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2018 Total Tax Contribution of the UK banking sector

Fourth edition

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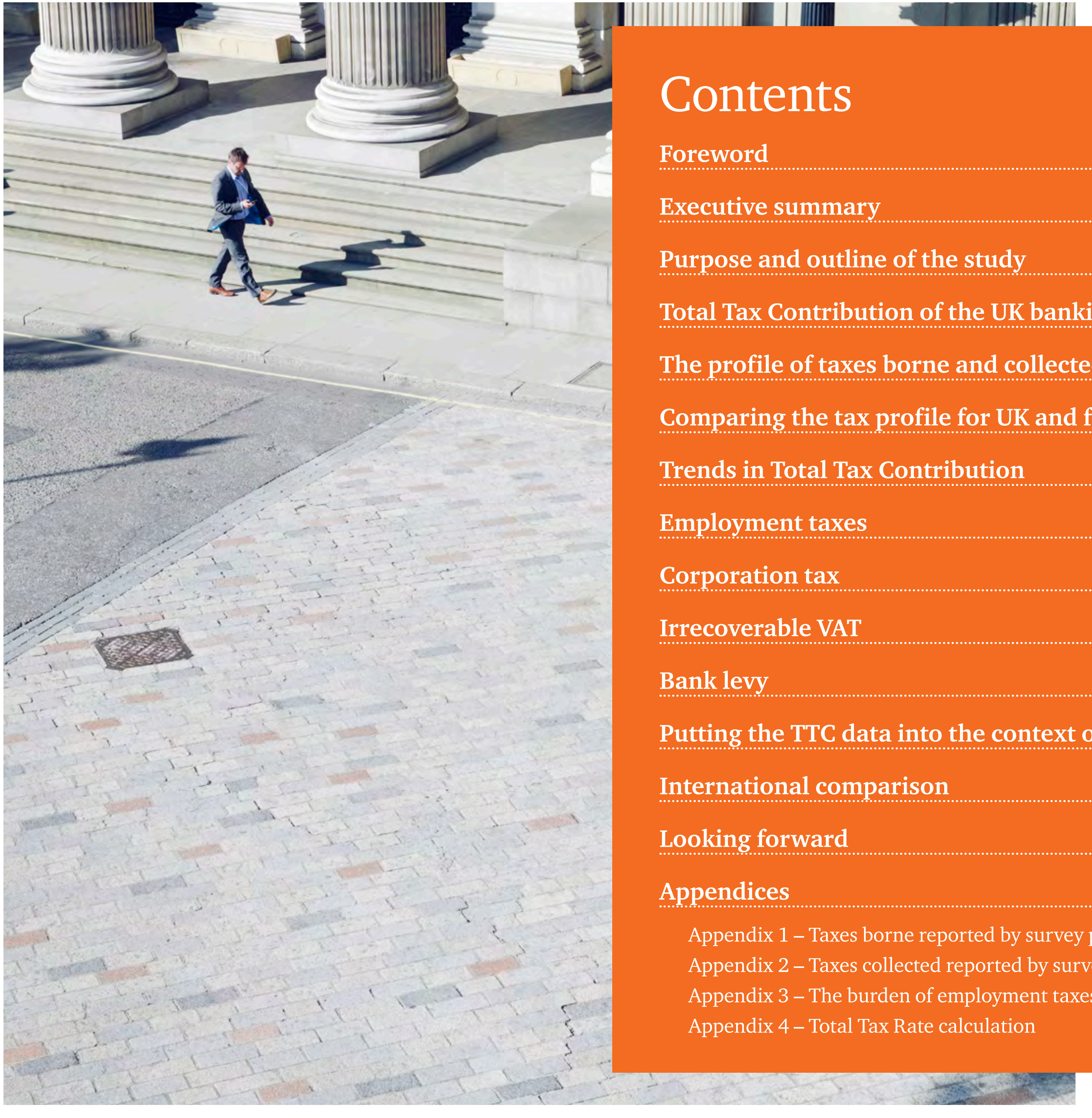

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Foreword

Welcome to the fourth edition of the Total Tax Contribution study for the UK banking sector. Since the first study, carried out in 2014, we have seen a steady increase in the contribution from the sector to the public finances, from £31.3bn (2014) to £36.7bn (2018). The latest study found a sector contributing 5.4% of UK tax revenues, a greater proportion than its share of UK gross value added of 4.1%.

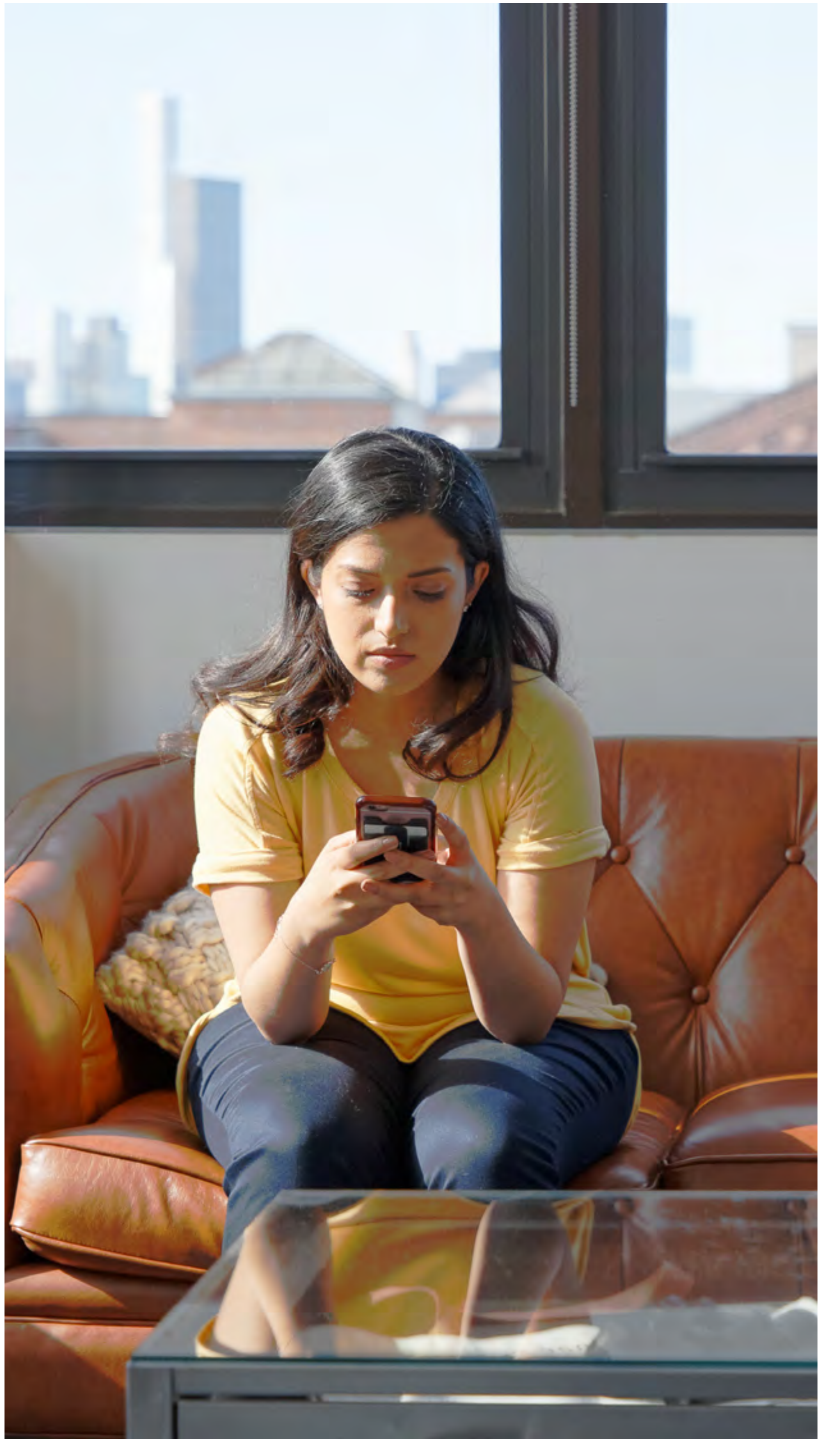
Fiscal policy is often a trade-off between low tax rates coupled with a broad base or high rates and a narrow base. Over the last four years, the banking sector has seen higher corporation tax rates, together with a broader base. Including the surcharge, the rate of corporation tax for the sector is 27%, 42% higher than the rate applying to the majority of the UK economy (19%). In addition, restricted deductibility of compensation payments and losses has broadened the base. It is no surprise then that in 2017, for every £8 of corporation tax paid in the UK, £1 was paid by the banking sector.

Corporation tax is only part of the picture. The contribution extends beyond corporation tax to include irrecoverable VAT, bank levy, stamp duties and employment taxes. For the largest banks, the total tax rate in 2018 is 50.4% of profits before all taxes.

When compared to other selected financial centres, using a simplified model bank, the total tax rate is greater in the UK than in the US, Germany, Singapore or the UAE. The bank levy together with higher employer social security payments in the UK, taxes which are not dependent on profits and represent a fixed cost, drive this result.

The banking sector is facing considerable challenges, from fast-paced technological changes to building trust with stakeholders to Brexit uncertainty. The findings of this report highlight the importance of a substantial contribution from the banking sector to the public finances. 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 policy discussions over bank taxation. We hope this study informs that debate and we thank the participants for their support for the study.

Andrew Packman
PwC, Total Tax Contribution and
Tax Transparency Leader

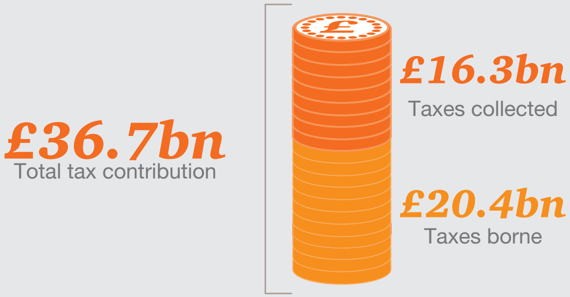


Executive summary

The key findings from the fourth Total Tax Contribution study of the UK banking sector show that, in 2018*

TTC of the banking sector was £36.7bn

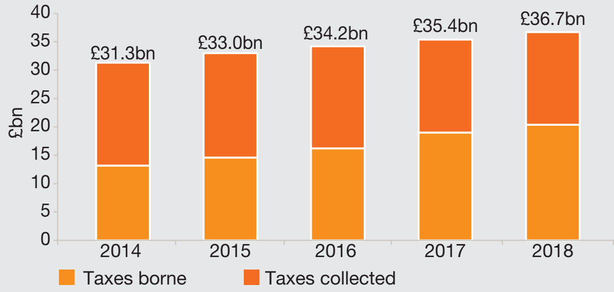
The Total Tax Contribution of the banking sector to the UK public finances in 2018 was estimated as £36.7bn, comprising taxes borne of £20.4bn and taxes collected of £16.3bn.



Of this total, we estimate that £18.5bn was paid by UK-headquartered banks and £18.2bn by foreign-headquartered banks.

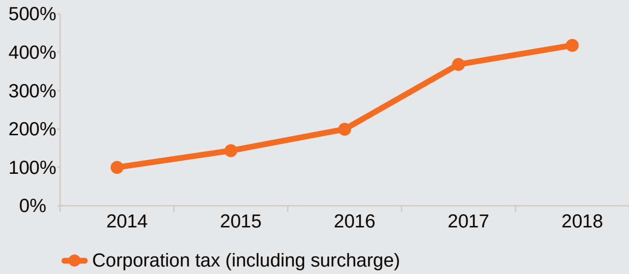
TTC has increased by £5.4bn compared to the first study

Taxes borne have increased year on year since the first study. Compared to the 2017 study, there was an increase of 7.6% in the taxes borne by survey participants; since 2014, the increase was 53.8%.



Corporation tax is now four times the level in 2014

HMRC data shows that corporation tax (including bank surcharge) has increased by 13.6% compared to 2017 and is now over four times the 2014 level. The bank surcharge, restriction in tax deductibility of compensation payments and losses, as well as increased profitability have contributed to the increase.



£1 in every £8 of corporation tax is paid by the banking sector

In 2018, for every £8 of corporation tax paid in the UK, £1 was paid by the banking sector. The bank surcharge paid by the sector amounted to £1.8bn in the year. At 8% of taxable profits, this represents 42% of the statutory UK headline corporation tax rate (19%).

Total tax rate was 50.4%

On an overall basis, over half the profits (50.4%) from participant banks are paid in taxes highlighting the challenges faced by the largest banks.

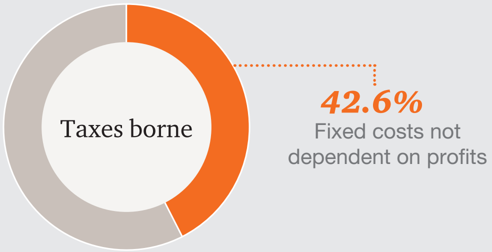
Corporation tax and bank levy are now 30% higher than pre-recession levels

The receipts from corporation tax and bank levy are 30% higher than the 2007pre-recession peak.

* Note: The 2018 study collected data for accounting periods ended in the year to 31 March 2018, mostly 31 December 2017 year ends.

