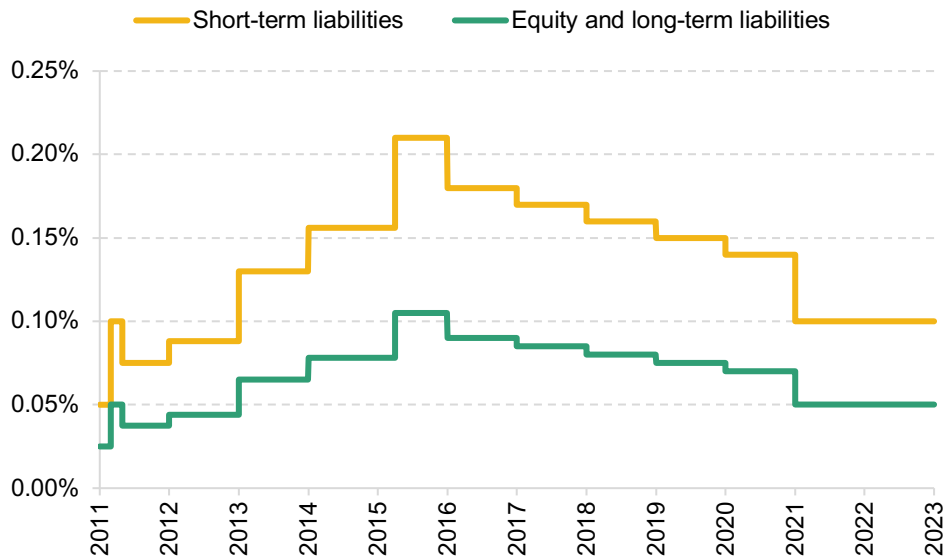
In addition, since January 2011, banks are subject to the bank levy. Unlike corporation tax, the bank levy is not a tax on profits. It is an annual charge on certain balance-sheet liabilities and equity of banks and building societies, such as certain customer deposits.

More about the bank levy

The bank levy is charged on certain UK liabilities and equity, as recorded on banks' balance sheets. Liabilities are what a bank owes to others, including all of the deposits at the bank (which are owed to the customers who made the deposits). Equity measures a bank's net worth – i.e. total assets minus total liabilities. The exact definition of which liabilities and equity are taxable is complex. Deposits that are insured through the government's depositor protection schemes are exempt, for example. The first £20 billion of each institution's taxable liabilities are also exempt from the levy, meaning that in practice only the largest financial institutions are subject to the levy. There have been a number of changes to the levy over time. Most recently, from 2021, overseas activities of UK-headquartered banking groups are no longer subject to the bank levy.

There are two main rates – one for short-term liabilities with maturities of a year or less and one for long-term liabilities and equity. The bank levy rate was cut each year between 2015 and 2021 (see chart below).

Bank levy rates over time



Note: The horizontal axis has January of each year marked; as shown in the chart, some changes took effect in other months.

Source: IFS Fiscal Facts.

Taxation of North Sea oil and gas

The tax regime applied to profits derived from North Sea oil and gas production differs in a number of ways from that applied to onshore profits. Overall rates are substantially higher (as shown in the chart at the start of this article) and there is a more generous system of capital allowances.

More about the taxation of North Sea oil and gas

Corporation tax on North Sea production is ring-fenced, so that losses on the mainland cannot be offset against offshore profits. The main rate of ring-fence corporation tax is 30%, higher than the main corporation tax rate. Prior to April 2007, corporation tax was charged at the same rate within the ring-fence as on the mainland. Since then, changes to onshore corporation tax rates have not applied to ring-fenced profits – including the 2016 abolition of the small profits rate, which still exists for ring-fence corporation tax (see table below).

Since 2002, profits earned within the North Sea ring-fence have also been subject to a supplementary charge. Strictly speaking, this is separate from corporation tax, but in practice it is almost identical (and is always included within offshore corporation tax revenue). The supplementary charge is levied at a flat rate on the same base of taxable profits to which corporation tax applies, except that costs associated with debt finance cannot be deducted. The 10% supplementary charge can therefore be broadly seen as a ‘top-up’ to the ring-fence corporation tax rate.

