2019 Total Tax Contribution of the UK banking sector

A publication prepared by PwC for UK Finance

Fifth edition

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pwc

Contents

Foreword

Welcome to the fifth edition of the Total Tax Contribution study for the UK banking sector. The research emphasises the significant and sustained contribution in taxes from the sector in uncertain economic times. We estimate that the banking sector contributed £39.7bn[1] to the UK public finances in 2018, 5.5 percent of total UK revenue receipts. Half of this total is contributed by banks headquartered abroad and operating in the UK.

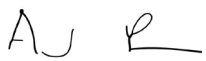
The UK has sought to position itself as an attractive location in which to carry out business, and in recent years has particularly emphasised its competitiveness from a tax perspective. This focus on the tax regime is clearly driven by the fact that an attractive and competitive tax regime encourages foreign direct investment as well as benefiting domestic businesses. Both the Tax Foundation[2] and the World Bank[3] produce research that highlight the significance of tax competition, and in which the UK is ranked in the top twenty-five global economies.

As host to a highly competitive global financial centre, the UK is supported by a mature, world class ecosystem. At the centre of this ecosystem is a diverse and dynamic banking system, built up over decades. The banking sector is host to many overseas headquartered banks, demonstrating the ability of the UK to compete internationally and operate globally. To retain this leading position, it is important to ensure that the UK remains competitive in all areas, including fiscal policy.

However, as this study shows, in recent years the fiscal competitiveness of the UK for banking business has declined relative to other global financial centres such as New York. This analysis shows that there is a 13.6-percentage point difference in the total tax rate of a bank operating in London (47.1 percent) versus New York (33.5 percent). While banks operating in the US have benefited from a recent reduction in the rate of corporate income tax, changes in recent years in the UK have increased the taxation burden on the banking industry. The bank surcharge, of 8 percent, has had the effect of increasing the 19 percent main rate of corporation tax to 27percent for banks. Employment taxes and irrecoverable VAT, both significant taxes for the sector, further increase the burden of tax on banks operating in the UK. This study shows that UK taxes borne by banks in the study have increased by over 50 percent over the last five years.

At a time of considerable flux for the sector resulting from factors including technology change, regulatory pressures, macro-economic headwinds and political uncertainty, many banks are reviewing the structure of their global operations. In this context, maintaining fiscal competitiveness is more important than ever. This is also vital to ensure a healthy domestic banking market which can continue to provide credit to support future growth of the UK economy.

It is our hope that an increased understanding of the full contribution to the government finances, and how this compares with other financial centres, should go some way to informing the debate over bank taxation. We thank the participants for their support for the study.



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[1] Government data has been revised for Pay-As-You-Earn figures from 2014.

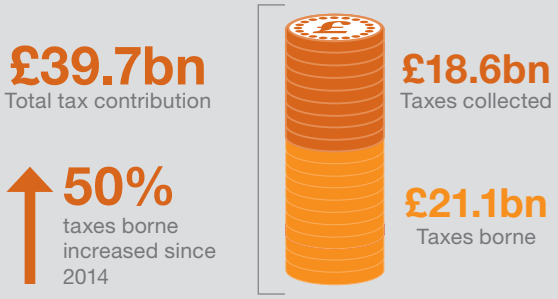
[2] https://files.taxfoundation.org/20190930115625/2019-International-Tax-Competitiveness-Index.pdf

[3] https://www.pwc.com/gx/en/services/tax/publications/paying-taxes-2019.html

Executive summary

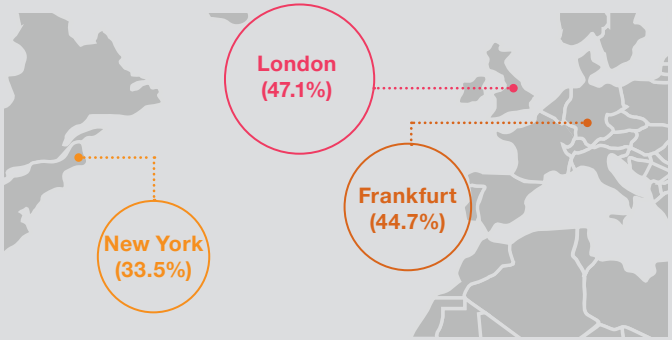
Total Tax Contribution (TTC) of the banking sector is £39.7bn

The estimated Total Tax Contribution (TTC) is **£39.7bn** made up of **£21.1bn** in taxes borne and **£18.6** in taxes collected. Taxes borne have increased by **50%** since 2014, due to corporation tax, bank surcharge and bank levy.



TTR for a model bank operating

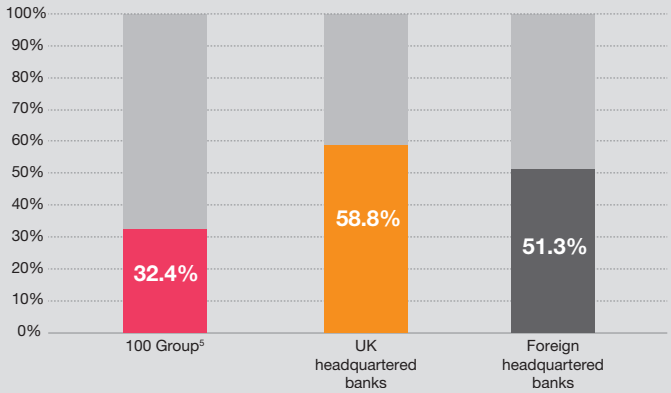
The Total Tax Rate[4] (TTR) for a model bank operating in **London (47.1%)** is higher than the TTR in **Frankfurt (44.7%)** and **New York (33.5%)**.



Taxes borne are significant for banks

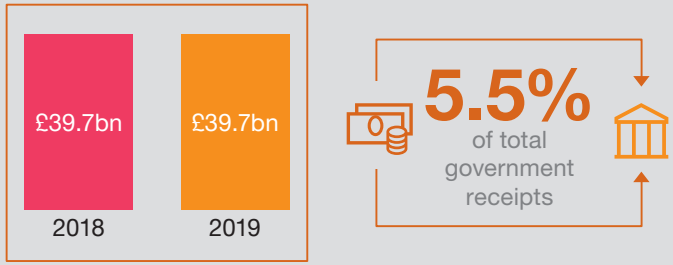
For both UK-headquartered and foreign-headquartered banks, taxes borne (banks' own contribution in taxes) made up more than 50% of TTC, reflecting the significant impact of banking sector taxes. By contrast, the taxes borne was 32.4% of TTC for 100 Group companies[5].

Taxes borne as a percentage of TTC



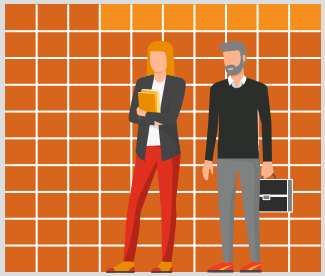
The tax contribution of the UK banking sector

The tax contribution of the UK banking sector remained unchanged compared to 2018. It represents **5.5%** of total government receipts.



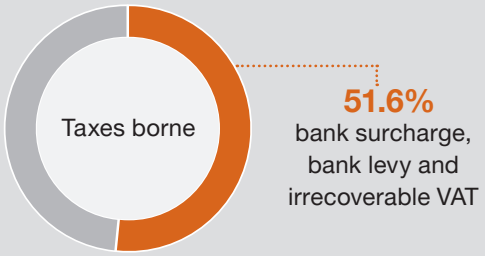
While the sector provides employment for 1.2% of the UK workforce it contributes 7.3% of total employment taxes.

Employment taxes comprise the largest element (£21.8bn) of TTC. High employment taxes for the sector reflect skilled jobs.

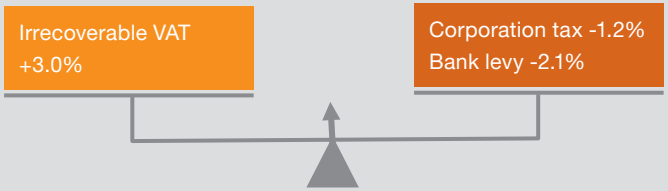


43.3% of taxes borne are not dependent on profits

Over half of total taxes borne **(51.6%)** are made up of bank surcharge, bank levy and irrecoverable VAT. Of these 'sector taxes', bank levy and irrecoverable VAT (together **43.3%** of the total) are not dependent on profits.



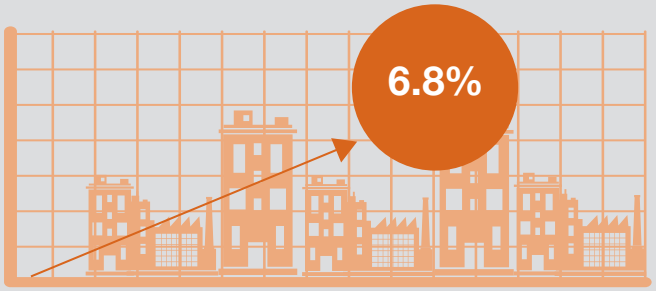
Taxes borne remained unchanged compared to 2018



Taxes borne remained unchanged. The increase in irrecoverable VAT was offset by a decrease in corporation tax and bank levy. The decrease in corporation tax was as a result of fewer claims for payment protection insurance which had resulted in higher taxable profits in the previous year. The decline in bank levy is due to the reduction in rate as well as business restructuring.

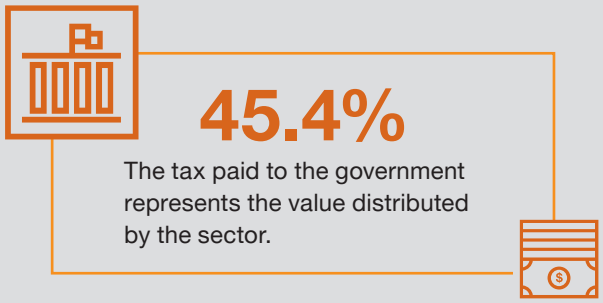
An overall increase in taxes collected

There was an overall increase in taxes collected of 6.8%, largely driven by an increase in employment taxes collected and net VAT.



Value is distributed to government in taxes

Value is distributed to government in taxes, wages paid to employees, and profits retained in the business for reinvestment or paid to shareholders as dividends. The tax paid to the government represents **45.4%** of the value distributed by the sector.



[4] Total Tax Rate (TTR) is the total tax borne as a percentage of profit before business taxes (PBBT)

[5] 2018 Total Tax Contribution survey for the 100 Group: presents the analysis of data received from the largest companies in the UK.

Total Tax Contribution of the UK banking sector

The banking sector makes a major contribution to the UK Exchequer. The forty-one companies taking part in the study reported taxes borne of £15.1bn and taxes collected of £12.6bn, making a UK tax contribution of £27.7bn.

Extrapolating from these figures[6], we estimate that the Total Tax Contribution for the entire UK banking sector, is £39.7 bn, which represents 5.5% of total government receipts for all taxes in the year to 31 March 2019.

Figure 1 shows that the TTC of £39.7bn is estimated to comprise taxes borne of £21.1bn and taxes collected of £18.6bn. The totals for corporation tax, bank surcharge, bank levy, and employment taxes for the whole of the sector are not extrapolated from study data but are taken from published government figures. We estimate that there is a relatively equal contribution from UK and foreign banks. However, the profile of this contribution varies significantly, with UK banks contributing a greater share of taxes borne (see section: Profile of taxes borne and collected), and foreign banks contributing a greater share of taxes collected.