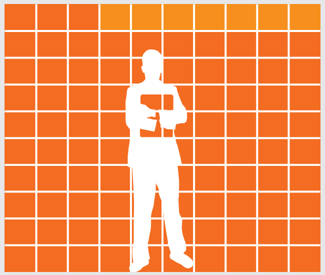
42.6% of taxes borne are not dependent on profits

Over half of total taxes borne (50.5%) are made up of irrecoverable VAT (24.5%), bank levy (18.1%) and bank surcharge (7.9%). Of these 'sector specific' taxes, bank levy and irrecoverable VAT (together 42.6% of the total) are not dependent on profits and represent a fixed cost.



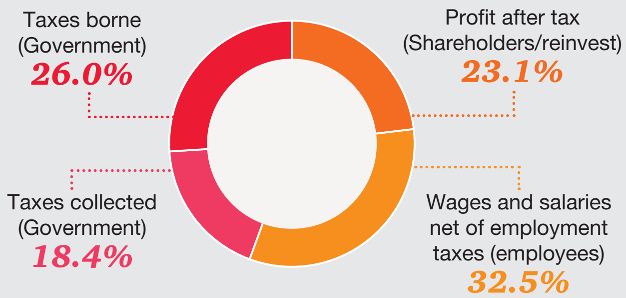
The banking sector contributes 6.7% of all UK employment tax receipts

Employment taxes remained the largest tax for the banking sector (£19.1bn). The sector employs a highly skilled workforce and contributes 6.7% of all UK employment tax receipts.



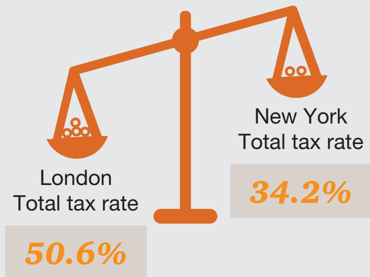
Government is the largest beneficiary of value distributed

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 44.4% of the value distributed by the sector.



Comparing taxes internationally for a model bank

The UK bank levy and employer social security contributions are more significant for a model bank operating in the UK than in selected financial centres. See page 21 for more detail.



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[1] 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 UK Finance members operating in the banking sector, relating to all UK tax payments in accounting periods ending in the year to 31 March 2018. For most study participants this was the year ending 31 December 2017. 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 members, 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.

Participation in the TTC study

Thirty-five UK Finance member 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 2018.

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[2].

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Thirty-five UK Finance member banks participated in the study, providing a....

Valuable resource

...valuable resource for the UK banking sector, government and other stakeholders.

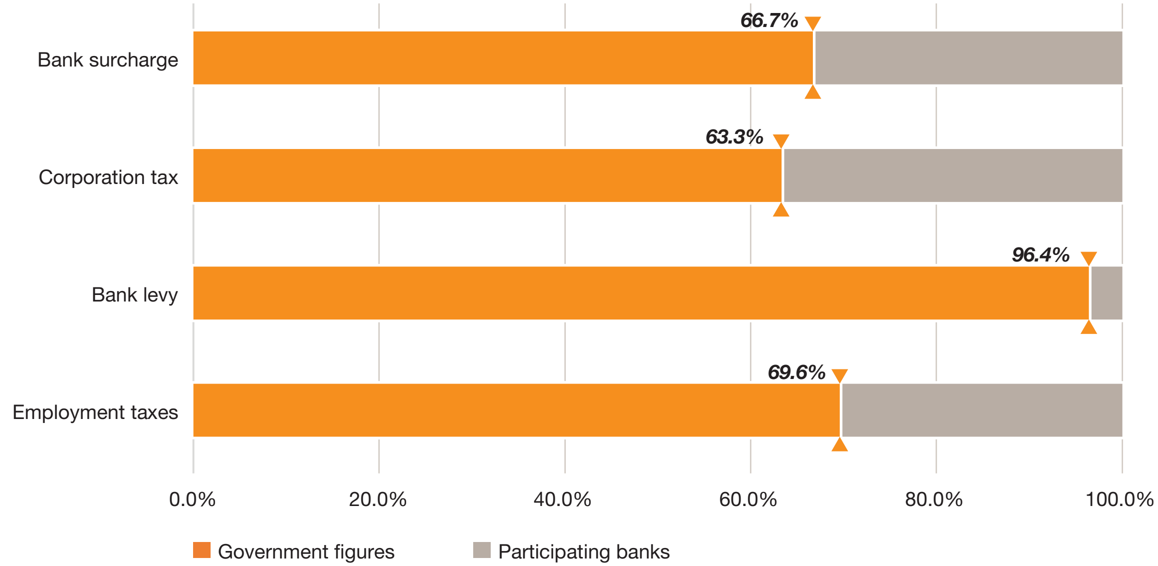
[1] UK Finance is the trade association for firms providing finance, banking, mortgages, markets and payments-related services in or from the UK. It was formed in 2017 by combining the Asset Based Finance Association, the British Bankers' Association, the Council of Mortgage Lenders, Financial Fraud Action UK, Payments UK and the UK Cards Association.

[2] HMRC 'Pay-As-You-Earn and corporate tax receipts from the banking sector' https://www.gov.uk/government/statistics/paye-and-corporate-tax-receipts-from-the-banking-sector-2018

The government publishes data for receipts of employment taxes, bank levy and corporation tax from the banking sector. Figure 1 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 £13.3bn accounting for 69.6% of government receipts from the banking sector (£19.1bn).
- Bank levy paid by study participants was £2.7bn comprising 96.4% of government receipts from the banking sector (£2.8bn).
- Corporation tax payments made by participants totalled £3.1bn which represents 63.3% of corporation tax receipts (£4.9bn) from the UK banking sector.
- Bank surcharge paid by participants totalled £1.2bn making up 66.7% of the total bank surcharge receipts from the banking sector (£1.8bn).

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



Source: Study participants

96.4%

of government receipts of bank levy was paid by study participants

Total Tax Contribution of the UK banking sector

The banking sector makes a major contribution to the UK Exchequer. The thirty-five companies taking part in the study reported taxes borne of £14.9bn and taxes collected of £11.7bn, making a UK tax contribution of £26.6bn.

Extrapolating from these figures[3], we estimate that the Total Tax Contribution for the entire UK banking sector, including those banks who did not take part in the study, is £36.7bn, which represents 5.4% of total government receipts for all taxes in the year to 31 March 2018. Figure 2 shows that the TTC of £36.7bn is estimated to comprise taxes borne of £20.4bn and taxes collected of £16.3bn. 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: £18.5bn (50.4%) can be attributed to UK-headquartered banks, and £18.2bn (49.6%) to foreign-headquartered banks. However, the profile of this contribution varies significantly, with UK banks contributing a greater share of taxes borne (see next section: Profile of taxes borne and collected), and foreign banks contributing a greater share of taxes collected.

Figure 2: 2018 Total Tax Contribution of the UK banking sector as a percentage of total UK tax receipts[4]

	Study participants £bn	Extrapolated to the UK banking sector £bn	% of total government receipts
Corporation tax	3.1	4.9[5]	
Bank surcharge	1.2	1.8[6]	
Bank levy	2.7	2.8[7]	
Employment taxes borne[8]	3.3	5.0	
Irrecoverable VAT	3.7	4.6	
Other taxes borne[9]	0.9	1.3	
Total taxes borne	**14.9**	**20.4**	**3.0%**
Employment taxes collected[10]	10.0	14.1	
Tax deducted at source	0.4	0.4	
Other taxes collected[11]	1.3	1.8	
Total taxes collected	**11.7**	**16.3**	**2.4%**
Total Tax Contribution	**26.6**	**36.7**	**5.4%**

5.4%

of total government receipts for all taxes in the year came from the banking sector

[3] 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'. 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

[4] The Office for Budget Responsibility (OBR) – November 2018 Economic and fiscal outlook – supplementary fiscal tables: receipts and other. Table 2.8 Current receipts (on a cash basis)

[5] Represents 9.2% of government corporation tax receipts

[6] Represents 100% of government bank surcharge receipts

[7] Represents 100% of government bank levy receipts

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

[9] 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

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

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

The 2018 tax contribution of the UK banking sector increased by £1.3bn from the previous year, and represents 5.4% of total government receipts (Figure 3). At an economy level, total tax receipts increased by 4.4%, primarily driven by increases in national insurance contributions (NIC), VAT, corporation tax and income tax deducted under PAYE. The NIC increase reflects growth in total UK employment (which has also driven growth in income tax receipts) along with the move away from public sector service companies and tighter salary sacrifice restrictions.

The increase in corporation tax at an economy level reflects sustained levels of stronger profitability, the impact of loss-relief restriction (restricted to 25% of taxable profits for the banks and 50% for all other sectors) and compensation relief restriction, along with continued growth in incorporation.

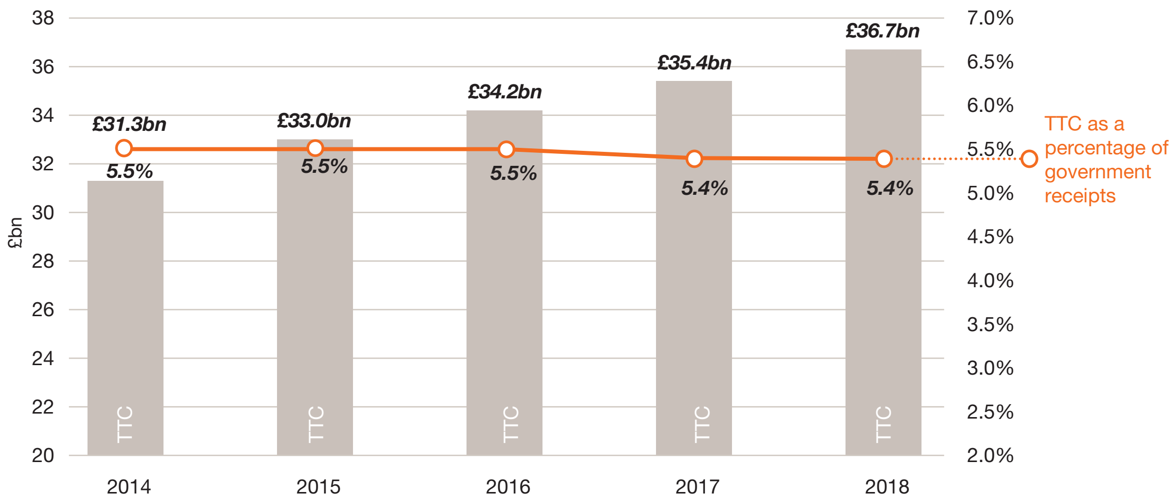
The profile of the bank's tax contribution continues to shift towards taxes borne and away from taxes collected. This year saw an increase in taxes borne of £1.4bn and a decrease of taxes collected of £0.1bn. This was largely driven by increasing profitability along with the continued effect of the corporation tax surcharge, tighter loss relief legislation and non-deductibility of compensation payments impacting taxes borne. The continued fall in taxes collected is largely due to banks no longer being requiring to deduct tax at source from account interest.

The next section provides further detail relating to the profile of taxes borne and taxes collected.

Within the total of £36.7bn, employment taxes comprise the largest element (£19.1bn), 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.

Figure 3: The Total Tax Contribution of the UK banking sector, 2014-2018



Source: PwC analysis

£1.3bn

The contribution in taxes made by the UK banking sector in 2018 increased by £1.3bn

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 2018 survey is shown in Figure 4. This year's profile of taxes borne includes an additional tax compared to the previous study: the apprenticeship levy, a levy on UK employers with annual paybills in excess of £3 million, at 0.5% of the annual paybill. The revenue from the apprenticeship levy is intended to fund new apprenticeships, and the amounts claimed by participants to pay for apprenticeship training is also captured by the TTC framework. The levy came into effect from 6 April 2017.

Corporation tax (including the bank surcharge), at 28.7% of the total for participating banks in 2018, is the largest tax borne for the second year running. Irrecoverable VAT is the second largest tax borne, at 24.5%. Employment taxes, comprising employer NIC, PSA (PAYE Settlement Agreement, a tax on benefits provided by the company) and apprenticeship levy, were the third largest element, at 22.3%.

Bank levy accounts for a smaller percentage of taxes borne in this year's study (18.1% compared to 20.4% in 2017) 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 27). 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.

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 (50.5%) are made up of bank surcharge, bank levy and irrecoverable VAT. Of these 'sector taxes', bank levy and irrecoverable VAT (together 42.6% of the total) are not dependent on profits, and represent a fixed cost for the sector.

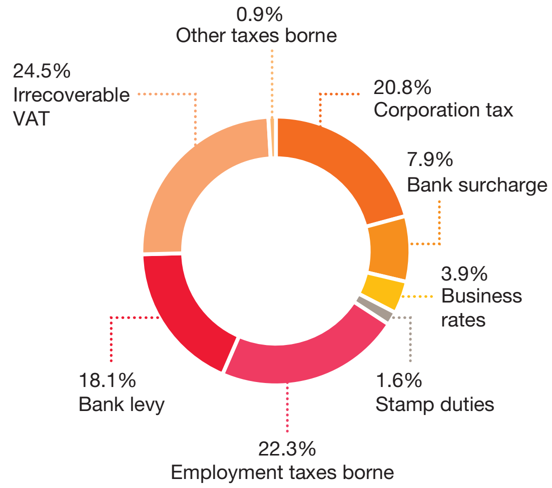
Corporation tax (excluding the bank surcharge) increased compared to last year's study, accounting for 20.8% of taxes borne (20.4% in 2017), as profitability increased along with the impact of tighter loss relief legislation. This change was effective for accounting periods beginning on or after 1 April 2016 and, therefore, the impact of the tighter loss restriction falls within the period of the 2018 study for the vast majority of participating banks.

