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# Productivity Lessons Learnt from the World – Best International Practices and Policies

# Tax and Productivity

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# Tax and Productivity

Research shows a clear link between taxation, productivity, and wider economic growth. The primary purpose of taxation is to raise enough revenue for the financial functioning of the state. Taxation can also have other aims, such as redistributing wealth and discouraging certain “harmful” activities (e.g., alcohol consumption, smoking, and gambling). Another key aim of taxation policy should be supporting economic growth via helping to enhance productivity. Taxation is an important fiscal lever, but ideally it should not discourage economic growth or productivity gains. There is also an assumption that productivity improvements will lead to higher economic growth. This assumption is explored somewhat in this report and more widely as part of this research series.

This report explores the ways in which taxation can either help or hinder productivity, drawing on our research into the tax policy of several countries around the world. This research focusses on the United Kingdom (UK) and compares it to the Republic of Ireland, Australia, Singapore, and four of the Nordic countries – Sweden, Denmark, Norway, and Finland. These seven countries were chosen because they appear to have very productive economies, each with its own unique fiscal model.

The productivity of these countries has been explored in a different paper in this research series.



# Tax and Productivity: Key Findings

## **Tax certainty for businesses is key for investment to drive up**

Certainty over tax policy allows companies to make investment and business decisions with more confidence, potentially leading to increased investment and, in turn, improved productivity and economic growth.

According to our research, of the countries studied, the UK has one of the least certain tax environments. When it comes to income taxes, value-added tax (VAT), and corporation taxes, the UK has, on average, changed these rates more often, and in some cases, by larger percentages than the other countries studied.

## **The UK has an increasing tax wedge**

The tax wedge for the average single worker in the UK increased by 0.7 percentage points from 30.8% in 2021 to 31.5% in 2022. The UK had the 21st highest tax wedge in the Organization for Economic Cooperation and Development (OECD) for an average married worker with two children at 27.2% in 2022, up from 26.3% in 2021, compared with the OECD average of 25.6%; the UK rate is lower than many of the Nordic countries, but higher than Denmark, Australia, and Ireland.

## **Tax affects incentives, which affect productivity**

The impact of different taxes on productivity depends on factors such as the different tax rates, the economic situation both globally and within a country, a country's historic approach to taxation, and current fiscal policy. Our research shows that some taxes and tax incentives affect productivity more directly than others. For example:

High corporation taxes and income taxes can act as a barrier to investment and attracting and maintaining talent, depending on what tax incentives and social security policies accompany these taxes.

High, complicated rates on Stamp Duty Land Tax (stamp duty) can act as a barrier to people moving to more economically active and potentially more productive areas and regions.

Before either introducing or varying tax rates, bases, or incentives, policymakers need to consider the impact on productivity improvement and wider economic growth.

## **The UK has the second highest headline corporation tax rate**

The UK now has the second highest headline corporation tax rate among the countries looked at in this study at 25%, with Australia having the highest at 30%. Australian policy makers have discussed plans to reduce the corporation tax rate over the coming years to 25%.

### **The UK is generous with research and development (R&D) tax relief, but other countries are closing the gap**

The UK is the most generous of the countries in this study when it comes to R&D tax relief. However, other countries are planning to increase investment in R&D. For example, Finland plans to spend 4% of its gross domestic product (GDP) on R&D by 2030.

### **The UK has a high marginal personal income tax rate for certain groups, which holds back productivity and growth**

Some groups of taxpayers, due to anomalies in the UK tax system, face a high marginal income tax rate. The two groups most affected are (a) those receiving the child tax benefit and earning between £50,000–£60,000, who face a marginal tax rate of near 70%, and (b) those earning £100,000–£120,000, who have a marginal tax rate of over 60%. This marginal rate for those earning over £100,000 can be even worse for those receiving tax-free childcare. These high marginal tax rates act as a drag on productivity as workers look to reduce their hours, not accept promotions, or save money in pensions to offset the effects of these high rates.

### **The UK VAT threshold impedes small and medium-sized enterprise (SME) scale up**

Among the countries studied in our research, the UK sits in the middle when it comes to its VAT registration thresholds. The Nordic countries have a low threshold for VAT registration, whereas Singapore has a high threshold. Australia and Ireland have thresholds similar to the UK. The UK VAT registration threshold appears to act as a barrier to SME scale up. A significant number of businesses appear to stay below the threshold and are not motivated to scale up.

### **The UK has a complicated and high stamp duty land tax, which can act as a barrier to productivity**

Of the countries studied, the UK has the highest rates of stamp duty for residential property and the most complicated tax structure, with different and varying rates for both residential and commercial property. Given the high property costs in the UK, this can act as a barrier, keeping workers from moving to more productive areas and holding back economic growth.

# Key Recommendations for the UK

## Provide tax certainty

One policy suggestion raised in previous reports, including both *Budgeting for Recovery and a Long-Term Economic Plan*<sup>1</sup> and *Cost of Business – Inflation’s Impacts and the Role of Finance*,<sup>2</sup> is the need to provide tax certainty to help businesses prepare, plan, and make stable investment decisions.

The present research reinforces the need for tax certainty. Those countries with stronger, longer-term productivity growth compared with the UK appear to have more stable taxation environments. This does not mean those countries don’t make taxation changes; the changes appear to be less frequent and/or more strategic and planned in nature. The UK should learn lessons from more productive countries on creating a stable tax base and framework for businesses to help boost productivity.

Going forward, the UK should ensure that all prospective taxation changes are considered from a long-term viewpoint, and that the changes are not temporary. Also, careful consideration should be given to how the taxation change will affect productivity and economic growth. Changes that will promote these fiscal priorities should take precedence.

## Ensure corporation tax remains competitive

The UK needs to ensure that corporation tax rates remain competitive with the most productive global economies. From this research it is clear that the corporation tax changes introduced in the Spring budget 2023, which raised the headline corporation tax rate from 19% to 25%, make the UK the second highest corporation tax environment of the countries included in our study.

In order to compensate for the increase in the headline rate of corporation tax, UK Chancellor of the Exchequer, Jeremy Hunt MP, did introduce a capital allowance, which allows companies to write off the cost of qualifying expenditures against taxable income, thus cutting businesses’ overall tax bill in the year expensed. This means that until April 2026, for every £1 invested in qualifying expenditures, companies can save up to £0.25 on their tax bill in the year of acquisition. This provides some mitigation against higher corporation tax headline rates, but companies will still be looking at headline rates.

Over the next few years, Australia aims to reduce its corporation tax rate from 30% to at least 25%. If no other country in this study increases its headline rates to that of the UK’s, the UK will, with Australia, have the highest corporation tax rate.

## Learn lessons from the Singaporean Corporation Tax Incentive Model

Singapore not only has a low corporation tax model but also has several tax incentives to encourage companies to relocate there and small and medium enterprises (SMEs) to grow. These activities improve the productivity of companies within Singapore.

The UK should see what lessons it can learn from the Singaporean tax incentive model to help boost productivity both at a micro and macro level and ultimately improve economic growth. In particular, the UK should explore the incentives that help SMEs scale up, grow, and improve their productivity.

<sup>1</sup> <https://www.aicpa-cima.com/professional-insights/download/budgeting-for-recovery-and-a-long-term-economic-future-for-the-uk>

<sup>2</sup> <https://www.aicpa-cima.com/advocacy/download/cost-of-business-inflations-impacts-and-role-of-finance-report>

### **Must maintain status as a high-incentive R&D tax credit environment**

The UK has a good story to tell when it comes to R&D tax relief. That generosity boosts investment in R&D activities that help improve productivity. However, other countries are catching up, and the UK should continue to maintain its status as a world leader in R&D by ensuring its R&D tax relief schemes remain globally competitive.

### **Other countries are looking to change income tax bands and rates; with no changes, the UK risks being left behind**

Other countries such as Ireland and Australia are currently reviewing and/or have plans to change their income tax bands to support productivity and improve economic growth. There is a danger that the UK, with its policy of fiscal drag (from freezing income tax bands), will get left behind and talent will look to move elsewhere, which would be a further drag on productivity.

### **Reduce income tax wedge**

The UK should ensure its growing tax wedge does not act as a further drag on productivity or deter talent from locating to, or remaining in, the UK. The government should determine what lessons it can learn from other countries to reduce the UK income tax wedge. As part of this, the UK should review, for certain groups, its high marginal effective tax rates, which are well over 60% and nearly 70% for some.

### **Avoid income tax band creep, which reduces productivity**

As the UK maintains its income tax band threshold rates and inflation is likely to result in increased wages (though not in real terms), more people will enter into a higher tax rate or an additional tax rate — this is known as band creep. This can act as a drag on productivity, especially when combined with the high marginal tax rates for certain groups (as described previously). Some workers may look to reduce hours or refuse promotions, especially if they are on the cusp of the threshold and wish to avoid being exposed to the higher tax rate. Others may seek alternative methods to offset their exposure to higher taxation. The UK could learn lessons from Australia and Ireland, which are already reviewing their income tax rates and bands. Such a review could ensure that future rates and bands are designed to help to improve UK productivity.

### **Ensure VAT thresholds are not a barrier to SME expansion and scale up**

There are many SMEs who appear to fall below the VAT registration threshold in the UK. Many are not motivated to grow beyond the VAT threshold. The UK government should learn lessons from other countries in this study on VAT registration threshold rates and encourage more SMEs to scale up and register for VAT.

### **Simplify and reduce burden of stamp duty to improve productivity**

UK stamp duty on residential properties is high and complicated compared to other countries in our study. To help boost productivity, the UK government should look at how other productive economies structure and apply stamp duty rates and thresholds.

# Influence of Tax Policy on Productivity

In the 2008 OECD working paper *How do Taxes Affect Investment and Productivity? An Industry-Level Analysis of OECD Countries*, paper author Laura Vartia found that tax can affect productivity negatively or positively in three key ways:

- Distortion in factor prices and factor allocation
- Entrepreneurship
- R&D activity<sup>3</sup>

This effect on productivity can be positive or negative depending on factors, including tax rates, tax reliefs, tax bands, and tax base. This finding is backed up by International Monetary Fund (IMF) research that states, 'upgrading the tax system is also key to boosting productivity by reducing distortions that prevent resources from going to where they are most productive'.<sup>4</sup>

Tax can also affect investment decisions that could lead to productivity gains. Tax may reduce the incentive to invest due to reducing the amount of return on capital or tax may increase incentives to invest via lower taxation or refunded taxation. The OECD study *Tax Policies for Inclusive Growth in a Changing World* showed that tax policy is highly effective in changing the level and timing of investment decisions by businesses.<sup>5</sup>

Taxation can have different effects on productivity depending on the tax type, level of taxation, tax policy changes, make-up of businesses in the economy, economic headwinds, and wider monetary and fiscal strategy.

This report does not explore every different type of taxation and its impact on productivity. Instead, the focus is on key taxes and themes around taxation that each of the countries in this study have or that they share that influence productivity. These include certainty, corporation tax, R&D tax incentives, income tax, VAT, and stamp duty.