Figure 1: 2019 Total Tax Contribution of the UK banking sector as a percentage of total UK tax receipts[7]

	Study participants £bn	Extrapolated to the UK banking sector £bn	% of total government receipts
Corporation tax	2.9	4.7[8]	
Bank surcharge	1.3	1.9[9]	
Bank levy	2.4	2.6[10]	
Employment taxes borne[11]	3.3	5.7	
Irrecoverable VAT	4.1	4.9	
Other taxes borne[12]	1.1	1.3	
Total taxes borne	**15.1**	**21.1**	**2.9%**
Employment taxes collected[13]	10.3	16.1	
Tax deducted at source	0.4	0.5	
Other taxes collected[14]	1.9	2.0	
Total taxes collected	**12.6**	**18.6**	**2.6%**
Total Tax Contribution	**27.7**	**39.7**	**5.5%**

[6] Data was extrapolated to provide an estimate of the total tax contribution of the banking sector. The extrapolation was based on government figures released by HMRC 'Pay-As-You-Earn and corporate tax receipts from the banking sector'. Note that HMRC has revised PAYE data from 2013-14 onwards with new banks included and improved data matching. Extrapolation uses the ratios of (1) employment taxes to taxes borne and (2) employment taxes to taxes collected for different parts of the sector, as established in the study. Extrapolation is an estimate only, apart from corporation tax, bank surcharge, bank levy, and employment taxes, where actual figures are included

[7] The Office for Budget Responsibility (OBR) – 2019 March Economic and fiscal outlook – supplementary fiscal tables: receipts and other. Table 2.8 Current receipts (forecast)

[8] Represents 8.5% government corporation tax receipts

[9] Represents 100% of government bank surcharge receipts

[10] Represents 100% of government bank levy receipts

[11] Employer National Insurance contributions, PAYE agreements and apprenticeship levy

[12] Business rates, stamp duty land tax, stamp duty and stamp duty reserve tax, insurance premium tax, air passenger duty, vehicle excise duty, customs duty, fuel duty, carbon reduction commitment, climate change levy

[13] Employee National Insurance contributions and income tax deducted under PAYE

[14] Stamp duty reserve tax, net VAT, insurance premium tax

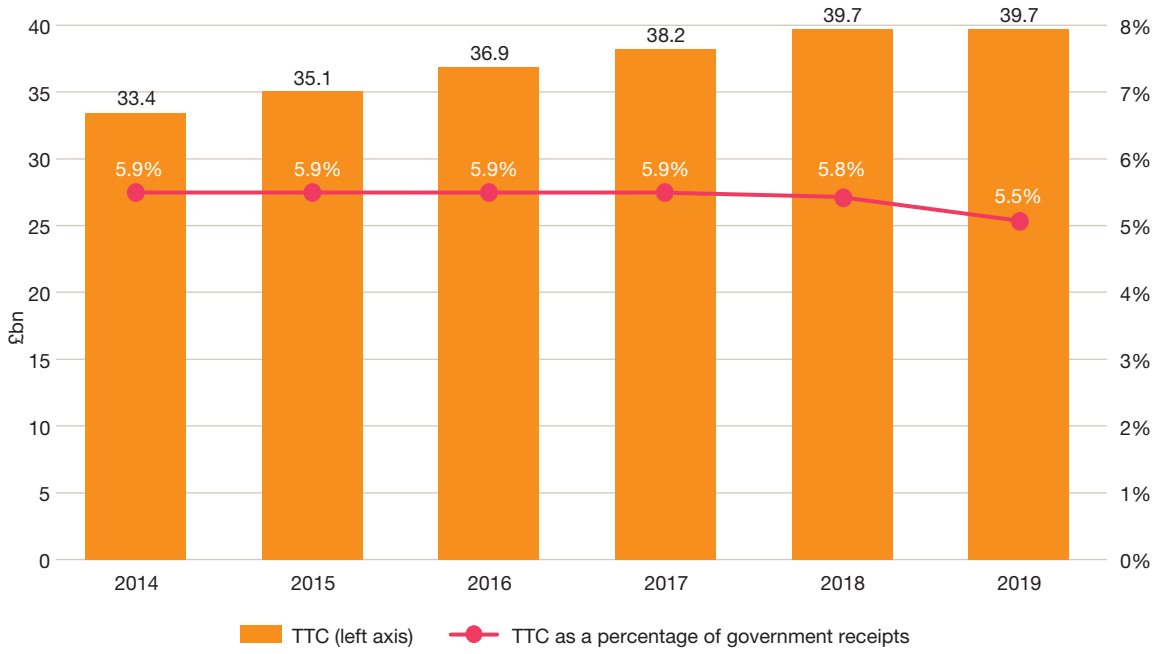
The 2019 tax contribution of the UK banking sector remained unchanged compared to the previous year, and represents 5.5% of total government receipts (Figure 2). The decrease from 5.8% to 5.5% in government receipts can be explained by two reasons:

(a) At an economy level, total tax receipts increased by 5.3%, primarily driven by increases in national insurance contributions (NIC), income tax deducted under PAYE and VAT. The NIC increase reflects growth in total UK employment which has also driven growth in income tax receipts.

(b) For the banking sector, the increases in VAT and employment taxes were offset by the decreases in the bank levy and corporate income tax. The largest movement was seen in irrecoverable VAT reflecting a reduced scope for VAT grouping in the sector and technology investment. The decline in bank levy is due to the reduction in rate as well as business restructuring.

For further explanations please see **'Total Tax Contribution analysis for the study participants'** section.

Figure 2: The Total Tax Contribution of the UK banking sector, 2014 – 2019



Within the total of £39.7bn, employment taxes comprise the largest element (£21.8bn)[15], reflecting skilled jobs in this sector. The data in this study provides visibility over other taxes such as irrecoverable VAT, stamp duties and tax deducted at source, to provide a more informed view of the taxes paid by the sector.

The extrapolation for the sector is performed at the level of taxes borne and taxes collected using details which are available from government data.

[15] Government data has been revised for Pay-As-You-Earn figures from 2014. For this reason, this report is not comparable to the previous studies

International comparison

As our Total Tax Contribution (TTC) data shows, banks operating in the UK make a sustained and significant contribution to the UK Treasury. For this to continue, the UK will need to maintain its position as a highly competitive global financial centre supported by a world class ecosystem. To do this it is important to consider all the elements that could contribute to the UK's competitive advantage, including fiscal policy.

It is not possible to use TTC data to compare bank taxation in the UK with that of other jurisdictions as, to date, similar TTC exercises have not been carried out in other significant financial centres. A simple comparison of the tax rates for the most significant taxes borne by banks (see figure 3) shows that in Singapore and the United Arab Emirates (UAE), banks will be subject to substantially lower levels of taxes borne than in the UK.

For Singapore and the UAE, their tax regimes are an important element in their bid to attract inward investment as they do not have some of the other competitive advantages of the UK such as: a large domestic market; an extensive history of financial services or a central time zone. Furthermore, there are significant differences between the legal and regulatory structures of banks in the UK, Singapore and the UAE which would complicate a more detailed comparison.

The UK, the US and Germany are, however, more readily comparable in terms of their tax rates, their legal and regulatory structures and their competitive positions. As such, this year, we have again prepared a detailed comparison of bank taxation[16] for these jurisdictions using a modelling approach based on that used by the World Bank for the Paying Taxes indicator in their Doing Business study[17].

Figure 3 – Statutory rates of the most significant taxes borne by banks in 2019

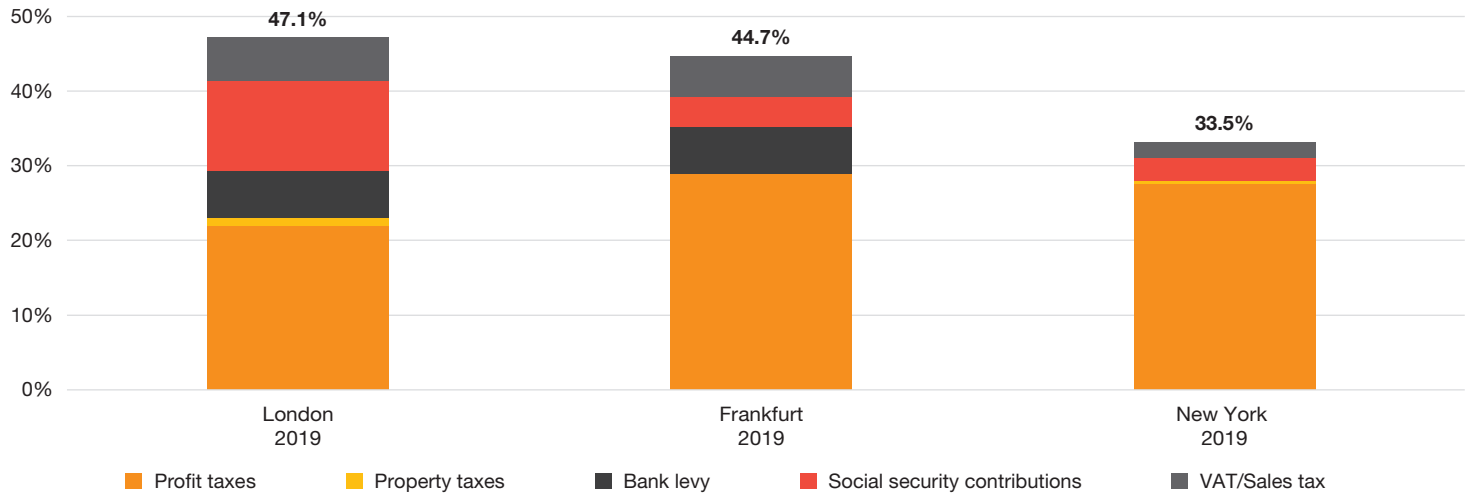
Country	Corporate income tax rate	Employers' social security rate	Bank levy?
UK, London	19% plus 8% surcharge	13.8%, uncapped	Yes
US, New York	21% federal rate 8.57% New York state tax rate 9.0% New York City tax	1.45% uncapped, plus 6.2% up to a maximum contribution of c.$8k (£6.3k)	No
Germany, Frankfurt	15% main rate 5.5% surcharge 16.1% trade tax rate for Frankfurt	Rates of 1.25% to 9.3%, capped, giving a maximum contribution of €13.3k (£11.5k)	Yes
Singapore	17%	17%, capped giving a maximum contribution of c. SGD 17.5k (£10k)	No
United Arab Emirates, Dubai	20% for branches of overseas banks	5%, but only for residents of Gulf Cooperation Council states who are likely to be a minority of employees	No

Using this approach, we have designed a high-level model that compares the taxes levied on the banking industry in London with those levied in Frankfurt and New York. As explained in Appendix 2, our model includes various assumptions and is intended for illustrative/comparative purposes only. Specific facts and circumstances may of course give rise to different outcomes on a case by case basis. The model comparison of Total Tax Rates in these jurisdictions has allowed us to understand the significant taxes which are currently levied on banks, including but not limited to corporate income tax, bank levy, social security contributions and VAT. While the model provides a more accurate comparison than looking at statutory tax rates alone, it does not consider all of the complexities that banks would face in practice.

[16] We have made several refinements to the model that we used in last year's report. See Appendix 2 for more information

[17] http://www.doingbusiness.org/

Figure 4 – Total Tax Rate of the model bank in 2019



The Total Tax Rates[18] of our model bank in London, Frankfurt and New York are shown in Figure 4. The UK has the highest Total Tax Rate in 2019, followed by Germany and then the US. The rate in the UK is 2.4 percentage points higher than in Germany. It is also worth noting that the profile of the Total Tax Rate is very different between the UK and Germany. The UK has a much higher proportion of employers' social security contributions as these are uncapped in the UK, but capped at a salary of around €80k in Germany. Social security rates in the US are considerably lower and the higher rates are capped. The US also has no bank levy.

As shown in Figure 3, the corporate income tax rate in the UK is lower than in Frankfurt and New York once German trade tax and US state and local taxes charged on the income apportioned to the relevant state/city are taken into account. The UK rate for banks of 27% is, however, considerably higher than the 19% rate for other UK businesses due to the 8% bank surcharge. The main rate of UK corporation tax will fall to 17% in 2021 which will mean a rate of 25% for banks. The UK bank levy rate will also reduce until 2021. These reductions in the corporation tax and bank levy rates would reduce the TTR of the model bank in the UK to 45.3% in 2020 and 43.2% in 2021. Currently no significant changes to the tax regimes in the US or Germany have been announced for 2020 or 2021.