Offshore corporation tax rates, 2021–22

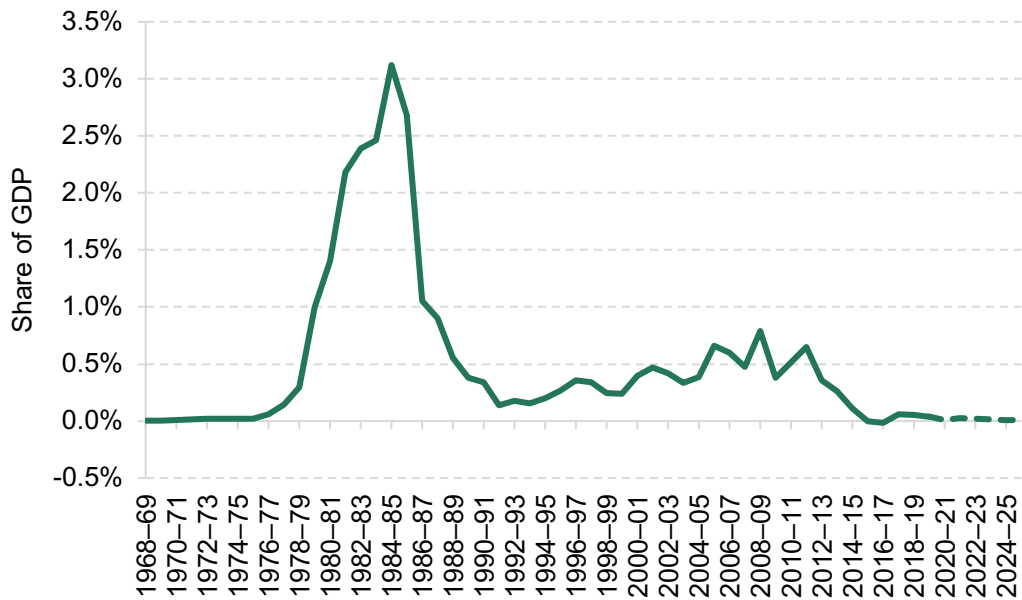
Tax component	Marginal tax rate	Average tax rate
Ring-fence corporation tax		
Annual profit £0–£300,000	19%	19%
Annual profit £300,000–£1,500,000	32.75%	19–30%
Annual profit above £1,500,000	30%	30%
Supplementary charge	10%	10%

North Sea oil and gas producers formerly faced a further tax, petroleum revenue tax (PRT), on profits from fields approved before March 1993. Since January 2016, the rate of PRT has been set at 0%. The reason for setting a zero rate rather than abolishing the tax entirely is to continue to allow oil and gas producers to offset current losses against profits made in past years (triggering a refund of PRT paid in previous years). This is important as companies can face substantial costs of decommissioning oil and gas installations after production has finished.

