2022 Total Tax Contribution of the UK banking sector

A publication prepared by PwC for UK Finance

Eighth edition
October 2022

Contents

Foreword

Welcome to the eighth edition of the Total Tax Contribution (TTC) study of the UK banking sector. The TTC data, which covers participants' financial years ending in the year to 31 March 2022, shows that the estimated TTC for the sector was £38.8bn. This is a significant contribution to the public finances, representing 4.7% of total government tax receipts in 2021/22.

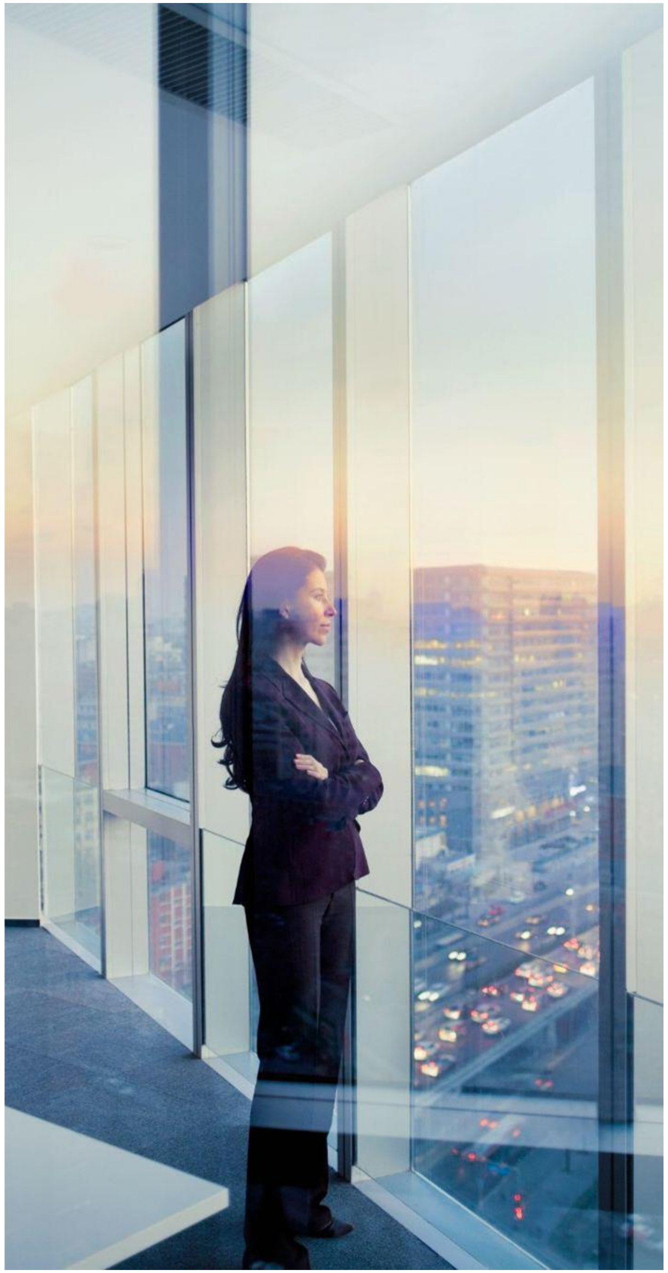
The survey covers the second year of the COVID-19 pandemic[1], including three months of national 'lockdown' at the beginning of 2021. To show the impact of the pandemic over the last two surveys, the report includes analysis of three-year trends so as to compare the most recent year to the last year before the pandemic. It shows that while the TTC decreased by 4.7% in the first year of the pandemic, driven by irrecoverable VAT and employment taxes, there was an increase of 3.3% in the second year, due to higher corporation tax receipts. This survey data underlines the resilience of the sector and the stability of its contribution in the face of unprecedented economic circumstances.

The report includes an update to the international comparison of bank taxation, comparing the total tax rate (TTR) of a model bank operating in London, New York, Frankfurt, Amsterdam and Dublin. The temporary increase in national insurance contributions pushed the London TTR up to 45.3% in 2022 (comparable to Frankfurt and Amsterdam but 17.9 percentage points higher than New York), while the projected analysis for 2024 indicates a growing disparity between the European financial centres. With the UK corporation tax rate rising to 25% and the European Single Resolution fund coming to an end in 2023, the TTR in London will be over 6 percentage points[2] higher than Frankfurt and Amsterdam in 2024.

With the global economy facing a series of crises in the wake of the COVID-19 pandemic, the UK government will be looking to maintain international competitiveness and economic growth while repairing the public finances. The banking sector is at the heart of the economy and this study shows that its contribution to the public finances continues to be significant. Maintaining the competitiveness of the UK banking sector internationally is an important consideration in fostering economic growth and supporting the broader economic recovery. However, the UK is currently on course to become a less competitive location for banks compared to other financial centres, driven by sector-specific taxes such as the bank levy, together with the increasing rate of corporation tax.

It is our hope that this study leads to an improved understanding of the full contribution made by the UK banking sector to the government finances, how this compares to other financial centres and helps to inform the debate over bank taxation. We thank the participants for their support for the study.

Andrew Packman
PwC, Total Tax Contribution and Tax Transparency Leader



[1] For the majority of banks in the survey the data covers the year to 31 December 2021.
[2] At the time of publication the projected 2024 TTR for London is based on the planned increase in the rate of corporation tax from 19% to 25%, as well as the corresponding decrease in the surcharge from 8% to 3%, giving an overall headline rate of 28%. The projected 2024 TTR for London would be over 10 percentage points higher than Frankfurt and Amsterdam if the surcharge remained at 8%.

Executive summary

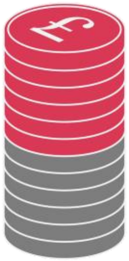
Total Tax Contribution

The Total Tax Contribution of the UK banking sector

The estimated Total Tax Contribution is £38.8bn made up of £20.0bn in taxes borne and £18.8bn in taxes collected, and represents 4.7% of total government receipts.

£38.8bn
Total Tax Contribution

4.7%
Of total government receipts



£20.0bn
in taxes collected

£18.8bn
in taxes borne

Profile of taxes borne – Importance of 'sector taxes'

Almost half of taxes borne (45.5%) are made up of bank surcharge, bank levy and irrecoverable VAT. Of these 'sector taxes', bank levy and irrecoverable VAT (together 34.5% of the total) are not dependent on profits.

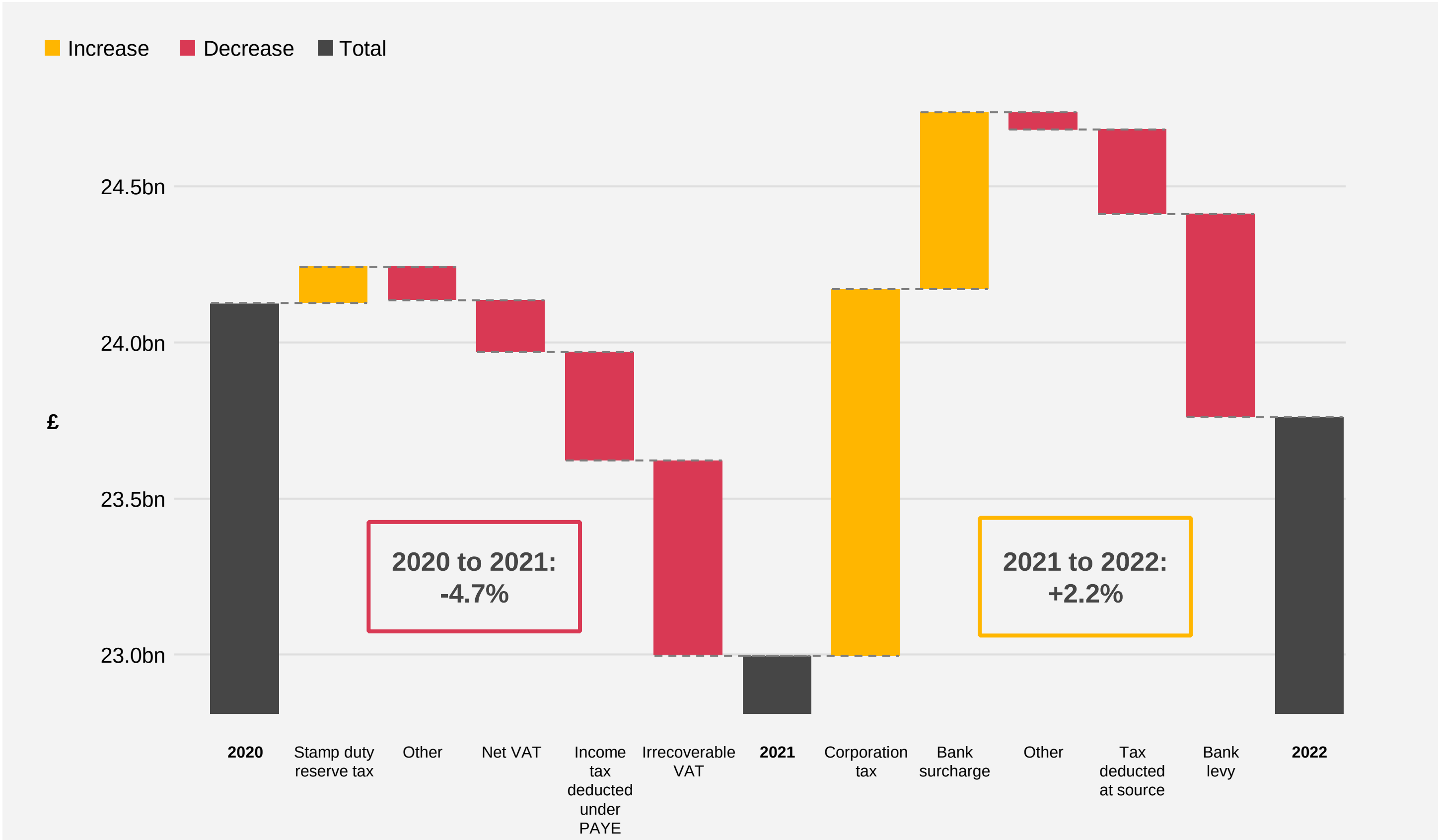
11.0% Bank surcharge

10.7% Bank levy

23.8% Irrecoverable VAT

Analysing the impact of the pandemic

The TTC of the banking sector decreased by 1.6% over the two years impacted by the COVID-19 pandemic. The decrease in the first year of the pandemic was driven by irrecoverable VAT and employment taxes, while the increase in the second year was driven by corporation tax.

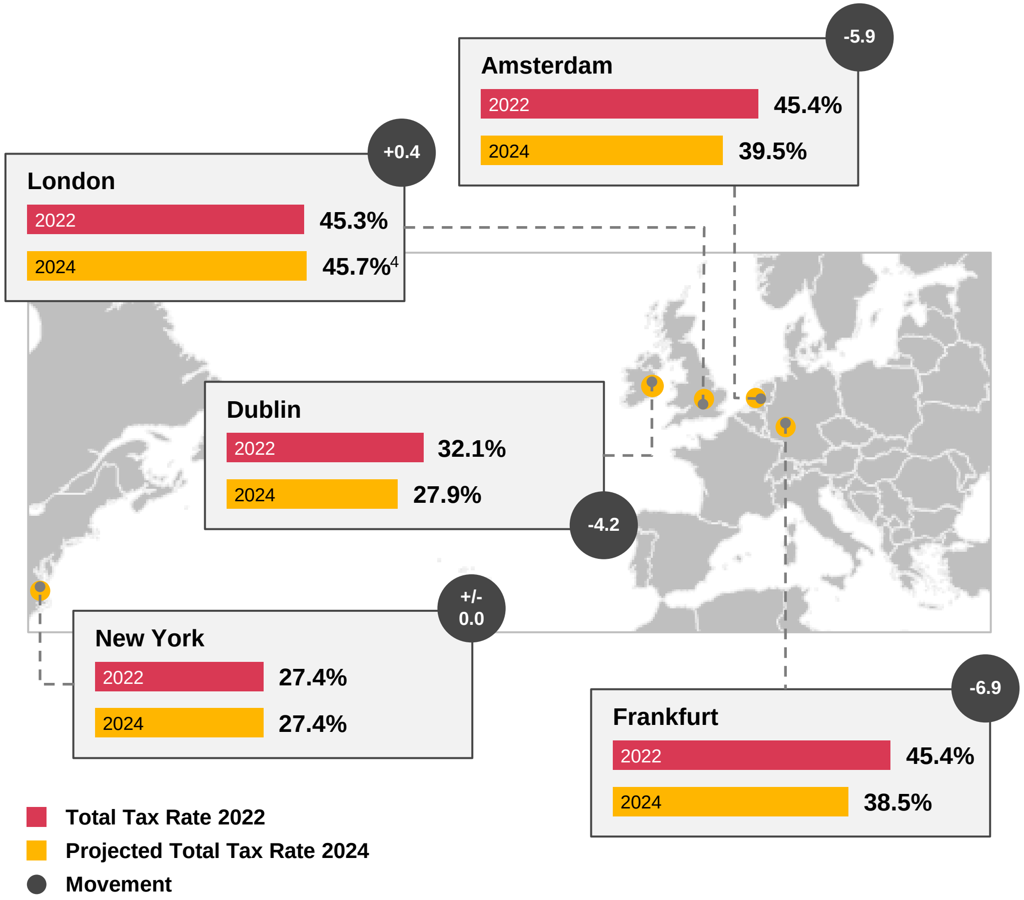


Executive summary

International comparison – how London compares to other financial centres

Total Tax Rate for a model bank in 2022 and projected for 2024

The international comparison study calculated the Total Tax Rate (TTR) of a model bank operating in London compared to other financial centres. With 2023 being the final year of the European Single Resolution Fund[3], and the corporation tax rate rising in the UK, the projected 2024 TTR for London (45.7%) will be over 6 percentage points higher than Amsterdam and Frankfurt, and significantly higher than New York.



[3] The European Single Resolution Fund (SRF) requires banks to make contributions to build up an ex ante fund totalling 1% of covered deposits across the European banking union by 31 December 2023.
[4] At the time of publication the projected 2024 TTR for London is based on the planned increase in the rate of corporation tax from 19% to 25%, as well as the corresponding decrease in the surcharge from 8% to 3%, giving an overall headline rate of 28%. The projected 2024 TTR for London would be over 10 percentage points higher than Frankfurt and Amsterdam if the surcharge remained at 8%.

Section 1

Total Tax Contribution of the UK banking sector

Total Tax Contribution of the UK banking sector

The banking sector makes a significant contribution to the public finances. The 38 companies taking part in the study reported taxes borne of £14.1bn and taxes collected of £11.2bn, making a UK tax contribution of £25.4bn.

Extrapolating from these figures[5], we estimate that the Total Tax Contribution for the entire UK banking sector is £38.8bn, which represents 4.7% of total government receipts for taxes in the year to 31 March 2022.

Figure 1 shows that the TTC of £38.8bn is estimated to comprise taxes borne of £20.0bn and taxes collected of £18.8bn. The totals for corporation tax, bank surcharge, bank levy, and employment taxes for the whole 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-headquartered and foreign-headquartered banks. However, the tax profile of UK and foreign-headquartered banks varies significantly, with UK banks contributing a greater share of taxes borne, and foreign banks contributing a relatively equal share of taxes collected despite employing around a quarter of total employees in the study (see page 10: Comparing the tax profile for UK and foreign banks).

Figure 1: 2022 Total Tax Contribution of the UK banking sector[6]

	Study participants £bn	Extrapolated to the UK banking sector £bn	% of total government receipts
Corporation tax	3.9	5.5	
Bank surcharge	1.6	2.4	
Bank levy	1.5	1.5	
Employment taxes borne	3.2	5.8	
Irrecoverable VAT	3.4	4.0	
Other taxes borne	0.6	0.8	
Total taxes borne	**14.1**	**20.0**	**2.4%**
Employment taxes collected	9.0	16.1	
Tax deducted at source	0.5	0.6	
Other taxes collected	1.7	2.1	
Total taxes collected	**11.2**	**18.8**	**2.3%**
Total Tax Contribution[7]	**25.4**	**38.8**	**4.7%**

Source: Survey analysis and HMRC data

[5] 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.