## Tax Certainty, Investment, and Productivity

Business investment is a key element in improving productivity in the long term. Tax certainty allows businesses to make well-informed investment decisions for the future based on a stable tax platform. In our report, *Budgeting for Recovery and a Long-Term Economic Future for the UK*,<sup>6</sup> we highlighted the crucial role that tax certainty played for businesses. We suggested that the UK government could provide certainty for businesses by outlining their tax plans for the next two years. This would give companies clarity on the tax framework for at least the next two fiscal years, allowing them to make better investment decisions.

<sup>3</sup> <https://www.oecd-ilibrary.org/docserver/230022721067.pdf?expires=1686305494&id=id&accname=guest&checksum=6B6CC22E7289A6C701ABCC7061561CBC>

<sup>4</sup> <https://www.imf.org/-/media/Files/Publications/fiscal-monitor/2017/April/pdf/fmc2.ashx>

<sup>5</sup> <https://www.oecd.org/g20/Tax-policies-for-inclusive-growth-in-a-changing-world-OECD.pdf>

<sup>6</sup> <https://www.aicpa-cima.com/professional-insights/download/budgeting-for-recovery-and-a-long-term-economic-future-for-the-uk>



## Corporation Tax and Productivity

There is a belief that lower corporation tax rates lead to higher economic growth and increased productivity. Taxation can have a distortive effect and affect investment decisions. One point of view suggests that an attractive corporate tax environment can encourage foreign direct investment, which can help to boost productivity and economic growth. Tax competition means that places with lower corporate tax will attract business activity more than those with higher rates. For example:

- Niels Veldhuis and Jason Clemens, in *Productivity, Prosperity, and Business Taxes*, part of the Centre for Budgetary Studies (Canada) *Studies in Economic Prosperity*, found that US states 'offering attractive tax climates will be able to draw business activity away from other parts of the United States'.<sup>7</sup> This would seem to support the view that attractive corporation tax environments can encourage investment. The OECD study *Tax Changes and Economic Growth: Empirical Evidence for a Panel of OECD Countries*, by Davide Furceri and Georgios Karras, also showed that taxes on company profits negatively affect GDP.<sup>8</sup> This could be because taxing profits can discourage productive investment.
- In their University of Nottingham 2012 discussion paper on economics, *Corporate Taxation and Productivity Catch-Up: Evidence from 11 European Countries*, Norman Gemmill, Richard Kneller, Danny McGowan, and Ismael Sanz found that higher rates of corporation tax can affect the convergence of smaller firms in taking up productivity enhancing investments.<sup>9</sup>
- Vartia's 2008 OECD study showed that corporate income taxes reduce total factor productivity.<sup>10</sup>

Yet, the recent experience of the UK could appear to show that lower headline corporation tax levels do not automatically lead to higher economic growth. As then Chancellor Rishi Sunak MP in his Mais Lecture in February 2022 stated, the UK's policy of reducing headline rates of corporation tax had not led to a surge in business investment and it was the tax treatment of capital investment that needed to be made more generous.<sup>11</sup> This was implemented in UK Chancellor Jeremy Hunt's 2022 statement, which raised corporate tax by nearly one third and introduced full expensing for capital investment.<sup>12</sup> Sebastian Gechert and Philipp Heimberger's study, *Do Corporate Tax Cuts Boost Economic Growth?*, showed that corporate tax cuts have little to no effect on economic growth and that other issues such as R&D incentives can be just as important for economic growth.<sup>13</sup> Although the impact of corporation tax on economic growth may be somewhat disputed, when it comes to productivity there is clear evidence that it can have a negative impact.

## R&D Tax Incentives and Productivity

There is clear evidence that investment in and incentives to support R&D can have a positive impact on productivity.

In our 2021 report *Tackling the UK Productivity Puzzle*, we found that for every one dollar spent on R&D, the long-term return is fourfold.<sup>14</sup> In their study looking at the effects of R&D investment among Finnish firms, *Impact of R&D on Productivity – Firm-level Evidence from Finland*, Jyrki Ali-Yrkkö and Mika Maliranta found that R&D investment does positively affect productivity, but for the first two years there is almost no statistically significant impact; it is only realised after around five years.<sup>15</sup> This view is further supported by Vartia's 2008 OECD study into taxes, investment, and productivity that showed the 'R&D tax incentives are found to enhance long-run productivity'.<sup>16</sup>

<sup>7</sup> <https://www.fraserinstitute.org/sites/default/files/ProductivityProsperityBusinessTaxes.pdf>

<sup>8</sup> [https://www.ecb.europa.eu/events/pdf/conferences/ws\\_pubfinance/paper\\_Furceri.pdf?e6a4da695b59b4e8685dc92b037c6c3c](https://www.ecb.europa.eu/events/pdf/conferences/ws_pubfinance/paper_Furceri.pdf?e6a4da695b59b4e8685dc92b037c6c3c)

<sup>9</sup> <https://www.nottingham.ac.uk/economics/documents/discussion-papers/12-06.pdf>

<sup>10</sup> <https://www.oecd-ilibrary.org/docserver/230022721067.pdf?expires=1685718768&id=id&accname=guest&checksum=4E94DAEB7EA7CD88332F70443C2DEE9F>

<sup>11</sup> <https://www.gov.uk/government/speeches/chancellor-rishi-sunaks-mais-lecture-2022>

<sup>12</sup> <https://www.gov.uk/government/speeches/the-autumn-statement-2022-speech>; [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1118417/CCS1022065440-001\\_SECURE\\_HMT\\_Autumn\\_Statement\\_November\\_2022\\_Web\\_accessible\\_1\\_.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1118417/CCS1022065440-001_SECURE_HMT_Autumn_Statement_November_2022_Web_accessible_1_.pdf)

<sup>13</sup> <https://www.sciencedirect.com/science/article/pii/S0014292122000885>

<sup>14</sup> <https://www.aicpa-cima.com/resources/download/tackling-the-uk-productivity-puzzle>

<sup>15</sup> <https://www.etla.fi/en/publications/dp1031-en/>

<sup>16</sup> <https://www.oecd-ilibrary.org/docserver/230022721067.pdf?expires=1685718768&id=id&accname=guest&checksum=4E94DAEB7EA7CD88332F70443C2DEE9F>

Although the impact of patent tax relief on boosting economic growth and productivity is harder to judge due to it being a recent policy development, we have included it because patents normally suggest a high level of invention and innovation, which are closely correlated with productivity growth.

## Income Tax and Productivity

In 'Taxation, Productivity and Growth', Sam Mitha argued that high levels of income tax can 'reduce the incentive to supply labour'.<sup>17</sup> This view was supported in Vartia's OECD study which showed that 'high top marginal personal income tax rates are found to impede long-run productivity working through the channel of entrepreneurial activity'.<sup>18</sup> The same study found that 'social security contributions [taxes] have a negative influence on [total factor productivity] and that this effect is more pronounced in industries that are characterised by high labour intensity'.<sup>19</sup>

Income taxes can affect labour in other ways and not just via high top marginal tax rates. Depending on thresholds and marginal tax rates, there can sometimes be a disincentive built into the taxation system towards working more hours (as noted by Alex Whalen and Jake Fuss in *Increasing Productivity Through Tax Reform*<sup>20</sup>), producing more, or accepting pay rises and promotions. If this disincentive exists, it can be a drag on productivity because companies are unable to get the right levels of labour to grow or continue operations.

A study in the US by Aaron Hedlund, *How Do Taxes Affect Entrepreneurship, Innovation, and Productivity?*, shows that increasing income tax reduces investor incentive to create new innovations and can affect the location of inventors. The same study also found that a 1% hike in state taxes is associated with a 1.8% higher net outflow of innovators.<sup>21</sup> Further, a joint study

between the OECD Economics Department and the OECD Centre for Tax Policy and Administration (CTPA), and summarized in *Tax Design for Inclusive Economic Growth: Summary and Main Findings*, found that, across OECD countries, personal income taxes and corporate income taxes are some of the most distortive taxes for economic growth.<sup>22</sup>

## VAT and Productivity

In *Do VAT rates affect the competitive behaviour of firms?*, Arun Advani, Michel Azulai, and Lucie Gadenne reported that VAT is seen as a tax that 'avoid[s] distorting production in a perfectly competitive economy'.<sup>23</sup> The Tax Design for Inclusive Economic Growth report, authored by Bert Brys, Sarah Perret, Alastair Thomas, and Pierce O'Reilly, found that consumption taxes are the second least damaging to economic growth after recurrent taxes on immovable property and before other property taxes and personal and corporate income taxes.<sup>24</sup> Veldhuis and Clemens, in *Productivity, Prosperity, and Business Taxes*, found that reducing consumption taxes, such as VAT, yields the least welfare and economic benefits compared to reducing other taxes.<sup>25</sup>

However, in 'Why raising VAT destroys wealth,' Richard Wellings, former Deputy Research Director at the Institute of Economic Affairs, argues that raising VAT 'will have a negative impact on productivity growth by reducing the economic incentives to trade and therefore hampers the division of labour and the associated productivity gains from increased specialisation and economies of scale'.<sup>26</sup> Though there may be some debate about the exact economic and productivity effects consumption taxes can have, from our literature research, most current studies seem to suggest that consumption taxes do not affect productivity as much as corporation and personal income taxation.