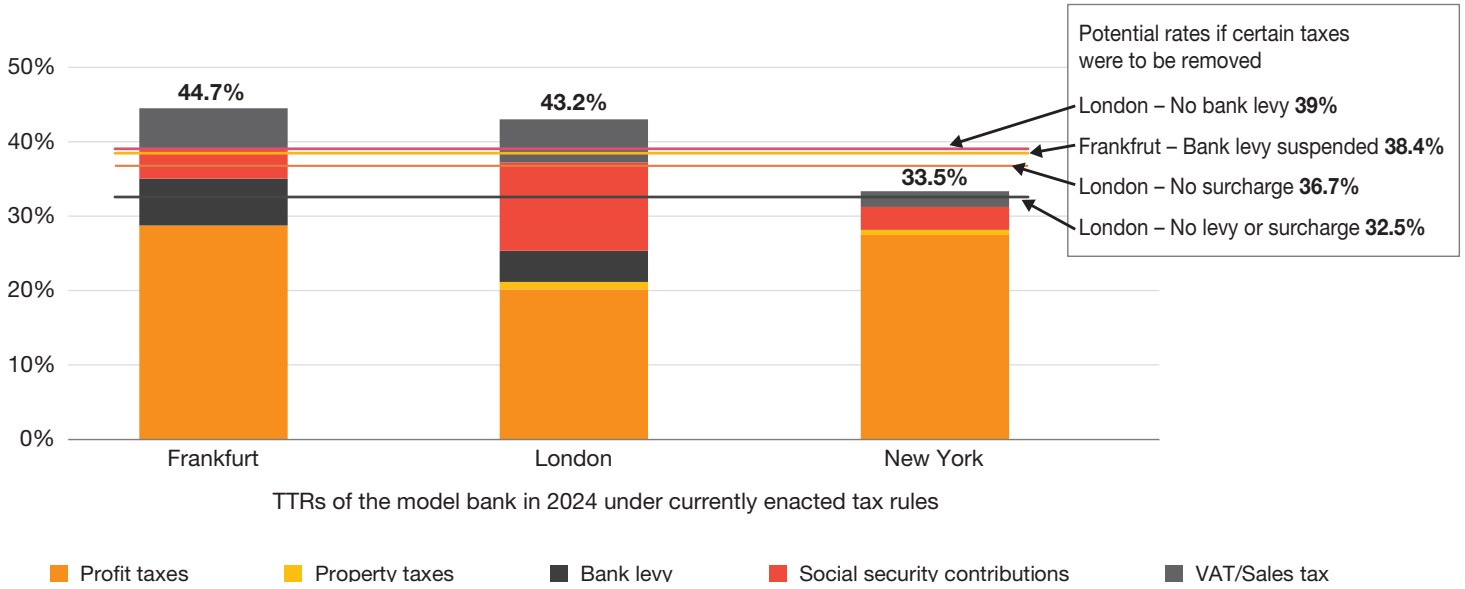
[18] The Total Tax Rate is the total amount of all taxes borne by the bank divided by the commercial profit which is the profit before all taxes borne.

Both the UK and Germany have bank levies which were simultaneously announced in 2011 in response to the global financial crisis. In the case of Germany, since the beginning of 2016, the bank levy has been pooled into the European Single Resolution Fund (SRF) which is expected to reach its target level of funding in 2023. After that it is expected that the bank levy will be suspended or at least greatly reduced as further funds will be needed only to maintain the level of the fund. The UK negotiated that it too would meet its obligations under the Bank Recovery and Resolution Directive and the Deposit Guarantee Schemes Directive through the bank levy and that historic receipts would count toward its target level. However, there is currently no indicated end point for the UK bank levy.

If, after 2023, the German bank levy were to be suspended due to the SRF target having been met, our German model bank's TTR would fall to 38.4% as shown in Figure 5. Should the UK decide to follow suit, removing the bank levy would give a TTR of 39.0%. Removing the surcharge would result in a TTR of 36.7% and removing both bank levy and surcharge would give a TTR of 32.5%, just around one percentage point lower than New York's current TTR.

In our calculations we have not taken into account the impact of the possible exit of the UK from the European Union. If this happens under a 'no-deal' scenario, draft legislation sets out the expected changes to the UK's VAT regime. In particular, the amount of VAT that is recoverable by banks could increase. The size of the impact however will depend on the future nature and extent of the UK FS Sector, in particular the extent to which business with EU clients is conducted from the UK.

Figure 5 – Potential impact on the TTR of the model bank of some hypothetical scenarios for 2024



Total Tax Contribution analysis for the study participants

The profile of taxes borne and collected

Taxes borne

Taxes borne are a cost to the business and, therefore, directly affect a company's financial results. The profile for these taxes across the banks that participated in the 2019 survey is shown in Figure 6. Irrecoverable VAT is the largest tax borne, at 27.5%. Corporation tax (including the bank surcharge) is 27.4% of the total for participating banks in 2019. Employment taxes, comprising employer NIC, PSA (PAYE Settlement Agreement, a tax on benefits provided by the company) and apprenticeship levy, made up the third largest element, at 22.6%.

Bank levy accounts for a smaller percentage of taxes borne in this year's study (15.8% compared to 18.1% in 2018) as levy rates have been declining since their peak in the 2016 survey. Bank levy rates are due to decrease gradually each calendar year up until 2021 when 0.10% will be applied to short term liabilities and 0.05% to long term liabilities (Figure 22). The scope of the bank levy is also due to be reduced in the future. The levy currently applies to the global consolidated balance sheet of a UK-headquartered bank, but only to the UK balance sheet of a foreign-headquartered bank. This scope will be restricted to UK operations only with effect from 2021. Over the last year, business restructuring transactions which affected equity and liabilities resulted in further reductions in bank levy.

Sector taxes, and other taxes that impact the banking sector, are an important element of the tax profile for these companies. Over half of total taxes borne (51.6%) are made up of bank surcharge, bank levy and irrecoverable VAT. Of these 'sector taxes', bank levy and irrecoverable VAT (together 43.3% of the total) are not dependent on profits, and represent a fixed cost for the sector. For every £1 of corporation tax (including the bank surcharge), the banking sector in the UK paid £2.65 of other taxes borne. Apprenticeship levy paid by study participants totalled £94.4m, which was enacted in 6 April 2017. Of the thirty-four banks providing this data, thirteen provided information on how much they received to fund training, which amounted to £29.5m. Please refer to Appendix 3 for a detailed list of taxes borne by study participants.

Taxes collected

Taxes collected are those which are generated by a company's operations, but are collected from others, e.g. income tax deducted under PAYE, employee NIC and net VAT. The company generates the commercial activity that gives rise to the taxes and then collects and administers them, on behalf of HMRC.

Taxes collected, however, reflect the wider economic contribution generated by the banking sector.

Figure 7 shows the profile of taxes collected for the forty-one participating banks. Employment taxes (income tax deducted under PAYE and employee NIC) were the largest element (81.6% of total taxes collected), reflecting skilled jobs in the banking sector. Stamp duty reserve tax (SDRT) continued as the second largest tax collected, at 10.2% of the total. Tax deducted at source was 3.8% and Net VAT was 3.3%, which fluctuates year by year.

Please refer to Appendix 4 for a detailed list of taxes collected by study participants.

Figure 6: Taxes borne profile for participating banks

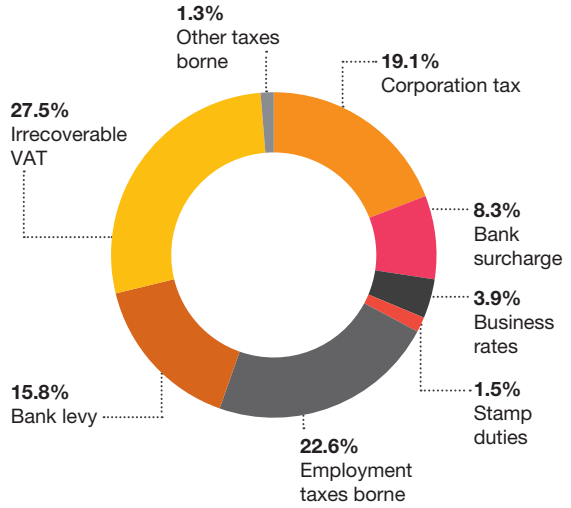
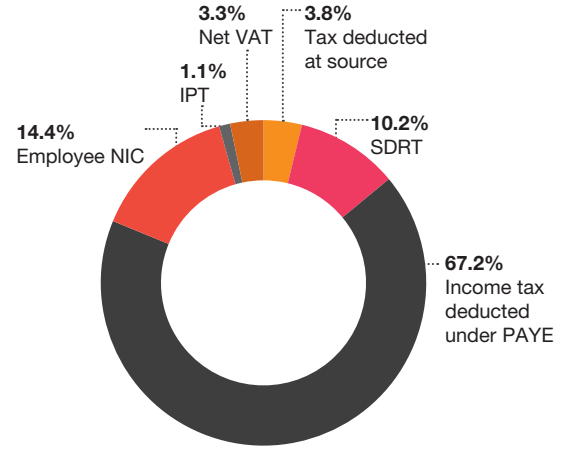


Figure 7: Taxes collected profile for participating banks



Comparing the tax profile for UK and foreign banks

Out of the forty-one study participants, 19 were UK-headquartered banks and 22 were foreign-headquartered banks. Based on study participants, UK banks and foreign banks contribute a relatively equal share of the overall taxes collected (Figure 8), but UK-headquartered banks contribute a greater percentage of taxes borne (61.5% of the total).

Taxes borne profile for UK and foreign banks

The profile of taxes borne differs between UK-headquartered and foreign-headquartered banks. Figure 9 compares the contribution to taxes borne from UK and foreign banks. It highlights the greater proportions of irrecoverable VAT (74.6% of the total) and bank levy (73.0%) that were borne by UK-headquartered banks.

Foreign banks provide employment for a quarter of the total employees in this study. However, foreign banks paid nearly 50% of each of employment taxes borne, corporation tax and bank surcharge, indicating a greater contribution per employee.

Figure 8: Taxes borne, taxes collected and TTC for UK and foreign banks

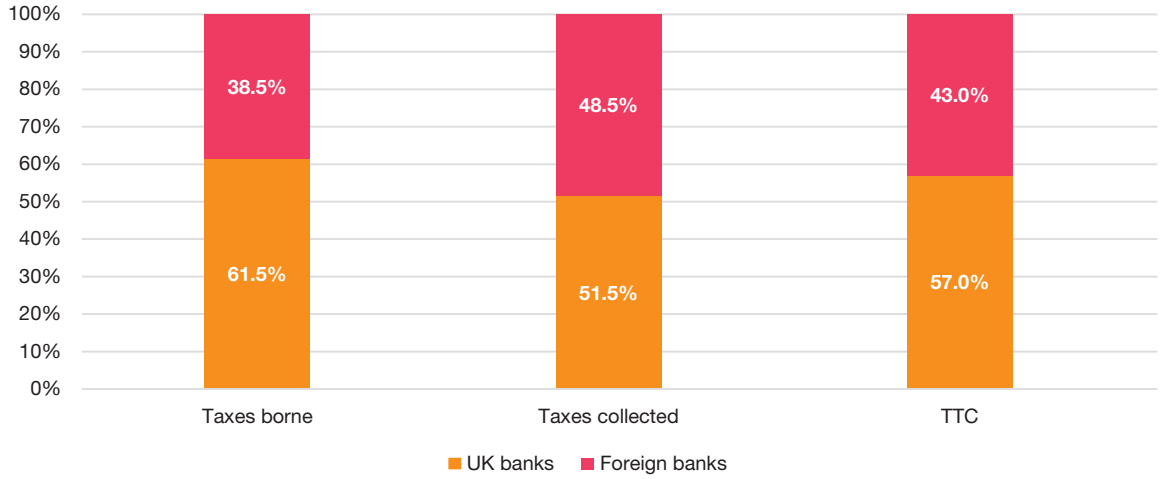
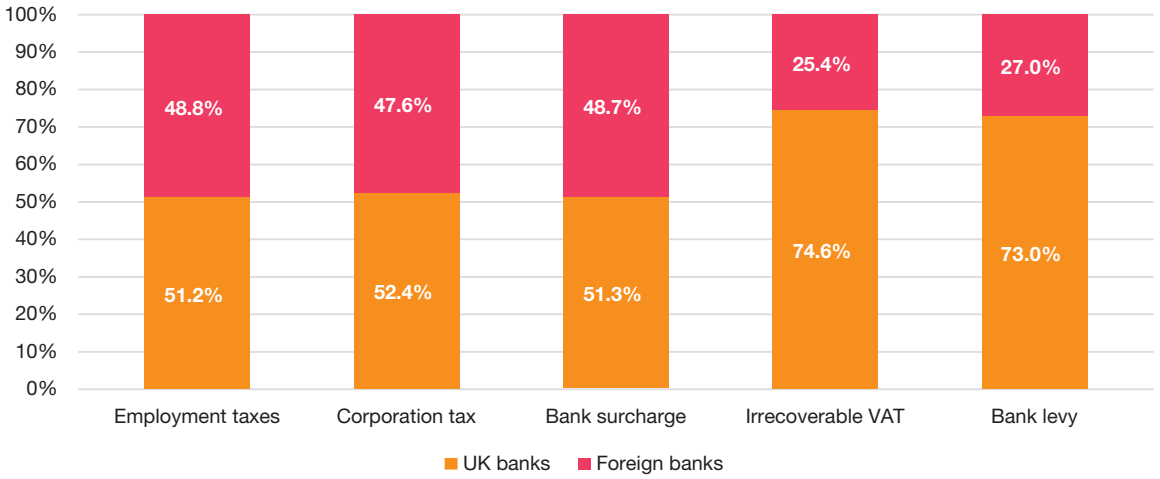


Figure 9: Comparison of taxes borne for UK and foreign banks



Taxes collected profile for UK and foreign banks

Employment taxes make up the largest share of taxes collected for banks, with foreign banks accounting for 50% of employment taxes collected, reflecting the concentration of highly-skilled employees within foreign banks (Figure 10). Aside from employment taxes, other taxes collected comprise tax deducted at source and stamp duty reserve tax (SDRT). While UK retail banks collect the majority of net VAT and tax deducted at source from interest paid to customers, SDRT was largely collected by foreign-headquartered banks.