[6] The Office for Budget Responsibility (OBR) – 2022 March Economic and fiscal outlook – supplementary fiscal tables: receipts and other. Table 2.8 Current receipts (forecast).

[7] Owing to the degree of rounding, the individual numbers and totals may not sum exactly.

Total Tax Contribution of the UK banking sector

The 2022 tax contribution of the UK banking sector increased by £1.7bn compared to the previous year and represents 4.7% of total government receipts (Figure 2). The decrease from 5.5% to 4.7% as a share of total government receipts can be explained by:

a) Total UK government tax receipts are forecast to have increased by 21.5% in 2021/22 driven by VAT and employment taxes.

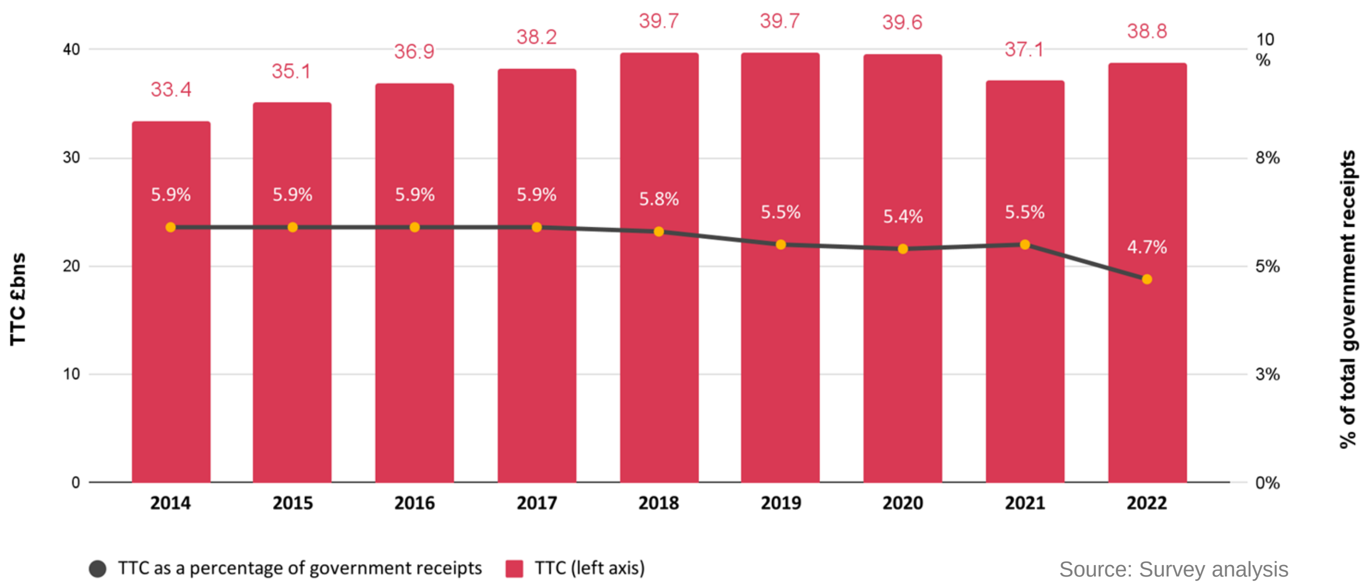
   VAT receipts increased 53.5% on the prior year reflecting greater economic activity in the second year of the pandemic and the removal of VAT support measures (VAT deferrals and reduced rates for leisure and hospitality sectors). Increases in income tax and national insurance contributions reflect a return to more normal employment patterns[8] following the gradual unwinding of the government's Coronavirus Job Retention Scheme which ended on 30 September 2021, along with tax thresholds rising at a slower rate than earnings growth resulting in more income being taxed at higher rates.

a) While the overall tax contribution of the banking sector increased in comparison to the prior year, the sector experienced decreases in irrecoverable VAT, bank levy and taxes deducted at source. The largest decrease experienced by the sector was in bank levy which is a reflection of the reduction in scope of the levy for UK-headquartered banks effective from 1 January 2021, as well as the annual reduction in rate[9]. The decline in irrecoverable VAT was driven by overall lower expenditure incurred by the sector and higher VAT recovery rates following the UK's departure from the European Union[10]. Additionally, tax deducted at source has declined for UK-headquartered banks which is attributable to the gradual decrease in payouts relating to PPI claims[11]. These reductions were offset by increases in corporation tax which was driven by increased profitability among domestic banks, as economic activity recovered in the second year of the pandemic.

Within the total of £38.8bn, employment taxes comprise the largest element (£21.9bn[12]), reflecting the skilled jobs in the sector. The data in this study provide visibility over other taxes such as irrecoverable VAT, stamp duties and tax deducted at source, to provide a more informed view of the taxes generated by the sector. The extrapolation by the sector is performed at the level of taxes borne and taxes collected using government data that is available for corporation tax, bank levy and PAYE receipts.

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

Figure 2: The Total Tax Contribution of the UK banking sector, 2014 – 2022



Source: Survey analysis

[8] ONS data shows an employment rate of 75.6% for the period to April 2022. This rate of employment is high historically, although it remains below the pre-pandemic rate of 76.6% recorded at the end of 2019. https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/timeseries/lf24/lms

[9] From 1 January 2021, the scope of the bank levy for UK-headquartered banks was restricted to the UK balance sheet rather than the global consolidated balance sheet. This change in scope means that overseas activities of a UK banking group are no longer subject to the levy. The bank levy rates also reduced for 2021, from 0.14% to 0.10% for short term debt and from 0.07% to 0.05% for long term debt. There are no further changes to the levy anticipated.

[10] The Brexit transition period ended on 31 December 2020 when the UK formally left the EU customs union and single market. From 1 January 2021 VAT rules allowed for input VAT credits for the majority of exempt trades entered into with EU based counterparties that were previously only available for trades with non-EU counterparties. This has led to an increase in VAT recovery rates for the banking sector.

[11] The deadline for submitting PPI claims was August 2019.

[12] Government data has been revised for Pay-As-You-Earn figures from 2014. For this reason, the 2019, 2020, 2021, and 2022 reports are not directly comparable to studies prior to 2019.

Total Tax Contribution analysis for the study participants

The profile of taxes borne and collected

Taxes borne

Taxes borne are a business cost and, therefore, directly affect a company's financial results. The profile for these taxes across the banks that participated in the 2022 survey is shown in Figure 3. Corporation tax (including the bank surcharge) is the largest tax borne at 38.5% of the total. Irrecoverable VAT represents 23.8% of the total, a decrease of 2.2 percentage points compared to last year's report. Employment taxes, comprising employer NIC, PSA (PAYE Settlement Agreements, a tax on benefits provided by the company) and net apprenticeship levy, made up the third largest element at 22.6%.

Bank levy as a percentage of taxes borne decreased to 10.7% in this year's study, a reduction of 5.5 percentage points. This reflects the gradual decline in bank levy rates, as well as the reduction in scope of the levy for UK-headquartered banks which became effective from 1 January 2021. Introduced in 2012, the levy originally applied to the global consolidated balance sheet of a UK-headquartered bank, but only to the UK balance sheet of a foreign-headquartered bank. From 1 January 2021, the scope was restricted to UK operations regardless of headquarter location to ensure a level playing field. Bank levy rates peaked in the 2016 survey (Figure 26) and have been gradually decreasing annually since then. No further changes to the levy are currently planned.

Sector-specific taxes, and other taxes that impact the banking sector, are a significant element of the tax profile of these companies. Almost half of the total taxes borne (45.5%) are made up of the bank surcharge, bank levy and irrecoverable VAT. Of these 'sector taxes', the bank levy and irrecoverable VAT (together 34.5%) are not dependent on profits and represent a fixed cost for the sector. For every £1 of corporation tax paid, the banking sector in the UK paid a further £1.60 of other taxes borne.

Please refer to Appendix 3 for a detailed list of taxes borne by study participants.

Taxes collected

Taxes collected are those that 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 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 4 shows the profile of taxes collected for the 38 participating banks. Employment taxes (income tax deducted under PAYE and employee NIC) were the largest element (80.4% of total taxes collected), reflecting the prevalence of skilled jobs in the banking sector. Stamp duty reserve tax (SDRT) continued to be the second largest tax collected, at 12.5% of the total.

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

Figure 3: Taxes borne profile for participating banks

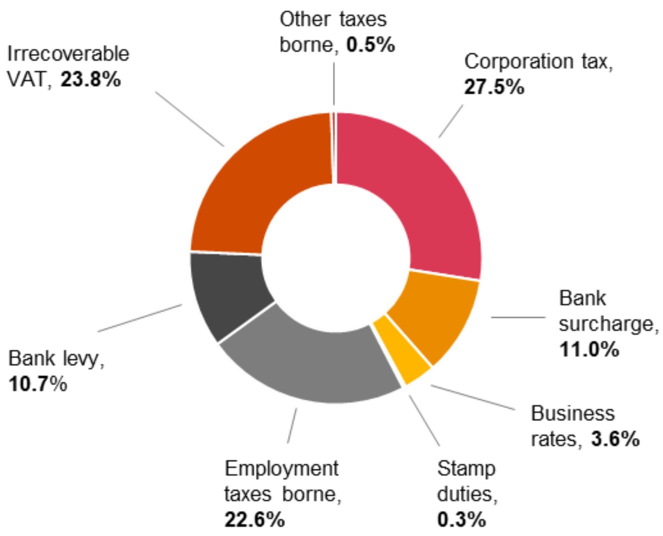
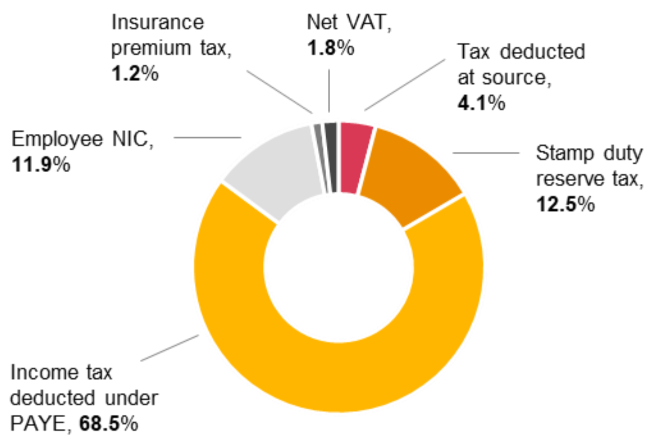
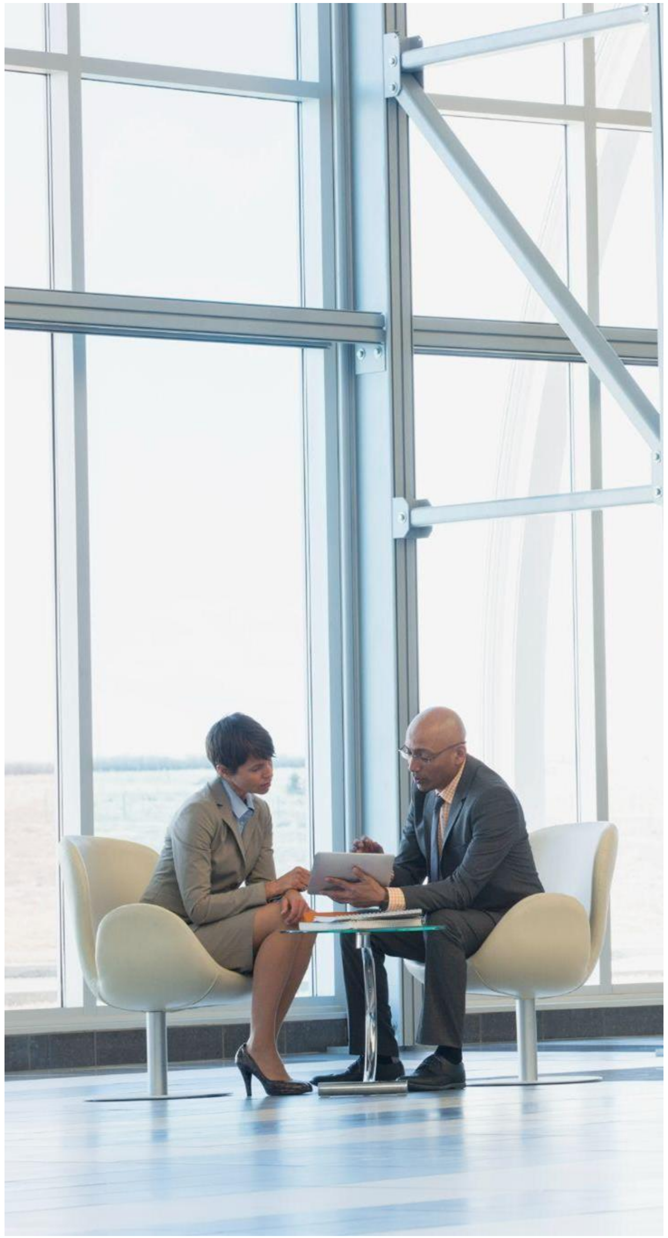


Figure 4: Taxes collected profile for participating banks



Source: Survey analysis

Comparing the tax profile for UK and foreign banks



Of the 38 study participants, 18 were UK-headquartered and 20 were foreign-headquartered banks. Based on study participants, there has been an increase in TTC of the UK banks in 2022, while the foreign banks have seen their TTC decrease reflecting changes in survey participation levels compared to 2021. As a result there has been an increase in the proportion of UK-headquartered banks' taxes borne (from 57.7% to 61.7%) and taxes collected (from 52.2% to 52.8%) in 2022 (Figure 5).

Taxes borne profile for UK and foreign banks

The profile of taxes borne differs between UK-headquartered and foreign-headquartered banks (Figure 6). It highlights the greater proportions of irrecoverable VAT (76.3% of the total) and bank levy (70.1%) that were borne by UK-headquartered banks.

Foreign-headquartered banks provide employment to around a quarter of the total employees in this study. However, compared to the share of total employees, foreign banks paid a significant share of employment taxes borne, corporation tax and bank surcharge, indicating a greater contribution per employee.