<sup>17</sup> <https://www.taxjournal.com/articles/taxation-productivity-and-growth>

<sup>18</sup> [https://www.oecd-ilibrary.org/economics/how-do-taxes-affect-investment-and-productivity\\_230022721067](https://www.oecd-ilibrary.org/economics/how-do-taxes-affect-investment-and-productivity_230022721067)

<sup>19</sup> [https://www.oecd-ilibrary.org/economics/how-do-taxes-affect-investment-and-productivity\\_230022721067](https://www.oecd-ilibrary.org/economics/how-do-taxes-affect-investment-and-productivity_230022721067)

<sup>20</sup> <https://www.fraserinstitute.org/sites/default/files/increasing-productivity-through-tax-reform-4day-week-essay.pdf>

<sup>21</sup> <https://www.thecgo.org/research/how-do-taxes-affect-entrepreneurship-innovation-and-productivity/>

<sup>22</sup> <https://www.oecd.org/mena/competitiveness/41997578.pdf>

<sup>23</sup> <https://www.taxdev.org/research-projects/vat-really-neutral>

<sup>24</sup> [https://www.oecd-ilibrary.org/taxation/tax-design-for-inclusive-economic-growth\\_5jlv74ggk0g7-en](https://www.oecd-ilibrary.org/taxation/tax-design-for-inclusive-economic-growth_5jlv74ggk0g7-en)

<sup>25</sup> <https://www.fraserinstitute.org/sites/default/files/ProductivityProsperityBusinessTaxes.pdf>

<sup>26</sup> <https://iea.org.uk/blog/why-raising-vat-destroys-wealth>

## Stamp Duty and Productivity

Stamp duty can have a negative impact on productivity due to it creating distortions in the marketplace by becoming a burdensome cost to individuals and companies moving to regions of a country experiencing more economic growth and productivity. A Deloitte report looking at stamp duty economic costs in Australia highlighted four ways in which stamp duty can present economic distortions and be a drag on productivity:

- By increasing the costs of moving, stamp duties may decrease labour mobility, overall labour supply, and productivity in the economy.
- They prevent efficient up-sizing or down-sizing of property across the population as owners are discouraged from transacting properties.
- They increase the costs of businesses efficiently restructuring or relocating.
- Fewer transactions occur, which affects those businesses selling products related to property transactions, such as removal services, and some retail purchases.<sup>27</sup>

These findings are backed up by a London School of Economics study looking at the stamp duty holiday in the UK during the pandemic. In *Lessons From the Stamp Duty Holiday: An LSE London Report for Family Building Society*, authors Kath Scanlon, Christine Whitehead, and Fanny Blanc found that stamp duty contributes to a reduction in residential and job mobility and an inefficient use of housing stock. They also found that this means fewer people moving to better employment, which has a negative impact on productivity.<sup>28</sup>

In a 2015 OECD book titled *The Future of Productivity*, the OECD found that lowering the transaction costs of moving from the highest levels in the OECD to the median level could reduce the skills mismatch by 7% and create a 2.5% boost to labour productivity.<sup>29</sup> As reported by Matthew Lesh, 'The Australian Treasury found that stamp duty leads to an economic and welfare loss of 72 cents for every AUD 1 of revenue raised'.<sup>30</sup>

The preceding research shows several clear links between tax, economic growth, and productivity. Some tax rates, depending on design, frameworks, and rates, can negatively affect productivity and consequentially economic growth. Also, tax incentives, depending on design and implementation, can have either a positive or a negative impact on improving productivity. In subsequent sections of this report we explore the previously examined tax rates, comparing the UK to the countries in our study – Republic of Ireland, Australia, Singapore, and four of the Nordic countries (Sweden, Denmark, Norway, and Finland). We explore what lessons, if any, the UK can learn from these countries around tax design, rates, and frameworks that, if applied to the UK, could help drive up productivity and economic growth.

<sup>27</sup> <https://www.propertycouncil.com.au/advocacy-submissions/the-economic-impact-of-stamp-duty-three-reform-options>

<sup>28</sup> <https://www.lse.ac.uk/geography-and-environment/research/lse-london/documents/Reports/Lessons-from-stamp-duty-holiday-LSE-London-Report-2021.pdf>

<sup>29</sup> <https://www.oecd.org/economy/growth/OECD-2015-The-future-of-productivity-book.pdf>

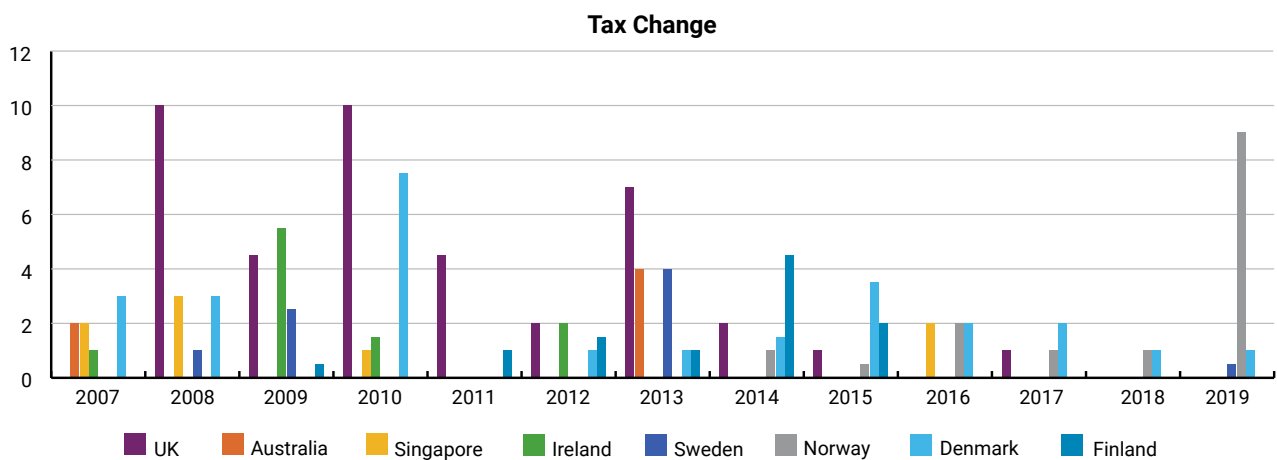
<sup>30</sup> <https://www.cityam.com/lets-be-honest-stamp-duty-is-a-terrible-tax-killing-economic-growth-and-productivity/>

# Certainty

AICPA® & CIMA® members frequently cite the need for tax and fiscal policy certainty.

Tax certainty for businesses does not mean you cannot change rates or allowances. What is crucial is that these changes are strategic and deliberate, and constant changes in the tax arrangements are avoided where possible. Stability is key.

All the countries in this study have changed tax rates and allowances, but what is clear is that the UK seems to adjust its taxation system more frequently. Often, UK tax changes can be significant, whereas other countries make small incremental changes. This can be seen by looking at the bottom rate of income tax for 2008 when the UK faced a big spike following the removal of the £0.10 tax rate of income tax. Further changes followed in 2010, when the top rate of income tax was increased alongside adjustments to the VAT rate.



## About the graph

The preceding graph shows the percentage change (increase or decrease) in taxation across the countries in this study on top and bottom rate of income tax, corporation tax, and VAT. These four tax rates were chosen because there is comparable data for each of them and they are the common tax levers that governments adopt around the world. They all have a link to productivity. The graph shows the level of tax change overall and not the individual increases for each tax as its designed to show the stability of taxation in the countries chosen.

Data sources:

OECD.Stat

[https://stats.oecd.org/Index.aspx?DataSetCode=CTS\\_CIT#](https://stats.oecd.org/Index.aspx?DataSetCode=CTS_CIT#)

[https://stats.oecd.org/Index.aspx?DataSetCode=CTS\\_CIT#](https://stats.oecd.org/Index.aspx?DataSetCode=CTS_CIT#)

[https://stats.oecd.org/index.aspx?DataSetCode=TABLE\\_I1#](https://stats.oecd.org/index.aspx?DataSetCode=TABLE_I1#)

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Inland Revenue Authority of Singapore

<https://www.iras.gov.sg/who-we-are/what-we-do/taxes-in-singapore/the-singapore-tax-system>

<https://www.iras.gov.sg/taxes/goods-services-tax-gst/basics-of-gst/current-gst-rates>

OECD

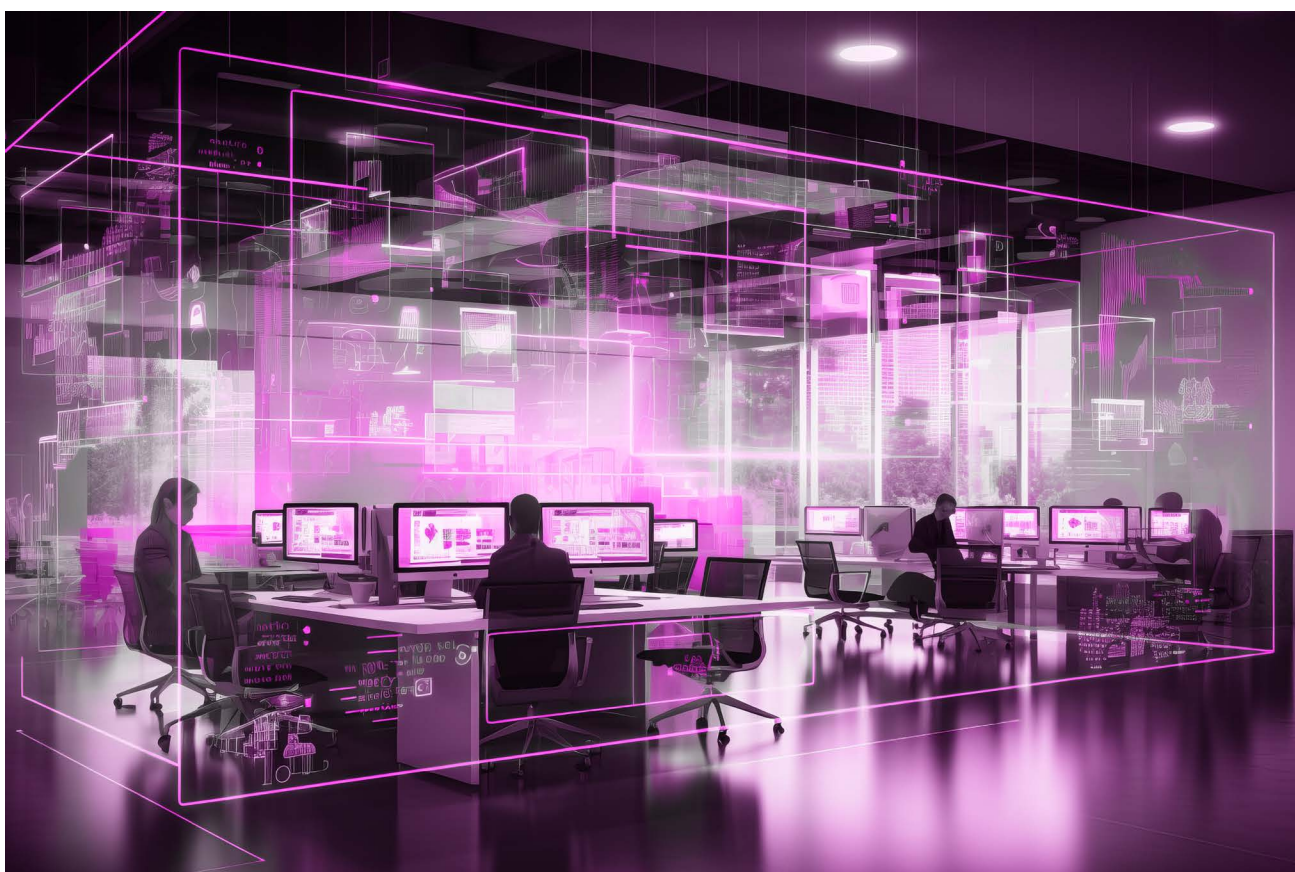
<https://www.oecd.org/tax/tax-policy/tax-database/>

[VAT/GST standard and any reduced rates - Historical (1967–2021)]

The graph shows that all countries have made and do make changes to taxation. However, the UK appears to make more pronounced changes than the other countries, as evidenced by the bigger UK spikes in the chart. A legacy of fluctuating tax changes could lead to the UK being seen today as a less certain and stable tax environment in which to set up business, invest, and work compared to the other nations.

**Note:** This graph also does not include the most recent changes to UK corporation tax, which will lead to another big spike in 2023.