Total Tax Contribution profile for UK and foreign banks

The chart shows the proportion of taxes borne and taxes collected as a percentage of TTC. For the study participants, taxes borne makes up 58.8% of TTC for UK banks and 51.3% for foreign banks (Figure 11). In the 100 Group study[19], in which PwC surveys the largest companies in the UK, taxes borne made up 32.4% of the TTC. Figure 11 shows taxes borne by both UK and foreign banks within the UK are significantly higher than other sectors.

Figure 10: Comparison of taxes collected for UK and foreign banks

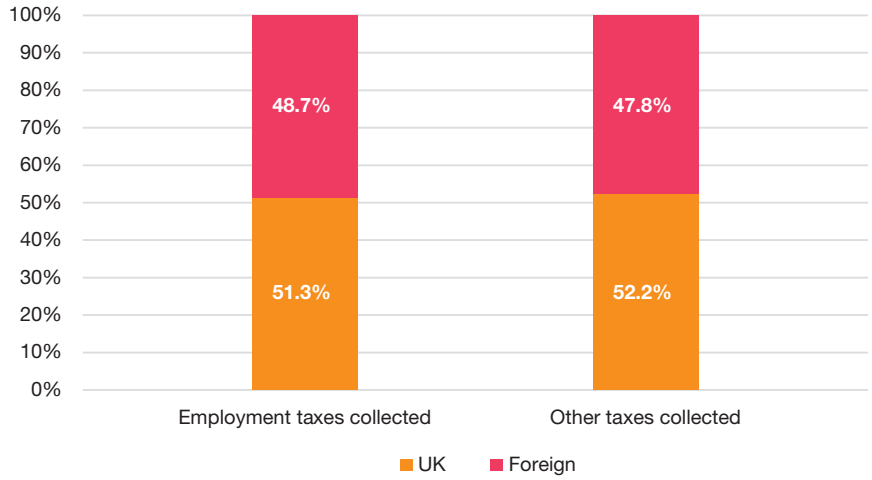
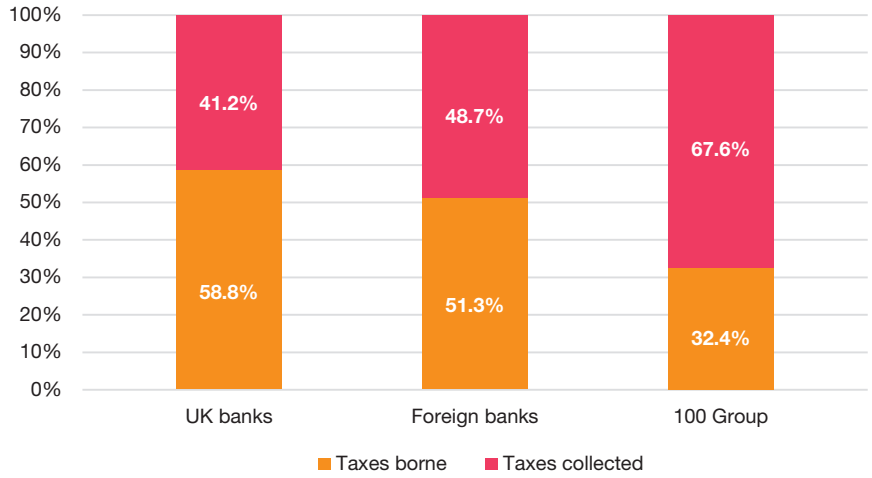


Figure 11: TTC profile for UK banks



[19] 2018 Total Tax Contribution survey for the 100 Group: presents the analysis of data received from the largest companies in the UK.

Trends in Total Tax Contribution

Changes in tax legislation

In order to understand the trends in the taxation of the UK banking sector, the recent changes in tax rates and regulations are summarised below:

Loss relief restriction: In the 2014 Autumn Statement it was announced that the amount of taxable profit that could be offset by banks' historic carried-forward losses would be restricted to 50% from April 2015. In the 2016 budget it was announced that the restriction would be 25% for pre-April 2015 losses.

Bank surcharge: From 1 January 2016 the government introduced an 8% surcharge tax on the taxable profits of banks with certain reliefs added back (any group relief for the period from nonbanking companies and any relief arising before 1 January 2016).

Corporation tax: The rate decreased from 23% in 2013/14, to 21% in 2014/15, to 20% in 2015/16 and 2016/17 and to 19% in 2017/18. It is expected to fall to 17% in April 2020.

Compensation expenditure: Legislation was introduced to restrict the deductibility of compensation expenditures arising on or after 8 July 2015 covering all compensation costs.

Bank levy: The bank levy rate for long term chargeable equity or liabilities reduced from 0.080% in 2018 to 0.075% in 2019. The rate for short term chargeable equity or liabilities reduced from 0.160% in 2018 to 0.150% in 2019.

Income tax deducted under PAYE: Personal allowance threshold increased from £11,500 to £11,850 in 2018/19.

Apprenticeship levy: The Apprenticeship Levy is a levy on UK employers (with annual pay bills in excess of £3 million) to fund new apprenticeships. The levy came into effect on 6 April 2017 and is payable through PAYE. The levy is charged at a rate of 0.5% of an employer's paybill. Each employer will receive an allowance of £15,000 to offset against their levy payment. Companies are able to receive funds from the levy they have paid in order to spend on apprenticeships.

Trend in Total Tax Contribution between 2018 and 2019

Thirty-two companies provided data for both the 2018 and 2019 studies and we are able to analyse the trends on a like-for-like basis for these companies. Net taxes borne remained largely unchanged as increases in irrecoverable VAT were offset by the decrease in corporation tax and the bank levy (Figure 12). The decrease in corporation tax (including surcharge) was 1.2 percentage points of the total decrease in taxes borne.

Having removed loss making companies, profits are broadly constant (an increase of 1.3%). There has been a reduction in payment protection insurance costs for UK banks, which are not tax deductible and would increase taxable profits in 2018. In 2019, the decrease in bank levy reflected the reduction in the rate as well as restructuring of business.
The increase in irrecoverable VAT is the result of a change in VAT grouping for banks and technology investment.

Altogether, these movements meant that taxes borne remained relatively unchanged for the study participants as compared to the 2018 study.

There was an overall increase in taxes collected of 6.8% (Figure 13), largely driven by an increase in employment taxes collected (+2.6 percentage points) and net VAT (+2.7 percentage points).

Figure 12: Trend in taxes borne, 2018 – 2019

	Trend as % of total taxes borne
Corporation tax (inc. bank surcharge)	(1.2%)
Bank levy	(2.1%)
Employers' NIC	0.6%
Irrecoverable VAT	3.0%
Other	0.0%
Total taxes borne	**0.3%**

Figure 13: Trend in taxes collected, 2018 – 2019

	Trend as % of total taxes collected
Employment taxes	2.6%
Net VAT	2.7%
Tax deducted at source	0.9%
Other	0.7%
	6.8%

Trend in Total Tax Contribution between 2014 and 2019

The increase in TTC has been driven by taxes borne for the period between 2015 and 2018 and continued to increase in 2019 but this time as a result of taxes collected. Figure 14 shows an increase in taxes borne since 2014 of 57.5% reflecting primarily the rise in corporation tax along with the bank surcharge and bank levy.

The increase in corporation tax is mainly driven by the introduction of loss relief restriction and compensation payment restrictions in 2015, the introduction of the bank surcharge in 2016, and the recovery in profitability (Figure 15).

Taxes collected have decreased following the elimination of the obligation on banks to deduct tax at source from account interest until 2018 and began to increase during the last year with the positive impact of employment taxes and Net VAT.

Figure 14: Trends in taxes borne, taxes collected and Total Tax Contribution, 2014 – 2019

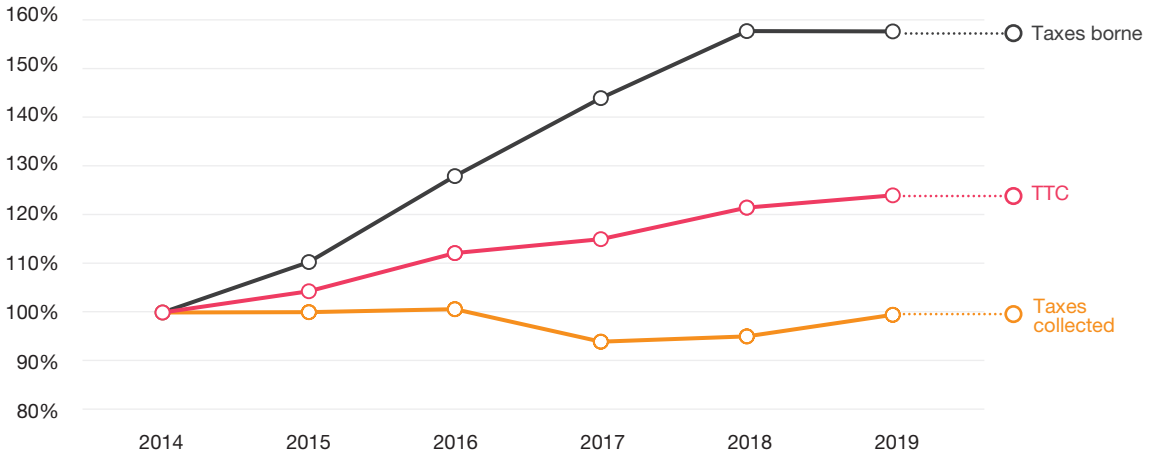


Figure 15: Trends in taxes borne, 2014 – 2018

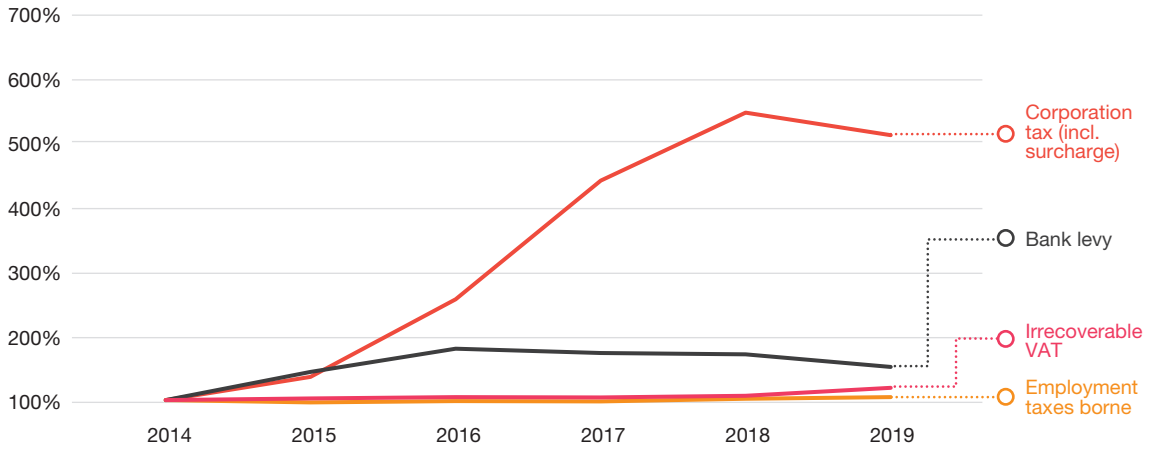
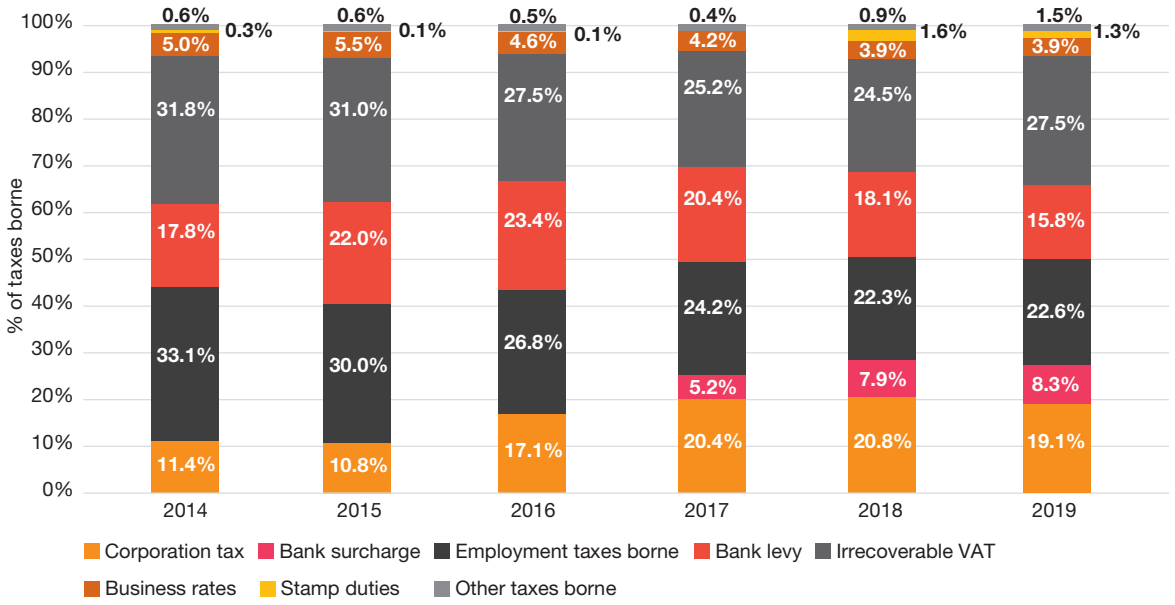