Apprenticeship levy paid by study participants totalled £72.3m, accounting for 2.2% of total employment taxes borne from participants. Of the twenty seven banks providing this data, five provided information on how much they received to fund training, which amounted to £12.8m (17.7% of total apprenticeship levy paid by participants).

Please refer to Appendix I for a detailed list of taxes borne by study participants.

For every £1 of corporation tax (including the bank surcharge), the banking sector in the UK paid £2.48 of other taxes borne.

Figure 4: Taxes borne profile for participating banks



Source: Study participants

£2.48

For every £1 of corporation tax (including the bank surcharge), the banking sector in the UK paid £2.48 of other taxes borne.

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. For every £1 of corporation tax paid (including bank surcharge), there is £2.60 in taxes collected.

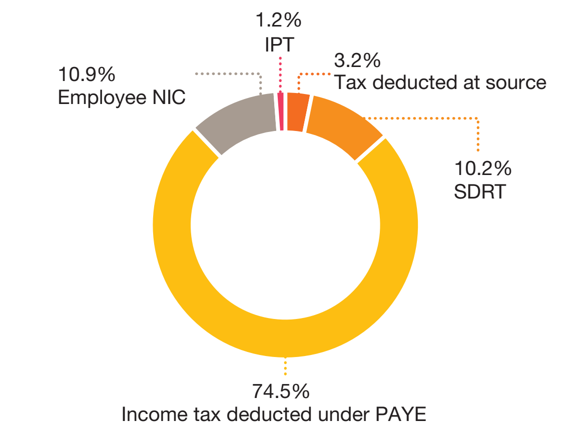
Figure 5 shows the profile of taxes collected for the thirty-five participating banks. Employment taxes (income tax deducted under PAYE and employee NIC) were the largest element (85.4% of total taxes collected, compared to 81.2% in 2017), reflecting skilled jobs in the banking sector. Stamp duty reserve tax (SDRT) continued as the second largest tax collected, at 10.2% of the total. And tax deducted at source (3.2%, compared to 6.1% in 2017) continued to decrease this year, due to banks no longer being required to deduct tax at source from account interest. Please refer to Appendix 2 for a detailed list of taxes collected by study participants.

Total Tax Contribution

The Total Tax Contribution profile – both taxes borne and taxes collected together (Figure 6) – shows that corporation tax, including the bank surcharge, made up 16.4% of the TTC (compared to 13.6% in 2017) while employment taxes remained the most significant, at 51.2% of the total. The other significant taxes for the sector – irrecoverable VAT and bank levy – were 14.0% and 10.3% of the TTC respectively. Tax deducted at source, which is affected by factors outside of the banks' control, has fallen from 3.0% of the total in 2017 to just 1.5% in 2018.

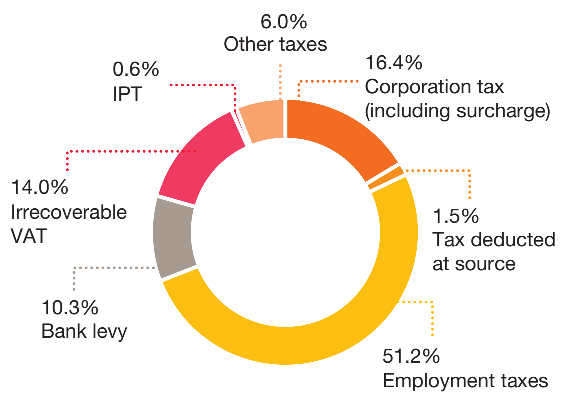
The financial crisis and subsequent legislative changes have resulted in a fundamental shift in taxation of the banking sector. The next section provides an insight into the changing profile of taxes borne and taxes collected by the banking sector over time.

Figure 5: Taxes collected profile for participating banks



Source: Study participants

Figure 6: The TTC profile for participating banks



Source: Study participants

£2.60

For every £1 of corporation tax paid (including bank surcharge), there is £2.60 in taxes collected.

Comparing the tax profile for UK and foreign banks

Out of the thirty-five study participants, 15 (42.9%) were UK-headquartered banks and 20 (57.1%) were foreign-headquartered banks. Of the total estimated contribution of £36.7bn, we estimate that £18.5bn was paid by UK banks and £18.2bn by foreign banks.

Based on study participants, UK banks and foreign banks contribute a relatively equal share of the overall TTC (Figure 7), but UK-headquartered banks contribute a greater percentage of taxes borne (62.8% of the total).

Taxes borne profile for UK and foreign banks

The profile of taxes borne differs between UK-headquartered and foreign-headquartered banks. For UK-headquartered banks (Figure 8), irrecoverable VAT is the largest tax borne (29.5%), followed by corporation tax including surcharge (23.8%) and bank levy (22.3%).

For foreign-headquartered banks (Figure 9), corporation tax (including surcharge) has become the largest tax borne (37.0%), followed by employment taxes borne (28.9%), and irrecoverable VAT (15.9%). The different profiles for UK banks and foreign banks can be partially explained by a higher cost base related to head-office operations for UK-headquartered banks, resulting in higher irrecoverable VAT, and bank levy applying to the global consolidated balance sheet of a UK-headquartered bank, but only to the UK balance sheet of a foreign-headquartered bank. In addition, foreign banks have a higher average wage resulting in a higher proportion of employment taxes.

Figure 10 compares the contribution to taxes borne from UK and foreign banks. It highlights the greater proportion of irrecoverable VAT (75.6% of the total) and bank levy (77.8%) that were borne by UK-headquartered banks.

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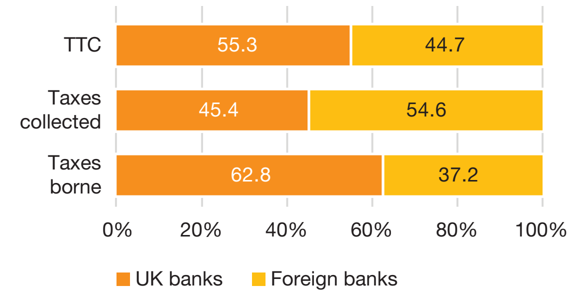
Out of the thirty-five study participants, 15 (42.9%) were UK-headquartered banks and 20 (57.1%) were foreign-headquartered banks.

Figure 7: Taxes borne, taxes collected and TTC for UK and foreign banks



Source: Study participants

Figure 8: Taxes borne profile for UK banks

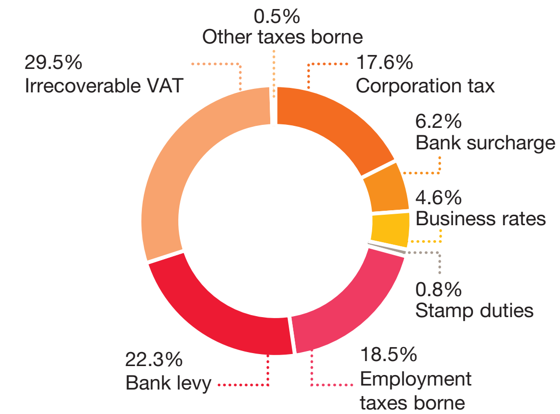
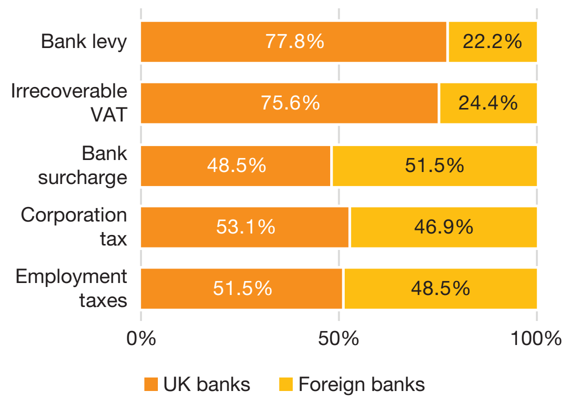
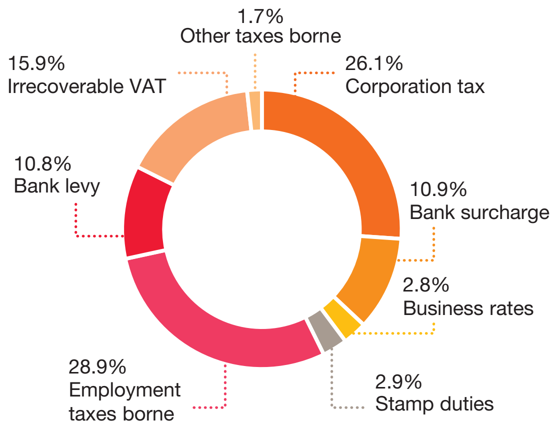


Figure 10: Comparison of taxes borne for UK and foreign banks



Source: Study participants

Figure 9: Taxes borne profile for foreign banks



Source: Study participants (on an overall basis)

Taxes collected profile for UK and foreign banks

Income tax deducted under PAYE and employee NIC are the largest taxes collected for both UK banks (89.1%) and foreign banks (80.1%) (Figures 11 and 12). Tax deducted at source, mainly tax deducted from interest paid to customers by the UK retail banks, accounts for 5.8% of tax collected for the UK banks. This is down from 10.9% in last year's survey, as banks are no longer required to deduct tax at source from account interest, explained previously. For the foreign-headquartered banks, stamp duty reserve tax (SDRT) was the second largest tax collected, at 17.0%.

Total Tax Contribution profile for UK and foreign banks

For UK banks, employment taxes made up 47.6% of TTC in the study (Figure 13). Irrecoverable VAT and bank levy were 19.2% and 14.5% of TTC respectively.

By contrast, for foreign banks, employment taxes account for 55.7% of TTC in the study, followed by corporation tax (including the bank surcharge) at 17.7%, and irrecoverable VAT and bank levy of 7.6% and 5.2% respectively.

Figure 11: Taxes collected profile for UK banks

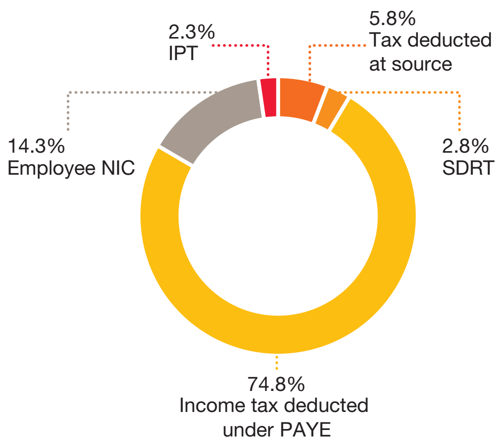
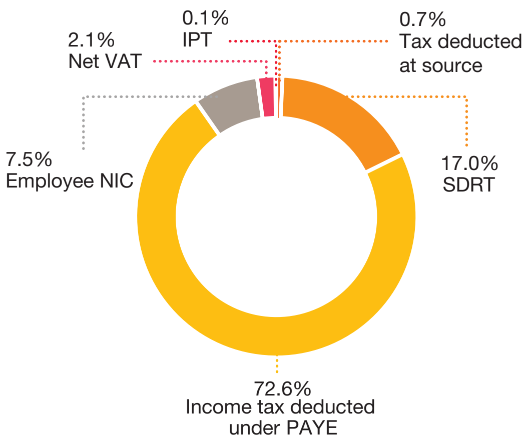


Figure 12: Taxes collected profile for foreign banks



Source: Study participants (on an overall basis)

Figure 13: TTC profile for UK banks

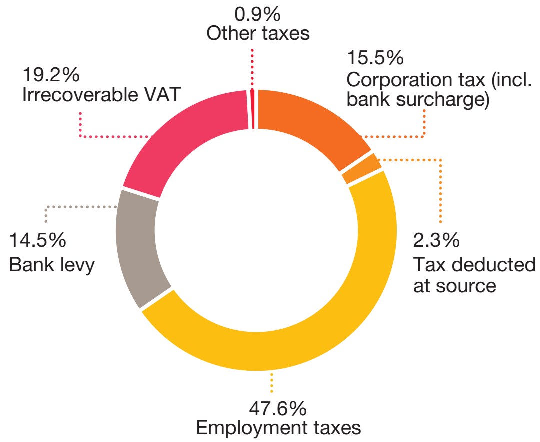
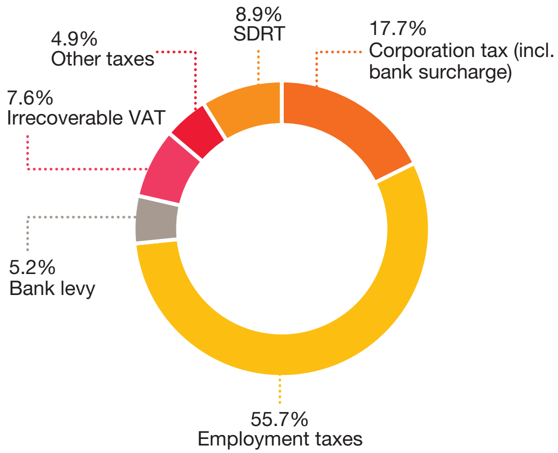


Figure 14: TTC profile for foreign banks



Source: Study participants (on an overall basis)

5.8%

Tax deducted at source accounts for 5.8% of tax collected for the UK banks – down from 10.9% in last year's survey

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 increased to 25% for accounting periods beginning on or after 1 April 2016.