Going forward the UK will inevitably have to make taxation changes to meet its fiscal obligations. Necessary policy changes should not be avoided. However, the UK should avoid making reactionary, short-term changes to taxation and should instead reflect on strategic policies, which are intended for the long term. This is the approach adopted by Australia and Singapore. Since 2006, both countries have consistently made tax policy changes, which are adopted for several years. The UK should follow this same approach.



# Business and Industry Taxation

In this section we look at the different rates of the following business and industry taxes:

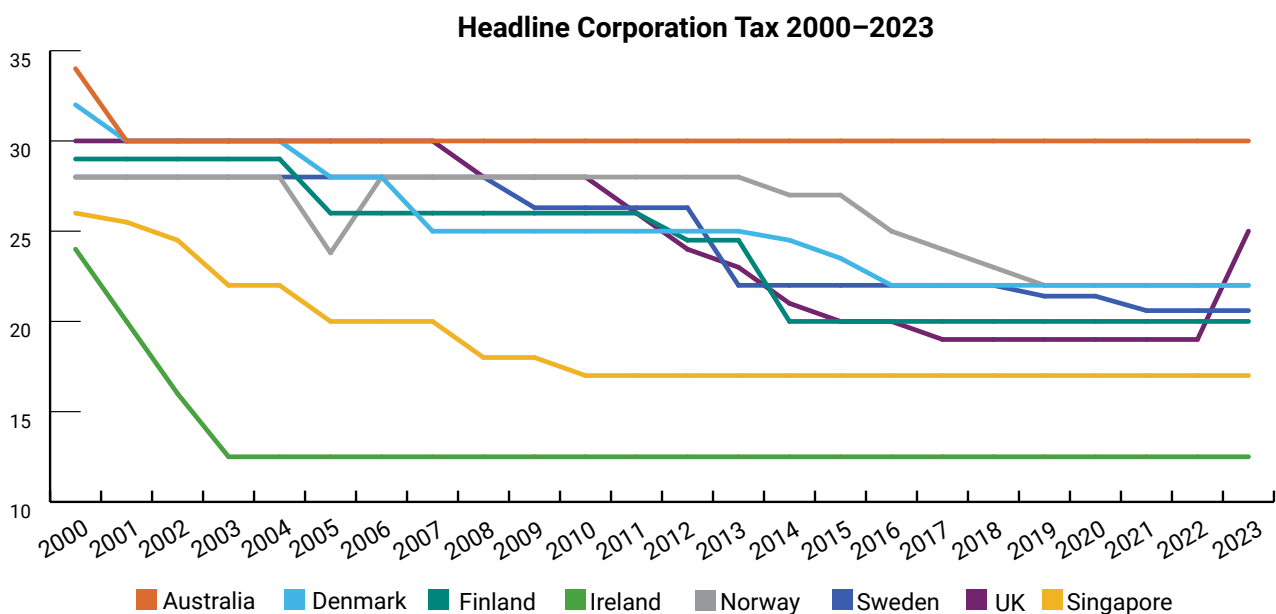
- Corporation tax
- R&D tax incentives and relief
- Patent tax relief

There are, of course, many different business taxations. This report focuses on these three key taxes because they are commonly adopted by countries. This not only allows for a comparative analysis but also helps demonstrate the correlations between these key taxes and reliefs, and productivity and economic growth.

## Corporation tax policies in each country



Data source: OECD.Stat, [https://stats.oecd.org/Index.aspx?DataSetCode=CTS\\_CIT#](https://stats.oecd.org/Index.aspx?DataSetCode=CTS_CIT#)



Data source: OECD.Stat, [https://stats.oecd.org/Index.aspx?DataSetCode=CTS\\_CIT#](https://stats.oecd.org/Index.aspx?DataSetCode=CTS_CIT#)

Ireland has the lowest corporation tax headline rates among the countries studied, followed by Singapore. Australia has the highest headline corporation tax rate and, due to recent changes, the UK now has the second highest among the countries looked at. The following table explores trends and make-up of the different corporation tax models:

Country	Headline Corporation Tax Rate <sup>31</sup>	Special Corporation Tax Rates for Certain Sectors	Other Important Notes
<b>Denmark</b>	22%	Oil and gas companies: Oil and gas production is subject to a 25% corporate tax rate and a 52% hydrocarbon tax. <sup>32</sup>	
<b>Norway</b>	22%	Norway has a corporation tax rate of 25% for the finance sector and a petroleum exploiting rate of 78%. <sup>33</sup>	Norway also has a hydropower tax regime, which results in a marginal rate of 59%. <sup>34</sup>
<b>Finland</b>	20%		
<b>Sweden</b>	A 20.6% flat rate (Applying from 1 January 2021 <sup>35</sup> )		
<b>The Republic of Ireland</b>	12.5%	Higher rate of 25% for certain activities such as land dealing, mining, petroleum extraction. <sup>36</sup>	
<b>Australia</b>	30%		For small or medium business companies with a turnover of less than AUD 50 million are subject to a reduced tax rate of 25%. <sup>37</sup>
<b>Singapore</b>	17%		A partial tax exemption and a three-year start-up tax exemption for qualifying start-up companies are available. <sup>38</sup>
<b>UK</b>	19% for the financial year beginning 1 April 2022 increasing to 25% for the financial year beginning 1 April 2023. <sup>38</sup>		From 1 April 2023, a 19% small profits rate of corporation tax applies for companies with profits less than £50,000. <sup>40</sup>

**UK Note:** UK Chancellor Hunt, in his March 2023 budget, introduced a new scheme called Capital Allowances that replaced the previous Super Deduction scheme. The Capital Allowances scheme allows businesses to write off the cost of qualifying expenditure against taxable income, thus cutting businesses' overall tax bill in the year expensed. This means that until April 2026, for every £1 invested in qualifying expenditure, companies can save up to £0.25 on their tax bill in the year of acquisition. Capital Allowances will be in place from 1 April 2023 until 31 March 2026.<sup>41</sup>

<sup>31</sup> See "Headline Corporation Tax Graph."

<sup>32</sup> <https://ens.dk/en/our-responsibilities/oil-gas/economy-oil-and-gas>

<sup>33</sup> <https://blogg.magnuslegal.no/en/corporate-tax-in-norway-the-basics-for-non-norwegian-enterprises>

<sup>34</sup> <https://blogg.magnuslegal.no/en/corporate-tax-in-norway-the-basics-for-non-norwegian-enterprises>

<sup>35</sup> <https://www.geraldedelman.com/insights/corporation-tax-rates-is-the-uk-still-competitive-in-europe/>

<sup>36</sup> <https://www.revenue.ie/en/companies-and-charities/corporation-tax-for-companies/corporation-tax/basis-of-charge.aspx>

<sup>37</sup> <https://atotaxrates.info/businesses/company-tax-rates/>

<sup>38</sup> <https://www.iras.gov.sg/taxes/corporate-income-tax/basics-of-corporate-income-tax/corporate-income-tax-rate-rebates-and-tax-exemption-schemes>

<sup>39</sup> <https://www.aicpa-cima.com/advocacy/download/uk-spring-budget-briefing-2023>

<sup>40</sup> <https://www.gov.uk/government/publications/corporation-tax-charge-and-rates-from-1-april-2022-and-small-profits-rate-and-marginal-relief-from-1-april-2023/corporation-tax-charge-and-rates-from-1-april-2022-and-small-profits-rate-and-marginal-relief-from-1-april-2023>

<sup>41</sup> <https://www.aicpa-cima.com/advocacy/download/uk-spring-budget-briefing-2023>

## The Irish Model

Ireland has the lowest corporation tax of the countries studied. Successive rate decreases between 2000 and 2003 have resulted in Ireland's 12.5% corporation tax rate. This low corporation tax has been attributed with improving Ireland's productivity due to increased investment in the Irish economy from large multinational firms, particularly those from the US, who set up their European bases there. A report by the OECD states that the effective corporation tax rate most firms in Ireland pay is 12%.<sup>42</sup>

Although it is true that this low corporation tax rate attracted US firms to Ireland, this was not the only factor. Other important factors played a role in Ireland being chosen, including being an English-speaking economy, a fully committed member of the EU, having adopted the Euro as its currency, and being in the European Exchange Rate.<sup>43</sup>

These policy commitments during the 1980s and 1990s meant that Ireland received more US foreign direct investment (FDI) per capita by 50% compared to the UK.<sup>44</sup> Recent data from the OECD still shows that Ireland attracts a significant amount of FDI for its size.<sup>45</sup>

This FDI has helped to increase Ireland's productivity scores, but some believe that it skews the figures and artificially boosts Irish economic data.<sup>46</sup> This view is supported when you look at the difference in gross value added (GVA) per employee in Ireland in 2021. The Irish Central Statistics Office shows that foreign owned companies were five times more productive than domestically owned companies in 2021.<sup>47</sup>

Going forward, Ireland also needs to think about the global changes to corporation tax agreed by a number of OECD countries, which will bring a base rate of 15% across the globe<sup>48</sup> and as big economies start to provide more direct investment to companies to set up or keep production in their economies. Having said that, these companies have already set up operations in Ireland and, given the Irish economy is a member of the EU and part of its single market, in view of the other benefits the Irish economy enjoys, this FDI is likely to continue.<sup>49</sup>

<sup>42</sup> <https://www.irishtimes.com/business/economy/effective-tax-rate-paid-by-firms-in-ireland-12-oecd-finds-1.4299089>

<sup>43</sup> [https://cadmus.eui.eu/bitstream/handle/1814/1656/00\\_16.pdf](https://cadmus.eui.eu/bitstream/handle/1814/1656/00_16.pdf)

<sup>44</sup> [https://cadmus.eui.eu/bitstream/handle/1814/1656/00\\_16.pdf](https://cadmus.eui.eu/bitstream/handle/1814/1656/00_16.pdf)

<sup>45</sup> <https://www.oecd.org/daf/inv/investment-policy/FDI-in-Figures-April-2023.pdf>

<sup>46</sup> <https://www.irishtimes.com/opinion/2023/02/03/cliff-taylor-leprechaun-economics-lives-on-in-our-12-economic-growth-rate/>

<sup>47</sup> <https://www.irishexaminer.com/business/companies/arid-41123854.html>

<sup>48</sup> <https://www.irishtimes.com/news/politics/ireland-s-corporate-tax-rate-set-to-rise-to-15-as-part-of-global-deal-1.4693782>

<sup>49</sup> <https://www.irishtimes.com/opinion/2023/02/03/cliff-taylor-leprechaun-economics-lives-on-in-our-12-economic-growth-rate/>



## The Singapore Model – Many incentives

Singapore has the second lowest level of corporation tax in this study. However, alongside this low rate, it also has a number of tax reliefs and incentives to help encourage business investment and innovation and drive up productivity and economic growth. Current incentives include the Pioneer Tax Incentive; Development and Expansion Incentive; Investment Allowance; Incentives for Internationalization; Enterprise Innovation scheme; Financial Services Incentive; Mergers and Acquisitions Allowance; Headquarters scheme; and the Global Trader Programme.<sup>50</sup> We explore a few of these and other recent tax reliefs and incentives Singapore has used in the following sections.