Figure 16 illustrates the change in the profile of taxes borne from 2014 to 2019. Corporation tax, as a result of legislative changes and increasing profitability, has become more significant in the last three years, reflecting the improvement in profits as well as the impact of bank surcharge. The proportion of taxes borne taken up by bank levy shows the increase to 2016 and a decrease commencing from 2017, largely due to the rate changes described in the bank levy section. The relative proportions of employment taxes borne have decreased over this period due to the increases in corporate income tax including the bank surcharge. The percentage of irrecoverable VAT increased in 2019 reflecting VAT grouping in the sector and technology investment.

Figure 16: Trend in the profile of taxes borne, 2014 – 2019



Employment taxes

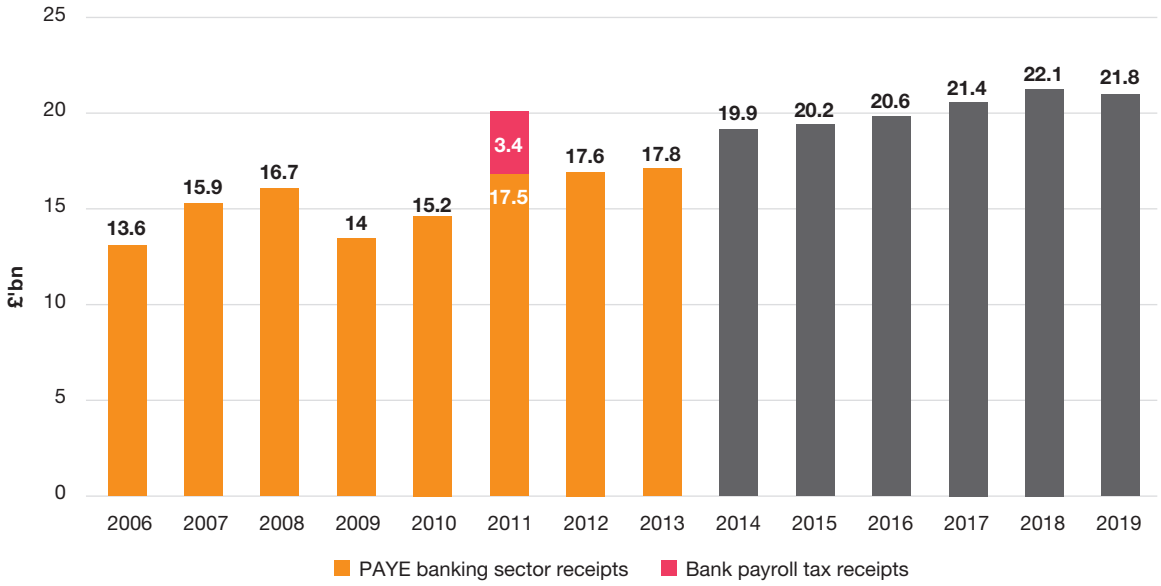
Employment in the banking sector – government data

The banking sector is dependent upon and employs highly skilled workers, and employment is an important way in which the sector contributes to the UK economy. Employment taxes (income tax deducted under PAYE, employer and employee NIC and apprenticeship levy) paid by the sector in 2019[20] amounted to £21.8bn, 7.3% of all UK employment tax receipts[21]. The sector provides employment for 1.2% of the UK workforce, and accounts for 36.1% of the UK Financial Services workforce[22]. Figure 17 shows the trend in employment taxes in the sector based on government receipts since 2006. PAYE data has been revised from 2014 onwards with new banks included and improved data matching. Therefore, this data may not be directly comparable with earlier years. Legislative changes to employment taxes have had a significant impact on the UK banking sector. In particular, the one-off bank payroll tax[23], which was paid in 2011, increased government receipts from the banking sector. In addition to this, there were other changes in employment taxes over the period. Figure 17 also shows the impact of the introduction of the 50% rate of income tax in 2011 and the 1% increase in employer and employee NIC in the same year.

Changes in income tax thresholds and rates and NIC thresholds have also led to increased employment taxes.

ONS data shows a fall (3.0%) in employees working in the banking sector which perhaps reflects the impact of online banking.

Figure 17: Employment tax receipts, 2006 – 2019[24]



[20] Government data has been revised for Pay-As-You-Earn figures from 2014

[21] The Office for Budget Responsibility (OBR) – 2019 Economic and fiscal outlook – supplementary fiscal tables: receipts and other. Table 2.8 Current receipts (on a cash basis-forecast)

[22] ONS Industry (2, 3 and 5 – digit SIC) – Business Register and Employment Survey (BRES): Table 2. 2018 banking sector workforce was 380,000, based on ONS SIC 641 (Monetary intermediation). 2018 financial services workforce was 1,051,000, based on ONS SIC codes 64 (Financial service activities), 65 (Insurance; reinsurance and pension funding), and 66 (Activities auxiliary to financial services and insurance activities)

[23] This one-off tax was paid in 2011 and applied to bonuses awarded by the banking sector from 9 December 2009 to 5 April 2010.

[24] PAYE data has been revised from 2013-14 onwards with new banks included and improved data matching. This data may not be directly comparable with earlier years.

Employment in the banking sector – study data

The forty-one participants in the study employed 342,413 workers and paid total employment taxes of £13.6bn comprising employment taxes borne of £3.3bn (employer NIC, PSA and apprenticeship levy) and employment taxes collected of £10.3bn (income tax deducted under PAYE and employee NIC).

The study participants encompass a broad range of banking activities including both retail and investment banks. They employ highly skilled, well paid employees drawing upon a global talent pool, often from countries across the EEA.

The average salary, particularly in the investment banks, exceeds the national average, emphasising the contribution that the banking sector makes through the employment of highly skilled people. For every employee, an amount is paid to the public finances in employment taxes.

Looking at employment taxes borne and collected, the average (calculated by taking the total employment taxes for the study population and dividing it by the total number of employees within that population) was £35,132 for the banking sector.

Trends in employment taxes – study data

Twenty-six companies provided data on their number of employees, wages and salaries and employment taxes for both the 2018 and 2019 surveys. We are therefore able to analyse the two-year on a like-for-like basis for these companies.

Two-year trends (2018 – 2019)

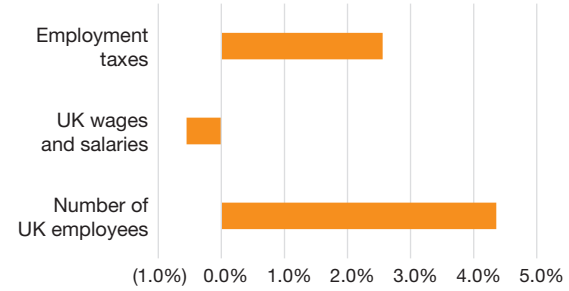
Figure 18 shows that, on an average basis, employment taxes increased by 2.6% compared to a decrease of 0.6% in UK wages and salaries and a 4.4% increase in the number of UK employees, indicating an increase in the employment of more of junior employees.

Looking at UK-and foreign-headquartered banks, the trends in number of employees moved in the opposite direction:

a) UK-headquartered banks (representing the retail banking sector) have experienced a decline in the number of employees as a result of usage of mobile banking and restructuring.

b) Foreign-headquartered banks hired more employees (which leads the increase in the trend for this study) due to a combination of investment in headcount for Brexit preparations, tech implementation support, business mergers and changes to the business model, however, this is unlikely to be indicative of the longer-term trend.

Figure 18: Trend in number of employees, salaries and wages and employment taxes, 2018 – 2019

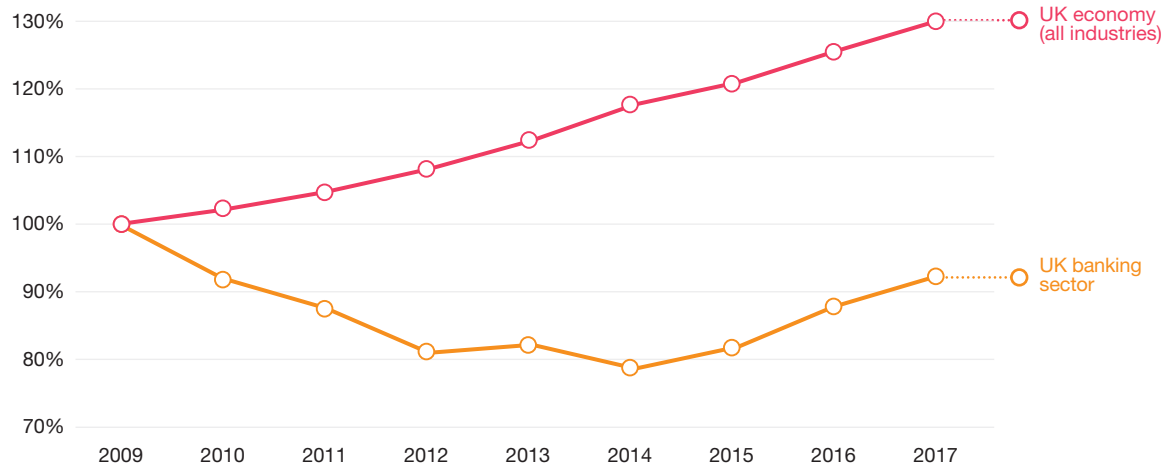


Gross Value Added for the UK banking sector

To put the trend analysis into context, we reviewed other indicators of the banking sector. At a national level, economic activity is commonly measured by GDP which is generally regarded as one of the most reliable economic indicators. The contribution made to GDP is typically measured by calculating gross value added (GVA) which is a measure of the value of goods and services produced in an area, industry or sector of an economy. Figure 19 shows a falling trend in banking sector GVA from 2009 to 2014, with an upturn in 2015 followed by stronger growth starting from 2016.

By comparison, the GVA for the economy as a whole has increased steadily over this period. The GVA for the banking sector in 2017 was 4.3% of the GDP of the UK economy[25] which compares to tax receipts for the banking sector in the same year of 5.9% of total government tax receipts.

Figure 19: Gross Value Added by the banking sector compared with the UK economy, 2009 to 2017 (2009 = 100)



[25] ONS dataset: Nominal and real regional gross value added (balanced) by industry

Corporation tax

Corporation tax payments from study participants totalled £4,144 million, including bank surcharge payments of £1,260 million.

Looking at the companies that provided data for both corporation tax and profit, profits increased although this was largely due to a reduction in losses which did not affect the corporation tax paid.