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 non-banking 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 0.085% in 2017 to 0.080% in 2018. The rate for short term chargeable equity or liabilities reduced from 0.170% in 2017 to 0.160% in 2018.

Income tax deducted under PAYE: Personal allowance threshold increased from £11,000 to £11,500 in 2017/18.

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 2017 and 2018

Thirty-one companies provided data for both the 2017 and 2018 studies and we are able to analyse the trends on a like-for-like basis for these companies.

There was an increase in taxes borne, mainly driven by increases in corporation tax and the bank surcharge that was introduced in 2016 (Figure 15). The increase in corporation tax (excluding surcharge) was 2.1 percentage points of the total increase in taxes borne. This was a result of increasing profitability in the banking sector, along with tighter restrictions applying to loss relief and the deductibility of compensation payments. The increase in bank surcharge was 3.3 percentage points of the total increase in taxes borne. Many banks paid two surcharge instalments within last year's survey, in the year the surcharge was introduced, and the trend reflects four instalments paid within this year's survey. Employment taxes also increased (1.5% of the total increase), as a result of tighter benefit in kind restrictions on salary sacrifice schemes driving an increase in employer NIC, along with the introduction of the apprenticeship levy, which accounts for over a third of the increase. The decrease in bank levy (-0.2% of the total) was largely due to the reduction in the bank levy rates.

Figure 15: Trend in taxes borne, 2017 – 2018

	Trend as % of total taxes borne
Corporation tax excluding bank surcharge	+2.1%
Bank surcharge	+3.3%
Corporation tax including bank surcharge	+5.4%
Bank levy	-0.2%
Employment taxes borne	+1.5%
Irrecoverable VAT	+0.8%
Other taxes borne	+0.1%
Total taxes borne	**+7.6%**

Source: Study participants

7.6% ↑

There was an increase in taxes borne, mainly driven by increases in corporation tax and the bank surcharge

Altogether, these movements resulted in an increase of 7.6% for taxes borne by the survey participants as compared to the 2017 survey. Of the total increase in taxes borne, 3.4 percentage points is attributed to UK banks and 4.2 percentage points to foreign banks.

There was an overall increase in taxes collected of 0.8% (Figure 16), largely driven by an increase in employment taxes collected (+2.5 percentage points) and net VAT (+1.5 percentage points), partially offset by a decrease in taxes deducted at source (-3.7 percentage points). The fall in taxes deducted at source was due to banks no longer being required to deduct tax at source from customer account interest, from 6 April 2016.

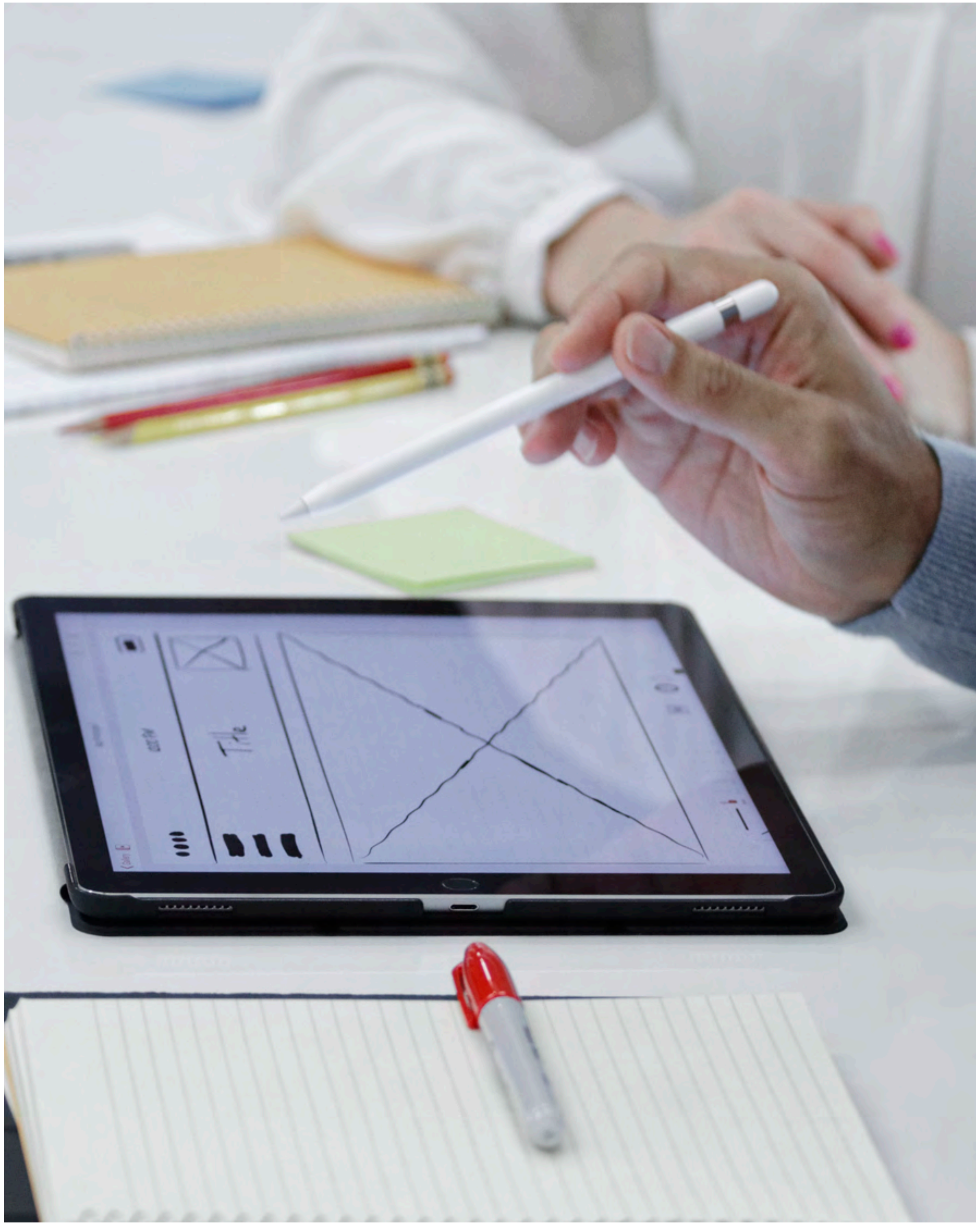
0.8% ↑

There was an overall increase in taxes collected of 0.8%, largely driven by an increase in employment taxes collected

Figure 16: Trend in taxes collected, 2017 – 2018

	Trend as % of total taxes collected
Employment taxes collected	+2.5%
Stamp duty reserve tax	+0.5%
Net VAT	+1.5%
Tax deducted at source	-3.7%
Other taxes collected	0.0%
Taxes collected	**+0.8%**

Source: Study participants



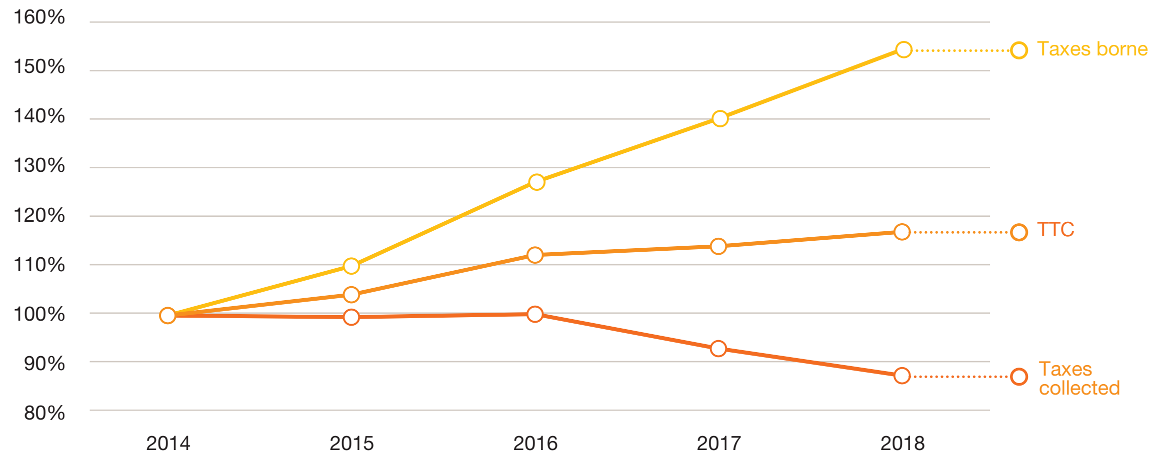
Trend in Total Tax Contribution between 2014 and 2018

Figure 17 shows a 16.9% increase in the Total Tax Contribution of the sector from 2014 to 2018. The increase in TTC is driven by an increase in taxes borne over the four years, partially offset by a decrease in taxes collected. The fall in taxes collected is driven by a decrease in tax deducted at source.

Taxes borne has increased by 53.8% between 2014 and 2018 (Figure 18), largely driven by a 504.8% increase in corporation tax (including bank surcharge). The increase in corporation tax, despite a fall in rate from 23% to 19%, is mainly driven by the introduction of loss relief and compensation payment restrictions in 2015, the introduction of the bank surcharge in 2016 and the continued recovery in profitability. Employment taxes borne and irrecoverable VAT remained more stable over the 5 years (Figure 18).

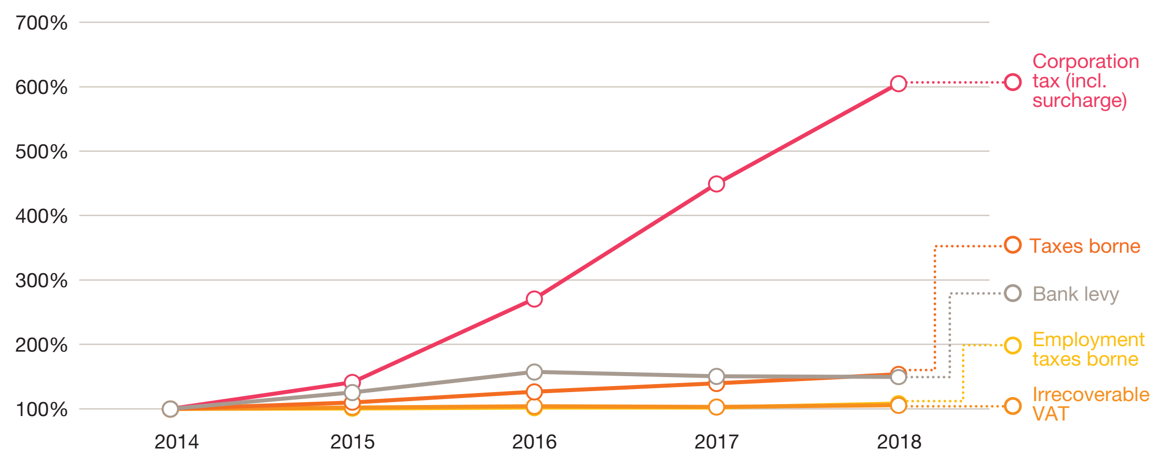
Looking at total corporation tax receipts from HMRC data, corporation tax receipts from the sector are now four times the levels in 2014 – see corporation tax section.

Figure 17: Trends in taxes borne, taxes collected and Total Tax Contribution, 2014 – 2018



Source: Study participants, 2014 is shown as 100%.

Figure 18: Trends in taxes borne, 2014 – 2018



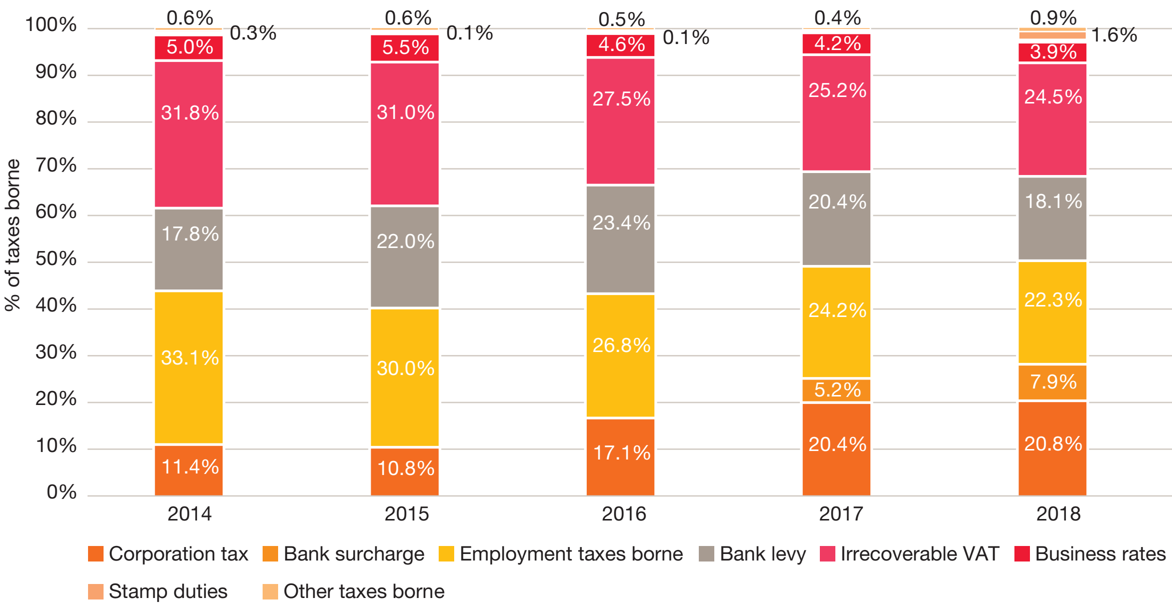
Source: Study participants. 2014 is shown as 100%.