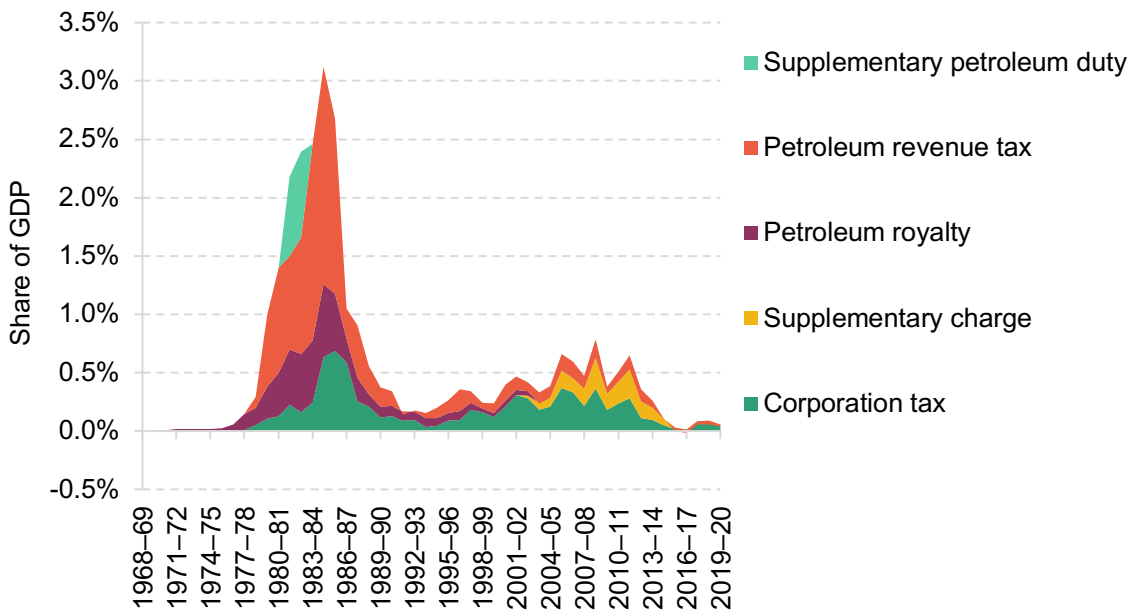
While higher rates of corporation tax are charged on offshore profits, the capital allowances available to the North Sea oil and gas sector are significantly more generous: virtually all capital expenditure can be deducted immediately (as well as current expenditure, as usual) – and some investment receives additional allowances on top of that, creating a net subsidy. Ring-fenced activities are not eligible for the temporary super-deduction announced in the March 2021 Budget, however.

The charts below show the evolution of revenue derived from the taxation of North Sea oil and gas since the introduction of the, now defunct, petroleum royalty in 1968–69. Revenue derived from North Sea production peaked in 1984–85 at just over 3% of GDP, comprising more than 10% of total tax revenue in that year. It then declined precipitously and, after rising somewhat during the 1990s and 2000s, declined again after 2011–12 and has been close to zero since 2015–16. Much of the variation reflects changes in oil prices, but the decline since the 1980s also reflects a combination of a reduction in tax rates, declining output and, since at least 2008–09, increased levels of tax-deductible expenditure.

Revenues from North Sea oil and gas as share of GDP over time



Composition of North Sea oil and gas revenues over time



Note: The gas levy is excluded from these charts.

Source: IFS revenue composition spreadsheet; table 11.11 of HMRC 'Statistics of government revenues from UK oil and gas production', <https://www.gov.uk/government/statistics/government-revenues-from-uk-oil-and-gas-production--2>.

Taxation of multinationals

Where companies operate in more than one country, it is necessary to determine what profits should be taxed in the UK. Broadly speaking, the international consensus is that profits should be taxed in the country where underlying value is created (this is known as a 'source-based' corporation tax). As such, companies are, broadly speaking, taxed on the profits that are deemed to arise from their UK-based assets and production activities. The returns to intangible assets, which do not have a physical location – e.g. patented technologies – tend to be taxed where the owner of the asset is located, which can be different from the location where the asset was originally created.

One implication of the source-based way we choose to tax corporate profit is that UK taxable profit is distinct from, albeit often related to, profit arising from sales to

UK customers, some of which will be attributable to assets and activities outside the UK.

More about which companies are taxed in the UK

There are complex rules and tax treaties that dictate when a company is taxable in a specific country. What follows is a high-level, simplified summary.

Companies that are either incorporated in the UK or have their central management based in the UK are usually considered resident in the UK for the purposes of corporation tax.

Where a company has some activities in the UK but is not tax-resident in the UK, it may still be liable to pay corporation tax if it is considered to have a ‘permanent establishment’ in the UK. The legal definition of a permanent establishment is complex and has been subject to change in recent years, but broadly refers to a place of business (such as a factory or an office) or representatives that are empowered to conclude contracts on behalf of a non-UK company. Companies whose operations in the UK are deemed only to be ‘preparatory or auxiliary’ (e.g. if a company’s only activity in the UK is storage and delivery) are generally not deemed to have a permanent establishment in the UK.

Companies that are subject to UK corporation tax are usually taxed on the profits that are deemed to arise from UK-based assets and production activities. There will usually be a credit given for any foreign tax paid on income that has arisen abroad (e.g. from sales via a foreign permanent establishment). Companies can, however, irrevocably elect to exempt income from foreign permanent establishments from UK corporation tax. Dividends received from an overseas subsidiary (i.e. an overseas company that is owned by a UK ‘parent’ company) have been exempt from UK corporation tax since 2009.