### Regional and International Headquarters Scheme

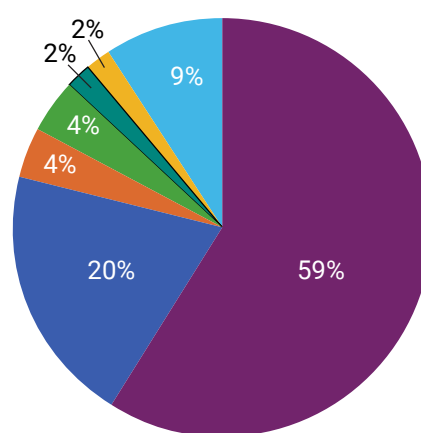
There are two separate schemes that fall under this: the Regional Headquarters Award (RHA) and the International Headquarters Award (IHA). According to Mazars – Singapore in 'Tax incentive for headquarters activities: What's in it for businesses?', these schemes offer the following support:

- RHA – A company that qualifies for the RHA pays a concessionary rate of 15% for three years, with the ability to extend for an additional two years. This is instead of the regular headline rate of 17%. Companies must meet the minimum requirements for this award.<sup>51</sup>
- IHA – Companies that exceed the minimum requirements of the RHA can enjoy an even lower concessionary tax rate ranging from 5% to 15% from qualifying income activities.<sup>52</sup>

Some of the qualifications to apply for these schemes include paid-up capital of SGD 0.2 million and SGD 0.5 million by the end of year 1 and year 3 of the incentive period, respectively; 3 headquarters services to network entities in 3 countries outside Singapore by the end of year 1; 75% skilled staff throughout the incentive period; and an additional 10 professionals in Singapore by the end of year 3.<sup>53</sup>

In the Asia-Pacific region, Singapore has more regional headquarters of multinational corporations than other comparable and nearby economies.

**TECH MNC RHQs in Asia**



■ Singapore    ■ Hong Kong    ■ Philippines  
■ PRC    ■ Philippines    ■ Malaysia  
■ Multiple locations

Data source: OECD.Stat, <https://hongkongbusiness.hk/financial-services/news/hong-kong-loses-singapore-top-asian-location-mnc-headquarters?page=4>

As Sandra Sendangan reported for Hong Kong Business, KPMG has suggested that this tax incentive is one of the key reasons companies locate to Singapore.<sup>54</sup>

<sup>50</sup> <https://www2.deloitte.com/content/dam/Deloitte/sg/Documents/tax/sg-tax-applying-for-gov-incentives-brochure-02-dec-2021.pdf>, <https://www.iras.gov.sg/taxes/corporate-income-tax/income-deductions-for-companies/applying-for-tax-incentives>

<sup>51</sup> <https://www.mazars.sg/Home/Insights/Latest-insights-updates/Tax/Tax-incentive-for-headquarters-activities>

<sup>52</sup> <https://www.mazars.sg/Home/Insights/Latest-insights-updates/Tax/Tax-incentive-for-headquarters-activities>

<sup>53</sup> <https://www.accaglobal.com/gb/en/student/exam-support-resources/professional-exams-study-resources/p6/technical-articles/selected-tax-incentives-in-singapore.html>

<sup>54</sup> <https://hongkongbusiness.hk/financial-services/news/hong-kong-loses-singapore-top-asian-location-mnc-headquarters?page=4>

## Startup Tax Exemption

The Startup Tax Exemption scheme, which began in 2005, is a tax relief offering that allows startups to pay lower corporate tax rates for the first three years. Originally exempting the first SGD 300,000 of net chargeable income, Singapore reduced the exemption to the first SGD 200,000 in 2018.<sup>55</sup>

The Startup Tax Exemption scheme exempts 75% of a business's first SGD 100,000 chargeable income and 50% of the next SGD 100,000.<sup>56</sup> As of 2022, Singapore has 20 unicorns, which are companies that are privately held and valued at over USD \$1 billion, and more than 4,000 startups. The number of startups exceeding USD \$1 million in funding has trebled from 2015–2022.<sup>57</sup> Although it's not possible to attribute this success solely to the Startup Tax Exemption scheme, it would have contributed. Considering population, when compared to the UK, which has 44 unicorns,<sup>58</sup> Singapore exceeds expectations. **In Singapore, that works out to 1 unicorn for every 272,000 people, and in the UK, 1 unicorn for every 1.53 million people.**

## Pioneer Certificate Incentive and Development and Expansion Incentive

The Pioneer Certificate Incentive and the Development and Expansion Incentive both aim to boost Singapore's economy. Companies that bring advanced expertise not presently available in Singapore may be eligible for the Pioneer Certificate Incentive, which involves a corporate tax exemption.

Companies whose growth or expansion can improve Singapore's economy may be eligible for the Development and Expansion Incentive. Incentives are a tax exemption or a concessionary tax rate of 5% or 10%, respectively, with possibilities for extension.<sup>59</sup>

## Enterprise Innovation Scheme

Announced in the Singaporean 2023 budget and effective beginning 2024, the Enterprise Innovation scheme allows up to a 400% deduction on the first 400,000 of qualifying spend for businesses that engage in R&D, innovation, and capability development. The five qualifying activities are as follows:

- R&D projects conducted in Singapore
- Intellectual property (IP) registration
- Acquisition or licensing of IP rights
- Training
- Innovation projects carried out with polytechnics, the Institute of Technical Education, or other qualified partners

All of these deductions are capped at 400,000, except for innovation projects, which have a lower cap of 50,000.<sup>60</sup>

<sup>55</sup> <https://www.iras.gov.sg/taxes/corporate-income-tax/basics-of-corporate-income-tax/corporate-income-tax-rate-rebates-and-tax-exemption-schemes>

<sup>56</sup> <https://www.iras.gov.sg/taxes/corporate-income-tax/basics-of-corporate-income-tax/corporate-income-tax-rate-rebates-and-tax-exemption-schemes>

<sup>57</sup> <https://www.statista.com/topics/10174/startups-and-venture-capital-in-singapore/#topicOverview>; <https://www.statista.com/statistics/1343093/singapore-startups-with-over-one-million-funding-raised/>

<sup>58</sup> <https://www.beauhurst.com/research/unicorn-companies/>

<sup>59</sup> <https://www.edb.gov.sg/content/dam/edb-en/how-we-help/incentive-and-schemes/PC%20and%20DEI%20Brochure.pdf>

<sup>60</sup> [https://www.iras.gov.sg/media/docs/default-source/e-tax/etaxguide\\_cit\\_enterprise-innovation-scheme.pdf?sfvrsn=3a36afd3\\_3/etaxguide\\_CIT\\_Enterprise-Innovation-Scheme.pdf](https://www.iras.gov.sg/media/docs/default-source/e-tax/etaxguide_cit_enterprise-innovation-scheme.pdf?sfvrsn=3a36afd3_3/etaxguide_CIT_Enterprise-Innovation-Scheme.pdf)

## Productivity and Innovation Credit Scheme

Under the Productivity and Innovation Credit (PIC) scheme, businesses (sole proprietorships, partnerships, companies including registered business trusts, registered branches, and subsidiaries of a foreign parent or holding company) enjoyed 400% tax deductions and allowances for qualifying expenditures incurred in any of the six qualifying activities from 2011–2018. The six activities were acquiring or leasing PIC IT and automation equipment; employee training; acquisition and licensing of IP rights; registration of patents trademarks, designs, and plant varieties; R&D activities; and design projects approved by Design Singapore Council.<sup>61</sup>

Following the scheme being wound down, the Singapore Finance Minister Heng Swee Keat said in 2016 that 102,000 firms have benefited from the PIC scheme. He also cited a survey by the Singapore Chinese Chamber of Commerce and Industry that found that about 9 in 10 companies were taking steps to increase their productivity.<sup>62</sup>

Singapore offers many different tax incentives to companies of different sizes, both domestic and international, to help encourage them to set up operations, expand, become more innovative, and help boost Singaporean productivity, and ultimately, the economy. These incentives are constantly reviewed and changed.

## Australian Certainty Model

Australia has the most stable corporation tax of all the countries studied for this report. Since 2000, its headline corporation tax has remained flat at 30%, which is the highest in this study. Given Australia is an outlier in this sense, with a high corporation tax rate, this could negatively affect productivity. However, it has been reported that in 2021 nearly one third of Australia's large companies did not pay corporation tax at all.<sup>63</sup> This shows that the effective rate of corporation tax is as important as the headline rate. Also, Australia has plans to cut its corporation tax rate to 25% by 2025 for small and medium-sized companies to help boost investment and growth and to be more in line with other OECD countries.<sup>64</sup> Though high, this steady rate has provided businesses with one important thing — certainty.

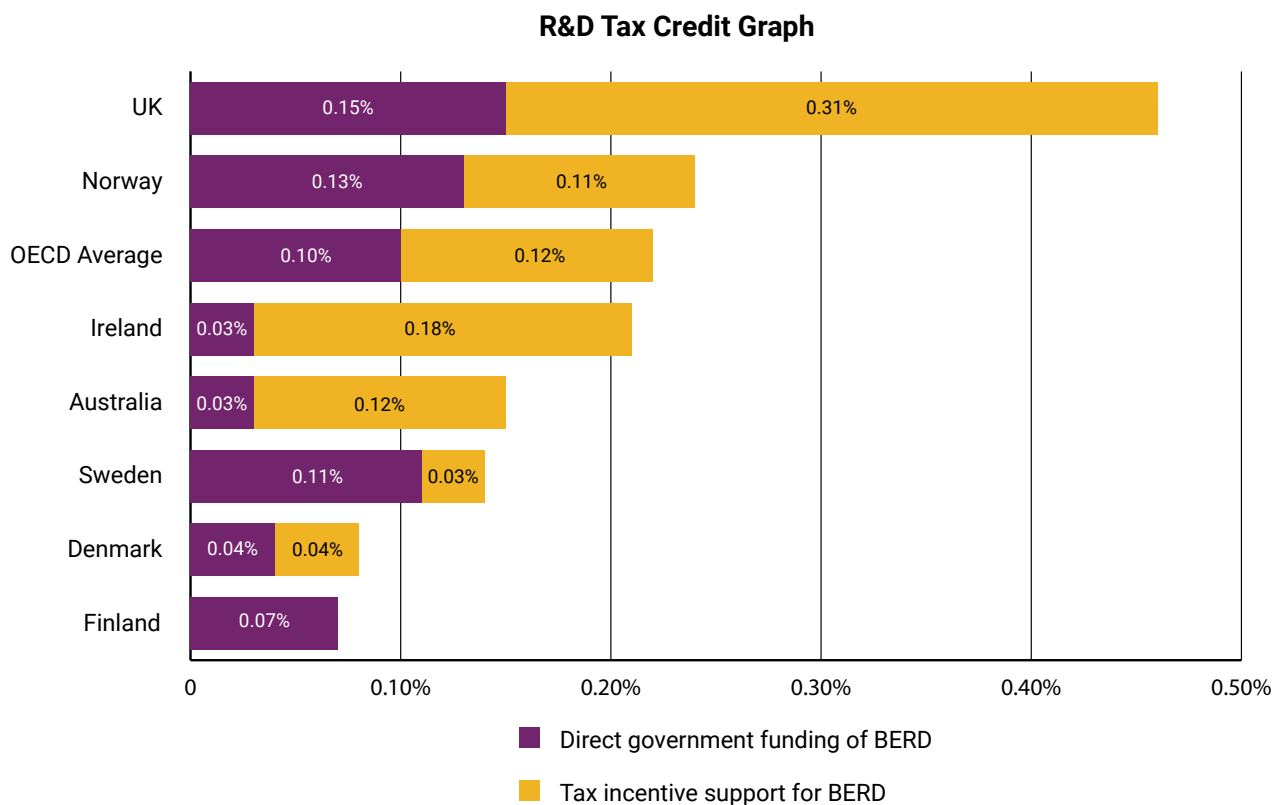
<sup>61</sup> <https://www.iras.gov.sg/taxes/corporate-income-tax/specific-topics/productivity-innovation-credit-pic-scheme/6-qualifying-activities-under-pic>