53.8%

Taxes borne has increased by 53.8% between 2014 and 2018

Figure 19 illustrates the change in the profile of taxes borne from 2014 to 2018. Corporation tax, as a result of legislative changes and increasing profitability, has become more significant in the last two years, accounting for 20.8% of total taxes borne, and 28.7% with the bank surcharge in 2018, compared to 10.8% in 2015. As a result, the relative proportions of irrecoverable VAT and employment taxes borne have decreased over this period. The proportion of taxes borne taken up by bank levy shows the increase to 2016 and a decrease in both 2017 and 2018, largely due to the rate changes described in the bank levy section.

Figure 19: Trend in the profile of taxes borne, 2014 – 2018



Source: Study participants

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 2018 amounted to £19.1bn, 6.7% of all UK employment tax receipts[12]. The sector provides employment for 1.2% of the UK workforce, and accounts for 37.1% of the UK Financial Services workforce[13].

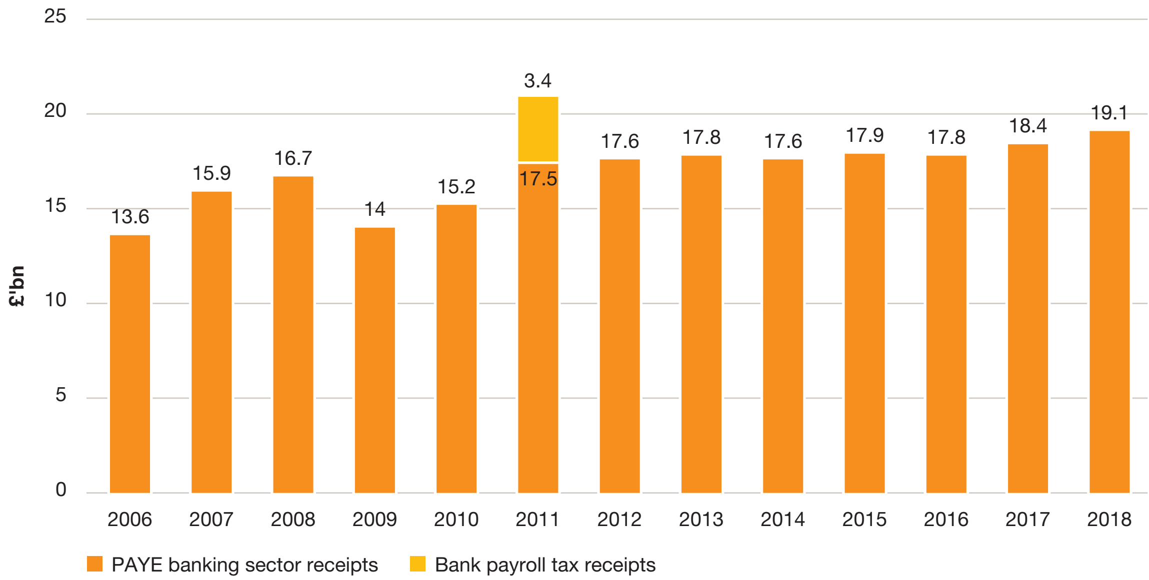
Figure 20 shows the trend in employment taxes in the sector based on government receipts since 2006.

Legislative changes to employment taxes have had a significant impact on the UK banking sector. In particular, the one-off bank payroll tax[14], which was paid in 2011, increased government receipts from the banking sector by £3.4bn. In addition to this, there were other changes in employment taxes over the period. Figure 20 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 in employees working in financial service activities excluding insurance and pension funding. Banking employees make up a large element of this total.

Figure 20: Employment tax receipts, 2006 – 2018



1.2%

The sector provides employment for 1.2% of the UK workforce

[12] The Office for Budget Responsibility (OBR) – November 2018 Economic and fiscal outlook – supplementary fiscal tables: receipts and other. Table 2.8 Current receipts (on a cash basis)

[13] ONS Industry (2, 3 and 5 – digit SIC) – Business Register and Employment Survey (BRES): Table 2. 2017 banking sector workforce was 393,200, based on ONS SIC 641 (Monetary intermediation). 2017 financial services workforce was 1,060,000, 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)

[14] 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.

Employment in the banking sector – study data

The thirty-five participants in the study employed 333,701 workers, comprising 84.9% of total UK banking sector employment[15].

Study participants paid total employment taxes of £13.3bn comprising employment taxes borne of £3.3bn (employer NIC, PSA and apprenticeship levy) and employment taxes collected of £10.0bn (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 £35,156 for the banking sector. This is almost six times the amount of employment taxes paid on the average national wage (£5,909).

Trends in employment taxes – study data

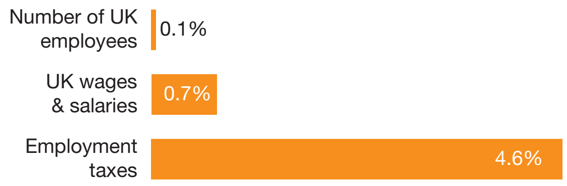
Twenty-two companies provided data on their number of employees, wages and salaries and employment taxes for both the 2017 and 2018 surveys. Nine companies provided the same data for each of the five survey years from 2014 to 2018. We are therefore able to analyse the two-year and five-year trends on a like-for-like basis for these companies.

Two year trends (2017 – 2018)

Figure 21 shows that, on an average basis, employment taxes increased by 4.6% compared to an increase of 0.7% in UK wages and salaries and a 0.1% increase in the number of UK employees.

The relatively larger increase in employment taxes is due to tighter benefit in kind restrictions on salary sacrifice schemes, along with the introduction of the apprenticeship levy. The increase in employment taxes is consistent with the trend seen in HMRC data of a 3.8% increase (from £18.4bn to £19.1bn).

Figure 21: Trend in number of employees, salaries and wages and employment taxes, 2017 – 2018



Source: Study participants, based on the average result for companies

3.8%

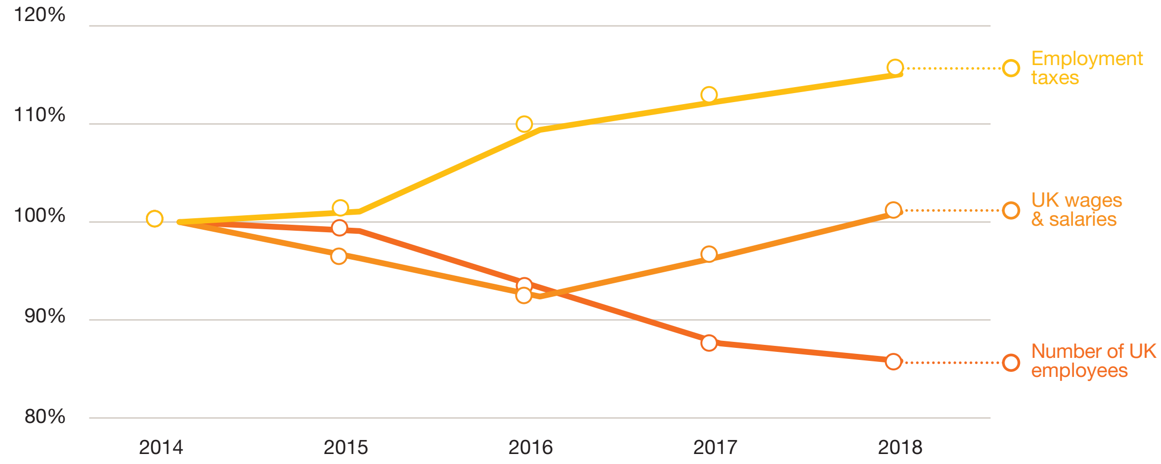
The increase in employment taxes is consistent with the trend seen in HMRC data of a 3.8% increase (from £18.4bn to £19.1bn).

[15] ONS Industry (2, 3 and 5 – digit SIC) – Business Register and Employment Survey (BRES): Table 2 – UK level employment for SIC code 64 (Financial service activities, except insurance and pension funding): 522,300 in 2014, 513,000 in 2015, 506,800 in 2016, 500,300 in 2017.

Five year trends (2014 – 2018)

Over the five years of the survey, for the twenty-six companies for whom we have the data, there has been a 15.1% increase in employment taxes paid despite a fall in the number of UK employees of 14.2% (Figure 22). Overall employment has been on a downward trend during this period, but the rate of decrease has eased in 2018 compared to the preceding two years. Increasing employment taxes paid together with falling employee numbers indicates a decline in the number of lower paid roles, particularly in the retail banking sector, and as a consequence, higher paid roles accounting for a larger proportion of the whole. As a result, gross value added (GVA) per employee, a measure of value generated per employee, has started to recover since 2014, reversing the decline since 2009.

Figure 22: Trend in number of employees, salaries and wages and employment taxes, 2014 – 2018



Source: Study participants. 2014 is shown as 100%

15.1%

Over the five years of the survey, there has been a 15.1% increase in employment taxes paid despite a fall in the number of UK employees of 14.2%

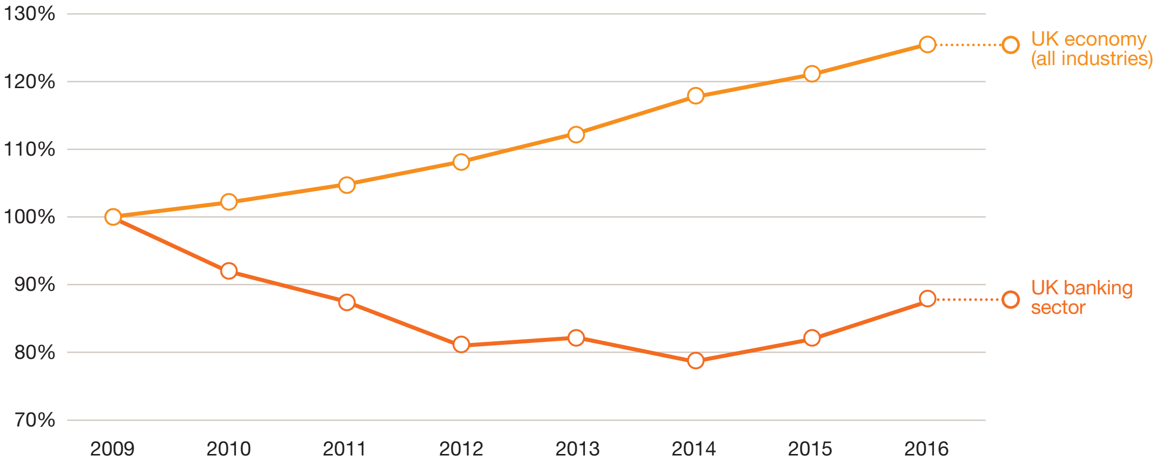
Gross Value Added and Return on Equity for the UK banking sector

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 23 shows a falling trend in banking sector GVA from 2009 to 2014, with an upturn in 2015 followed by stronger growth in 2016. By comparison, the GVA for the economy as a whole has increased steadily over this period. The GVA for the banking sector in 2016 was 4.1% of the GDP of the UK economy[16] which compares to tax receipts for the banking sector in the same year of 5.4% of total government tax receipts.

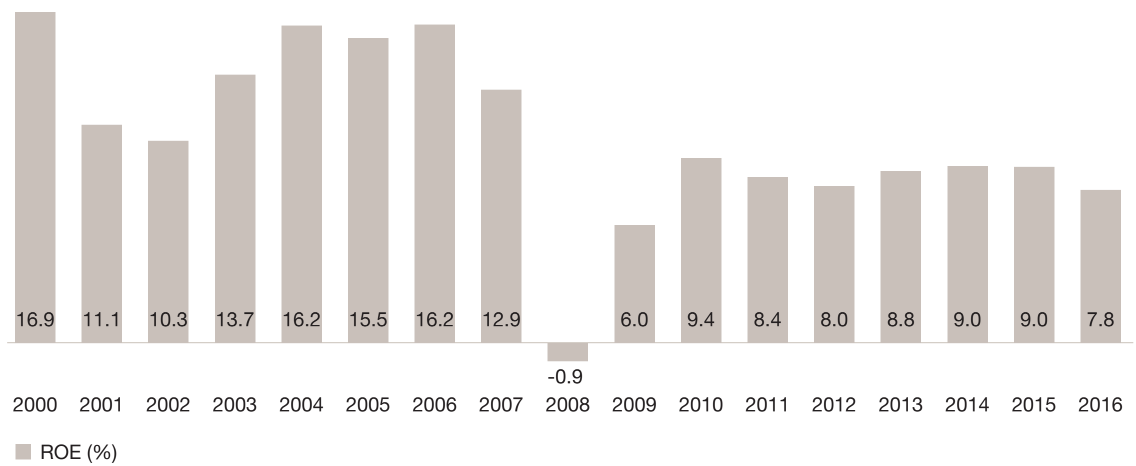
Another ratio commonly used for the banking sector is Return on Equity (RoE), which measures profitability compared to shareholder equity. Figure 24 shows that the post-financial crisis RoE for the banking sector is significantly lower than the RoE in the preceding decade. The average RoE since 2010 has been 8.6%, compared to 14.1% between 2000 and 2007.

Figure 23: Gross Value Added by the banking sector compared with the UK economy, 2009 to 2016 (2009 = 100)



Source: ONS Regional gross value added (balanced) reference tables: UK current price estimates. 2009 is shown as 100%.