Figure 5: Taxes borne, taxes collected and TTC for UK and foreign banks

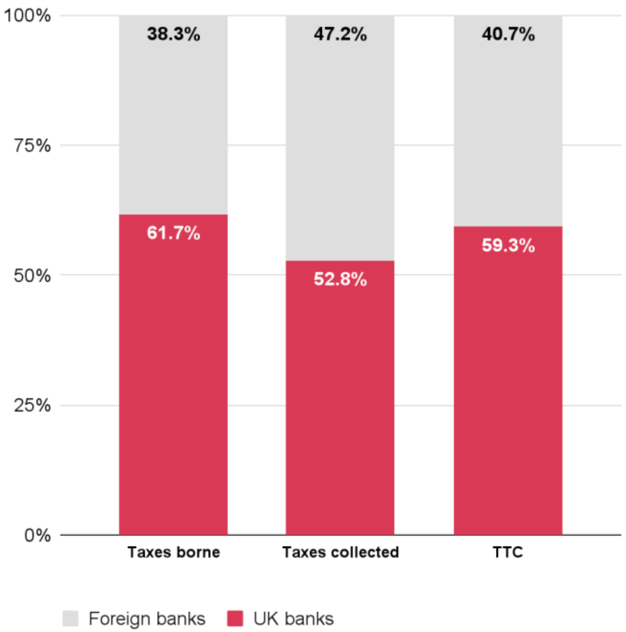
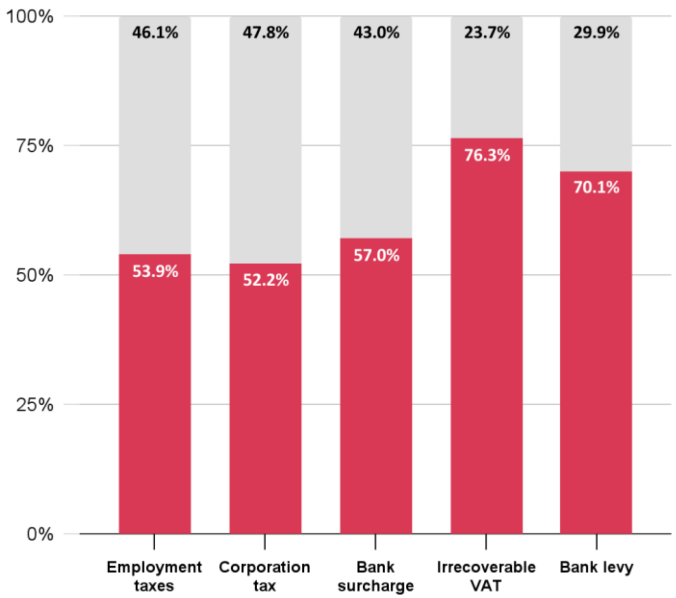


Figure 6: Comparison of taxes borne for UK and foreign banks



Source: Survey analysis

Comparing the tax profile for UK and foreign banks

Taxes collected profile for UK and foreign banks

Employment taxes make up the largest share of taxes collected by banks. Foreign-headquartered banks account for almost half of all employment taxes collected, reflecting the greater number of highly-skilled employees of foreign banks (Figure 7). Aside from employment taxes, other taxes collected include tax deducted at source, stamp duty reserve tax (SDRT) and insurance premium tax (IPT). While UK retail banks collect the majority of net VAT and tax deducted at source from interest paid to customers, SDRT is largely collected by foreign-headquartered banks.

Total Tax Contribution profile for UK and foreign banks

Figure 8 shows the proportion of taxes borne and taxes collected as a percentage of TTC. For the study participants, taxes borne make up 59.5% of TTC for UK banks and 50.5% for foreign banks. In the 100 Group study[13], in which PwC surveys the largest companies in the UK, taxes borne made up 32.0% of the TTC figure. Figure 8 shows the taxes borne by both UK and foreign banks within the UK are significantly higher than other sectors, reflecting the combined impact of the bank surcharge, the bank levy and irrecoverable VAT.

Figure 7: Comparison of taxes collected for UK and foreign banks

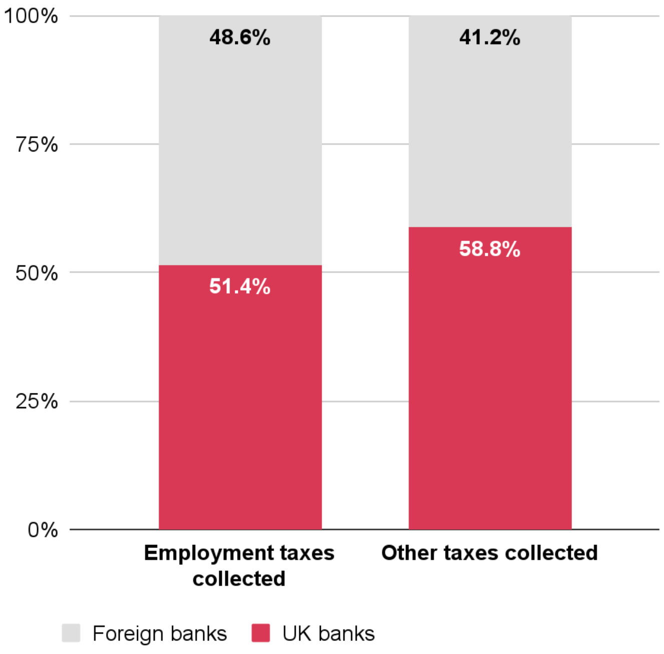
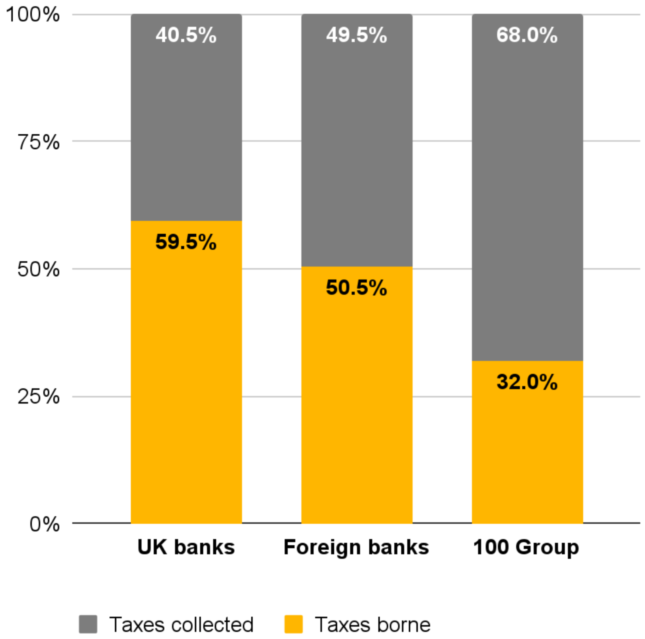


Figure 8: TTC profile for UK and foreign banks and 100 Group



Source: Survey analysis

[13] 2021 Total Tax Contribution study for the 100 Group: present the analysis of data received from the largest companies in the UK.

Section 2

International comparison

International comparison

We are often asked how the taxation of banks in the UK compares with that in other financial centres. It is however 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.

It is important that governments and businesses understand not just the differences in headline tax rates, but also their practical implications and how the different taxes interact with each other. This understanding will be even more important as governments determine their fiscal response to the cost-of-living and energy crises.

To aid this understanding, we have again undertaken an international comparison of bank taxation in the UK with that in other major financial centres: New York, Frankfurt, Dublin and Amsterdam. The comparison uses a high-level modelling approach based on that used in the past by the World Bank for the Paying Taxes indicator in their Doing Business study[14].

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 Rate (TTR) 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 in isolation, it does not consider all of the complexities of taxation that banks would face in practice. It also does not consider differences between the various regulatory, legal and economic environments.

[14] www.doingbusiness.org

International comparison

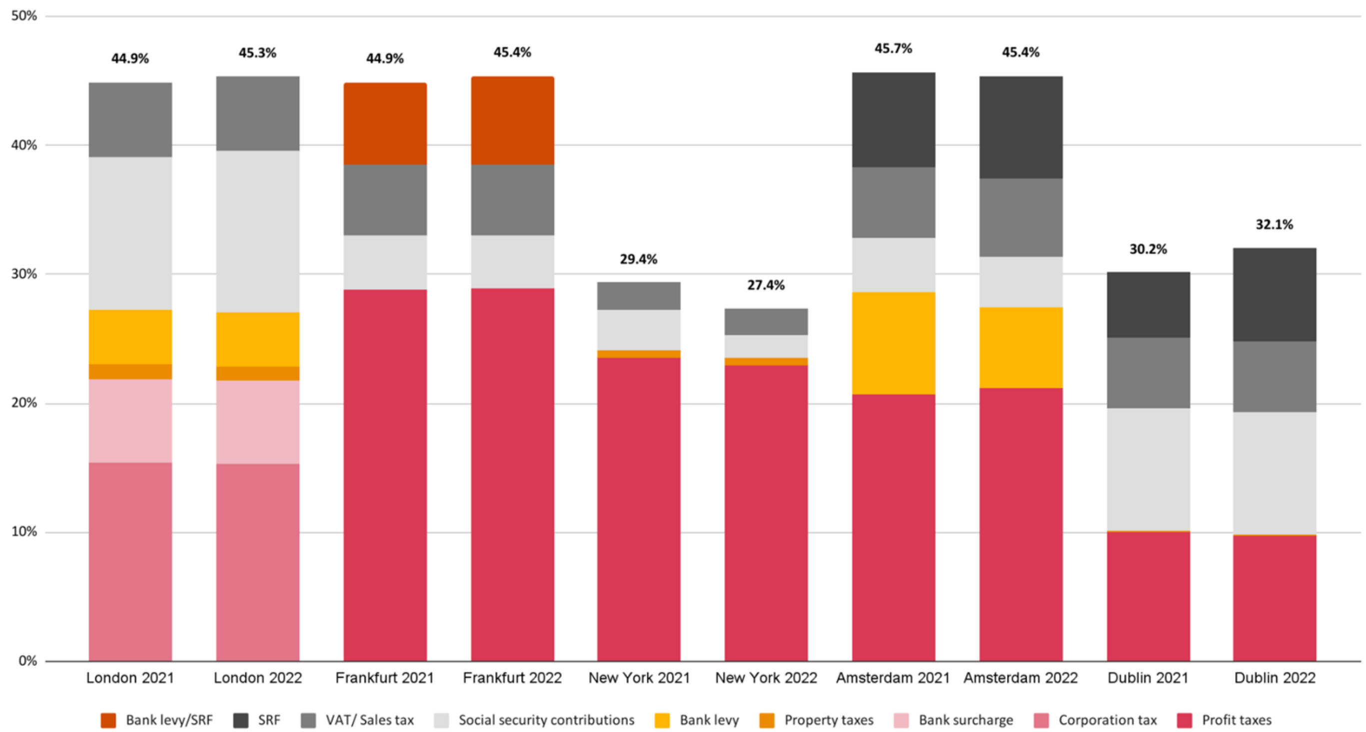
As shown in Figure 9 the TTRs for the model banks were broadly similar between 2021 and 2022 across the financial centres. The 0.4 percentage point increase in the TTR for London was driven by the temporary 1.25 percentage point increase in National Insurance Contributions introduced in April 2022 and reversed from November 2022. Across the European locations, Frankfurt and Dublin, the TTRs increased largely as a result of higher contributions to the European Union (EU) Single Resolution Fund (SRF)[15].

While the 2022 TTR for Dublin increased 1.9 percentage points in comparison to 2021, it is 13.2 percentage points lower than London. The relatively low TTR is a reflection of the lower corporate income tax rate (12.5% in Ireland), and the bank levy not being applicable based on the parameters of the model bank's activities[16].

The TTR for Amsterdam decreased 0.3 percentage points which was largely driven by a reduction in bank levy rates which had been temporarily increased in 2021 due to the COVID-19 pandemic. This decrease was partially offset by an increase in the contributions made by the model bank to the SRF in 2022.

The TTR for New York decreased 2 percentage points which was driven by lower state and local taxes as well as an increase in social security thresholds for employment taxes. More details concerning the assumptions made in relation to the model bank in New York can be found in Appendix 2.

Figure 9: Total Tax Rate of the model bank in 2021 and 2022[17]



Source: PwC analysis

[15] 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. https://www.srb.europa.eu/en/content/single-resolution-fund

[16] The assumptions made vis-a-vis the model bank's activities are that it carries out a mixture of investment and corporate banking. This enables the model bank to operate from a variety of different locations irrespective of where the customer is located. As the Irish bank levy is based on deposits and is not applicable for investment/corporate financing activities, the model bank would not be subject to it. More information on the assumptions can be found in Appendix 2.

[17] Note: in Germany, the bank levy is used to fund the SRF (shown above as bank levy/SRF). In contrast, the Netherlands has a bank levy and the SRF.

International comparison

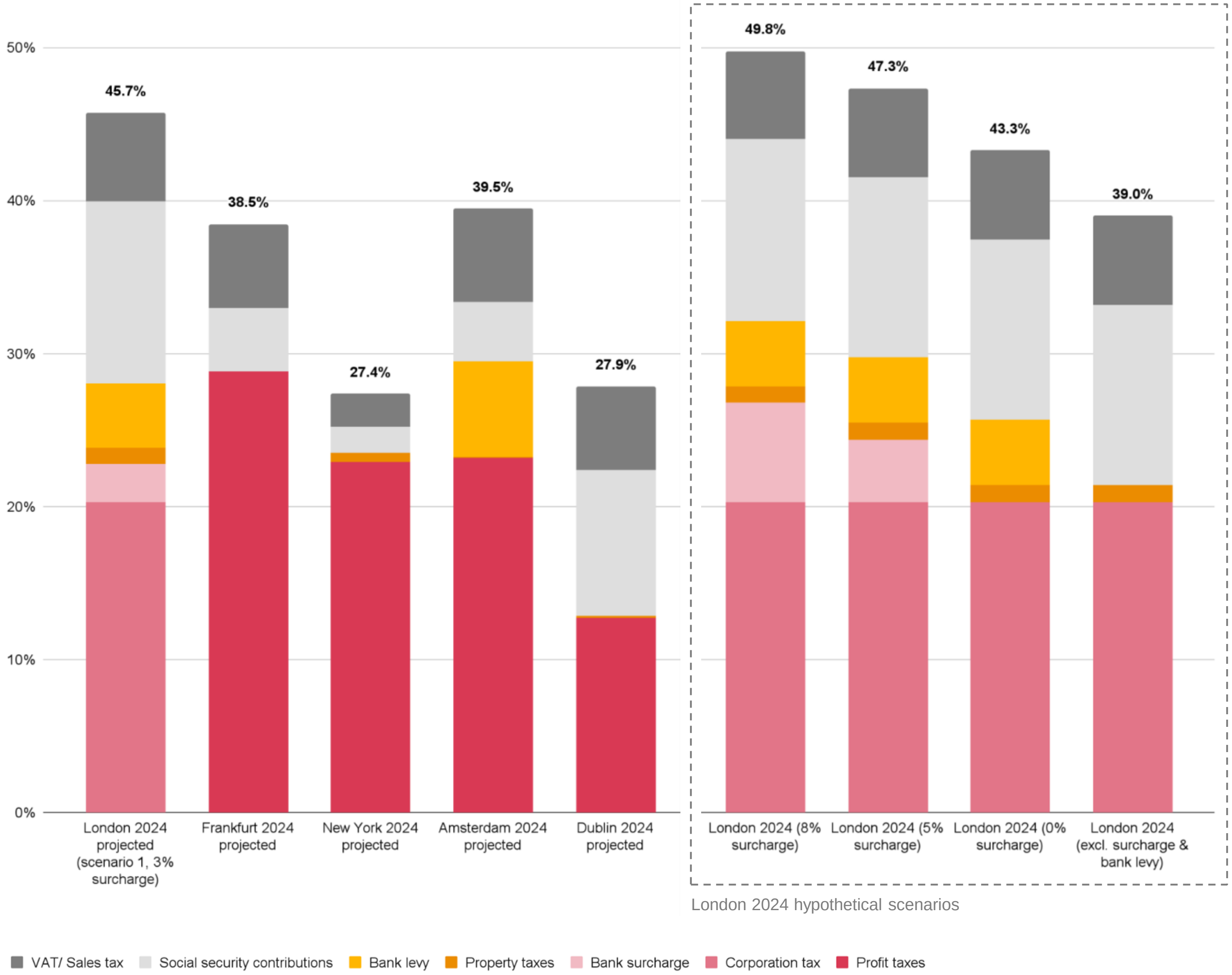
Projected Total Tax Rate for 2024

The fiscal pressures presented by the COVID-19 pandemic and subsequent cost-of-living and energy crises has led to a widening of budget deficits with many governments under pressure to raise taxes and repair their public finances. With the headline rate of corporation tax set to increase in the UK from April 2023, we have modelled the expected TTRs for the five locations (Figure 10).

The significant changes to the calculations in the 2024 projection are as follows:

- The London calculation is based on an increase in the corporation tax rate from 19% to 25% and a reversal of the 1.25 percentage point increase in National Insurance Contributions (which was in place for 7 months of 2022).
- The European Single Resolution Fund is expected to reach its target level in 2023 and be discontinued. As a consequence the projected calculations for Amsterdam and Dublin do not include the SRF, and the calculation for Frankfurt does not include the bank levy (which is used to fund the SRF).
- The projected TTR for New York remains unchanged due to uncertainties surrounding President Biden's legislative agenda and any anticipated impact these could have on the model.