<sup>62</sup> <https://www.todayonline.com/singapore/pic-scheme-achieved-goal-despite-misuse-some-finance-minister>

<sup>63</sup> <https://www.theguardian.com/australia-news/2022/nov/03/australia-tax-transparency-report-almost-a-third-large-companies-pay-zero-income-tax>

<sup>64</sup> <https://ministers.treasury.gov.au/ministers/josh-frydenberg-2018/media-releases/key-measures-take-effect-lower-taxes-and-create-jobs>

## R&D Tax Incentives by Country



Source: OECD R&D tax incentives database, 2021 edition [Fig. 7, Panel C], <https://www.oecd.org/sti/rd-tax-stats-database.pdf>

**Note:** Singapore is not included in the graph because it is not part of the OECD.

This graph shows that the UK is far ahead of most OECD countries when it comes to R&D support. To continue to support productivity improvement, the UK should maintain this status. In the following table we give more details about different R&D tax relief regimes and future changes that the countries in this study are planning.

## Detailed R&D Tax Relief Policies Tables

### Australia

#### R&D Tax Relief Regime

New rules for the R&D Relief scheme took effect 1 July 2021. Companies engaged in eligible R&D with a turnover of less than AUD 20 million can get a refundable R&D tax offset at their corporation tax rate plus an 18.5% premium.<sup>65</sup>

Australia is below the OECD average in terms of total government support to business R&D as a percentage of GDP, at a value equivalent to 0.15% of GDP in 2019.<sup>66</sup>

#### Important Notes

There has been a recent increase in the number of companies claiming R&D tax relief. In 2019, SMEs accounted for 89% of R&D tax relief recipients, whereas the share of R&D tax support accounted for by SMEs amounted to 76%. Large firms were allocated 24% of R&D tax benefits, comprising 11% of the population of R&D tax relief recipients.<sup>67</sup>

#### Recent or Planned Reforms

In 2021, Australia made several R&D tax credit reforms. The main reforms were as follows:

- From 1 July 2021, the existing annual R&D expenditure ceiling has been increased from AUD 100 million to 150 million.
- From 1 July 2021, the refundable R&D tax offset for small companies with aggregated annual turnover of less than AUD 20 million has been set at 18.5 percentage points above the claimant's company tax rate. The rates of the non-refundable tax offset have been tied to a company's incremental R&D intensity, which is R&D expenditure as a proportion of total expenses for the year. The marginal R&D premium will be the claimant's company tax rate plus:
  - 8.5 percentage points for R&D expenditure between 0% and 2% R&D intensity
  - 16.5 percentage points for R&D expenditure above 2% R&D intensity.<sup>68</sup>

### Denmark

#### R&D Tax Relief Regime

Denmark offers companies in a tax loss position the possibility to earn a refund for deficit-related R&D expenditures. Since 2018, companies can also claim an enhanced R&D tax allowance at a rate of 1.5%.<sup>69</sup>

#### Important Notes

In 2019 Denmark was below the OECD average in terms of total government support to businesses R&D.<sup>70</sup>

SMEs accounted for 85% of tax support for R&D, whereas large businesses accounted for 15%.<sup>71</sup>

#### Recent or Planned Reforms

##### Denmark 2020 R&D Reforms in Response to COVID-19

As part of its policy response to the COVID-19 pandemic and to help support businesses, Denmark made changes to its R&D tax relief provisions. These changes included the following:

- The enhanced tax allowance rate was raised to 30% for the income years 2020 and 2021.
- Alongside the enhanced tax allowance rate, a ceiling on eligible R&D expenses of DKK 850 million was introduced for the income years 2020 and 2021.<sup>72</sup>

<sup>65</sup> <https://business.gov.au/grants-and-programs/research-and-development-tax-incentive/overview-of-rd-tax-incentive>

<sup>66</sup> <https://www.oecd.org/sti/rd-tax-stats-australia.pdf>

<sup>67</sup> <https://www.oecd.org/sti/rd-tax-stats-australia.pdf>

<sup>68</sup> <https://www.oecd.org/sti/rd-tax-stats-australia.pdf>

<sup>69</sup> <https://www.oecd.org/sti/rd-tax-stats-denmark.pdf>

<sup>70</sup> <https://www.oecd.org/sti/rd-tax-stats-denmark.pdf>

<sup>71</sup> <https://www.oecd.org/sti/rd-tax-stats-denmark.pdf>

<sup>72</sup> <https://www.oecd.org/sti/rd-tax-stats-denmark.pdf>

## Finland

### R&D Tax Relief Regime

In 2015, Finland repealed its R&D tax relief provisions but reintroduced them in 2021 in the form of an R&D tax allowance.<sup>73</sup>

A volume-based tax deduction for R&D-related research cooperation expenditures was introduced with effect of 1 January 2021 for the tax years 2021–2025. The additional deduction of 50% applies to research cooperation expenditures, i.e., invoices from a research organization (R&D outsourcing). Eligible organizations for the R&D cooperation are certain research organizations as defined in the EU General Block Exemption Regulation (e.g., universities and other non-commercial research organizations). The minimum amount of qualifying R&D expenditure (minimum deduction) is €10,000 (€ 5,000) and the maximum amount of qualifying R&D expenditure (maximum deduction) is €1 million (€500,000) per fiscal year. A 10-year carry-forward provision is available for excess claims in the case of insufficient profits.<sup>74</sup>

### Important Notes

Due to R&D Tax Relief being reintroduced in 2021, other data is not available on Finland R&D tax relief due to this reintroduction.

### Recent or Planned Reforms

Finland aims to increase its research and development expenditure to 4% of GDP by 2030.<sup>75</sup> In 2023 a new R&D tax incentive came into effect.

The new incentive is a combined deduction for R&D activities, including a general additional deduction based on the amount of R&D expenses incurred plus an additional deduction based on the increase in R&D expenses compared to the previous year. The additional deductions apply for salary and service expenses related to a taxpayer's own R&D activities.

The general additional deduction is equal to 50% of salary and service expenses for R&D activities, with a maximum deduction cap of €500,000 per year and a minimum of €5,000 (i.e., general additional deduction not granted if less than €5,000). The additional deduction for increases in R&D expenses is equal to 45% of the increase in R&D expenses as compared to the previous year, with a maximum deduction cap of €500,000 per year but with no minimum.<sup>76</sup>

## Norway

### R&D Tax Relief Regime

Norway provides R&D tax relief through a volume-based R&D tax credit. Since 2020, the headline credit rate has been uniformed to 19%.<sup>77</sup>

### Important Notes

In 2019, Norway is placed above the OECD average in terms of total government support to business R&D as a percentage of GDP, at a rate equivalent to approximately 0.23% of GDP.<sup>78</sup>

In 2019 SMEs were 81% of R&D tax relief recipients and the share of R&D tax support accounted for by SMEs amounted to 70%. Large businesses were allocated 30% of R&D tax benefits, making up 19% of the population of R&D tax relief recipients.<sup>79</sup>

<sup>73</sup> <https://www.oecd.org/sti/rd-tax-stats-database.pdf>

<sup>74</sup> <https://www.oecd.org/sti/rd-tax-stats-database.pdf>

<sup>75</sup> <https://www.treasuryfinland.fi/investor-relations/sustainability-and-finnish-government-bonds/the-national-plan-to-raise-rd-funding/>

<sup>76</sup> <https://www.orbitax.com/news/archive.php/Finland-Approves-New-RD-Tax-I-51707>

<sup>77</sup> <https://www.oecd.org/sti/rd-tax-stats-norway.pdf>

<sup>78</sup> <https://www.oecd.org/sti/rd-tax-stats-norway.pdf>

<sup>79</sup> <https://www.oecd.org/sti/rd-tax-stats-norway.pdf>

## Sweden

### R&D Tax Relief Regime

Sweden provides R&D tax relief through a 19.59% exemption of employer's social security contributions.<sup>80</sup>

Sweden introduced R&D tax incentives for the first time in 2014 in the form of a partial exemption of employer social security contributions.<sup>81</sup>

### Important Notes

Sweden is placed below the OECD average in terms of total government support to business R&D as a percentage of GDP, at a rate equivalent to 0.12% of GDP in 2018.<sup>82</sup>

In 2019, SMEs accounted for 90% of R&D tax relief recipients, whereas the share of R&D tax support accounted for by SMEs amounted to around 76%. Large firms were allocated 23% of R&D tax benefits, comprising 5% of the population of R&D tax relief recipients.<sup>83</sup>

### Recent or Planned Reforms

In 2021, Sweden undertook two changes in its R&D tax relief provisions:

From 2021 July 1, the ceiling for the partial exemption of employer social security contributions has been increased from SEK 450,000 to SEK 600,000 per month. For enterprise groups the ceiling has been increased from SEK 919,239 to SEK 1,225,652 per month for all enterprises in the group.<sup>84</sup>

## Singapore

### R&D Tax Relief Regime

Singapore has several different tax incentives, including for R&D, which are listed and explained previously. The current R&D tax incentive is the Enterprise Innovation scheme.