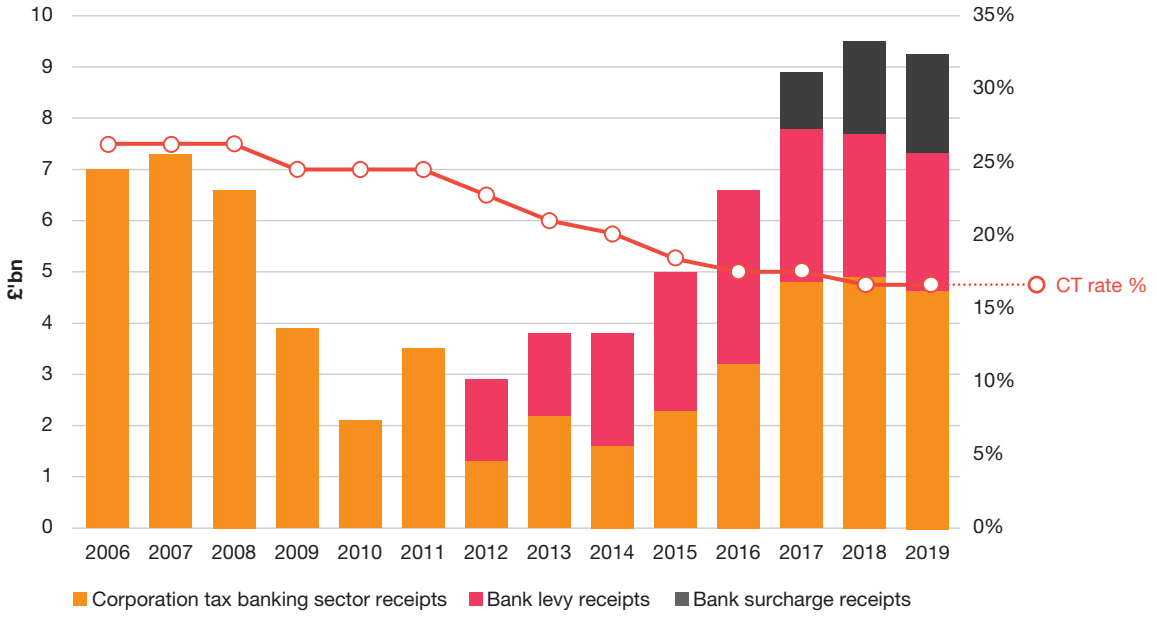
Removing companies with losses, profits were broadly level (an increase of 1.3%). Corporation tax decreased as a result of fewer claims for protection insurance provisions which had resulted in higher taxable profit in the previous year.

Government figures provide data over a longer period and show that receipts of corporation tax (including bank surcharge) and bank levy are £9.2bn in 2019 (Figure 20). HMRC data shows that corporation tax (including the surcharge) has decreased by 1.5% compared to 2018 from £6.7bn to £6.6bn.

Loss-relief restriction: From 1 April 2015, the proportion of banks' taxable profit that is eligible to be offset by carried-forward losses was restricted to 50%, and in April 2016 this was restricted further to 25% for pre-April 2015 losses. The restriction applies to carried forward trading losses, non-trading loan relationship deficit and management expenses.

Of the forty-one participant companies, twenty companies provided data quantifying the impact of the loss restriction in the year. Eight of the twenty banks were affected by the legislation, resulting in an additional £720million of corporation tax in 2019.

Figure 20 – Government receipts of corporation tax and bank levy from the banking sector

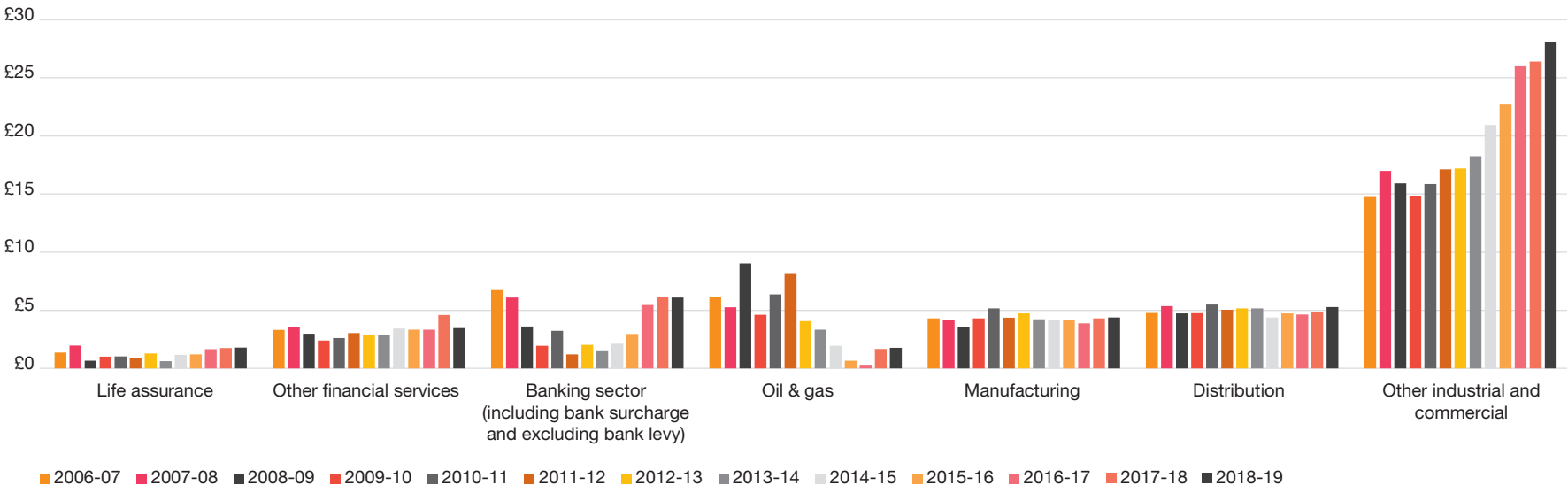


Compensation payments restriction:

Compensation expenditure arising on or after 8 July 2015 is not deductible for corporation tax purposes. Ten of the forty-one participating banks provided data quantifying the impact of the compensation payment restriction in the year. Out of those eighteen companies, nine were affected by the legislation, resulting in an additional £204 million of corporation tax in 2019.

Figure 21, based on government data, shows corporation tax payments by industry sector between 2006-07 and 2017-19. It illustrates the recent growth in corporation tax payments from the banking sector due to recovering profitability and the impact of legislative changes.

Figure 21: Corporation tax receipts by sector, 2007 to 2019



Irrecoverable VAT

Irrecoverable VAT was the largest tax payment for the study participants, accounting for 27.5% of total taxes borne, an increase from 24.5% in the previous study. In 2019, irrecoverable VAT increased for the banks reflecting VAT grouping in the sector and technology investment. The total irrecoverable VAT for the forty-one participant companies was £4.1bn. We have estimated[26] total irrecoverable VAT for the UK banking sector of £4.9bn in 2019. On a like-for-like trend basis, the amount of irrecoverable VAT paid increased by 11.9% between 2018 and 2019.

Despite irrecoverable VAT being one of the largest taxes paid by banks and other financial services companies, there is limited publicly available data on the tax, and it is not widely understood. Typically, when a business supplies goods and services, the VAT charged will be offset against the VAT it has incurred on purchases used to run the business (input VAT). Where the supplies of a company are exempt from VAT, as is often the case for financial services companies, VAT is not charged to customers and the company cannot recover its input VAT.

Irrecoverable VAT has increased significantly since 2011, as explained in the first TTC study in 2015. Apart from the increases in the rate of VAT (from 15% to 17.5% in 2010 and 17.5% to 20% in 2011), there has also been increasing investment in information technology and infrastructure throughout the sector, a drive towards outsourcing administrative business functions and a move towards employing more contractors following the financial crisis, all of which increase the cost base and level of input VAT.

[26] Irrecoverable VAT was extrapolated using the study data, government figures for employment taxes, and the profile of different types of banks in the study

Bank levy

The financial crisis and subsequent legislative changes have resulted in a fundamental shift in taxation of the banking sector. Bank levy was introduced in 2011, based on the equity and liabilities of banks, in an attempt to meet the dual targets of encouraging the banking sector to move away from risky funding models and raising a set amount of revenue. The rate of the levy increased each year between 2011 and 2015 and, from 2016, rates began to gradually decrease, and will do so each calendar year up until 2021 (Figure 22).

Figure 23 shows the rate of bank levy since its introduction. Bank levy receipts in 2019 were 7.2% lower than in 2018 (from £2.8bn to £2.6bn). The banks participating in this study paid bank levy of £2.4bn in 2019, accounting for 92.3% of total bank levy receipts, and representing 15.8% of total taxes borne. The scope of the bank levy is currently applied to the global consolidated balance sheet of a UK-headquartered bank, but only to the UK balance sheet of a foreign-headquartered bank. This scope will be restricted to UK operations only with effect from 2021.

Figure 22 – Changes in the rate of bank levy[27]

Financial year	Charge on short term equity or liabilities	Charge on long term equity or liabilities	Increase in the short term rate of bank levy percentage points (base year 2011)	Increase in the long term rate of bank levy percentage points (base year 2011)
2011	0.075%	0.038%	1.00	1.00
2012	0.088%	0.044%	1.17	1.16
2013	0.130%	0.065%	1.73	1.71
2014	0.156%	0.078%	2.08	2.05
2015	0.210%	0.105%	2.80	2.76
2016	0.180%	0.090%	2.40	2.37
2017	0.170%	0.085%	2.27	2.24
2018	0.160%	0.080%	2.13	2.11
2019	0.150%	0.075%	2.00	1.97
2020	0.140%	0.070%	1.87	1.84
2021	0.100%	0.050%	1.33	1.32

[27] https://www.gov.uk/government/publications/bank-levy-rate-reduction/bank-levy-rate-reduction

Putting the TTC data into the context of other economic indicators

It is possible to put the TTC data in the context of other economic measures, such as turnover, profit (where available) and value distributed. The following calculations were generated using the study data:

- Taxes borne and collected as a percentage of value distributed
- Total Tax Rate (TTR) which is the total tax borne as a percentage of profit before business taxes (PBBT)
- Taxes borne and collected as a percentage of turnover

These calculations have been done in three ways. Taking TTC as a percentage of turnover:

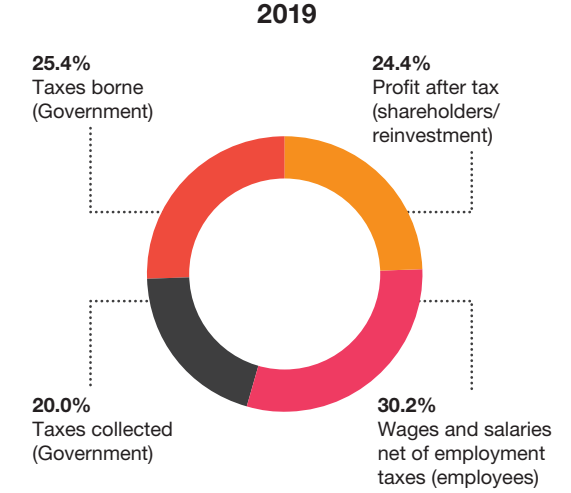
1. For the study participants as a whole (overall basis), we take the TTC for all participants as a percentage of turnover for all participants. This metric reflects the position for the participating banks as a whole, but will give weight to the larger banks. For each individual participant:
2. Mean – We calculate the TTC/turnover ratio for each participant separately and then take a simple average. The mean average gives equal weight to all companies in the group and more accurately reflects the burden faced by individual companies.
3. Median – This is the value that separates the higher calculation results from the lower results of study participants, effectively the mid-point.

Taxes borne and collected as a percentage of value distributed

The TTC can be put in the context of value distributed by companies. Value is distributed to the government in taxes, to employees in wages, and is retained in the business for reinvestment or distributed to shareholders. With the information gathered through the study, we are able to put the TTC in the context of value distributed by companies for those providing this data.

Figure 23 shows the profile of value distributed by the participants on an overall basis. Total Tax Contribution paid to the government represents 45.4% of the value distributed, while a further 30.2% is paid to employees as wages and salaries. Profit after tax which is paid to shareholders as dividends or reinvested is 24.4%. Taxes borne account for 25.4% of the total for the study participants.

Figure 23: Taxes borne and collected as a percentage of value distributed



Total Tax Rate (TTR)

The TTR is a measure of the cost of all taxes borne in relation to UK profitability before all of those taxes. On an overall basis, taking total taxes borne for participating banks, as a percentage of total profit before taxes borne, the TTR was 47.6%[28]. This reflects the challenging conditions faced by some of the largest banks with low profits or losses. On a mean average basis, giving equal weight to the large and small banks, the TTR is 43.4% (Figure 24). For companies that provided data in both 2018 and 2019, there has been a 1.7 percentage point decrease in mean TTR between 2018 and 2019. Appendix 4 gives further details of the Total Tax Rate calculation.