Figure 10: Total Tax Rates of the model bank in 2024



Source: PwC analysis

International comparison

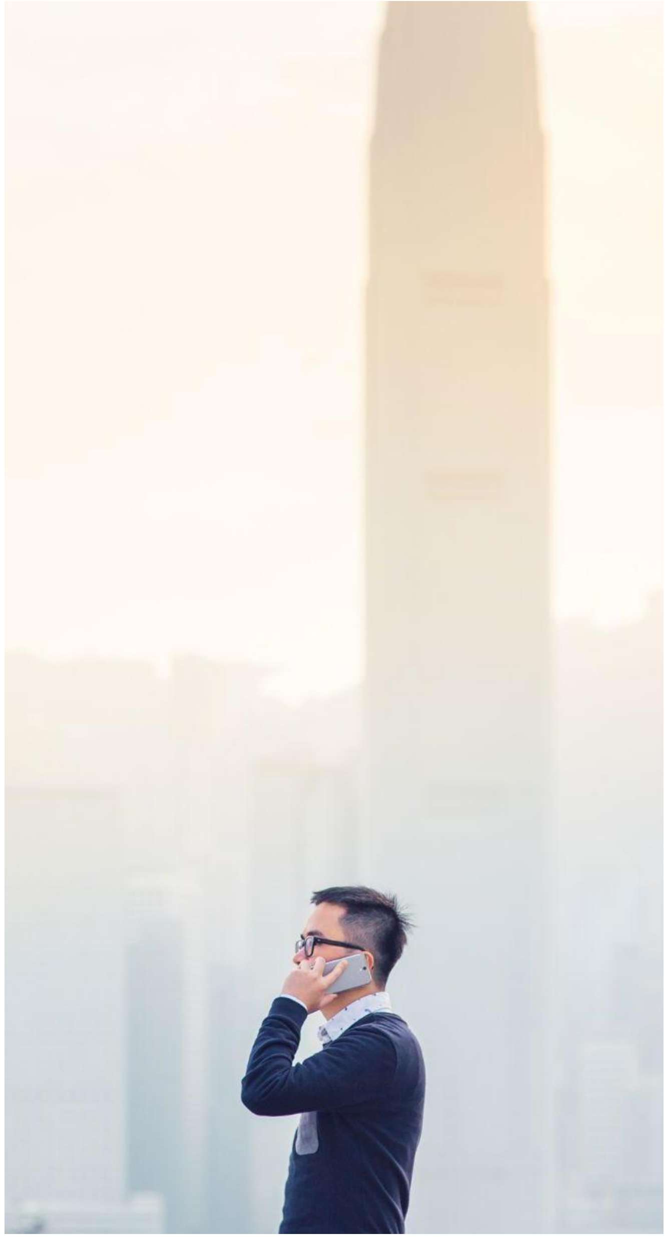
The increase in the corporation tax rate in the UK pushes the projected TTR for London up from 45.3% to 45.7%. This projection includes the increase in corporation tax from 19% to 25% together with the planned reduction in bank surcharge from 8% to 3% announced in September 2021 (giving an overall net increase of 1% in corporation tax for the sector). The projected TTR for London is therefore 6.2 percentage points higher than the TTR for Amsterdam.

In contrast, the model banks in Frankfurt, Amsterdam and Dublin are projected to see their projected TTRs decline by 6.9, 5.9 and 4.2 percentage points respectively when compared to 2022. This is primarily due to the removal of the SRF which is due to end in 2023[18]. In the case of Dublin, the decrease in TTR is partially offset by an expected increase in the corporate income tax rate from 12.5% to 15%. This was following an announcement in October 2021 that Ireland had become a signatory to the Organisation for Economic Cooperation and Development's (OECD) framework for a global minimum corporate tax rate of 15%.

In addition, the comparison includes TTR projections for the model bank operating in London under different hypothetical scenarios; with the bank surcharge at 8%, 5%, 0% and excluding both the surcharge and bank levy entirely. The impact of these scenarios on the projected TTR for London is shown on the right in figure 10. In each case, with the exception of removing the surcharge and the bank levy entirely, the TTR remains higher than Frankfurt and Amsterdam. Even without the surcharge and bank levy, the London rate remains over 11 percentage points above New York.

A number of other tax changes have been proposed across the five locations, however, the modelling parameters were restricted to official policy announcements. The most significant development is the ongoing work by the OECD concerning the multilateral reform of the international tax system. At the core of these proposals is a global minimum corporate income tax rate of 15% and the distribution of profit and taxing rights based on the location of businesses activity.

In addition, the US announced the introduction of a domestic alternative minimum tax as part of the Biden Administration's Inflation Reduction Act which was signed into law in August 2022. It is unclear at this stage what impact, if any, this may have on the future Total Tax Rate for the model bank operating in New York.



[18] Frankfurt would see the removal of its bank levy which is used to fund the SRF.

Section 3

Trend analysis and TTC within the context of other economic indicators

Trends in Total Tax Contribution

Trend in Total Tax Contribution between 2021 and 2022

36 banks provided data for both the 2021 and 2022 studies and we have analysed the trends on a like-for-like basis for these companies. There has been a 7.4% increase in taxes borne and a 1.0% decrease in taxes collected, resulting in a 3.5% increase in TTC.

The 7.4% increase in taxes borne was driven by corporation tax (Figure 12), as the provisions made by UK-headquartered retail banks against expected losses in 2020 were partly unwound during 2021, returning the sector to profitability. The overall increase in taxes borne was partially offset by decreases in bank levy and irrecoverable VAT. The reduction in bank levy reflects the restricted scope of the levy from 1 January 2021[19], along with a reduction in rates. Lower overall expenditure and higher VAT recovery rates following the UK's exit from the EU are the driving factors for the decrease in irrecoverable VAT.

Taxes collected decreased by 1.0% (Figure 13), driven by tax deducted at source for UK banks due to the gradual decrease in payouts relating to PPI claims[20]. This was partially offset by increases in employment taxes collected, which was a reflection of higher wages and salaries across foreign banks, reversing a decrease in the previous year, as well as an increase in net VAT. The slight decrease in stamp duty reserve tax (SDRT) is due to lower trading volumes in equity markets in 2021[21].

Figure 12: Trend in taxes borne, 2021-2022

	Trend as % of total taxes borne
Corporation tax (incl. bank surcharge)	14.5%
Bank levy	-5.3%
Irrecoverable VAT	-1.6%
Employer NIC	0.2%
Other taxes borne	-0.4%
Total taxes borne	**7.4%**

Figure 13: Trend in taxes collected, 2021-2022

	Trend as % of total taxes collected
Employment taxes	0.7%
Net VAT	1.3%
Tax deducted at source	-2.5%
Stamp duty reserve tax	-0.5%
Other taxes collected	0.0%
Total taxes collected	**-1.0%**

Source: Survey analysis

[19] Since its introduction in 2011, the bank levy applied to the global consolidated balance sheet of UK headquartered banks, but only to the UK balance sheet of a foreign headquartered bank. From 1 January 2021, the bank levy scope applied only to the UK balance sheet for all banks.
[20] The deadline for submitting PPI claims was August 2019.
[21] LSEG market report, December 2021, LSEG – Electronic Order Book Trading

Trends in Total Tax Contribution

There was some variation between the two-year trends of the UK-headquartered and foreign-headquartered banks, with the UK banks driving the decrease in taxes collected (Figures 14 to 17).

For the UK banks in the survey, taxes borne increased by 7.9%, driven by corporation tax (including bank surcharge). This was partially offset by the reduction in bank levy as the change in scope of the levy impacted UK-headquartered banks. Taxes collected decreased by 5.9% compared to the previous year, driven by employment taxes due to a reduction in the number of employees (Figure 22). The decrease in taxes deducted at source was attributable to the gradual decrease in payouts relating to PPI claims.

For the foreign-headquartered banks in the survey, taxes borne increased by 6.5%, driven by corporation tax and employer NIC. The decrease in irrecoverable VAT, attributable to higher recovery rates post Brexit, as well as the decrease in SDRT, was more significant for the foreign banks reflecting a larger proportion of international business activity in their operations. Taxes collected increased by 5.9% due to employment taxes reflecting higher wages and salaries.

Figure 14: Trend in taxes borne for UK-headquartered banks, 2021-2022

	Trend as % of total taxes borne
Corporation tax (incl. bank surcharge)	18.0%
Bank levy	-7.9%
Irrecoverable VAT	-1.1%
Employer NIC	-0.8%
Other taxes borne	-0.3%
Total taxes borne	**7.9%**

Figure 15: Trend in taxes collected for UK-headquartered banks, 2021-2022

	Trend as % of total taxes collected
Employment taxes	-3.4%
Net VAT	0.7%
Tax deducted at source	-4.2%
Stamp duty reserve tax	1.1%
Other taxes collected	-0.1%
Total taxes collected	**-5.9%**

Figure 16: Trend in taxes borne for foreign-headquartered banks, 2021-2022

	Trend as % of total taxes borne
Corporation tax (incl. bank surcharge)	8.6%
Bank levy	-1.0%
Irrecoverable VAT	-2.6%
Employer NIC	1.9%
Other taxes borne	-0.4%
Total taxes borne	**6.5%**

Figure 17: Trend in taxes collected for foreign-headquartered companies, 2021-2022

	Trend as % of total taxes collected
Employment taxes	6.6%
Net VAT	2.1%
Tax deducted at source	-0.1%
Stamp duty reserve tax	-2.7%
Other taxes collected	0.0%
Total taxes collected	**5.9%**

Source: Survey analysis

Trends in Total Tax Contribution

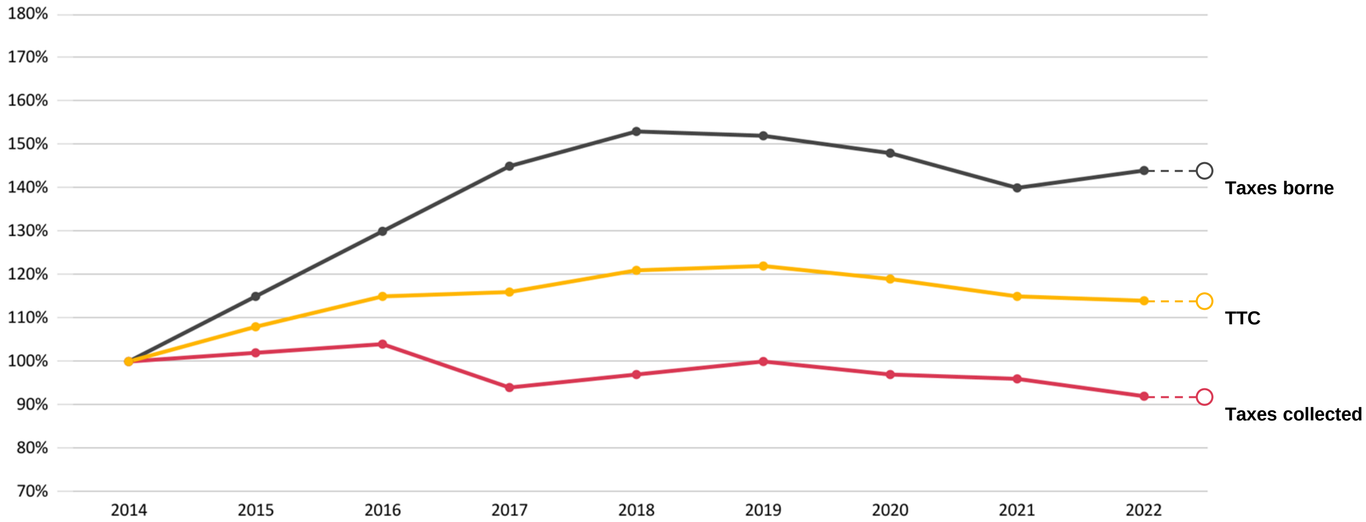
Trend in Total Tax Contribution between 2014 and 2022

Figure 18 displays the trends in taxes borne, taxes collected and TTC since the survey began in 2014, based on data from banks that have participated in each year of the survey. It shows that the increasing TTC between 2014 and 2018 was due to increases in taxes borne by the banks. Over this period, taxes borne increased 53%, primarily due to increases in corporation tax (including the surcharge), bank levy and irrecoverable VAT (Figure 19).

The gradual decrease in taxes borne since 2018 reflects weaker economic growth and economic uncertainty impacting overall profitability, together with annual reductions in the rate of the bank levy. The sharper reduction between 2020 and 2021 was driven by the decrease in irrecoverable VAT as a result of lower expenditure during the COVID-19 pandemic, together with lower bank levy and employer NIC. The increase in taxes borne from 2021 is a reflection of higher corporation tax payments resulting from higher profitability as the sector recovers from the economic impact of the pandemic.

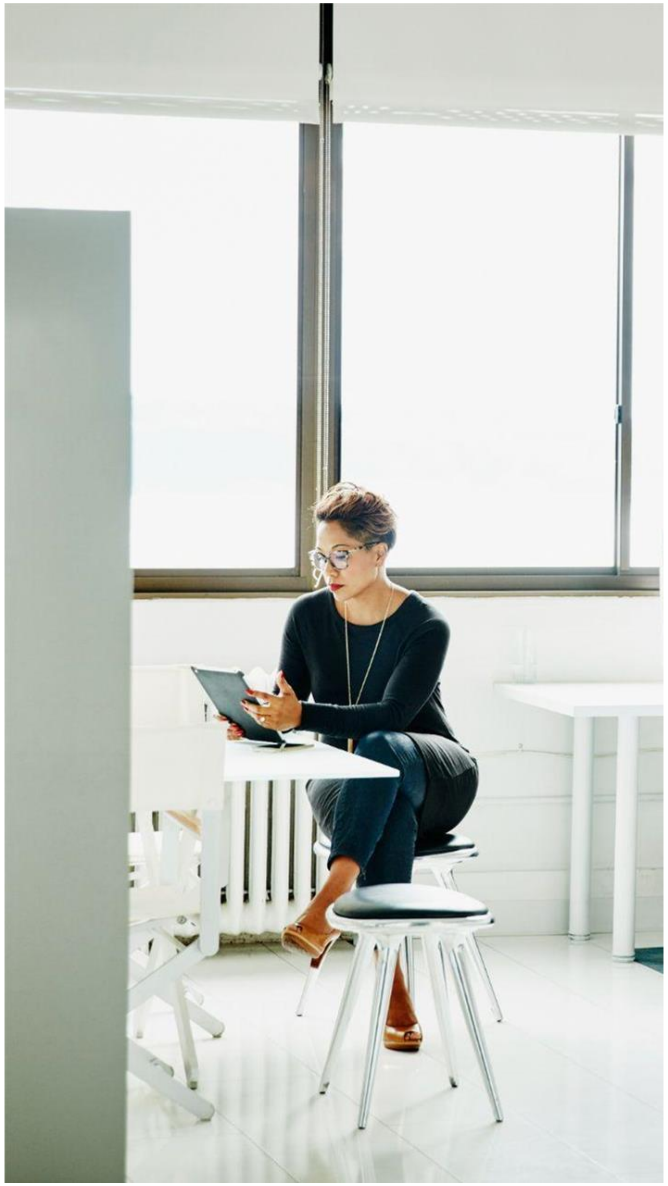
Taxes collected decreased in 2017 following the introduction of the Personal Savings Allowance in 2016 and the associated removal of the requirement for tax to be deducted at source from interest paid on deposits. The decrease from 2019 is attributable to a combination of tax deducted at source and the gradual decrease in employment.