## UK

### R&D Tax Relief Regime

The UK provides R&D tax relief through a volume-based R&D tax allowance, which, in the case of large companies, was replaced by a volume-based tax credit (RDEC) in 2016.<sup>85</sup>

The UK has had an SME-specific R&D tax allowance since 2000 and in 2002 a scheme for large firms was introduced.<sup>86</sup>

### Important Notes

The UK is among the most generous in the OECD for countries that provide the largest level of government support to business R&D as a percentage of GDP based on 2019 data.<sup>87</sup>

### Recent or Planned Reforms

In the 2023 Spring budget, the following R&D tax incentive changes were announced:

- Research & Development Expenditure Credit (RDEC) to be increased from 13% to 20%.
- Loss-making R&D-intensive SME tax credit up from 14.5% of the loss to 27%.
- Eligible companies will receive £27 from His Majesty Revenue and Customs (HMRC) for every £100 of R&D investment. R&D-intensive businesses are usually classified as businesses in which 40% of expenditure is on R&D.
- The small and medium enterprise additional deduction rate will reduce from 130% to 86%.<sup>88</sup>

<sup>80</sup> <https://www.oecd.org/sti/rd-tax-stats-sweden.pdf>

<sup>81</sup> <https://www.oecd.org/sti/rd-tax-stats-sweden.pdf>

<sup>82</sup> <https://www.oecd.org/sti/rd-tax-stats-sweden.pdf>

<sup>83</sup> <https://www.oecd.org/sti/rd-tax-stats-sweden.pdf>

<sup>84</sup> <https://www.oecd.org/sti/rd-tax-stats-sweden.pdf>

<sup>85</sup> <https://www.oecd.org/sti/rd-tax-stats-united-kingdom.pdf>

<sup>86</sup> <https://www.oecd.org/sti/rd-tax-stats-united-kingdom.pdf>

<sup>87</sup> <https://www.oecd.org/sti/rd-tax-stats-united-kingdom.pdf>

<sup>88</sup> <https://www.aicpa-cima.com/advocacy/download/uk-spring-budget-briefing-2023>

## Ireland

### R&D Tax Relief Regime

Ireland provides R&D tax relief through an entirely volume-based R&D tax credit since January 2015.<sup>89</sup>

In 2021, the marginal tax subsidy rate for profit-making (loss-making) SMEs in Ireland is estimated at 0.27 (0.22), well above the OECD median of 0.20 (0.18). The tax subsidy rate for large enterprises is also equal to 0.27 (0.22) in the profit (loss)-making scenario, significantly larger than the OECD median of 0.17 (0.15).<sup>90</sup>

### Important Notes

In Ireland, SMEs accounted for 89% of R&D tax relief recipients in 2019, whereas the share of R&D tax support accounted for by SMEs amounted to around 28% in this year. 71% of R&D tax benefits were allocated to large firms, comprising 11% of the population of R&D tax relief recipients in 2019. In 2019, firms in manufacturing services represented around 29% of R&D tax relief recipients in Ireland, followed by firms in services with a share of 27%.<sup>91</sup>

## Patent Box Tax Regimes

Patent box tax regimes allow lower taxes on IP, such as patents, but possibly copyrights and designs, to bolster R&D activities and commercialization.<sup>92</sup>

Of the European countries in our study, only Ireland and the UK offer patent box tax relief regimes as of 2022.<sup>93</sup> The tax rate in the Republic of Ireland is 6.25% and the tax rate under the UK system is 10%.<sup>94</sup> The Australian patent box tax regime provides a 17% concessional tax rate for corporate income derived directly from medical and biotechnology patents.<sup>95</sup> Singapore introduced the Intellectual Property Development Incentive (IDI) in 2018. The IDI taxes IP by percentage of income at rates of 5% or 10%.<sup>96</sup>

<sup>89</sup> <https://www.oecd.org/sti/rd-tax-stats-ireland.pdf>

<sup>90</sup> <https://www.oecd.org/sti/rd-tax-stats-ireland.pdf>

<sup>91</sup> <https://www.oecd.org/sti/rd-tax-stats-ireland.pdf>

<sup>92</sup> [https://www.aph.gov.au/About\\_Parliament/Parliamentary\\_Departments/Parliamentary\\_Library/pubs/rp/BudgetReview202122/PatentBoxTaxRegime](https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/rp/BudgetReview202122/PatentBoxTaxRegime)

<sup>93</sup> <https://taxfoundation.org/patent-box-regimes-europe-2022/>

<sup>94</sup> <https://taxfoundation.org/patent-box-regimes-europe-2022/>

<sup>95</sup> [https://www.aph.gov.au/About\\_Parliament/Parliamentary\\_Departments/Parliamentary\\_Library/pubs/rp/BudgetReview202122/PatentBoxTaxRegime](https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/rp/BudgetReview202122/PatentBoxTaxRegime)

<sup>96</sup> <https://www2.deloitte.com/content/dam/Deloitte/sg/Documents/tax/sg-tax-developments-subsidiary-legislation-issued-for-the-intellectual-property-development-incentive.pdf>



## Lessons for the UK

### **Certainty**

The UK has changed its corporation tax more than many of the countries we looked at in this study, creating an uncertain business and investment environment. Greater stability in its taxation system, especially for business and corporation taxation, would help the UK.

### **Competitive rates**

UK corporation tax rates should align with that of the country's nearest competitors and with top-tier productivity countries such as those in this study. The UK now has the second highest rate of corporation tax in this study and will soon have the highest joint rate of corporation tax if Australia reduces its headline corporation tax rate as planned, and the rate in other countries remains the same. The UK should ensure that it avoids further corporation tax increases and that it is in line with the most productive countries.

### **Learn from the best**

The UK should learn from Singapore's multiple tax incentives to help startups, grow businesses, increase innovation, and improve productivity. Often these schemes last 5–10 years and are reviewed for their success before being changed to support the next stage of Singapore's economic development. The schemes also often come with cascading conditions, so businesses continue to invest, grow, become more productive, and support the Singaporean economy. The UK should determine if similar schemes and the models behind them could be implemented in the UK with the ultimate goal of improving UK productivity.

### **Tax and Fiscal Policy should work together**

Another lesson the UK can learn is from Ireland, which utilised a low corporation tax model alongside other policies such as encouraging FDI, attracting a more skilled workforce, and integrating into a bigger market. Although the UK can't replicate the EU as it looks to new trade deals and markets across the globe, tax policy should encourage FDI and domestic investment in the UK economy.

### **Ensure R&D spend is maintained and preserve certainty**

The UK has a target to raise R&D investment to 2.4% of GDP by 2027.<sup>97</sup> Given Finland plans to spend 4% by 2030, the UK should constantly review this figure so it's at the top end of the world's most productive economies and maintains its current position in terms of R&D spend.

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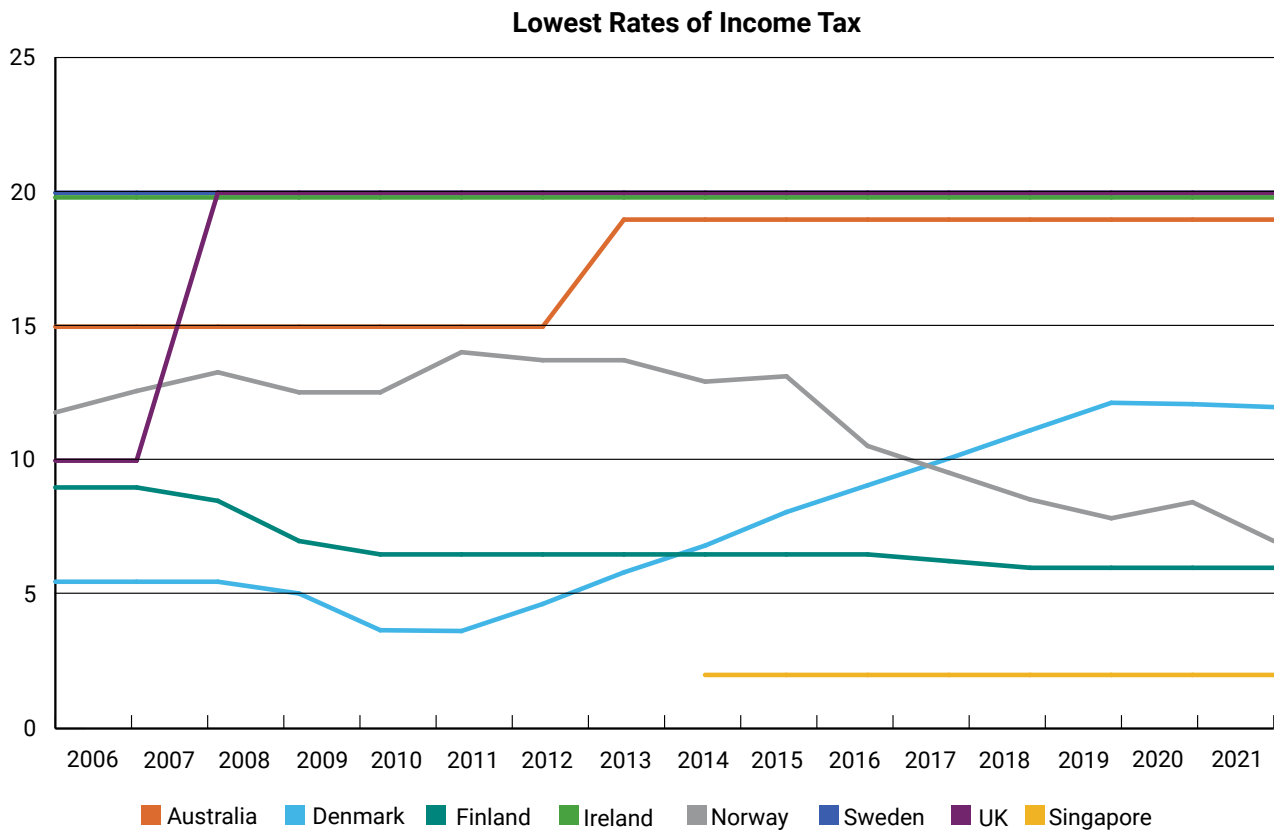
<sup>97</sup> <https://www.ons.gov.uk/economy/governmentpublicsectorandtaxes/researchanddevelopmentexpenditure/bulletins/ukgovernmentexpenditureonscienceengineeringandtechnology/2020>

# Personal Taxation: Income and Social Security Taxation

In our study, the four Nordic countries have the highest income tax rates and Singapore the lowest. The following outlines the different rates and tax wedges in each country. (The OECD defines tax wedge as ‘the ratio between the amount of taxes paid by an average [employee] and the corresponding total labour cost for the employer. The average tax wedge measures the extent to which tax on labour income discourages employment. This indicator is measured in percentage of labour cost.<sup>98</sup>) We will also explore historic trends and how each model relates to productivity.

**Note:** Graphs display years when data is available and to show both the most recent changes and some historic context.