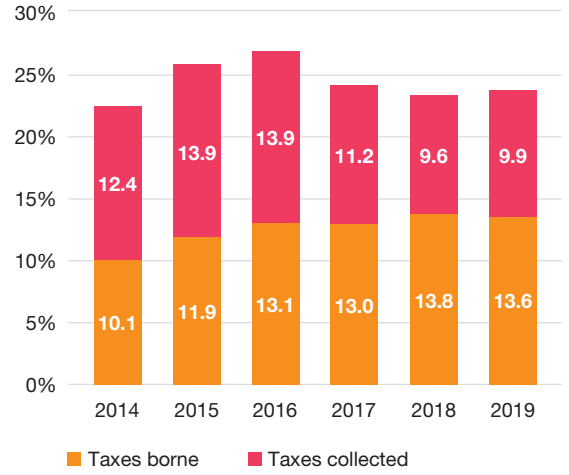
Figure 24: Total Tax Rate

Overall	47.6%
Mean	43.4%
Median	36.8%

Total Tax Contribution as a percentage of turnover

For the banks participating in the study, TTC as a percentage of total UK turnover[29] was on average 23.5%, comprising 13.6% taxes borne and 9.9% taxes collected[30]. Figure 25 shows that 2019 remained similar to the previous year and long-term trends show that TTC as a percentage of turnover has fallen for the study participants since 2015, however, the proportion of taxes borne has increased since 2014, while taxes collected has driven the overall decrease in TTC as a percentage of turnover, reflecting the overall trend.

Figure 25: TTC as a percentage of turnover, 2014 – 2019



[28] The overall average Total Tax Rate was 47.6%, the mean average was 43.4%, the median average 36.8%, and the range 17.8% to 161.1%. (2018: The overall average Total Tax Rate was 50.4%, the mean average was 34.3%, the median average 34.8%, and the range 15.9% to 67.3%.)

[29] For banks, turnover represents net interest receivable plus other (net) financial income

[30] The overall average TTC as a percentage of turnover was 23.7%, the mean was 23.5%, the median 23.9%, and the range 9.5% to 45.5%. (2018: the overall average TTC as a percentage of turnover was 25.2%, the mean average was 23.4%, the median average 22.8%, and the range 13.2% to 380%)

Appendices

Appendix 1 – Purpose, methodology and participation

Purpose and outline of the study

The purpose of the study is to generate robust data, collected in accordance with a credible and well understood framework, to quantify the contribution made by the UK banking sector to the public finances in taxes and the trends in contribution over time.

The study has been carried out for UK Finance[31] to look at the Total Tax Contribution made by a selection of its members in the banking sector.

The study shows that the contribution is broader than corporation tax, with bank levy, employment taxes, irrecoverable VAT, business rates, stamp duties, tax deducted at source and other taxes adding to the total.

It's also important to have robust data to highlight the impact of new taxes and recent legislative changes (surcharge, loss relief restriction, compensation payments restriction, apprenticeship levy) on the banking sector and how the contribution from the sector is changing over time.

The analysis provided by this study is not available elsewhere and, therefore, provides a valuable resource for the UK banking sector, government and other stakeholders.

Methodology

The study uses the TTC framework which provides a standardised methodology for companies to measure and communicate all the taxes and contributions that they pay. The study collected data from companies operating in the banking sector, relating to all UK tax payments in accounting periods ending in the year to 31 March 2019. For most study participants this was the year ending 31 December 2018.

PwC has anonymised and aggregated this data to produce the study results. PwC has not verified, validated or audited the data and cannot give any undertakings as to the accuracy of the study results. The framework is straightforward in concept, not tax technical and therefore relatively easy for stakeholders to understand.

The framework makes a distinction between taxes borne by the company and taxes collected.

Taxes borne are the company's own contribution in taxes that impact their results, e.g. corporation tax, bank surcharge, employer NIC, irrecoverable VAT, bank levy, apprenticeship levy etc.

Taxes collected are those that the company administers on behalf of government and collects from others, e.g. income tax deducted under PAYE and employee NIC, tax deducted at source, stamp duty. Taxes collected have an administrative cost for the company and will also have an impact on the company's business.

The results are a measure of the taxes paid by banks, covering both taxes borne and taxes collected. The results provide information which would not otherwise be in the public domain, since this is not information the companies are required to disclose in their financial reports. Where we refer to data published by government and HMRC, this is clearly indicated.

[31] UK Finance is the trade association for firms providing finance, banking, mortgages, markets and payments-related services in or from the UK.

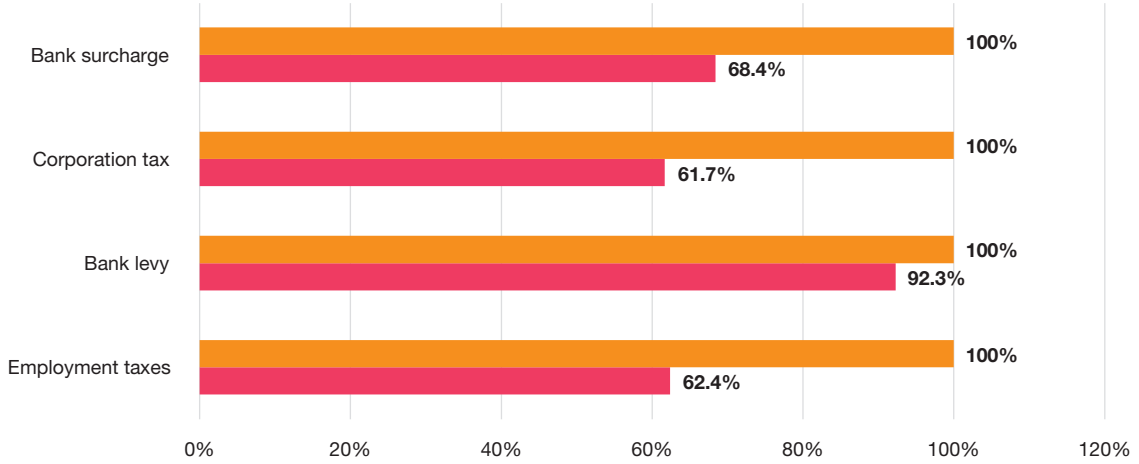
Participation in the TTC study

Forty-one banks participated in the study, providing data on their taxes borne and taxes collected for their accounting period ending in the year to 31 March 2019. Data was received from UK-headquartered and foreign-headquartered banks, both large and medium-sized operations. The data related to payments to the UK public finances. No tax payments to foreign tax authorities were included. These companies represent a significant part of the UK banking sector, as measured by reference to government data[32]. This was the highest number of companies participating in the study since the survey began.

The government publishes data for receipts of employment taxes, bank levy and corporation tax from the banking sector. Figure 1a compares the data received from participating banks in this year's study with the government data:

- Employment taxes (income tax deducted under PAYE, employer and employee national insurance contributions and the apprenticeship levy) paid by study participants totalled £13.6bn accounting for 62.4% of government receipts from the banking sector (£21.8bn).
- Bank levy paid by study participants was £2.4bn comprising 92.3% of government receipts from the banking sector (£2.6bn).
- Corporation tax payments made by participants totalled £2.9bn which represents 61.7% of corporation tax receipts (£4.7bn) from the UK banking sector.
- Bank surcharge paid by participants totalled £1.3bn making up 68.4% of the total bank surcharge receipts from the banking sector (£1.9bn).

Figure 1a – Participation in the study shown as a percentage of the UK banking sector totalstotals



[32] HMRC 'Pay-As-You-Earn and corporate tax receipts from the banking sector'

Appendix 2 – International Comparison of Tax Rates based on a model bank

Methodology

To calculate the potential taxes borne and collected by banks, our model bank calculation includes several assumptions on the income statement, balance sheet, employee structure and activities carried out by the model bank. To build these assumptions, we have extracted information from publicly available statutory accounts of UK subsidiaries of a number of overseas headquartered banks. Additionally, we also considered the ranges and averages of various metrics such as profit margins and average salaries to determine our case study parameters. As some of the data points that we needed for the model could not be determined by studying financial statements, our model was informed by discussions with banking members of UK Finance, with PwC specialists and consultation with HMRC and HM Treasury. As a result of some of these discussions, some of the parameters of the model have been refined from those used in our previous report[33].

Model parameters

The main parameters for the modelling exercise are outlined below.

Banking activities – We have assumed that the model bank conducts a mixture of corporate and investment banking activities as a bank would have a realistic option of performing these in different locations regardless of the location of the customer. We have not included or considered retail banking as this would generally be performed in the same jurisdiction as that of the customer and therefore is a less mobile activity. The bank is also assumed to be standalone for tax purposes. i.e., it is not grouped with other related businesses in the same tax jurisdiction.

Capital structure – We have not taken into account the possible impact of banking regulations on capital structure as these were out of scope. The chosen capital structure may therefore not meet local regulatory requirements, but we do not believe this would significantly affect the tax profiles of the jurisdictions.

Locations – For the purposes of this model calculation, we have considered three major financial centres, namely London, Frankfurt and New York. Singapore and the UAE were also initially considered, but as noted on page 6 their different regulatory and legal regimes make a detailed modelling approach less meaningful.

Income – The model bank has an estimated net operating income of £2.7bn of which 12% is net interest income, 44% is fee and commission income and 44% is net dealing income.

Expenses – We have assumed that our model bank has total estimated expenses (excluding all taxes borne) of £1.8bn of which 41% are salaries, 12% are staff costs, 45% are general and administration costs and 2% is depreciation and amortisation.

Employees – We have assumed that the model bank has 3,000 employees with an average salary of £248k. The employees are split into three categories, where 10% are senior employees with an average salary of £1,219k, 30% are middle level with an average salary of £287k and 60% are junior employees with an average salary of £67.5k.

Profit – We have assumed that the total estimated commercial profit[34] of the model bank totals £866 million. Specifically, for the London model, we have estimated the profit before tax to be £565 million with a 24% profit margin. The commercial profit will be the same in all three jurisdictions, however, the profit before tax will vary depending on the amount of the taxes borne in each jurisdiction.

Comparing the individual taxes

Calculating the taxes that would be borne by our model bank in each of the chosen locations suggests the following key points:

Taxes Borne

Employer's social security contributions

Of the three jurisdictions, the employer's social security contributions are the highest in London where they amount to 11.5% of commercial profit as a result of national insurance contributions being charged at 13.8% on the full amount of salary above £719 a month. For Frankfurt and New York, the employer's social security contributions are c.4% and 3% respectively as the contributions are either capped or charged at lower rates.

Irrecoverable VAT

It is difficult to model the impact of irrecoverable VAT (or sales tax in the case of New York), as this will vary significantly depending on the individual circumstances of each bank. We have however assumed that 75% of the general and administrative

[33] If we recalculate the TTRs for 2018 using the refined model and compare these to the TTRs shown in last year's report, the TTR for the UK is 47.5% compared to 50.6% shown last year, for Germany it is 44.6% compared to 43.8% and for the US it is 33.5% compared to 34.2%.

[34] The commercial profit is the profit before all taxes borne

costs would be subject to VAT with the rest of the costs being exempt. We also assumed that 60% of the VAT incurred would be recoverable. This is broadly in line with the levels of recoverability experienced by the banks we have spoken to and the resulting share of taxes borne accounted for by irrecoverable VAT is in line with our TTC data.

While there are some differences between the VAT regimes in the UK and Germany, these were not considered significant and are in any case outside the scope of this model. It is therefore the differences in the VAT rates of 20% for the UK and 19% for Germany that drives the different amounts of irrecoverable VAT estimated for these jurisdictions. For New York we have adopted a conservative approach and applied a combined sales and use tax rate of 8.875%. This is a combination of New York City sales tax of 4%, New York State sales and use tax of 4.5% and the Metropolitan Commuter Transportation District surcharge of 0.375%. We have also assumed that the sales tax base would be similar to that for VAT, although in practice we would expect it to be somewhat narrower.

In practice, the irrecoverable VAT (or similar taxes) will depend on the geographical split of customer base in addition to the location of the bank. This introduces complexities in drawing comparisons between international locations with respect to irrecoverable VAT costs as a shift in the location of customer base, as well as the bank location may lead to a material change in VAT cost in that territory. However, our model is intended for illustrative/comparative purposes only and specific facts and circumstances may of course give rise to different outcomes on a case by case basis.