Figure 18: Trend in taxes borne, taxes collected and Total Tax Contribution, 2014-2022



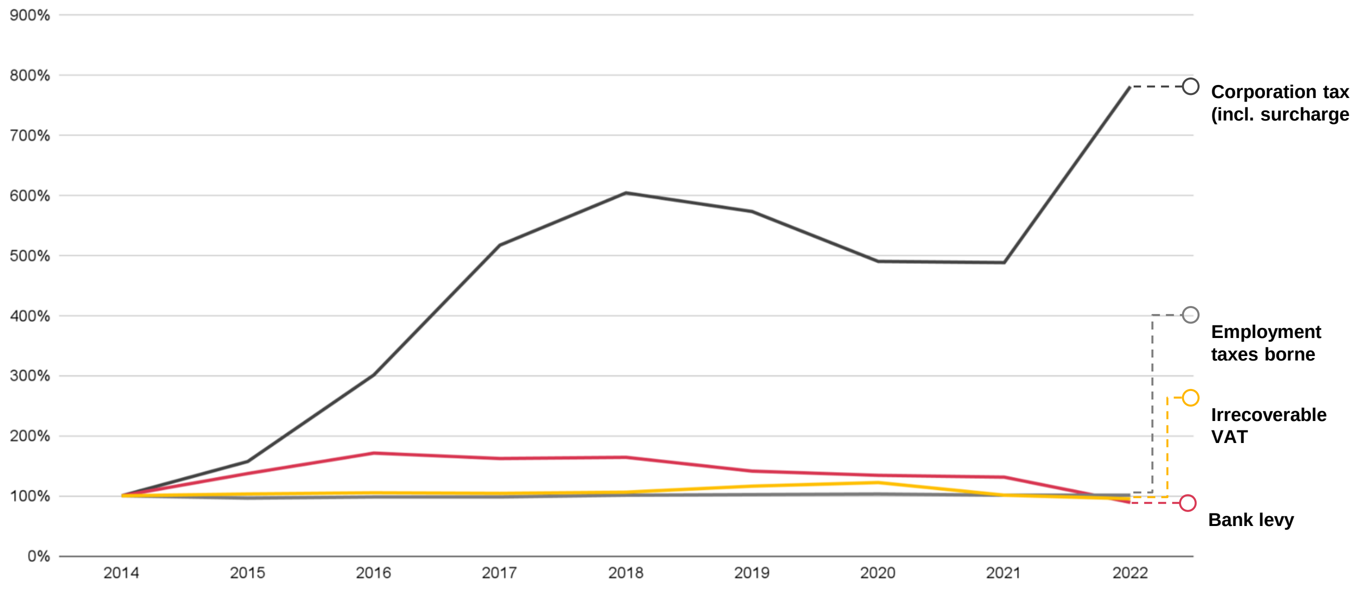
Source: Survey analysis

Trends in Total Tax Contribution



Looking specifically at corporation tax in Figure 19, the increase from 2014 to 2018 was driven by the introduction of loss relief restriction and compensation payment restrictions in 2015, the introduction of the bank surcharge in 2016, and increasing profitability over that period. The decrease from 2018 to 2020 was a reflection of economic uncertainties and weaker growth followed by the impact of the COVID-19 pandemic in 2020/21. The sharper increase from 2021 is driven by a return to profitability for participating banks. The culmination of legislative changes introduced since 2015 alongside increases in profitability over the period has resulted in corporation tax payments being significantly above their 2014 levels.

Figure 19: Trend in taxes borne, 2014 – 2022

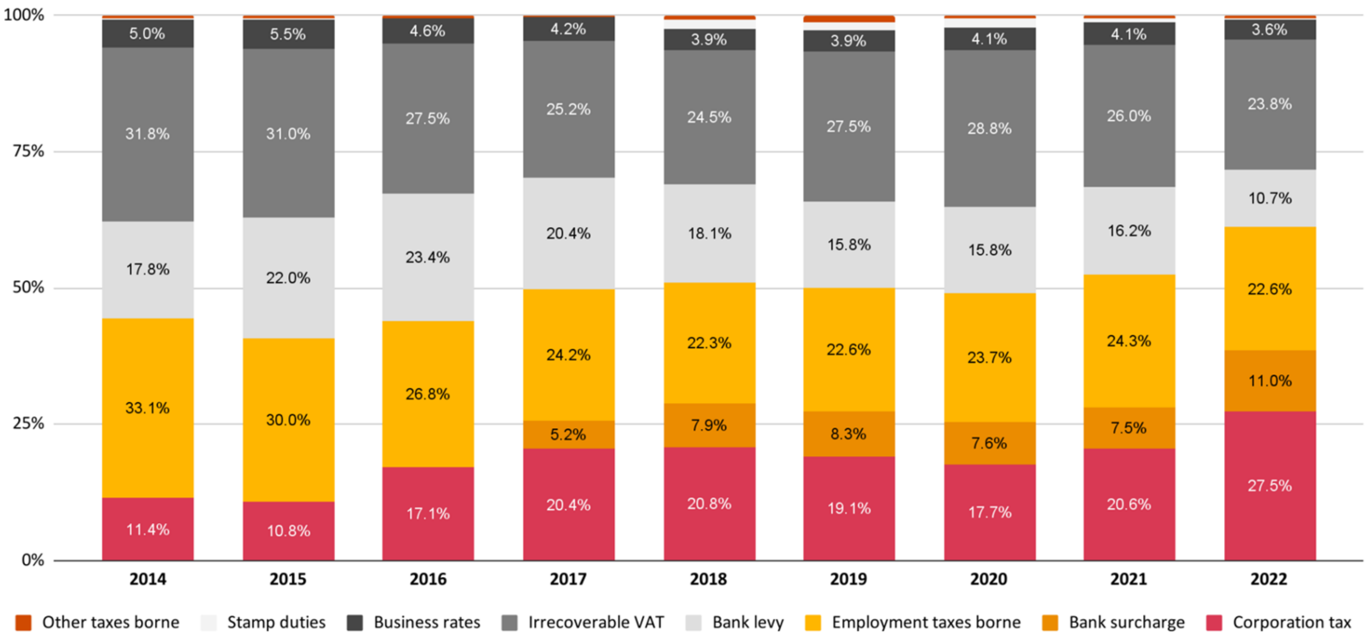


Source: Survey analysis

Trends in Total Tax Contribution

Figure 20 illustrates the change in the profile of taxes borne from 2014 to 2022. Corporation tax has become more significant from 2016 onwards, reflecting the growth in profits as well as the impact of the bank surcharge and legislative changes restricting loss relief and compensation payment relief. 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. This decrease is sharper between 2021 and 2022 reflecting the restricted scope of the levy effective from 1 January 2021. The relative proportion of employment taxes borne have remained more stable since 2017, but have fluctuated in response to the increases in corporation tax as well as the decreases in other taxes borne.

Figure 20: Trend in the profile of taxes borne, 2014 – 2022



Source: Survey analysis

Employment taxes

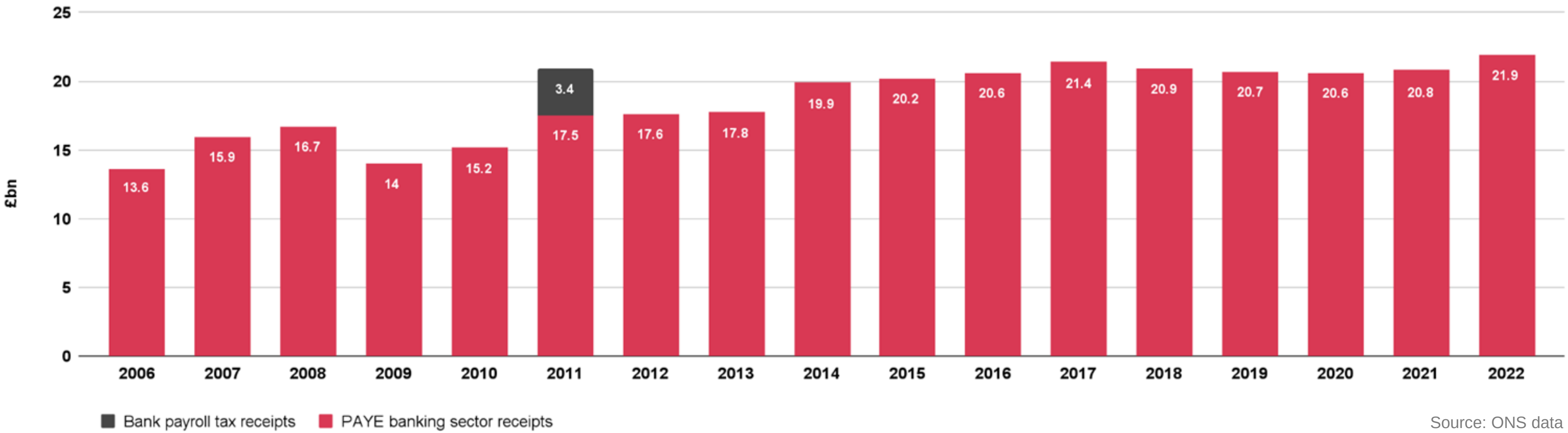
Employment in the banking sector – government data

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 amounted to £21.9bn, 6.3% of all employment tax receipts. The sector provides employment for 1.3% of the UK workforce and accounts for 36.2% of the UK financial services workforce[22].

Figure 21 shows the employment taxes trend for the banking sector based on government receipts from 2006. 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 a variety of changes in employment taxes over the period.

Figure 21 also shows the impact of the introduction of the 50% rate of income tax in 2011 and 1.0 percentage point 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.

Figure 21: Employment tax receipts, 2006 – 2022



Source: ONS data

[22] ONS Employees Jobs by Industry (not seasonally adjusted) Table 1. 2020 banking sector workforce was 381,300 based on ONS SIC 641 (Monetary Intermediation). 2020 financial services workforce was 1,054,700, 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). Note: this is the latest information for the UK banking sector at time of publication.
[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.

Employment taxes

Employment in the banking sector – survey data

The 38 participants in the survey employed 303,527 workers and paid total employment taxes of £12.2bn, comprising employment taxes borne of £3.2bn (employer NIC, PSA and apprenticeship levy) and employment taxes collected of £9.0bn (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.

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 tax per employee (calculated by taking the total employment taxes for the study population and dividing it by the total number of employees within that population, only including banks that have provided all data points) was £36,268 for the banking sector.

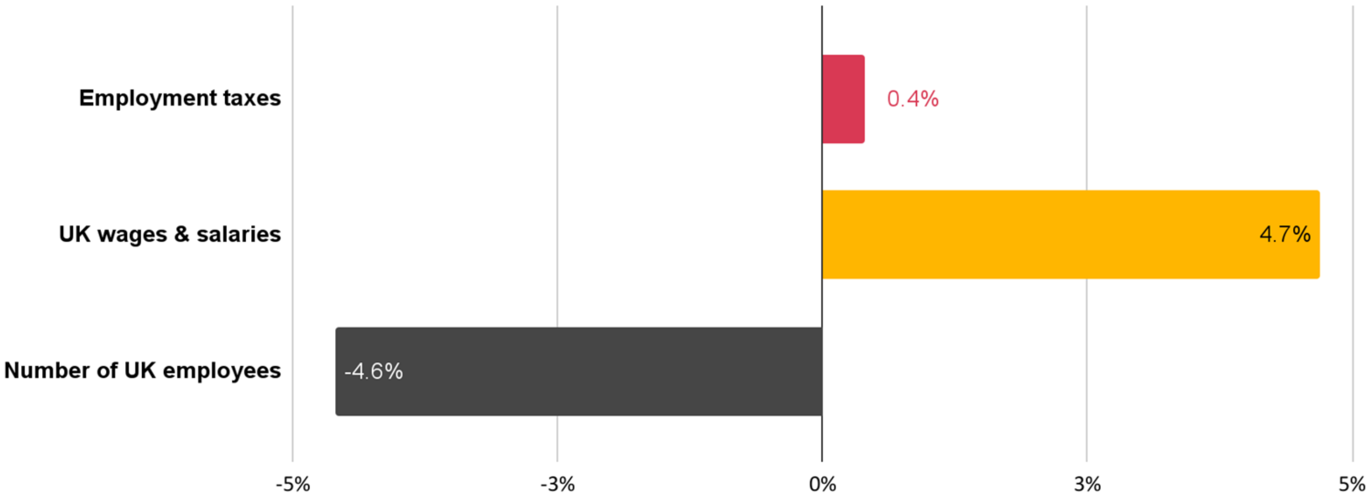
Trends in employment taxes – survey data

30 companies provided data on their number of employees, wages and salaries and employment taxes for both the 2021 and 2022 surveys. We are therefore able to analyse the two-year trend on a like-for-like basis for these companies.

Two-year trends (2021 – 2022)

Figure 22 shows that employment taxes increased by 0.4%, driven by an increase in wages and salaries across the sector. The total number of employees decreased by 4.6% driven by both UK and foreign-headquartered banks.

Figure 22: Trend in number of employees, wages and salaries and employment taxes, 2021 – 2022



Source: Survey analysis

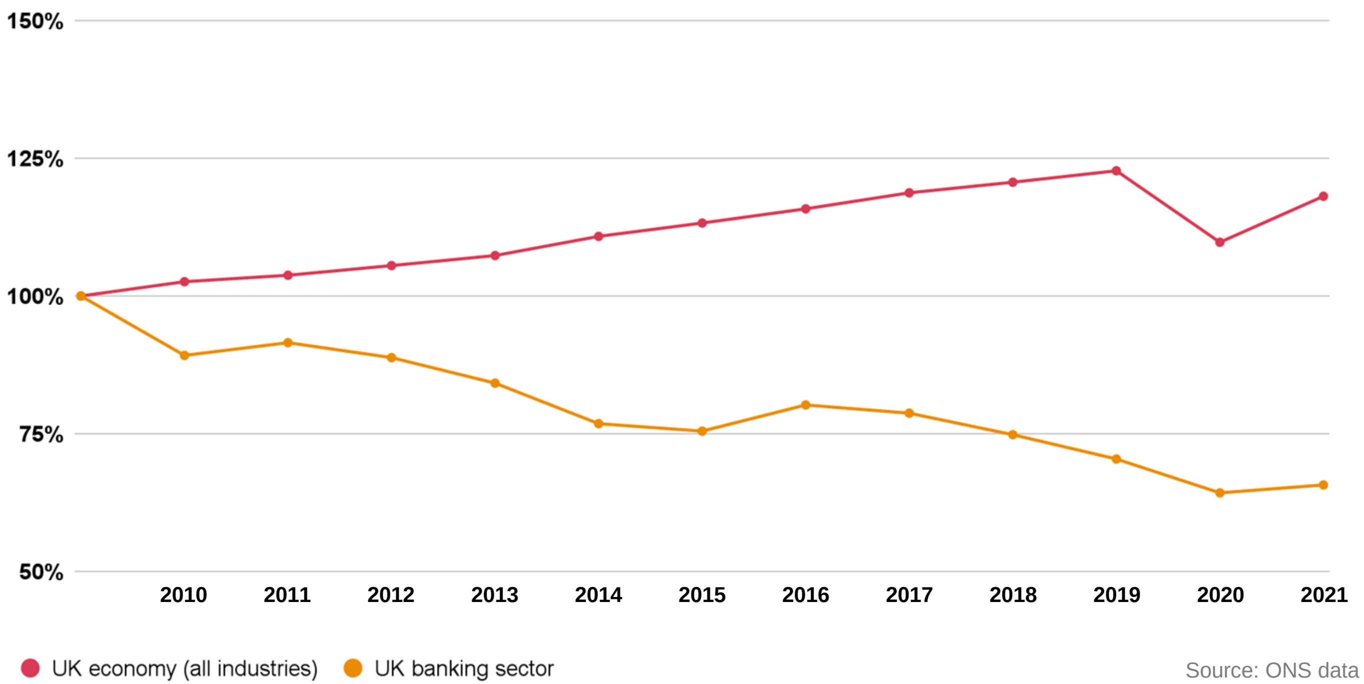
Gross value added for the UK banking sector

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 gross domestic product (GDP). The contribution made to GDP is typically measured by calculating the 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 the banking sector GVA from 2009 to 2015, with an upturn from 2015 to 2016. A period of economic uncertainty followed by the COVID-19 crisis in 2020 has led to a further decrease in recent years. The slight increase in GVA between 2020 and 2021 reflects improved profitability in the second year of the pandemic.