To see how corporation tax treats international activity, consider the following simple example. A French company manufactures cars. Some of the parts for the cars are imported from other countries and the car is based on designs created in Switzerland. The cars are all imported into the UK and sold by a UK car dealership. Assuming all of the companies involved are unrelated, the UK company will have to buy the cars from (and therefore make a payment to) the French company, and the French company will have to pay companies in other countries for the imported

parts and the Swiss designs. In this case, although all of the revenue from selling cars initially arises in the UK, part – and possibly most – of it will flow to (and be taxed in) other countries. The profit that is taxed in each country will be determined by the market prices for the various goods and services. If, say, consumers buy the cars mainly because they like the design, the Swiss company will be able to charge a high price and much of the profit will end up in Switzerland.

The situation is much more complicated when companies operating in different countries are owned by the same multinational parent company. In such a case, there are no market transactions between different parts of the same company and income will not necessarily flow to the country where the underlying activity took place. To assess where profit should be taxed in such cases, different parts of a multinational company are effectively required to ‘buy’ and ‘sell’ goods and services from each other. This is achieved through the operation of ‘transfer pricing’, where the ‘transfer price’ of a transaction that happens within a multinational company is required to be set in line with the ‘arm’s length principle’: that is, set as if the transaction were happening between entirely unrelated companies. This can be thought of as trying to replicate the allocation of profits that would occur if all the companies were separate (as in the initial example above). It can, however, be very difficult to estimate transfer prices. Often the question of the appropriate price for an intra-company transaction, and therefore how much profit is attributable to the activities in one specific country, does not have a single ‘right answer’ even in principle, let alone an objectively measurable and verifiable one.

More about transfer pricing and the arm’s length principle

To understand how the system of transfer pricing works, consider how it would apply in the car production example above if all of the activities in different countries were done by the same multinational company. The part of the multinational company that sells cars in the UK would make a transfer payment to the French manufacturer to reflect the value of the cars imported into the UK. This payment is a tax-deductible cost for the UK company and taxable revenue for the French company, ensuring that the value associated with manufacturing the cars is taxed as part of the French company’s profits. The French manufacturer would similarly make transfer payments to other parts of the multinational company to reflect the value of any car parts imported into France. This broad approach applies not just to physical goods (such as cars) but also to services, including financial services (such as loans) and the use of intellectual property. In our example, the French

company would also make a payment to the Swiss company to account for the value of the designs created there.

The arm's length principle is an attempt to ensure that transactions within multinationals are priced as if they were taking place between unrelated parties. If that were the case, there would be a market price for the transactions that would, in effect, determine how profit was allocated to (and therefore taxed in) different countries. In reality, there is no market price for transactions between related companies – and indeed one reason multinational companies exist is that they enjoy some advantage that cannot easily be replicated by arm's-length transactions between unrelated firms.

With something like cars or car parts, determining the transfer price may be relatively straightforward because there will often be a market price (for other similar cars or parts that are traded on the open market) to compare to and use as a benchmark. But for many activities that happen within a multinational, there will be no comparable market price. This will often be true of intangible assets – such as designs or brands – that are unique. Moreover, multinationals are often much more complex than our simple example. Imagine our example multinational has headquarters in Italy, an R&D team that is split across the UK and Germany, patents that are managed from the Netherlands, and subsidiaries selling cars in every European country. How much of the company's total profits are attributable to each of the countries? How can we say what proportion of the value relates to German innovation or Italian management, for example? In such cases, even with perfect information about all of a company's activities, there is no conceptually right answer to the question of how much profit is attributable to the activities in one specific country. Ambiguities of this kind create the scope for multinationals to use transfer prices to shift their profits to lower-tax countries, and can make it difficult for tax authorities to challenge the transfer prices companies choose.

The rules that surround transfer pricing are complex. Such rules are needed in a source-based corporation tax because companies have an incentive to arrange and report their activities in such a way as to reduce their tax liabilities by shifting their profits to lower-tax countries. But there remains significant scope for profit-shifting because of the difficulty of determining appropriate transfer prices, especially when companies have more information than governments.