Figure 24: Banking sector Return on Equity, 2000 – 2016



Source: Eurostat

8.6%

The average RoE since 2010 has been 8.6%, compared to 14.1% between 2000 and 2007

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

Corporation tax

Corporation tax payments from study participants totalled £4,282 million, including bank surcharge payments of £1,183 million. On a like-for-like basis, looking at banks that provided data for 2017 and 2018, there was a 21.1% increase in 2018. 61.4% of the increase was due to the bank surcharge.

Looking at the companies that provided data for both corporation tax and profit, the increase in profitability between 2017 and 2018 accounts for around 51% of the increase in corporation tax, while the impact of tighter loss relief restriction accounted for 44% and the remaining 5% was due to compensation expenditure restriction.

Government figures provide data over a longer period and show that receipts of corporation tax (including bank surcharge) and bank levy are £9.5bn in 2018, 30% higher than pre-financial crisis levels of corporation tax receipts (Figure 25).

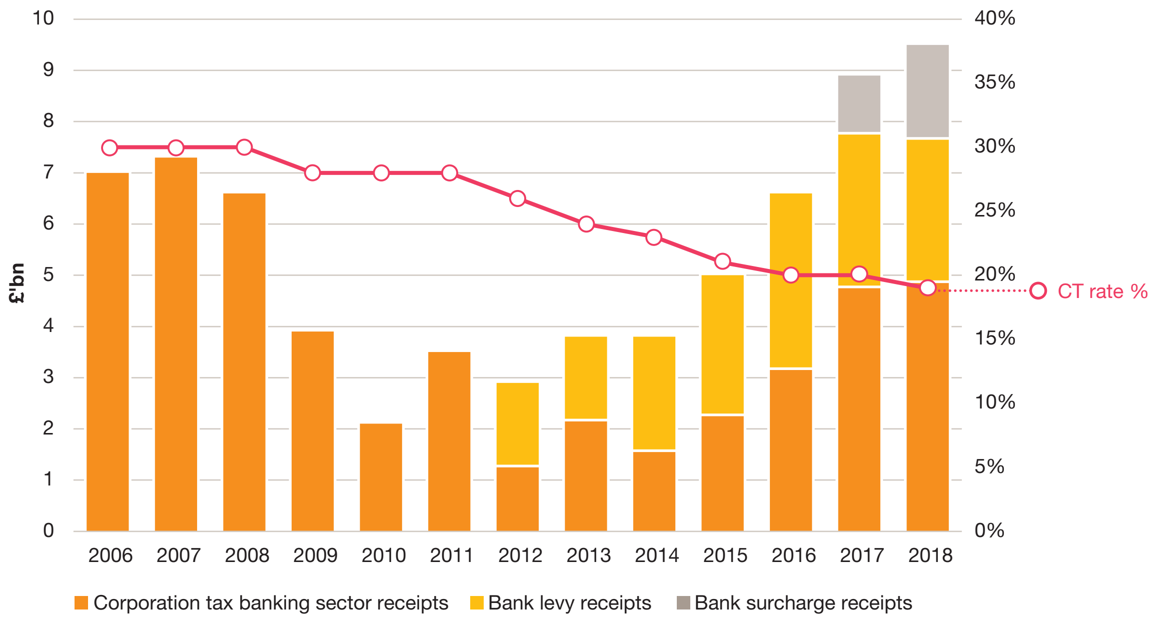
HMRC data shows that corporation tax (including the surcharge) has increased by 13.6% compared to 2017 and is now over four times (£6.7bn) the amount it was in 2014 (£1.6bn).

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%. The restriction applies to carried forward trading losses, non-trading loan relationship deficit and management expenses.

Of the thirty-five participant companies, nineteen companies provided data quantifying the impact of the loss restriction in the year. Ten of the nineteen banks were affected by the legislation, resulting in an additional £615 million of corporation tax in 2018. This represents on average 20.8% of corporation tax payments for companies providing both sets of data.

Figure 25 – Government receipts of corporation tax and bank levy from the banking sector



Source: HMRC data

£4.9bn

Banking sector receipts of corporation tax (excluding bank surcharge) increased from £1.6bn to £4.9bn between 2014 and 2018

Compensation payments restriction:

Compensation expenditure arising on or after 8 July 2015 is not deductible for corporation tax purposes.

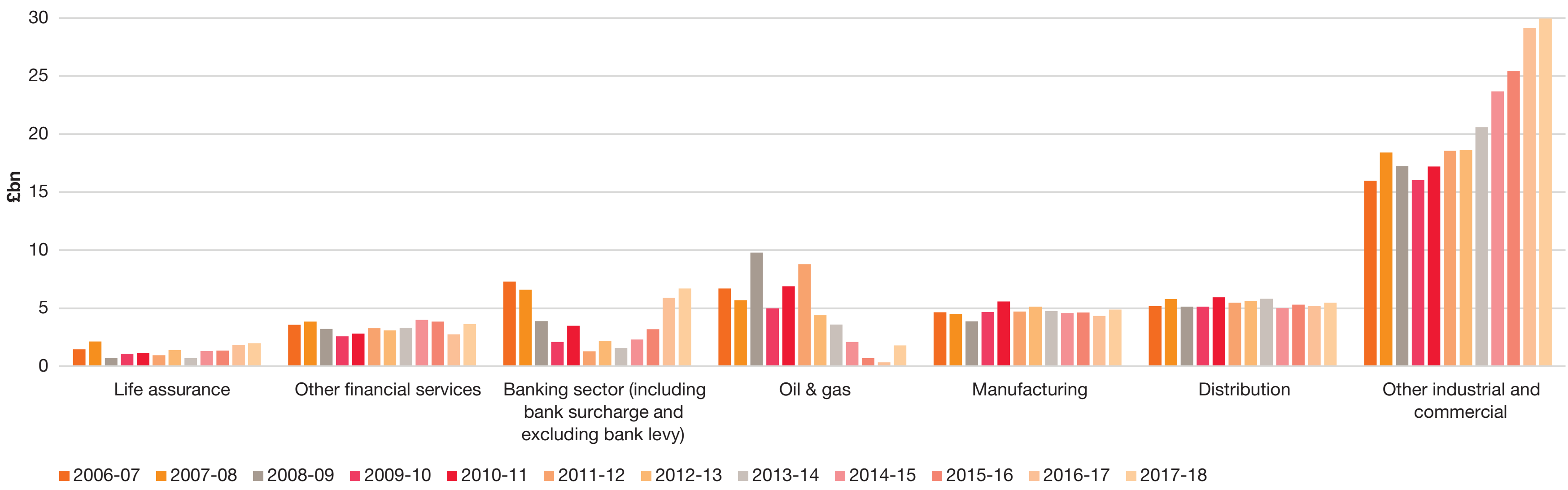
Eighteen of the thirty-five participating banks provided data quantifying the impact of the compensation payment restriction in the year. Out of those eighteen companies, nine were affected by the legislation, resulting in an additional £530 million of corporation tax in 2018. This represents on average 13.9% of corporation tax payments for companies providing both sets of data.

Figure 26, based on government data, shows corporation tax payments by industry sector between 2006-07 and 2017-18. It illustrates the recent growth in corporation tax payments from the banking sector due to recovering profitability and the impact of legislative changes.

£530m

Out of those eighteen companies, nine were affected by the legislation, resulting in an additional £530 million of corporation tax in 2018

Figure 26: Corporation tax receipts by sector, 2007 to 2018



Source: HMRC data

Irrecoverable VAT

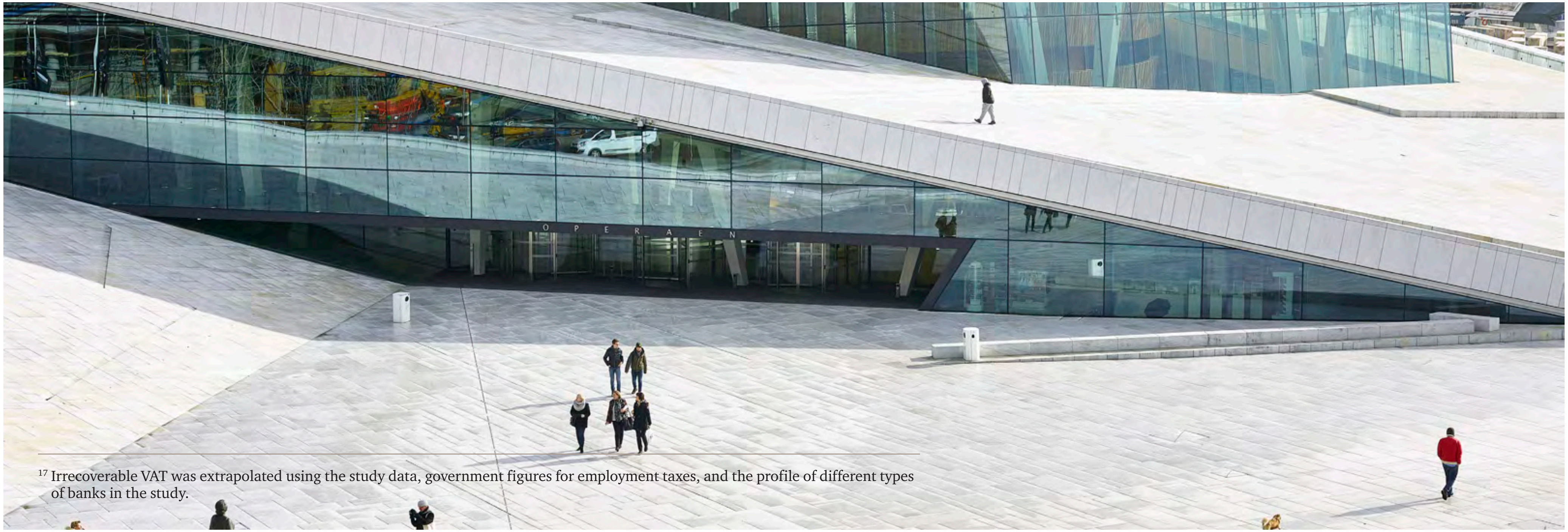
Irrecoverable VAT was the second largest tax payment for the study participants, accounting for 24.5% of total taxes borne, down from 25.2% in the previous study. Its decrease as a proportion of total taxes borne is a result of the increase in corporation tax. The total irrecoverable VAT for the thirty-five participant companies was £3.7bn. We have estimated[17] total irrecoverable VAT for the UK banking sector of £4.6bn in 2018. On a like-for-like trend basis, the amount of irrecoverable VAT paid increased by 3.1% between 2017 and 2018.

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.

£4.6bn

We have estimated total irrecoverable VAT for the UK banking sector of £4.6bn



[17] 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 27).

Figure 27 shows the rate of bank levy since its introduction. Bank levy receipts in 2018 were 6.7% lower than in 2017 (from £3.0bn to £2.8bn). The banks participating in this study paid bank levy of £2.7bn in 2018, accounting for 96.4% of total bank levy receipts, and representing 18.1% 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 27 – Changes in the rate of bank levy[18]

Financial year	Charge on short term equity or liabilities	Charge on long term equity or liabilities	Changes in the short term rate of bank levy percentage points (base year 2011)	Changes 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

£2.7bn

Participating in this study paid bank levy of £2.7bn in 2018, accounting for 96.4% of total bank levy receipts

[18] 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.

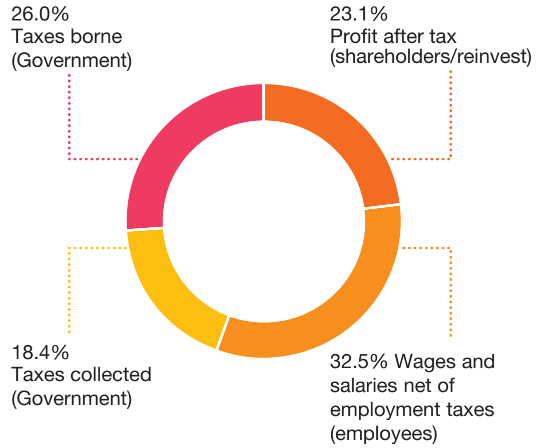
Taxes borne and collected as a percentage of value distributed

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 28 shows the profile of value distributed by the participants on an overall basis. Total Tax Contribution paid to the government represents 44.4% of the value distributed, while a further 32.5% is paid to employees as wages and salaries. Profit after tax which is paid to shareholders as dividends or reinvested is 23.1%.

Taxes borne account for 26.0% of the total for the study participants.

Figure 28: Taxes borne and collected as a percentage of value distributed



44.4%

Total Tax Contribution paid to the government represents 44.4% of the 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 50.4%[19]. 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 34.3% (Figure 29). For companies that provided data in both 2017 and 2018, there has been a 2.0 percentage point increase in mean TTR between 2017 and 2018.

Appendix 4 gives further details of the Total Tax Rate calculation.