By comparison, the GVA for the economy as a whole has increased steadily over the period from 2009 to 2019. The economic impact of the COVID-19 crisis in 2020 was greater in the wider economy compared to the banking sector. The GVA for the whole economy experienced a sharper increase between 2020 and 2021 due to the rebound in economic activity in the second year of the pandemic.

Figure 23: Gross value added by the banking sector compared with the UK economy, 2009 – 2021 (2009 = 100)[24]



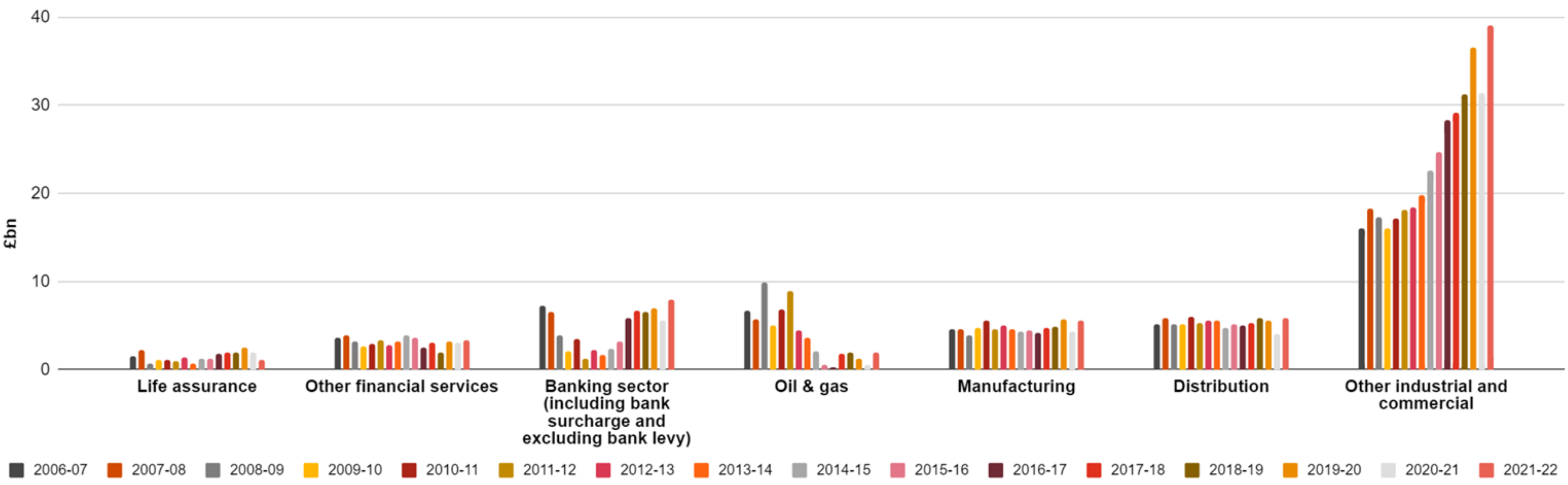
Source: ONS data

[24] Source: ONS GDP output approach – low-level aggregates; chained volume measure (constant prices).

Corporation tax

Figure 24, based on government data, shows corporation tax payments by industry sector between 2006-07 and 2021-22. It illustrates the impact of the financial crisis, followed by growth in corporation tax payments by the banking sector between 2014-15 and 2019-20 due to recovering profitability and the impact of legislative changes. The decrease in corporation tax payments between 2020-2021 shows the impact of the COVID-19 crisis on the profitability for the banking sector. Corporation tax payments recovered in 2021-2022.

Figure 24: Corporation tax receipts by sector, 2007 – 2022[25]



Source: HMRC data

[25] Source: https://www.gov.uk/government/statistics/corporation-tax-statistics-2022

Corporation tax

Corporation tax payments from study participants totalled £5,444 million, including bank surcharge payments of £1,561 million. Looking at companies that provided data for both profits and corporation tax, corporation tax increased compared to the previous year largely driven by UK-headquartered banks as profitability improved in the second year of the pandemic. At the height of the COVID-19 crisis, UK retail banks made significant provisions against expected losses and loan defaults. These provisions were gradually reversed during 2021 returning the sector to profitability and increasing corporation tax payments. Profits for foreign banks also increased due to better economic conditions and increased business activity in 2021.

Government figures provide data over a longer period and show that receipts of corporation tax (including bank surcharge) and bank levy were £9.4bn in 2022 (Figure 25). HMRC data shows that corporation tax (including the surcharge) has increased by 43.6% compared to 2021 from £5.5bn to £7.9bn.

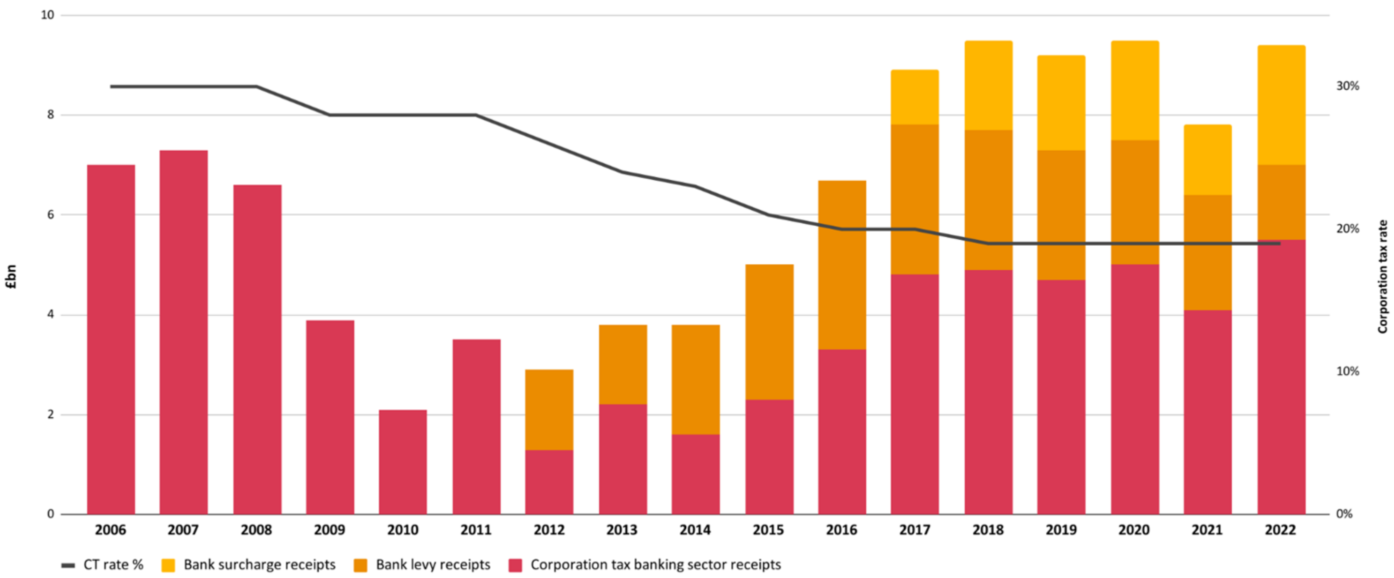
Loss-relief restriction

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, non-trading loan relationship deficit and management expenses. Of the 38 participating banks, 35 companies provided data quantifying the impact of the loss restriction in the year. Four of the 35 banks were affected by the legislation, resulting in an additional £594 million of corporation tax in 2022. Since the legislation was introduced in 2015, banks in the survey have paid an additional £3.0 billion in corporation tax.

Compensation payments restriction

Compensation expenditure arising on or after 8 July 2015 is not deductible for corporation tax purposes. 37 of the 38 participating banks provided data quantifying the impact of the compensation payment restriction in the year. Out of those 37 companies, six were affected by the legislation, resulting in an additional £29 million of corporation tax in 2022. Since the legislation was introduced in 2015, the banking sector has paid an additional £2.4 billion in corporation tax.

Figure 25: Government receipts of corporation tax and bank levy from the banking sector[26]



Source: HMRC data

[26] Source: https://www.gov.uk/government/statistics/paye-and-corporate-tax-receipts-from-the-banking-sector-2022

Irrecoverable VAT

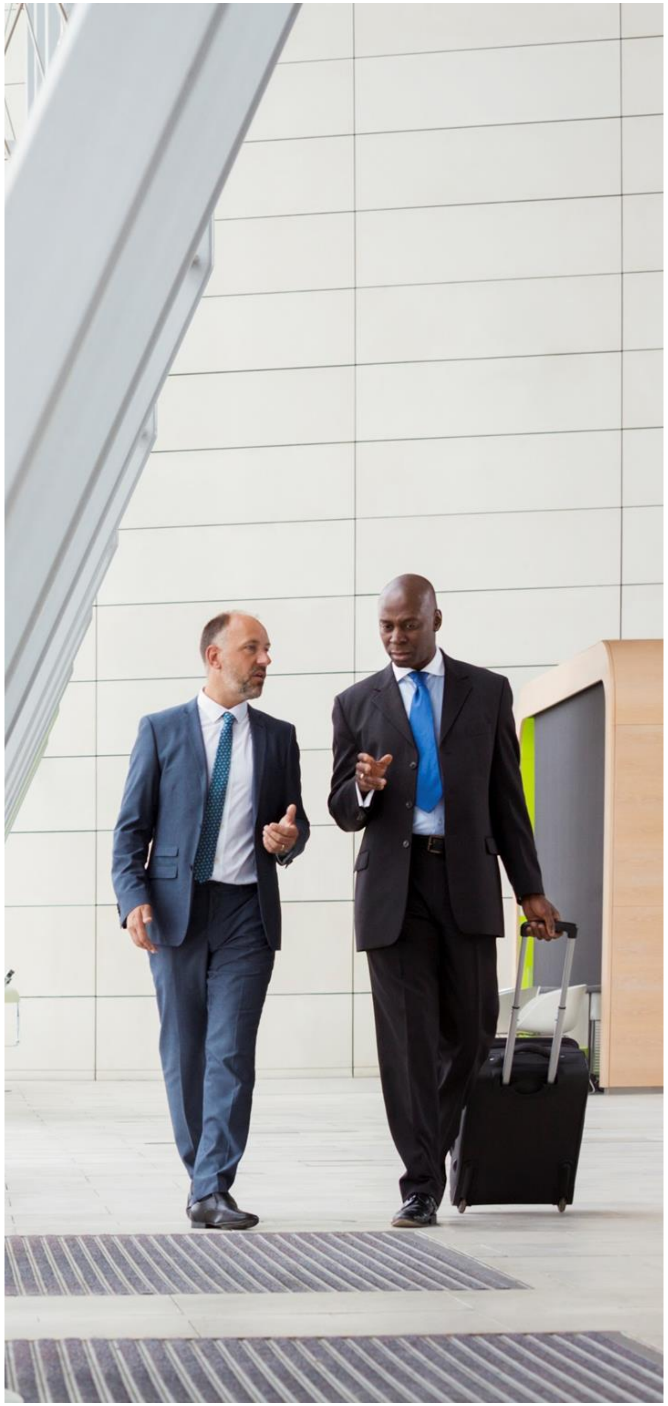
Irrecoverable VAT was the second largest tax payment for the study participants, accounting for 23.8% of the total taxes borne, a decrease from 26.0% in the previous study. In 2022, irrecoverable VAT decreased for both UK and foreign-headquartered banks, reflecting a decrease in input tax due to reductions in expenditure. The decrease is also attributable to a change in VAT rules following the UK's departure from the EU[27]. From 1 January 2021, the updated VAT rules allowed for input VAT credits for the majority of exempt trades entered into with EU based counterparties that were previously only available for trades with non-EU counterparties. This has resulted in an increase in VAT recovery rates for the banking sector reducing the amount of irrecoverable VAT incurred.

The total irrecoverable VAT for the 38 participating banks was £3.4bn. We have estimated[28] total irrecoverable VAT for the UK banking sector of £4.0bn in 2022. On a like-for-like basis, the amount of irrecoverable VAT paid decreased by 3.1% between 2021 and 2022.

Irrecoverable VAT is one of the largest taxes paid by banks and other financial services companies, however, 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 service companies, VAT is not charged to customers and the company cannot recover its input VAT.

Despite the decrease in this year's study, irrecoverable VAT has increased significantly since 2011. 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 increases the cost base and level of input VAT.

A further reduction could be expected in next year's survey from the full implementation of the reformed IR35 rules which took effect from April 2021.[29]



[27] The UK formally left the EU customs union and single market on 31 December 2020.
[28] Irrecoverable VAT was extrapolated using study data, government figures for employment taxes, and the profile of different types of banks in the study.
[29] Reforms to IR35 off-payroll working legislation came into force on 6 April 2021. Determination of whether contractors are working outside IR35 will now become the responsibility of the employer instead of the contractor themselves. As a result, the changes are expected to lead to fewer contractors being used across the banking sector.

Bank levy

The financial crisis and subsequent legislative changes have resulted in a fundamental shift in the taxation of the banking sector in the UK. The 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 have done each year up until 2021 (Figure 26).

Figure 26 shows the rate of bank levy since its introduction. The banks participating in this study paid bank levy of £1.5bn, accounting for 100% of the total bank levy receipts and representing 10.7% of total taxes borne. On a two-year like-for-like basis bank levy has decreased 32.0% reflecting the change in scope of the levy which came into effect from 2021. The scope of the bank levy originally applied to the global consolidated balance sheet of a UK-headquartered bank, but only to the UK balance sheet of a foreign-headquartered bank. The scope was restricted to UK-only operations for all banks from 1 January 2021.

Figure 26: Changes in the rate of bank levy[30]

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%	0.000	0.000
2012	0.088%	0.044%	0.013	0.006
2013	0.130%	0.065%	0.055	0.027
2014	0.156%	0.078%	0.081	0.040
2015	0.210%	0.105%	0.135	0.067
2016	0.180%	0.090%	0.105	0.052
2017	0.170%	0.085%	0.095	0.047
2018	0.160%	0.080%	0.085	0.042
2019	0.150%	0.075%	0.075	0.037
2020	0.140%	0.070%	0.065	0.032
2021	0.100%	0.050%	0.025	0.012

Source: HMRC data

[30] Source: 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 all taxes borne;
- Taxes borne and collected as a percentage of turnover.

Each TTC metric is calculated in three ways:

1. **Overall basis** – using the aggregate survey totals of all participating banks. This metric reflects the position for the participants banks as a whole, but will give weight to the larger banks.
2. **Mean** – using the individual metrics for each participant bank and calculating 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** – using the individual metrics for each participant bank and then taking the midpoint in a sorted list of results.

Taxes borne and collected as a percentage of value distributed

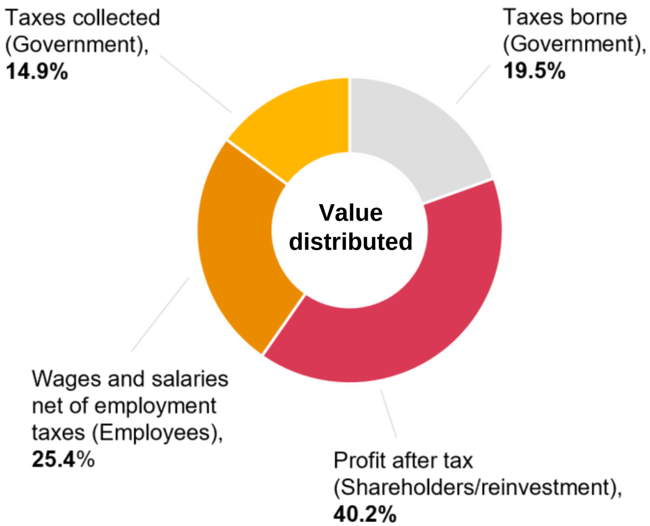
The TTC can be put into context of value distributed by companies. Value is distributed to the following recipients:

- To the government in taxes borne and collected
- To employees in wages (net of employment taxes)
- And is distributed to shareholders or retained in the business (for reinvestment) from profits after tax.