Manipulating transfer prices is only one way in which multinationals may seek to locate their profits in low-tax countries under a source-based tax system: there are many others. In broad terms, they all involve allocating costs to (and therefore reducing taxable profits in) high-tax countries, while allocating revenues to low-tax countries. This could be achieved by, for example, locating intellectual property in a low-tax country (and making royalty payments for its use in a high-tax country) or making a loan from a subsidiary in a low-tax country (where the interest payments received will be taxable income) to one in a high-tax country (where interest payments made will be tax-deductible).

Over the past decade, the OECD has been leading on international efforts to change international tax rules and treaties in ways that help to reduce ‘base erosion and profit shifting’. There is widespread agreement on the need for reform and some progress has been made, but talks are ongoing and reaching international agreement on the specifics is difficult.

In the UK, successive governments have implemented specific new measures aimed at reducing tax avoidance by multinational companies, including:

- a cap on the amount of interest payments (relative to its UK profits and its worldwide interest payments) a company can deduct when calculating its taxable profits;
- a new diverted profits tax on profits that are deemed to have been diverted away from the UK as a result of artificial arrangements;
- a new digital services tax on the revenues (rather than profits) of search engines, social media services and online marketplaces that are deemed to generate large revenues from UK users.

More about the diverted profits tax

The diverted profits tax was introduced in 2015. It can be charged on both UK-resident companies and non-UK-tax-resident companies (including those with no permanent establishment in the UK). It applies at a rate of 25%, higher than the current main rate of corporation tax. The rules determining which profits have been ‘diverted’ (and therefore not otherwise subject to UK corporation tax) are complex. Broadly, the tax targets cases where a company has artificially avoided setting up a UK permanent establishment or where transfer prices have been artificially manipulated to reduce tax payments. Companies with revenue of £10 million or less from UK sales are exempt from the tax.

The diverted profits tax has raised negligible amounts of revenue. This does not necessarily indicate that the tax has been a failure, however, as its main objective is to act as a deterrent to aggressive corporation tax avoidance rather than to raise revenue directly.

More about the digital services tax

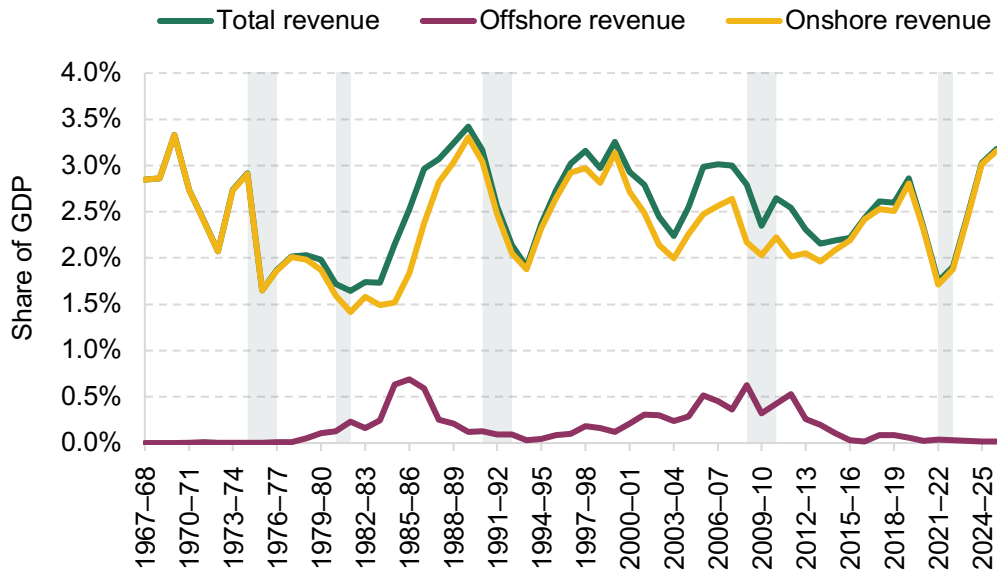
The digital services tax was introduced in 2020. It is a tax on revenue: unlike a tax on profits, there is no deduction of costs. Companies that provide search engines, social media services or online marketplaces and that have worldwide revenue of more than £500 million are taxed at a flat rate of 2% on any revenue in excess of £25 million that is deemed to be attributable to UK users. The digital services tax applies even if the company is not tax-resident in the UK and has no permanent establishment here. This approach is markedly different from corporation tax, which does not seek to allocate taxing rights based on the location of users.