Although VAT and sales tax are difficult to estimate, given the aforementioned rates, the similarities of many of the regimes, different levels of recoverability and proportions of costs being subject to VAT, the relative ordering of the locations is likely to be the same. As a percentage of commercial profit, the locations had the following irrecoverable VAT/sales tax costs:

London: 5.8%, Frankfurt: 5.5%, New York: 2.1%,

Bank levy

The UK and Germany both currently impose a bank levy. In the UK, the levy is calculated by applying a pre-determined rate to the bank's liabilities (see figure 22). The bank levy rate is dependent on the risk associated with the different classes of liabilities, with some assets being offset against certain liabilities. The UK bank levy rates are expected to gradually decline until 2021, for further details on please see page 21. In Germany, the bank levy is assessed by the authorities based on the amount that needs to be paid to the Single Resolution Fund[35]. The amount is divided between the banks based on their size and the risk profile of their balance sheets, amongst other factors. Given the amount is assessed by the authorities, it has not been possible to calculate from first principles the amount of bank levy that our model bank would pay in Germany. We have instead relied on macro level data to estimate a typical payment for the model bank in this study. The Single Resolution Fund raised €1.99bn from Germany in 2018 and is expected to raise the same amount in 2019. The most recently available data is the 2018 annual report from BaFin, the German regulator, which shows that total assets in 2018 were €8,330bn. We used the ratio of bank levy to total assets in our model to calculate the bank levy paid by the model bank in Frankfurt.

For the purposes of our model, we have determined that for 2019 our model bank would be subject to bank levy amounting to 6.4% of commercial profits in London and 6.3% in Frankfurt.

Corporate income tax

Of the three countries, the UK faces the highest levels of employer social security contribution, irrecoverable VAT/sales tax and bank levy. It therefore has the lowest level of accounting profits as other applicable taxes are deducted in calculating accounting profit.

There are a number of adjustments that could be made to accounting profits to determine taxable profits. These could include impairment adjustments, adjustments for pension payment, share scheme deductions and differences between tax and accounting depreciation for fixed assets. We did not include any of these adjustments in our model as they were outside the scope of the project and most adjustments would not be expected to have a significant impact on the effective tax rates. The bank levy is not deductible for corporate income tax in the UK or Germany.

[35] The Single Resolution Fund (SRF) has been established by Regulation (EU) No 806/2014 (SRM Regulation). Where necessary, the SRF may be used to ensure the efficient application of resolution tools and the exercise of the resolution powers conferred to the SRB by the SRM Regulation. The SRF is composed of contributions from credit institutions and certain investment firms in the 19 participating Member States within the Banking Union. The SRF ensures that the financial industry, as a whole, finances the stabilisation of the financial system

Tax incentives that could reduce the tax rates in New York were also out of scope. While these can be significant, they require a number of often complex conditions to be met in order for a company to be eligible for the incentives and as such, it was not possible to model all the conditions. In the US it is not unusual for banks to be structured as branches with a consequent effect on capital structure which may allow banks to have lower effective rates of tax than shown for our model which uses a company rather than a branch structure.

For the UK, we have used the 2019 tax rate of 19%, plus the 8% bank surcharge. For Germany, we have used a corporate income tax rate of 15%, plus a 5.5% surcharge and a 16.1%[36] trade tax rate for Frankfurt. For the US, the corporate income tax rate comprises of a 21% federal rate, 8.57% New York state tax rate and a 9% New York City tax.

Based on the above rates and our calculations, we have estimated the following profit taxes as a percentage of commercial profit: London: 22.0%, Frankfurt: 28.9%, New York: 27.4%

Property taxes

The UK, Germany and the US levy property tax based on the value or size of the property. These taxes are minimal relative to the other taxes covered. For Germany it was not possible to estimate the amount of property taxes due to legal uncertainty as to how the property would be valued.

Taxes collected

In addition to the taxes borne, we have also calculated the two most significant taxes collected by banks being (i) employee social security contributions and (ii) personal income tax paid by employees on their salaries.

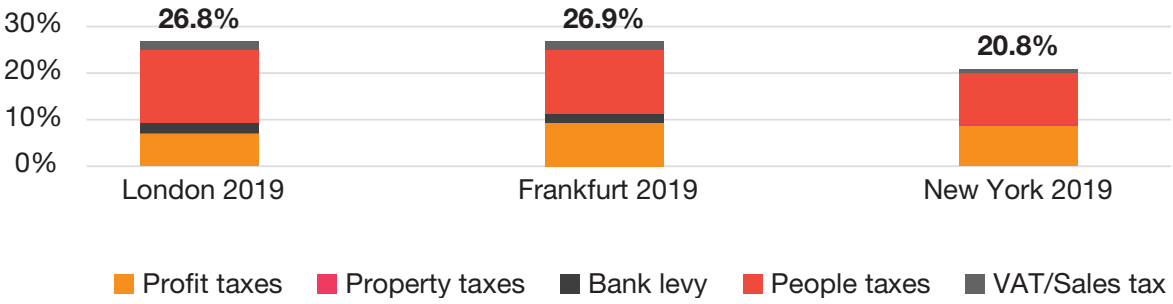
Employee social security contributions

In all three jurisdictions, employee social security contributions are relatively similar and are between 1.0% and 1.3% of net operating income (£26m to £36m)[37].

Personal income tax

With respect to personal income tax, our model bank would collect tax amounting to 11.2% of net operating income in Germany, 10.8% in the UK and 8.9% in the US. The amounts of personal income tax collected are driven by the income tax rates and the income bands to which they apply. In both the UK and Germany the top rate of tax is 45%, but there are differences in the income bands. In the US, the highest federal income tax rate is 37.0% with maximum New York State and City rates of 8.82% and 3.88%, respectively. A number of simplifying assumptions were made to enable the personal income tax calculations, namely that the employees were resident in the country, had no other income and were married with two children.

Figure 2a: TTC of the model bank as a percentage of net operating income



[36] This is the tax rate of 3.5% multiplied by the 460% assessment rate for Frankfurt am Main

[37] Taxes collected are expressed as a percentage of net operating income

Appendix 3 – Taxes borne reported by survey participants

Taxes borne	£s 2019
Taxes on profits (profit taxes)	
Corporation tax	2,882,957,580
Bank surcharge	1,260,864,051
Taxes on property (property taxes)	
Business rates	589,032,278
Bank levy	2,389,599,365
Stamp duty land tax	8,076,276
Stamp duty reserve tax	212,477,004
Taxes on employment (people taxes)	
PSAs (tax on benefits)	55,054,616
Employer NIC	3,328,834,180
Apprenticeship levy	94,399,369
Taxes on consumption (product taxes)	
Irrecoverable VAT	4,149,172,967
Insurance premium tax	4,630,512
Fuel duty	3,868,013
Air passenger duty	11,512,297
Customs duty	62,209,043
Environmental taxes (planet taxes)	
Landfill tax	279,479
Climate change levy	3,443,675
Vehicle excise duty	44,803,825
Carbon reduction commitment	4,285,337
Total	**15,105,499,867**

Appendix 4 – Taxes collected reported by survey participants

Taxes collected	£s 2019
Taxes on profits (profit taxes)	
Tax deducted at source	478,718,846
Taxes on property (property taxes)	
Stamp duty reserve tax	1,286,718,060
Taxes on employment (people taxes)	
Income tax collected under PAYE	8,488,940,243
Employee NIC	1,825,652,085
Taxes on consumption (product taxes)	
Net VAT	416,050,543
Insurance premium tax	143,318,116
Total	**12,639,397,893**

Appendix 5 – The burden of employment taxes

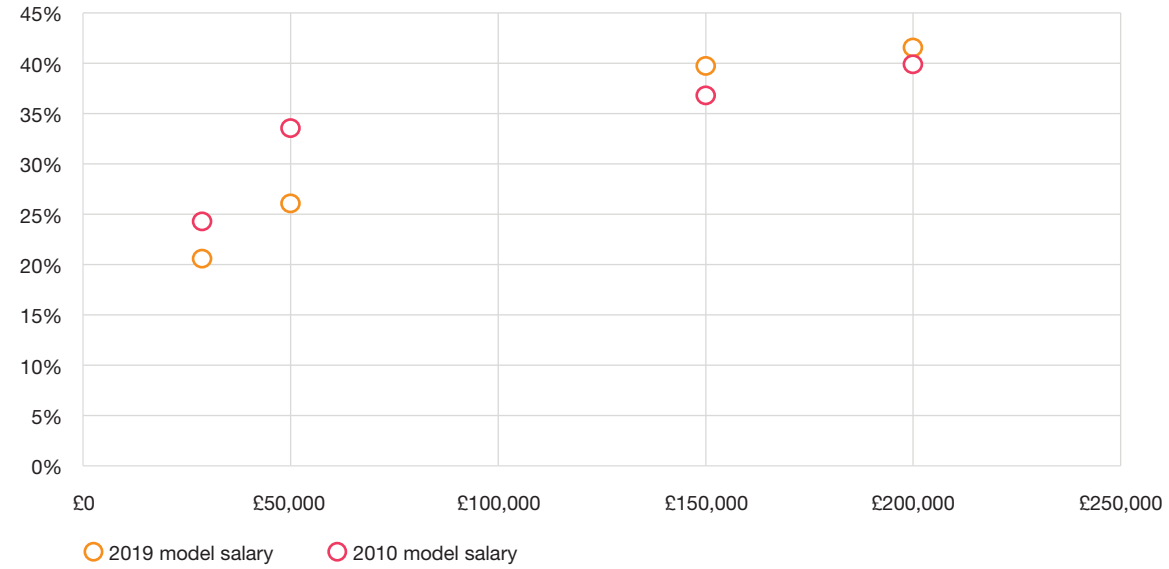
UK employment tax legislation is structured so that higher salaries are taxed at higher rates. Using selected salaries, it is possible to model the employment tax burden.

Figure 3a shows the percentage of gross salary that is paid as tax by employees (income tax deducted under PAYE and employee NIC) in 2010 and in 2019 for a range of example salaries. From the national average salary of £29,588, 20.6% is paid in employee income tax and employee NIC in 2019, while this ratio was 24.5% in 2010. The equivalent figure for a salary of £150,000 is 39.8% in 2019 and 36.8% in 2010, a 3.0 percentage point increase. Although salaries are higher in the banking sector, a greater percentage of the salary is paid in taxes.

Changes to employment tax legislation in the last seven years (shown below) increased the burden of taxes on higher salaries. Changes in PAYE thresholds and rates and NIC thresholds and rates mean that the employee tax paid on a salary of £29,588 has fallen by 3.9 percentage points since 2010. By contrast, a salary of £150,000 has seen an increase of 3.0 percentage points.

- In 2010/11, an additional rate of income tax under PAYE was introduced, taxing income over £150,000 at 50% (this tax rate was reduced to 45% in 2013/14 onwards).
- In 2011/12 both employer and employee NIC increased by one percentage point for employers and employees, counteracted in part by an increase in the primary and secondary thresholds.

Figure 3a – Percentage of gross salary that is paid as tax by employees



Source: PwC analysis

Table 1a – Changes in income tax rates and thresholds since 2008-09

Financial year	Basic rate (20%)	High rate (40%)	Additional rate (50%~45%)
2008-09	£6035 – 34,800	£34,800 – over	NA
2009-10	£6475 – 37,400	£37,400 – over	NA
2010-11	£6475 – 37,400	£37,400 – 150,000	£150,000 – over (50%)
2011-12	£7475 – 35,000	£35,000 – 150,000	£150,000 – over (50%)
2012-13	£8105 – 34,370	£34,370 – 150,000	£150,000 – over (50%)
2013-14	£9440 – 32,010	£32,010 – 150,000	£150,000 – over (45%)
2014-15	£10,000 – 31,865	£31,865 – 150,000	£150,000 – over (45%)
2015-16	£10,600 – 31,785	£31,785 – 150,000	£150,000 – over (45%)
2016-17	£11,000 – 32,000	£32,000 – 150,000	£150,000 – over (45%)
2017-18	£11,500 – 33,500	£33,500 – 150,000	£150,000 – over (45%)
2018-19	£11,850 – 34,500	£34,500 – 150,000	£150,000 – over (45%)

Appendix 6 – Total Tax Rate calculation

An example of the Total Tax Rate calculation is illustrated as follows.

Assumptions:

1. Profit before total taxes borne £40
2. Book-to-tax adjustments (£10)
3. Statutory corporate income tax rate 25%
4. For every £1 of corporate income tax paid, there is another £1 of other business taxes paid.

Items	£	Reference
Profit before total taxes borne	40	(A)
Other business taxes borne	6	(B)
Profit before income tax	34	(C) = (A)-(B)
Book-to-tax adjustments	(10)	(D)
Taxable profit	24	(E) = (C)+(D)
Statutory corporate income tax rate	25%	(F)
Corporate income tax	6	(G) = (E)*(F)
Total taxes borne	12	(H) = (B)+(G)
Total Tax Rate	**30%**	**(I) = (H)/(A)**

Notes

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