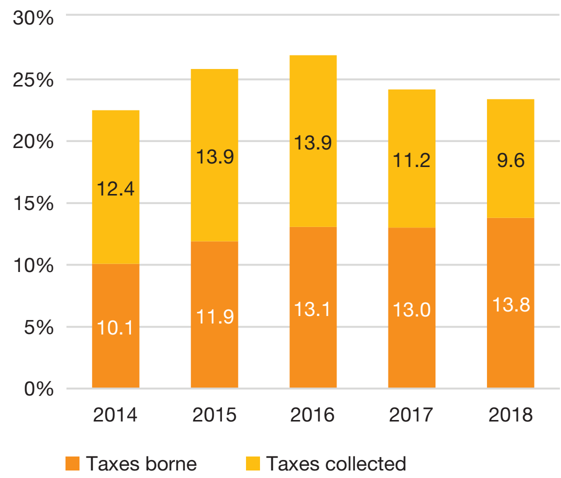
Figure 29: Total Tax Rate

Overall	50.4%
Mean	34.3%
Median	34.8%

Total Tax Contribution as a percentage of turnover

For the banks participating in the study, TTC as a percentage of total UK turnover was on average 23.4%, comprising 13.8% taxes borne and 9.6% taxes collected. Figure 30 shows that 2018 is the second year in a row that TTC as a percentage of turnover has fallen for the study participants since the survey began. Taxes borne as a percentage of turnover has increased, while taxes collected has driven the overall decrease in TTC as a percentage of turnover, reflecting the overall trend.

Figure 30: TTC as a percentage of turnover, 2014 – 2018



23.4%

TTC as a percentage of total UK turnover was on average 23.4%, comprising 13.8% taxes borne and 9.6% taxes collected

[19] 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%. (2017: The overall average Total Tax Rate was 47.6%, the mean average was 36.0%, the median average 29.1%, and the range 15.9% to 62.9%.

[20] The overall average TTC as a percentage of turnover was 25.2%, the mean was 23.4%, the median 22.8%, and the range 13.2% to 38.0%. (2017: the overall average TTC as a percentage of turnover was 26.5%, the mean average was 24.2%, the median average 24.1%, and the range 11.7% to 47.0%).

International comparison

This is the fourth year that we have carried out a Total Tax Contribution (TTC) data collection exercise for banks operating in the UK. To date, similar TTC exercises have not been carried out in significant financial centres outside the UK and so it has not been possible to compare the TTC for the banking sector in the UK to that of other financial centres.

In order, therefore, to compare the taxes levied on banks in the UK with those levied in other financial centres we have used a modelling approach based on that used by the World Bank for the *Paying Taxes indicator in their Doing Business report.*[21] Using this approach, we have designed a high level model that compares taxes levied on the banking industry in London with those levied in Frankfurt, New York, Dubai and Singapore. 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 potentially levied on banks, including but not limited to corporate income tax, bank levy, social security contributions and VAT (see page 28 for more details). 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.

In this report, we compare the different jurisdictions based on the total tax rate of a model bank only. There are, however, many other aspects of tax regimes that businesses (including banks) consider when determining the preferred place to invest and do business. For example, the UK has double tax treaties ('DTT') with 134 economies whereas other countries may have significantly fewer.

Other than the availability of DTTs and other tax-related factors, there are many non-tax attributes that multinational banks consider as part of their investment decisions. These include the legal and regulatory climate in a country, the availability of a suitably skilled workforce, employment and other costs associated with doing business in that specific jurisdiction.

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, we relied on discussions with banking members of UK Finance and with PwC specialists to determine these points. As such, the outcomes should be read in this context.

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

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 this 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.

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 five major financial centres, namely London, Frankfurt, New York, Dubai and Singapore. These jurisdictions are generally considered to be major financial centres in Europe, the US, Middle East and Asia.

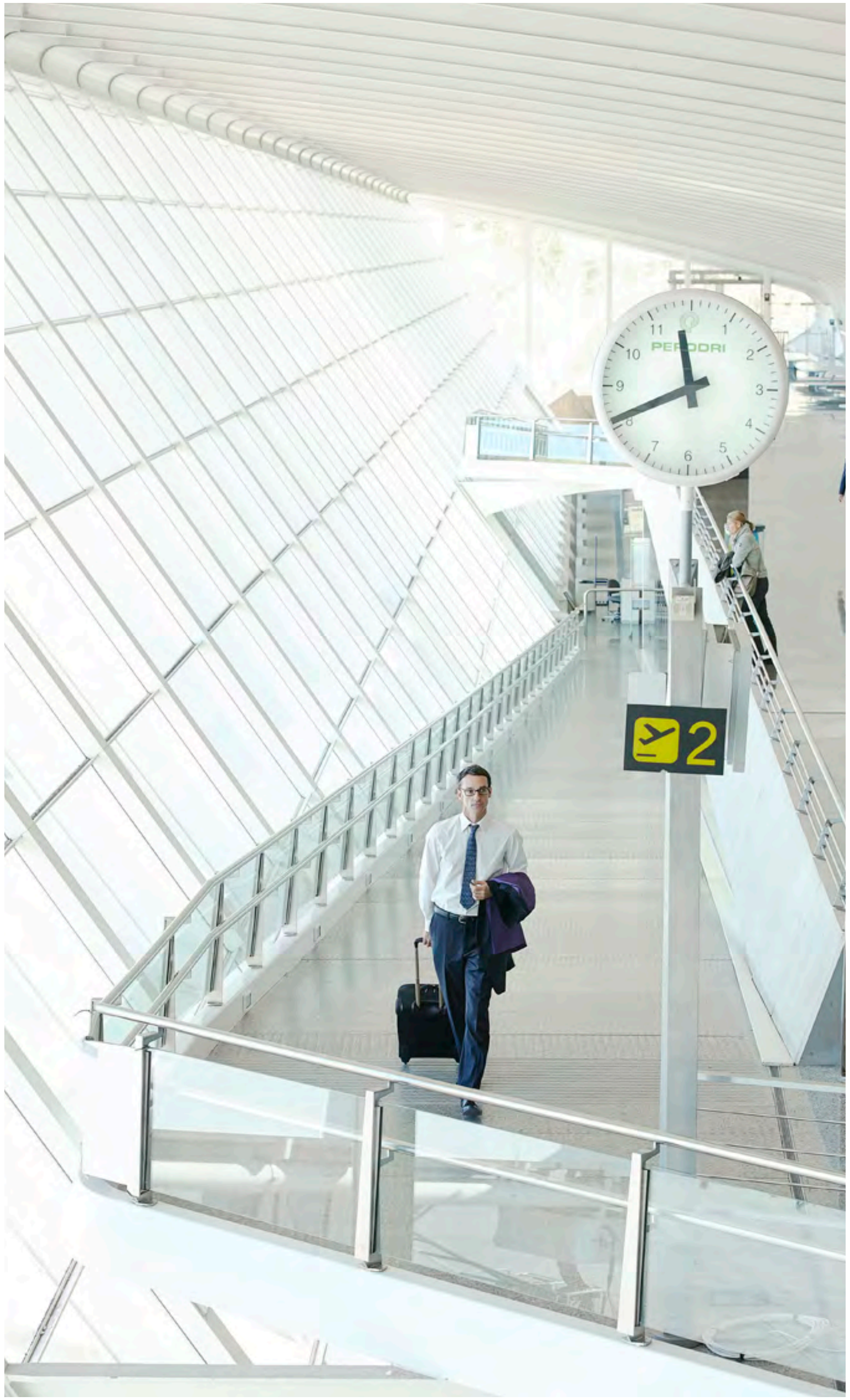
Income – The model bank has an estimated net operating income of £2.7bn of which 12% is net interest income, 44% is fee and commission income and 44% is net dealing income.

Expenses – We have assumed that our model bank has total estimated expenses (excluding all taxes borne) of £1.8bn of which 54% are salaries, 12% are staff costs, 32% 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 £331k. The employees are split into three categories, where 10% are senior employees with an average salary of £1,625k, 30% are middle level with an average salary of £382k and 60% are junior employees with an average salary of £90k. This employee and salary structure takes into account the fact that many back office functions (with staff at a lower average salary) would be outsourced.

Profit – We have assumed that the total estimated commercial profit[22] of the model bank totals to £866k. Specifically, for the London model, we have estimated the profit before tax to be £565k with a 20.9% profit margin. The commercial profit will be the same in all the five jurisdictions, however, the profit before tax would vary depending on the amount of the taxes borne in each jurisdiction.

[22] The commercial profit is the profit before all taxes borne.



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 five jurisdictions, the employer's social security contributions are the highest in London where they amount to 16.0 % of commercial profit as a result of national insurance contributions being charged at 13.8% on the full amount of salary above £680 a month. For the remaining jurisdictions, the employer's social security contributions are as follows: c.4% in Frankfurt and New York, 3.4% in Singapore and 1.9% in Dubai. Please note that in Dubai, social security is only due in respect of Gulf Cooperation Council ('GCC') state nationals and, we have assumed that only 25% of the employees would be GCC nationals. In the UAE a similar concept of 'End of Service Benefit' is payable for non-GCC (or expatriate) employees. We have not treated this as a formal employer's social security cost as technically it is not a tax, and ultimately it may or may not apply depending on various circumstances.

The amount of social security contributions borne by the model bank is higher in London than in the other countries where the contributions are either capped or charged at lower rates.

Irrecoverable VAT

With respect to irrecoverable VAT (or sales tax in the case of New York), it was extremely difficult to model the impact as the amounts largely depend on the individual circumstances of each bank. When modelling, our starting assumption was that 55% of the general and administrative costs would be subject to VAT with the rest of the costs, namely occupancy costs and brokerage costs, being exempt. We then assumed that 20% 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.

Further, while there are some differences between the VAT regimes in the UK, Germany and the UAE, these were not considered significant and are in any case outside the scope of this model. As such, it is the differences in the VAT rates that drives the different amounts of irrecoverable VAT estimated for these jurisdictions. The current VAT rates for banks in these jurisdictions are 20% in the UK, 19% in Germany, and 5% in the UAE. For Singapore, the relevant VAT rate is 7% and recoverability rates for banks are usually in excess of 90%, which drives the low level of irrecoverable VAT estimated for Singapore.

With respect to New York, given the complexity of the sales tax rules, for the purposes of this model 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: 5.9%, Frankfurt: 5.6%, New York: 2.6%, Dubai: 1.5%, Singapore: 0.3%

Bank levy

With respect to bank levies, of the five jurisdictions in scope, only the UK and Germany 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 27). The bank levy rate is dependent on the risk associated with the different classes of liabilities, with some assets being offset against certain liabilities. Please note that the UK bank levy rates are expected to gradually decline until 2021. For further details on the bank levy in the UK, please see page 23.

In Germany, the bank levy is assessed by the authorities based on the amount that needs to be paid to the Single Resolution Fund.[23] 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. As such, we have relied on macro level data to estimate a typical payment for the model bank in this study.

The Single Resolution Fund raised €1.76bn from Germany in 2016, €1.71bn in 2017 and €1.99bn in 2018.

The 2017 ***annual report*** from BaFin, the German regulator, shows that total assets in 2017 were €8,411bn. 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 2018 our model bank would be subject to bank levy amounting to 6.8% of commercial profits in London and 5.4% in Frankfurt.

Corporate income tax

Given that the UK faces the highest levels of employer social security contribution, irrecoverable VAT/sales tax and bank levy, among the five countries, it also 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 rate.

Tax incentives that could reduce the tax rates in Singapore and New York were also out of scope: banks with substantial business operations in Singapore may, upon approval, avail themselves of certain tax concessions and certain tax incentives may be available to banks in the US. 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. Furthermore, the incentives are unlikely to impact the tax profiles of the jurisdictions relative to London.

For Singapore it is unusual for a foreign headquartered bank to operate through a subsidiary structure as contemplated in this study. Rather it is more likely that the bank would be structured as a branch which would affect its capital structure as well as its funding cost profile. Similarly in the US it is not unusual for banks to be structured as branches with a consequent effect on capital structure and funding cost profile. Given the complexity of this scenario, we have reflected the impact in our model as we do not expect this to significantly change the position of Singapore or New York relative to London.

Please note that the bank levy is not deductible for corporate income tax in the UK or Germany, and as such, this was added back in both countries to determine the taxable profit.

For the UK, we have used the 2018 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%[24] trade tax rate for Frankfurt. For the US, the corporate income tax rate comprises of a 21% federal rate, 6.5% New York state tax rate and an 8.85% New York City tax. For Singapore, a corporate income tax rate of 17% was used. For the UAE, in practice, there is generally no corporate income tax levied on local banks (or most other businesses) carrying on activities in the UAE. However, for branches of foreign banks, a corporate income tax rate of 20% would apply, which we have used in our calculation.

[23] 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.

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

Based on the above rates and our calculations, we have estimated the profit tax percentage, in the five jurisdictions, to be as follows:

London: 20.8%, Frankfurt: 28.9%, New York: 27.1%, Dubai: 19.3%, Singapore: 19.5%

Property taxes

Four of the five jurisdictions, being the UK, Germany, US and Singapore, currently levy property tax based on the value or size of the property. However, these taxes, are minimal relative to the other taxes covered and do not significantly affect the relative total tax rates in the different locations. Whilst the UAE does not have formal property taxes, other fees may apply although we have not sought to compare those as technically they are not property taxes.

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 five jurisdictions, employee social security contributions are relatively similar and are between 1.1% and 1.4% of net operating income (£30m to £37m)[25].

Personal income tax

With respect to personal income tax, our model bank would collect tax amounting to 16% of net operating income in Germany, 15% in the UK, 13% in the US and 6% in Singapore. There is currently no personal income tax in the UAE.

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 39.6% with maximum state and local rates for New York City of 6.85% and 3.88%, respectively. The highest rate in Singapore is 22%.

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.