The government has said that it sees the digital services tax as an interim measure and will remove it if an international agreement on an alternative approach to taxing profits related to digital activities is implemented.

Corporation tax revenue and who pays

The chart below shows corporation tax revenue over time. Revenue is volatile because profits vary strongly with the economic cycle. Despite the long-term downward trend in the main rate of corporation tax, corporation tax revenue has not declined as a share of GDP – it has remained broadly in the range of 2–3% of GDP for much of the last half-century. This is because the corporate tax base has grown faster than GDP. This reflects partly an increase in corporate profitability and partly policy changes to broaden the definition of profits subject to tax.

Corporation tax revenue as a share of GDP over time

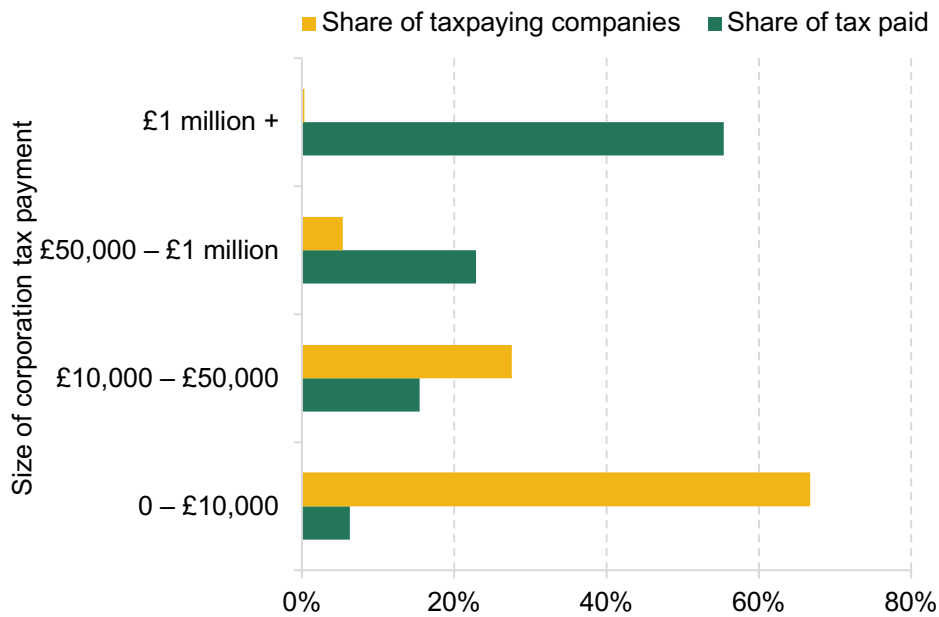


Note: Figures for 2020–21 onwards are Office for Budget Responsibility forecasts. Shaded regions show years of negative growth in real GDP. Onshore revenue includes revenue from the bank surcharge. Offshore revenue includes revenue from ring-fence corporation tax and the supplementary charge. Chart shows cash receipts (not accruals), which are available on a consistent basis for a longer period.

Source: IFS revenue composition spreadsheet.

Corporation tax revenues are highly skewed: most revenue is raised from a small number of companies making very large profits. In 2018–19, 55% of all corporation tax was paid by companies that made a tax payment of £1 million or more: a group of fewer than 5,000 companies, making up just 0.3% of the population of corporation-tax-paying businesses. This is shown in the chart below.