With the information gathered through the study, we are able to put the TTC in context of the value distributed by companies for those providing this data. Figure 27 shows the profile of value distributed by the participants on an overall basis.

Total Tax Contribution paid to the government represents 34.4% of the value distributed, while a further 25.4% is paid to employees as wages and salaries (net of employment taxes). Taxes borne account for 19.5% of the total for the study participants, while taxes collected represent a further 14.9% of the total. Profit after tax which is paid to shareholders as dividends or reinvested is 40.2%.

Figure 27: Taxes borne and collected as a percentage of value distributed



Source: Survey analysis

Putting the TTC data into the context of other economic indicators

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 32.4%[31]. The TTR calculated on an overall basis is weighted towards the largest banks in the survey. The mean TTR, giving equal weight to all banks in the survey, is 36.0% (Figure 28). Appendix 6 gives further details on the Total Tax Rate calculation.

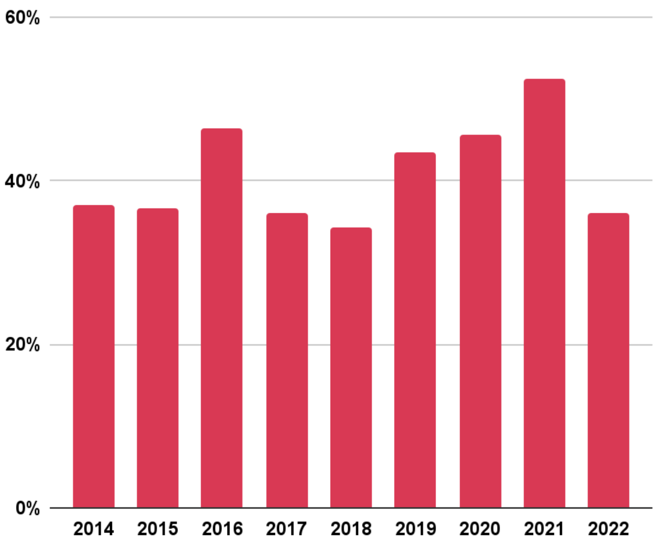
Figure 29 shows the mean Total Tax Rate from 2014 to 2022. The median TTR for the sector over the period is 36%, however, this increases to 40% and above during years where profitability is lower. This reflects the significance of sector taxes, such as bank levy and irrecoverable VAT, which are not dependent on profits and represent a fixed cost for the sector. The mean TTR peaked at 52.4% in 2021, reflecting the significant economic impact of the COVID-19 pandemic.

Figure 28: Total Tax Rate

	TTR
Overall	32.4%
Mean	36.0%
Median	33.5%

Source: Survey analysis

Figure 29: Mean TTR, 2014-2022



Source: Survey analysis

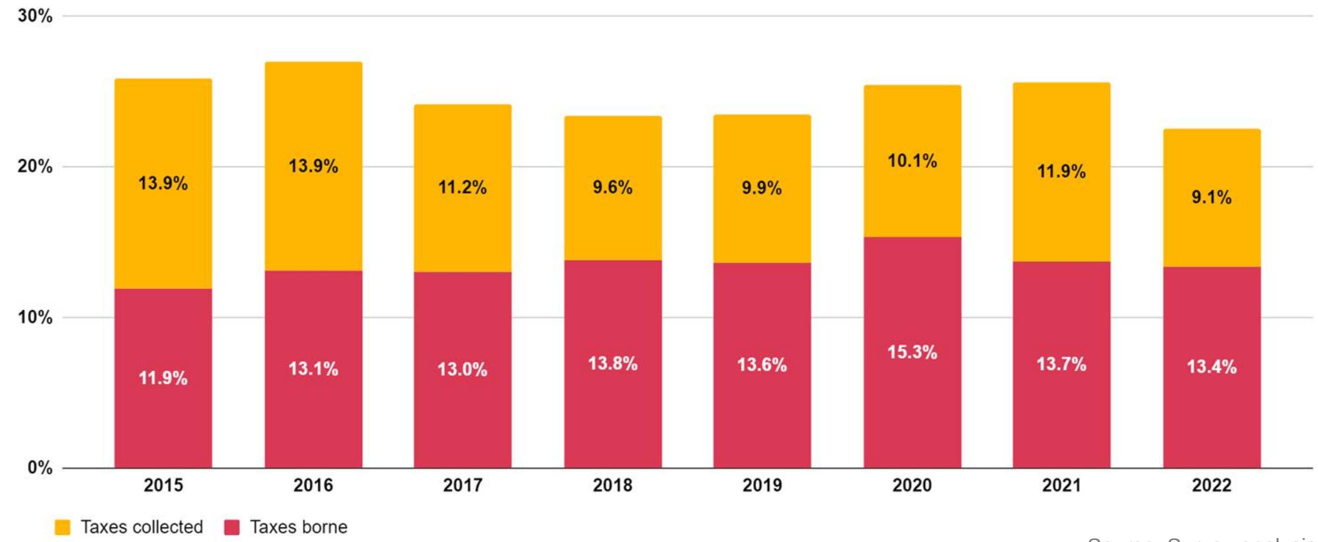
[31] The overall average Total Tax Rate was 32.4%, the mean was 36.0%, the median 33.5%, and the range 14.5% to 126.8%. (2021: The overall average Total Tax Rate was 107.9%, the mean was 52.4%, the median was 36.4%, and the range 13.7% to 141.4%.

Putting the TTC data into the context of other economic indicators

Total Tax Contribution as a percentage of turnover

On average for the banks participating in the study, TTC as a percentage of total UK turnover[32] was 22.5%. Taxes borne accounted for 13.4% and taxes collected 9.1%[33]. Figure 30 shows the percentage in 2022 has decreased compared to 2021, principally driven by the decline in taxes collected. The long-term trend shows that the proportion of taxes borne has been increasing since 2014, peaking in 2020 at 15.3%.

Figure 30: TTC as a percentage of turnover, 2014 – 2022



Source: Survey analysis

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

[33] The overall average TTC as a percentage of turnover was 21.4%, the mean was 22.5%, the median was 22.0%, and the range 12.8% to 37.2%. (2021: the overall average TTC as a percentage of turnover was 23.5%, the mean was 25.6%, the median 22.8%, and the range 10.2% to 72.5%).

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[34] 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 (bank 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 2022. For most study participants this was the year ending 31 December 2021.

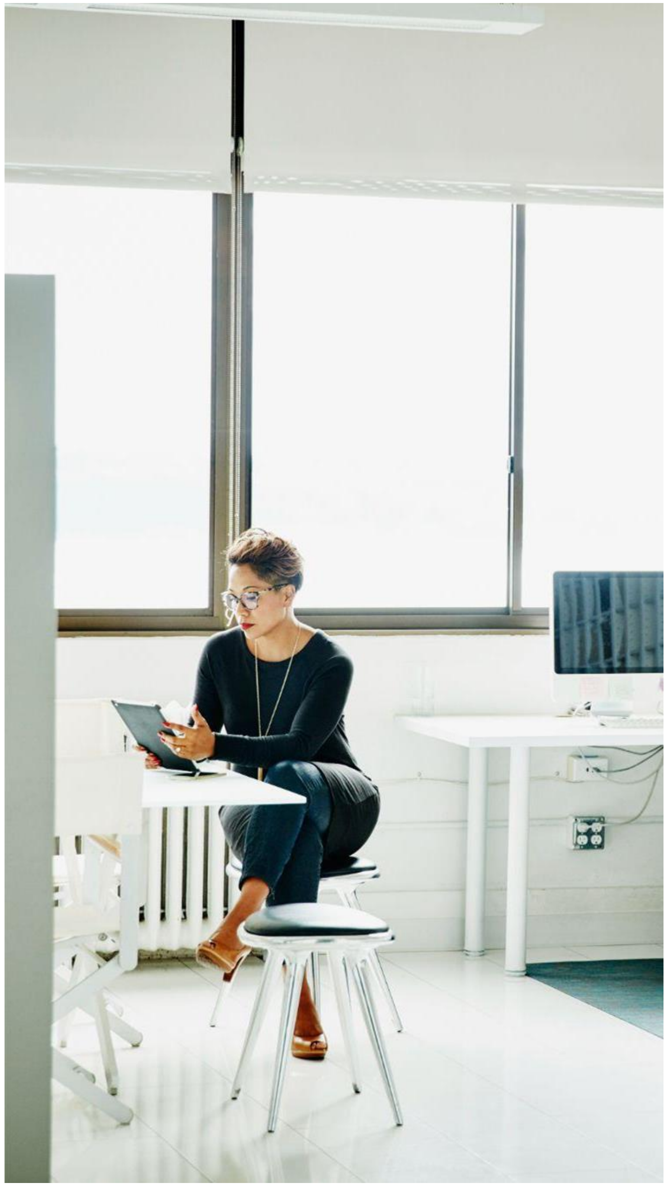
PwC has anonymised and aggregated this data to produce the study results. PwC has not verified, validated or audited the data and cannot give any undertakings as to the accuracy of the study results. The framework is straightforward in concept, not tax technical and therefore relatively easy for stakeholders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



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

Appendix 1

Purpose, methodology and participation

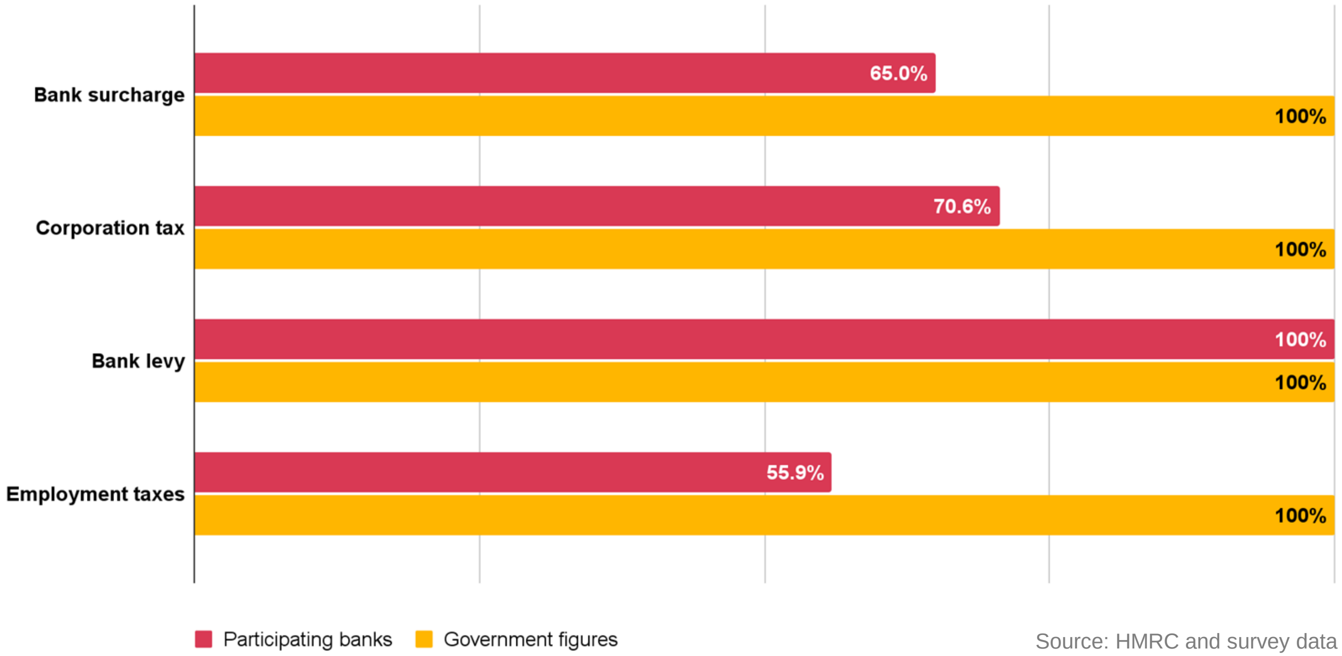
Participation in the TTC study

Thirty-eight 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 2022. 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[35].

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 net apprenticeship levy) paid by study participants totalled £12.2bn accounting for 55.9% of government receipts from the banking sector (£21.9bn).
- Bank levy paid by study participants was £1.5bn comprising 100% of government receipts from the banking sector (£1.5bn).
- Corporation tax payments made by participants totalled £3.9bn which represents 70.6% of corporation tax receipts (£5.5bn) from the UK banking sector.
- Bank surcharge paid by participants totalled £1.6bn making up 65.0% of the total bank surcharge receipts from the banking sector (£2.4bn).

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



Source: HMRC and survey data

[35] HMRC 'PAYE and Corporate Tax receipts from the banking sector: 2022'

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 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.

The parameters of the model in 2022 are the same as those in our 2021 report[36].

Model parameters

Banking activities – We assume 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 five major financial centres, namely London, Frankfurt, Amsterdam, Dublin and New York.

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[37] of the model bank totals £866 million. Specifically, for the London model, we have estimated the profit before tax to be £662 million with a 25% profit margin. The commercial profit will be the same in all five jurisdictions, however, the profit before tax will vary depending on the amount of the taxes borne in each jurisdiction.

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[36] https://www.ukfinance.org.uk/policy-and-guidance/reports-publications/2021-total-tax-contribution-uk-banking-sector

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

Appendix 2

International comparison of tax rates based on a model bank

Comparing 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 social security contributions

Of the five jurisdictions, the employer social security contributions are the highest in London for 2022 where they amount to 12.1% of commercial profit as a result of national insurance contributions being charged at 13.8% above the secondary threshold of £737 per month for the first 3 months of 2022. This increased to 15.05% above the secondary threshold of £758 per month between April and November. For the final two months of the year, the increase in rate to 15.05% was reversed back to 13.8% above the secondary threshold of £758 per month. For the other financial centres, the employer's social security contributions range between 1.7% and 9.5% of commercial profit 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 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.

Irrecoverable VAT (continued)

This is broadly in line with the levels of recoverability experienced by the UK banks we have spoken to and the resulting share of taxes borne accounted for by irrecoverable VAT is in line with our TTC data. These assumptions also hold true for Amsterdam, and there were no fundamental differences in the VAT treatment of the particular banking activities undertaken by the model bank in Dublin.

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 the 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%, Amsterdam: 6.1%, Dublin: 5.5%.

Bank Levy / SRF

The UK, Germany and Amsterdam 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.

In the UK, the levy is calculated by applying a predetermined rate to the bank's liabilities (see Figure 26). 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 calculation in the Netherlands is similar to that of the UK. For 2022, the temporary increase in bank levy rates in the Netherlands introduced during the pandemic were reversed, from 0.066% to 0.044% (short-term debt) and from 0.044% to 0.022% (long-term debt).

Appendix 2

International comparison of tax rates based on a model bank

In Germany, the bank levy is assessed by the authorities based on the amount that needs to be paid to the Single Resolution Fund[38]. 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, based on the total SRF raised in Germany in 2022 and the most recently available data on total bank assets (available from BaFin[39]), the German regulator. 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.

The Irish bank levy is based on deposits and does not apply to investment or corporate financing activities. As a result the bank levy would not be applicable owing to the assumptions made concerning the activities undertaken by the model bank.

The SRF is applicable for the model bank in both the Netherlands and in Ireland. The calculation has been made in the same way as described for Germany above, using the ratio of SRF to total assets to calculate the SRF paid by the model bank in Amsterdam and Dublin.

For the purposes of our model, we have determined that for 2022 our model bank would be subject to bank levy amounting to 4.3% of commercial profits in London, 6.9% in Frankfurt and 6.3% in Amsterdam. While the model bank would be subject to SRF amounting to 8.0% of commercial profit in Amsterdam and 7.2% in Dublin.