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

The overall total tax rate

Combining the amounts of the different taxes borne set out above, it can be seen that our model bank is subject to a greater total tax rate (measured as taxes borne as a percentage of commercial profit) in the UK than in the other locations considered, driven primarily by employer social security contributions and bank levy. Given, however, the various assumptions made, the different legal and capital structure of the local operations (along with the related regulatory requirements) in each country, and the difficulties in calculating many of the taxes, the absolute total tax rate, as a percentage of commercial profit, should be regarded with caution. Nevertheless, the relative position of the different countries provides an insight into how the different taxes, when taken together, impact banking operations.

If we add in the taxes collected, we can see that there is less of a difference between London and Frankfurt than for taxes borne alone. However, there is still a significant difference between London, and New York, Singapore and Dubai.

In conclusion, under our model bank case study, the taxes borne are higher in London than in Frankfurt, New York, Singapore or Dubai. This is mainly driven by the impact of employer's social security contributions and bank levy rates in London. When looking at the TTC, London still ranks as the highest amongst the five jurisdictions albeit the difference between Frankfurt and London is minimal. There is a more significant difference between New York and London, from both a TTC and taxes borne perspective. With respect to the US, this difference reflects the impact of US tax reform.

Figure 31: Total tax rates in selected locations

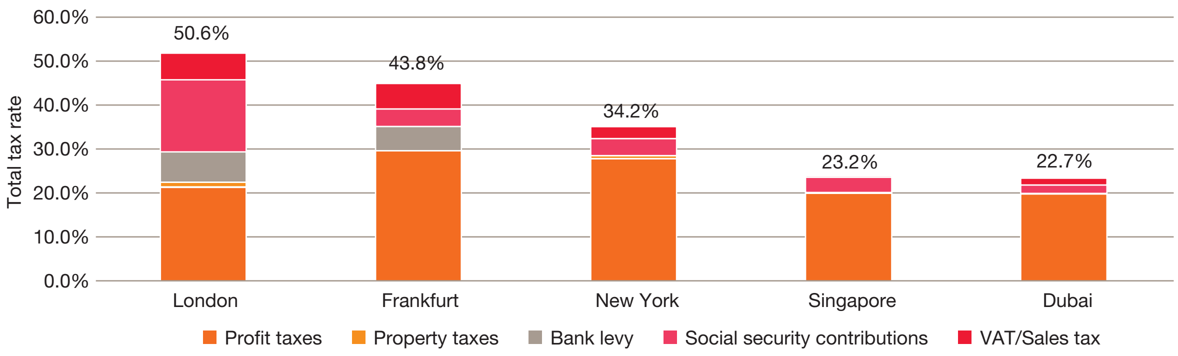
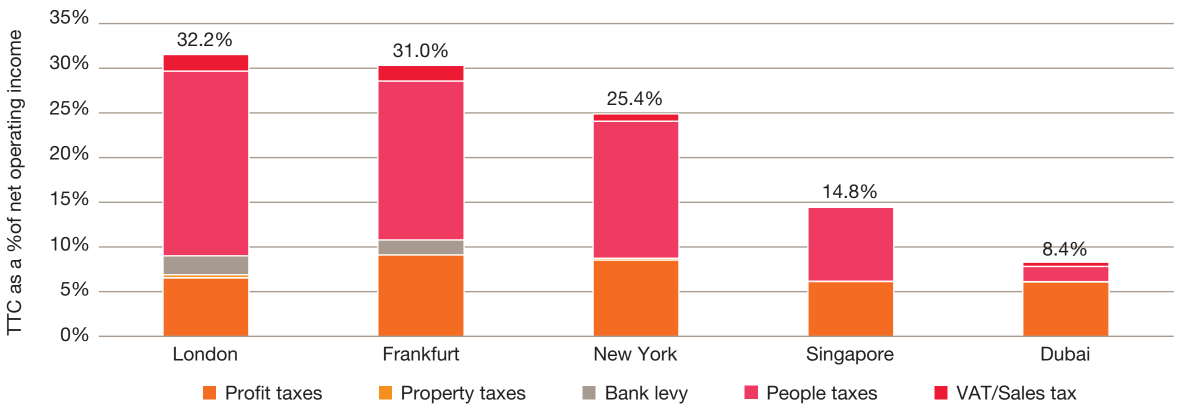


Figure 32: TTC as a percentage of net operating income in selected locations



Looking forward

Over the next few years, tax rate and legislative changes along with the impact of the UK leaving the EU on March 29, 2019 will affect the TTC of the banking sector.

The rate of bank levy will continue to fall each year to 2021 (see page 23), and from 2021, the scope of the levy will be restricted to UK operations for both UK- and foreign-headquartered banks.

In addition, the contribution from corporation tax payments made by the banking sector can be expected to remain at the higher levels seen in this year's report. Although the corporation tax rate will be reduced (the main rate is expected to reduce to 17% in 2020), the banking sector will pay corporation tax at a higher rate than the headline rate due to the 8% surcharge.

As the UK moves closer to exiting the EU, continued uncertainty exists for banks operating in the UK. We expect that our survey next year will be able to highlight some of the key challenges arising out of leaving the EU and what impact this will have for the banking sector in the future.

Rapid developments in technology continue to impact the business models of the banking sector, towards a sector that is digitally focused and customer-centric. As competition from challenger banks continues to increase we expect to see traditional banks continue to innovate their service offerings.

It's too early to speculate how changes to business models may impact the tax contribution of the banking sector. Although some jobs are at risk from developments in automation and artificial intelligence, many expect job losses to be offset by the creation of higher-value roles.

Appendices

Appendix 1 – Taxes borne reported by survey participants

Taxes borne	£s 2018
Taxes on profits (profit taxes)	
Corporation tax	3,098,897,498
Bank surcharge	1,183,234,772
Taxes on property (property taxes)	
Business rates	588,336,037
Bank levy	2,692,945,740
Stamp duty land tax	4,107,953
Stamp duty reserve tax	232,567,858
Taxes on employment (people taxes)	
PSAs (tax on benefits)	50,142,285
Employer NIC	3,211,344,444
Apprenticeship levy	72,301,659
Taxes on consumption (product taxes)	
Irrecoverable VAT	3,650,881,160
Insurance premium tax	4,163,332
Fuel duty	3,822,459
Air passenger duty	8,428,764
Customs duty	79,138,179
Environmental taxes (planet taxes)	
Landfill tax	279,623
Climate change levy	3,307,783
Vehicle excise duty	33,222,780
Carbon reduction commitment	5,634,632
Total	**14,922,756,957**

Appendix 2 – Taxes collected reported by survey participants

Taxes collected	£s 2018
Taxes on profits (profit taxes)	
Tax deducted at source	378,273,645
Taxes on property (property taxes)	
Stamp duty reserve tax	1,191,884,180
Taxes on employment (people taxes)	
Income tax collected under PAYE	8,723,012,930
Employee NIC	1,279,910,207
Taxes on consumption (product taxes)	
Insurance premium tax	143,561,030
Total	**11,126,120,176**

Appendix 3 – The burden of employment taxes

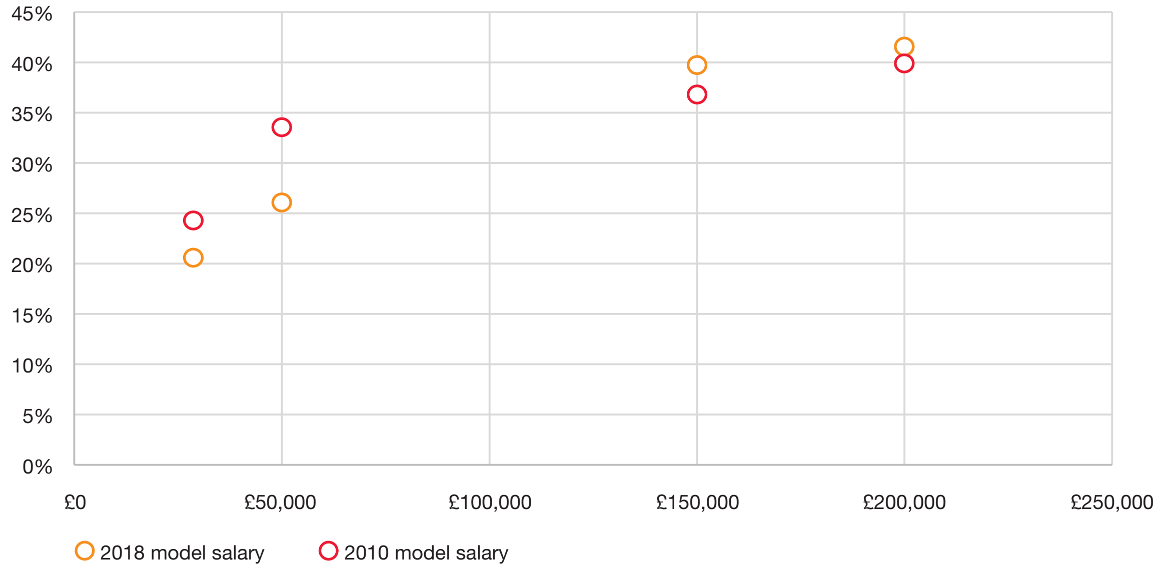
UK employment tax legislation is structured so that higher salaries are taxed at higher rates. Using selected salaries, it is possible to model the employment tax burden.

Figure 1a 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 2018 for a range of example salaries. From the national average salary of £28,677, 20.6% is paid in employee income tax and employee NIC in 2018, while this ratio was 24.3% in 2010. The equivalent figure for a salary of £150,000 is 39.8% in 2018 and 36.8% in 2010, a 3 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 £28,677 has fallen by 3.7 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 1a: Percentage of gross salary that is paid as tax by employees



Source: PwC analysis

Table 1b: 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%)

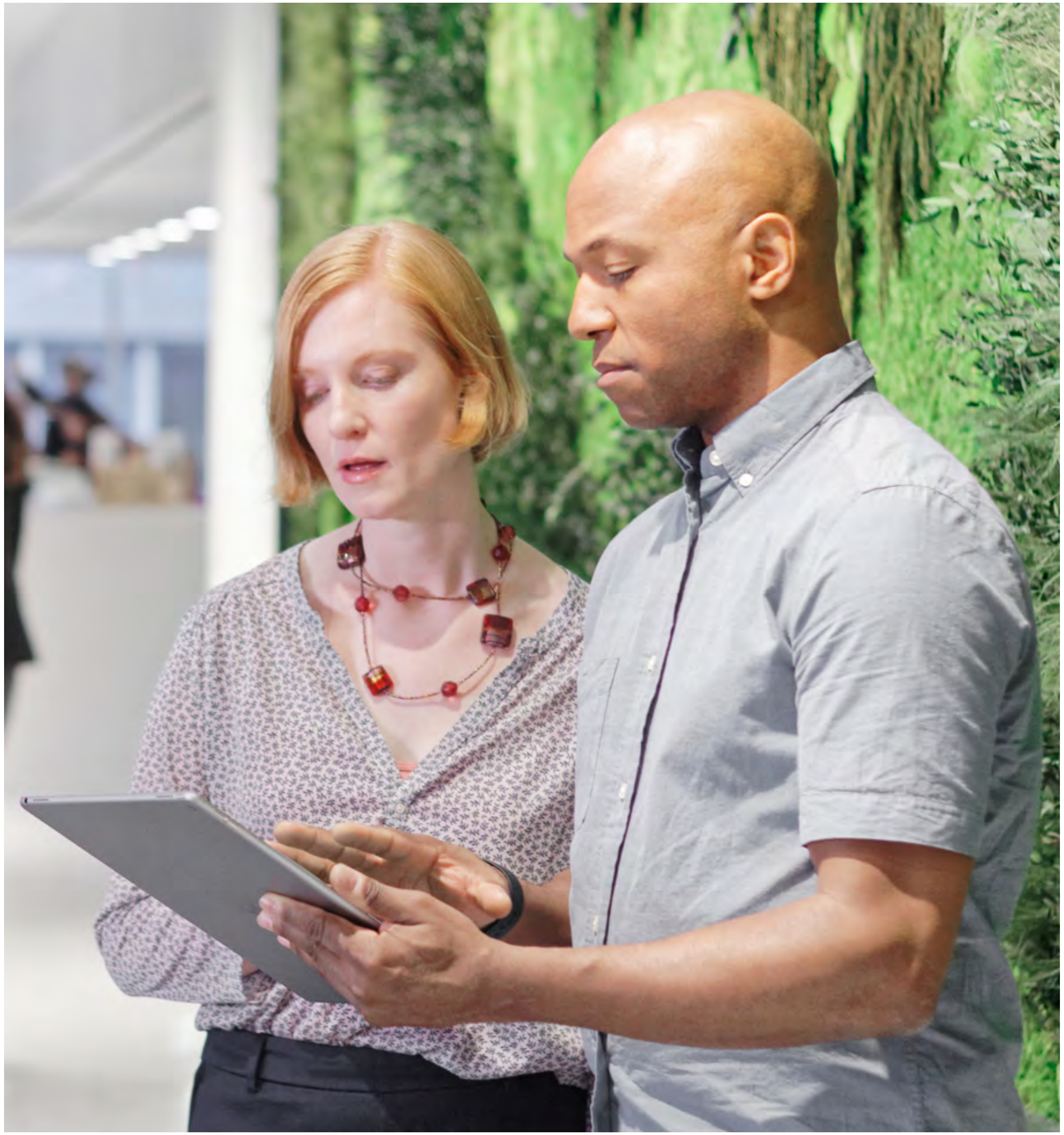
Appendix 4 – Total Tax Rate calculation

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)



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