Concentration of corporation tax payments, 2018–19

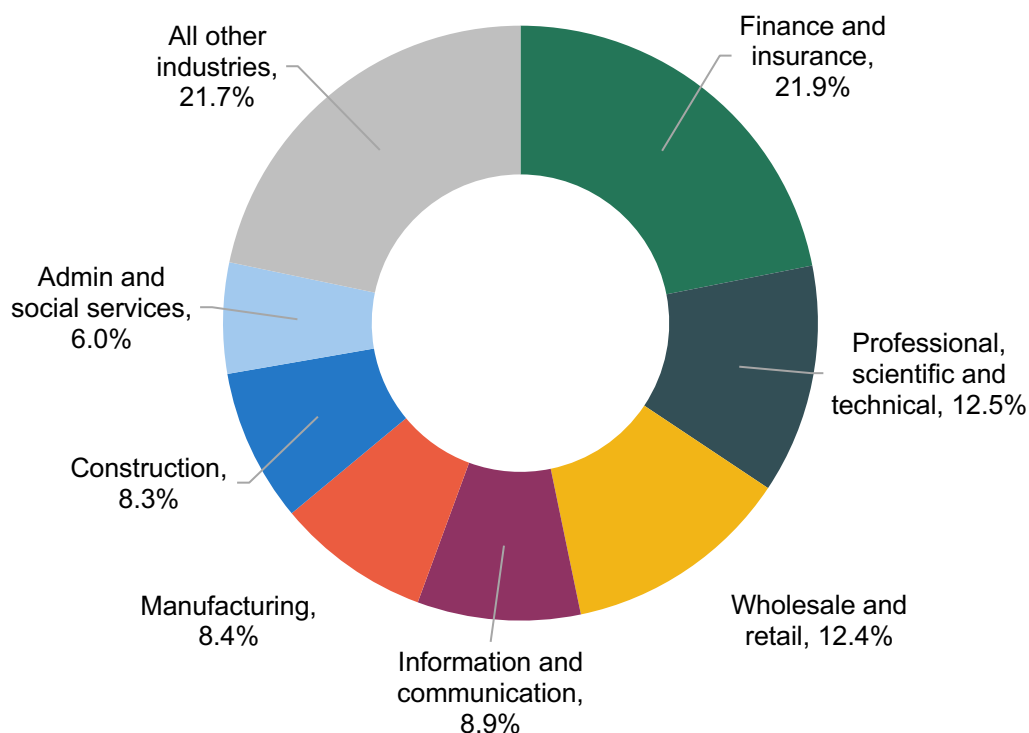


Note: Figures include the bank surcharge.

Source: Table 11.6 of HMRC 'Corporation tax statistics 2020',
<https://www.gov.uk/government/statistics/corporation-tax-statistics-2020>.

Corporation tax revenue also relies heavily on certain industries. Financial services in particular play an outsized role in contributing corporation tax revenue: the industry accounts for around 7% of the UK's economic output but around 22% of corporation tax revenue (see chart below).

Corporation tax revenue by industry, 2018–19



Note: Figures include the bank surcharge. Industry codes correspond to 2007 SIC, clockwise from top: K, M, G, J, C, F, and N & O.

Source: Table 11.7 of HMRC 'Corporation tax statistics 2020', <https://www.gov.uk/government/statistics/corporation-tax-statistics-2020>.

Characterising the companies that pay corporation tax is relatively straightforward. Much less straightforward is translating this into a picture of the economic incidence of the tax: which individuals ultimately bear the burden, in the sense of having their living standards reduced by the tax.

The direct effect of corporation tax is to reduce companies' after-tax profits and therefore the return to company shareholders (e.g. through lower dividends). This will affect not only individuals with direct shareholdings but also those who hold shares indirectly via private pensions or investment funds. In so far as shareholders bear the burden of corporation tax, a significant portion of it will fall on individuals based overseas (just over half of all shares listed on the London Stock Exchange are owned outside the UK). (Conversely, people in the UK who own shares in foreign companies will bear some of the burden of other countries' corporation taxes.)

However, economic theory and evidence strongly suggest that the incidence of corporation tax is not exclusively on shareholders. In some cases, companies will set higher prices, or pay lower wages, than they would in the absence of corporation tax, such that part of the burden of the tax will be felt by customers or workers respectively. Evidence shows that corporation tax affects how much companies invest and where they locate their real activities. To the extent that companies respond to corporation tax by doing less investment in the UK, a lower capital stock and associated lower productivity will leave UK employees with lower average wages.