Taxes Borne (continued)

Corporate Income Tax

Of the three countries, the UK faces the highest levels of employer social security contribution and the second highest level of irrecoverable VAT/sales tax. 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 payments, share scheme deductions and differences between tax and accounting depreciation for fixed assets. These adjustments are not included in our model as they are 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, Germany or the Netherlands. 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 is 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 2022 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% trade tax rate for Frankfurt. For the US, the corporate income tax rate comprises a 21% federal rate and an effective state and local rate of 3%. For Amsterdam, we have used the corporate income tax rate of 15% on the first €395,000, and then 25.8% after that. And for Ireland, 12.5%.

Based on the above rates and our calculations, we have estimated the following profit taxes as a percentage of commercial profit: London: 21.8%, Frankfurt: 28.9%, New York: 22.9%, Amsterdam: 21.2%, Dublin: 9.7%.

Property Taxes

For all locations included in the international comparison, property taxes are 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.

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[38] 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.

[39] BaFin Annual Report 2021 available from https://www.bafin.de/EN/PublikationenDaten/Jahresbericht/jahresbericht_node_en.html

Appendix 2

International comparison of tax rates based on a model bank

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.

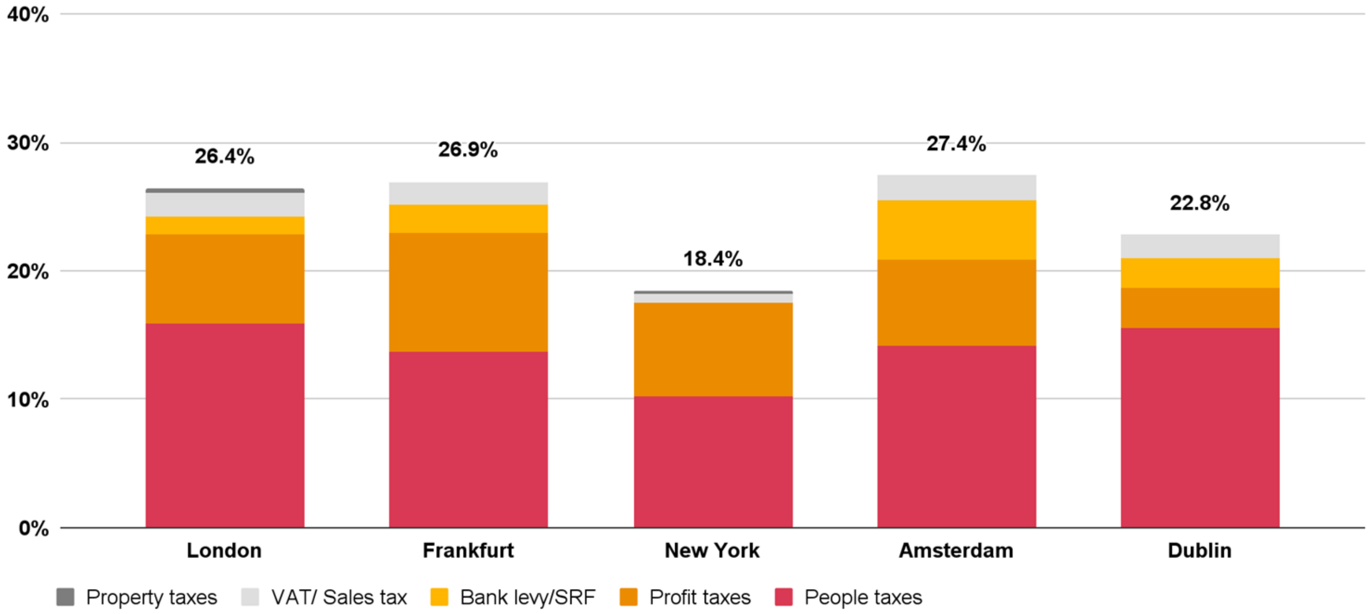
Employee social security contributions

In all five jurisdictions, employee social security contributions are relatively similar and are between 0.6% and 1.3% of net operating income (£23m to £42m)[40].

Personal income tax

With respect to personal income tax, our model bank would collect tax amounting to 11.0% of net operating income in Germany, 10.7% in the UK, 9.0% in the US, 11.9% in Amsterdam and 11.4% in Dublin. 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



Source: PwC analysis

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

Appendix 3

Taxes borne reported by survey participants

Taxes borne	£s 2022
Taxes on profit (profit taxes)	
Corporation tax	3,882,835,324
Bank surcharge	1,560,937,467
Taxes on property (property taxes)	
Business rates	509,299,566
Bank levy	1,507,310,352
Stamp duty land tax	2,948,951
Stamp duty reserve tax	34,834,620
Taxes on employment (people taxes)	
PSA (taxes on benefits)	51,838,067
Employer NIC	3,065,661,007
Apprenticeship levy	80,979,638
Taxes on consumption (product taxes)	
Irrecoverable VAT	3,364,650,411
Insurance premium tax	11,020,290
Air passenger duty	4,718,252
Customs duty	306,472
Environmental taxes (planet taxes)	
Landfill tax	27,408
Climate change levy	6,287,154
Other	58,061,591
Total	**14,141,716,570**

Appendix 4

Taxes collected reported by survey participants

Taxes collected	£s 2022
Taxes on profit (profit taxes)	
Tax deducted at source	455,698,178
Taxes on property (property taxes)	
Stamp duty reserve tax	1,399,041,954
Taxes on employment (people taxes)	
Income tax collected under PAYE	7,696,217,496
Employer NIC	1,340,220,040
Taxes on consumption (product taxes)	
Net VAT	199,979,297
Insurance premium tax	138,839,496
Total	**11,229,996,461**

Appendix 5

Employment taxes

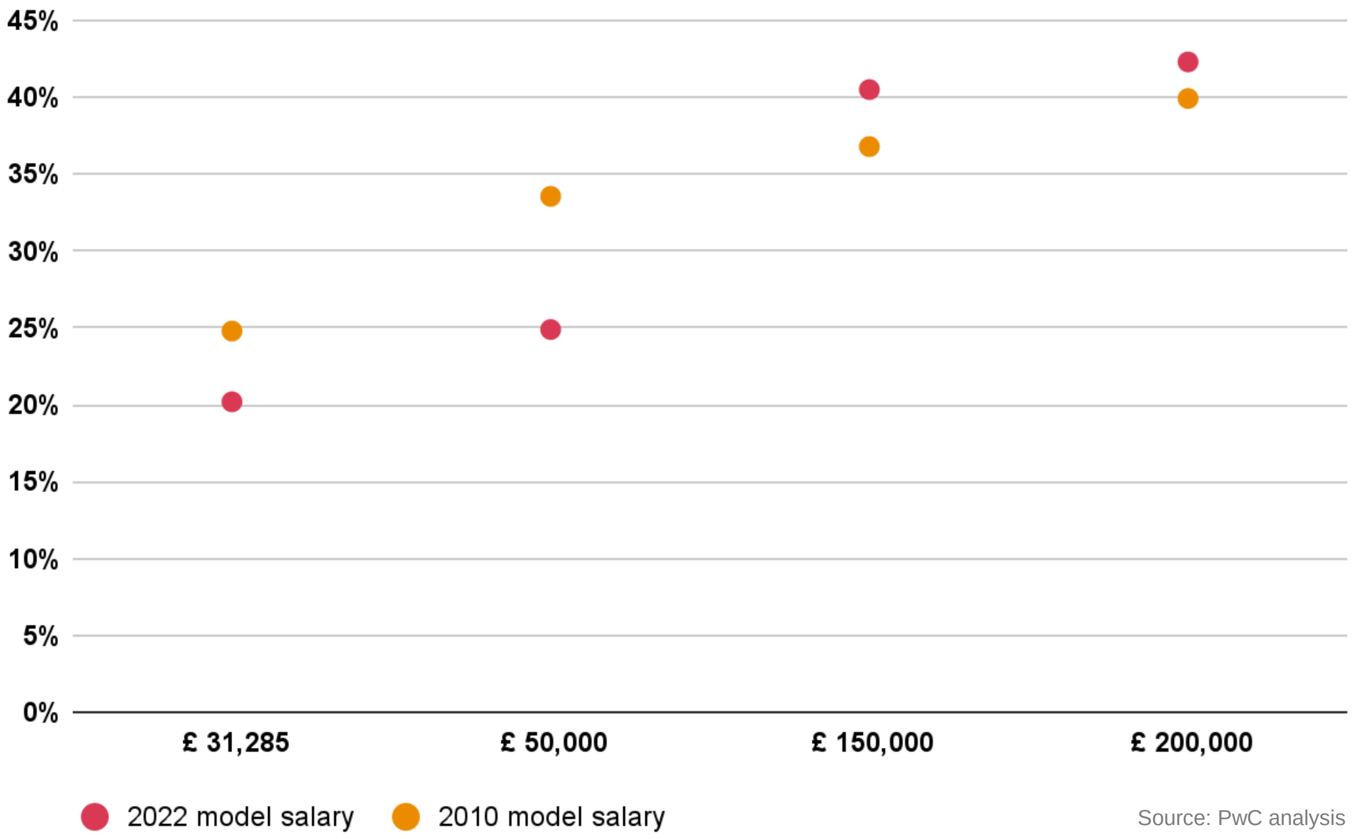
UK employment tax legislation is structured so that higher salaries are taxed at higher rates. Using selected salaries, we have modelled the total employment tax that would be paid per employee.

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 2022 for a range of example salaries. From the national average salary of £31,285[41] 20.2% is paid in employee income tax and employee NIC in 2022, while this ratio was 24.8% in 2010. The equivalent figure for a salary of £150,000 is 40.5% in 2022 and 36.8% in 2010, a 3.7 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 eight 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 £31,285 has fallen by 4.1 percentage points since 2010. By contrast, a salary of £150,000 has seen an increase of 2.8 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

[41] https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/bulletins/annualsurveyofhoursandearnings/2021

Appendix 5

Employment taxes

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	£6,035-40,835	£40,835-over	NA
2009-10	£6,475-43,875	£43,875-over	NA
2010-11	£6,475-43,875	£43,875-150,000	£150,000-over (50%)
2011-12	£7,475-42,475	£42,475-150,000	£150,000-over (50%)
2012-13	£8,105-42,385	£42,385-150,000	£150,000-over (50%)
2013-14	£9,440-41,450	£41,450-150,000	£150,000-over (45%)
2014-15	£10,000-41,865	£41,865-150,000	£150,000-over (45%)
2015-16	£10,600-42,385	£42,385-150,000	£150,000-over (45%)
2016-17	£11,000-43,000	£43,000-150,000	£150,000-over (45%)
2017-18	£11,500-45,000	£45,000-150,000	£150,000-over (45%)
2018-19	£11,850-46,350	£46,350-150,000	£150,000-over (45%)
2019-20	£12,500-50,000	£50,000-150,000	£150,000-over (45%)
2020-21	£12,500-50,000	£50,000-150,000	£150,000-over (45%)
2021-22	£12,570-50,270	£50,270-150,000	£150,000-over (45%)

Appendix 6

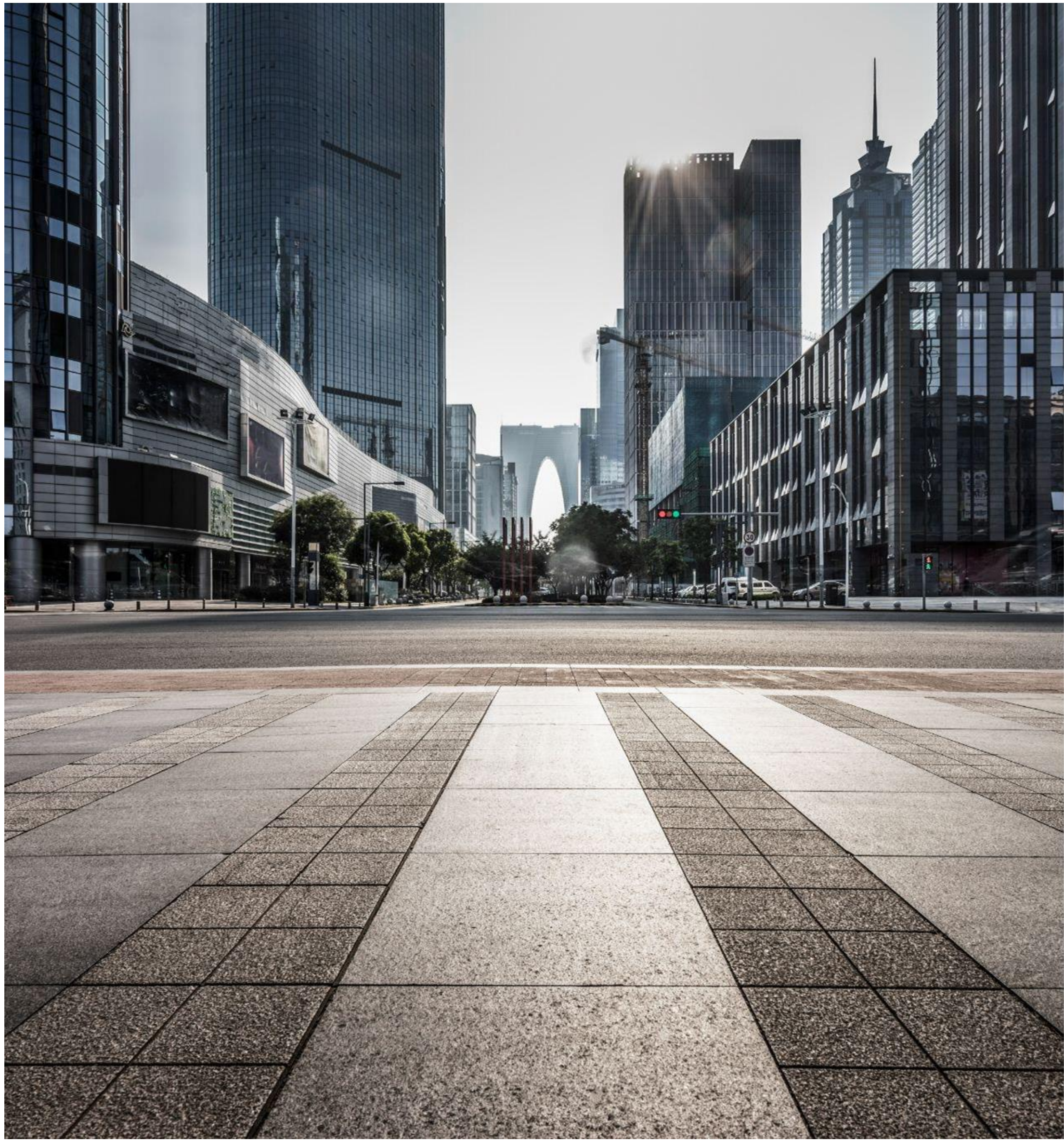
Total tax Rate calculation

An example of the Total 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 pid, 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)**



Appendix 7

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 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. In April 2021, the UK government announced an increase in the headline rate from 19% to 25% from April 2023.

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 0.075% in 2019 to 0.070% in 2020. The rate was 0.050% from 1 January 2021. The rate for short term chargeable equity or liabilities reduced from 0.150% in 2019 to 0.140% in 2020. The rate was 0.100% from 1 January 2021. The scope of the bank levy previously 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 was reduced to UK operations only with effect from 2021.

Income tax deducted under PAYE: The personal allowance threshold increased by £570 from 2020/21 to £12,570 in 2021/22. The higher rate threshold in England, Northern Ireland and Wales increased to £50,270 in 2021/22.

National Insurance Contributions: From April 2021 the upper earnings limit was increased to £50,268. From April 2022 an additional 1.25 percentage point increase to both employer and employee NIC took effect as a result of the Health and Social Care Levy. This increase has been reversed from November 2022.

The primary threshold for Employee National Insurance increased from £9,564 to £9,876 in April 2022, this further increased to £12,576 in July 2022.

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 pay bill. 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.

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