## Bottom Rate of Income Tax



Data source: OECD.Stat, [https://stats.oecd.org/index.aspx?DataSetCode=TABLE\\_I1#](https://stats.oecd.org/index.aspx?DataSetCode=TABLE_I1#)

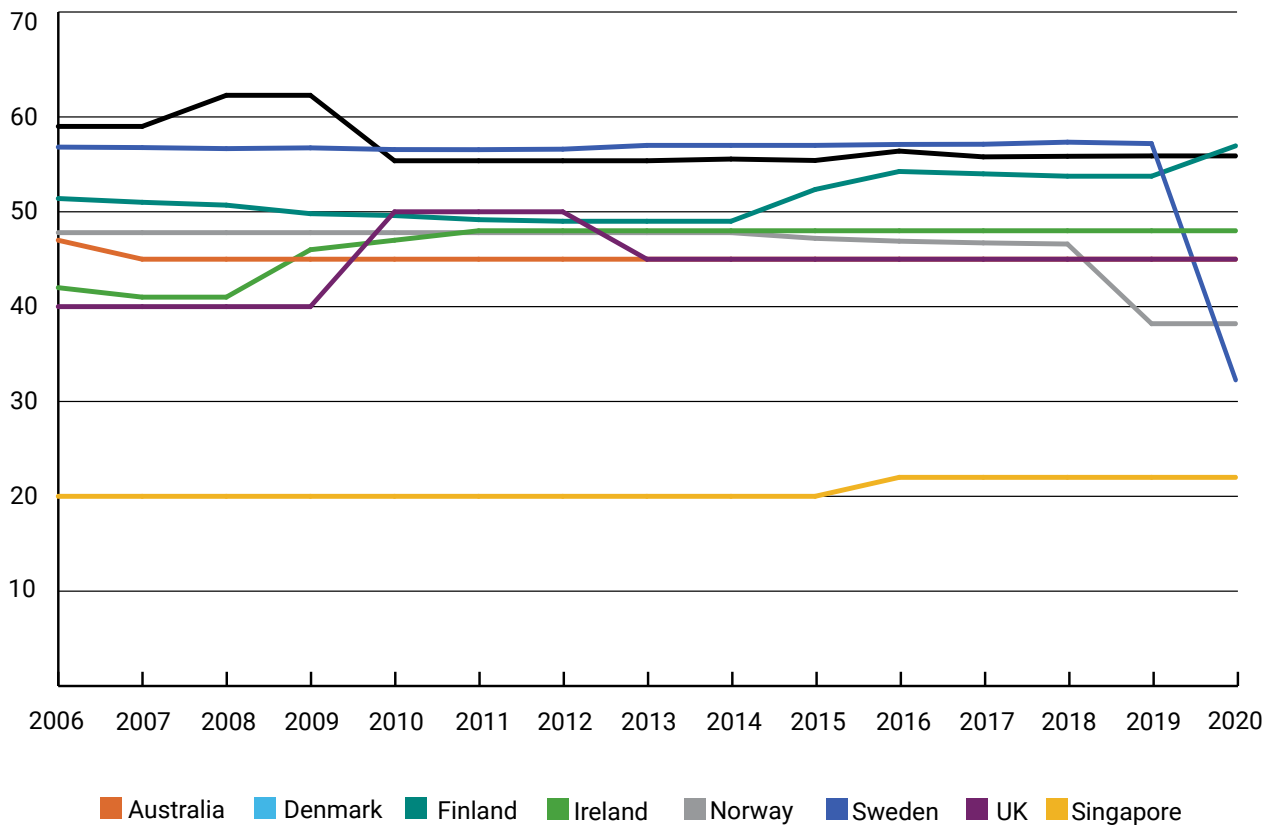
Inland Revenue Authority of Singapore, <https://www.iras.gov.sg/taxes/individual-income-tax/basics-of-individual-income-tax/tax-residency-and-tax-rates/individual-income-tax-rates>

This graph shows the bottom rate of country income taxes among the countries studied. The Nordic countries actually have an even higher rate of income tax than is shown in the graph because local municipal income taxes have not been included. Singapore data could only be found from 2014. In 2008 the removal of the 10% tax rate caused a big jump in the UK's bottom rate of income taxation to 20%.

<sup>98</sup> <https://www.iras.gov.sg/taxes/individual-income-tax/basics-of-individual-income-tax/tax-residency-and-tax-rates/individual-income-tax-rates>

## Top Rate of Income Tax

Top Rate Personal Income Tax Rate 2006–2020



Data source: OECD.Stat, [https://stats.oecd.org/index.aspx?DataSetCode=TABLE\\_I1#](https://stats.oecd.org/index.aspx?DataSetCode=TABLE_I1#)

This graph shows the top rate of income taxes for each country looked at. Apart from Singapore, all countries are sitting above the OECD average for their top rate of income taxes. Singapore is an outlier with its very low rate and also follows a very different taxation model, as discussed elsewhere in this report. Australia and Norway are the only countries that come close to the OECD average for their top rate of income tax in recent years.

## Average Tax Wedge – Single Worker 100% of Income

Indicator: Average tax wedge (% labour costs)												
Household type: Single person at 100% of average earnings, without child												
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Country</b>												
Australia	31.01	27.63	27.97	28.25	28.19	28.51	28.28	27.70	26.93	26.75	26.83	26.65
Denmark	41.45	40.64	39.97	39.96	38.61	38.49	38.59	38.77	38.58	37.19	35.94	36.08
Finland	47.52	46.09	45.66	44.76	44.22	44.39	44.02	43.88	43.84	42.50	42.29	42.35
Ireland	35.31	31.71	29.49	30.42	30.97	30.32	29.12	28.08	28.17	29.82	30.88	32.56
Norway	38.56	39.22	38.65	38.09	38.15	37.24	37.42	37.54	37.59	37.30	37.29	37.57
Sweden	50.14	49.10	47.77	48.23	48.40	48.05	47.75	45.32	44.81	43.23	42.76	42.81
United Kingdom	32.59	32.19	32.25	33.79	33.92	33.94	33.98	34.12	32.78	32.41	32.58	32.46
OECD - Average	36.20	35.86	35.77	35.61	35.68	35.49	35.46	35.41	34.94	34.45	34.51	34.96

Indicator: Average tax wedge (% labour costs)											
Household type: Single person at 100% of average earnings, without child											
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Country</b>											
Australia	27.27	27.42	27.66	28.34	28.57	28.62	28.89	27.94	28.36	27.10	26.90
Denmark	36.16	35.79	35.63	35.89	35.87	35.81	35.37	35.47	35.27	35.35	35.51
Finland	42.49	43.11	43.60	43.51	44.11	42.97	42.62	42.17	41.84	43.13	43.13
Ireland	33.02	33.86	34.03	33.22	32.66	32.58	32.90	33.29	34.02	34.53	34.72
Norway	37.41	37.35	36.90	36.68	36.20	35.88	35.76	35.65	35.76	35.65	35.71
Sweden	42.86	43.01	42.46	42.61	42.84	42.93	42.99	42.58	42.65	42.48	42.37
United Kingdom	32.09	31.36	30.96	30.81	30.91	30.99	30.97	30.90	30.39	30.79	31.55
OECD - Average	35.09	35.31	35.28	35.24	35.19	35.06	34.92	34.85	34.65	34.55	34.59

Data source: OECD.Stat, <https://stats.oecd.org/viewhtml.aspx?datasetcode=AWCOMP&lang=en#>

## Average Tax Wedge – Couple, Two Kids, Both 100% of Income

<b>Indicator:</b> Average tax wedge (% labour costs)												
<b>Household type:</b> Two-earner married couple, one at 100% of average earnings and the other at 100%, with two children												
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Country</b>												
Australia	29.60	27.63	27.97	28.25	28.19	28.51	28.28	27.70	26.93	26.75	26.83	26.65
Denmark	38.08	37.28	36.63	36.60	35.24	35.09	35.26	35.53	35.40	34.02	32.67	32.90
Finland	43.90	42.59	42.32	41.49	40.91	41.22	40.99	41.02	41.11	39.82	39.67	39.77
Ireland	33.69	29.88	26.67	26.76	27.14	26.36	25.05	23.91	24.01	25.51	27.00	28.93
Norway	35.07	36.06	35.64	35.16	35.33	34.52	34.83	35.09	35.26	35.04	35.10	35.48
Sweden	47.23	46.01	44.77	45.31	45.61	45.32	44.68	42.36	41.98	40.46	39.97	40.08
United Kingdom	30.22	28.91	29.03	31.54	31.71	31.74	31.80	31.98	30.57	30.06	30.27	30.13
OECD - Average	33.79	33.50	33.39	33.12	33.14	32.94	32.91	32.74	32.20	31.71	31.88	32.31

<b>Indicator:</b> Average tax wedge (% labour costs)											
<b>Household type:</b> Two-earner married couple, one at 100% of average earnings and the other at 100%, with two children											
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Country</b>											
Australia	27.27	27.42	27.66	28.34	28.57	28.62	28.89	27.94	28.36	27.10	26.90
Denmark	33.00	32.63	32.42	32.72	32.71	32.67	32.30	32.46	32.29	32.43	32.66
Finland	39.90	40.58	41.09	41.17	41.83	40.71	40.43	40.01	39.74	41.13	41.19
Ireland	29.45	30.59	30.78	29.87	29.27	29.25	29.69	30.20	31.04	31.62	31.95
Norway	35.37	35.39	34.99	34.82	34.37	34.08	34.01	33.85	33.98	33.90	34.03
Sweden	40.21	40.43	39.95	40.13	40.43	40.58	40.36	39.93	40.05	39.94	39.93
United Kingdom	29.82	29.10	28.67	28.56	28.73	28.89	28.93	28.92	28.33	28.82	29.64
OECD - Average	32.43	32.73	32.72	32.50	32.28	32.19	32.06	31.93	31.53	31.23	31.60

Data source: OECD.Stat, <https://stats.oecd.org/viewhtml.aspx?datasetcode=AWCOMP&lang=en#>

## Average Tax Wedge Couple, Two Kids, One 100% of Income

Indicator: Average tax wedge (% labour costs)												
Household type: One-earner married couple at 100% of average earnings with two children												
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Country</b>												
Australia	23.35	19.39	19.70	20.17	15.76	17.01	17.12	14.94	14.87	14.19	14.62	15.20
Denmark	28.17	27.69	27.29	27.24	26.73	26.56	26.80	27.15	27.01	26.43	24.87	25.31
Finland	40.28	39.09	38.98	38.21	37.60	38.04	37.95	38.15	38.39	37.15	37.05	37.20
Ireland	20.44	18.08	14.58	13.26	12.95	12.30	11.76	10.94	10.81	12.87	14.74	15.91
Norway	28.44	29.32	29.69	29.59	29.90	29.56	30.04	30.45	30.76	30.56	30.69	31.18
Sweden	44.32	42.93	41.78	42.39	42.78	42.59	41.60	39.40	39.15	37.69	37.18	37.35
United Kingdom	27.85	25.63	25.81	27.52	27.81	27.90	28.04	28.35	26.88	26.24	26.51	26.36
OECD - Average	27.71	27.44	27.40	27.22	27.20	26.80	26.50	26.34	25.72	25.22	25.42	26.03

Indicator: Average tax wedge (% labour costs)											
Household type: One-earner married couple at 100% of average earnings with two children											
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Country</b>											
Australia	16.80	16.94	17.36	17.79	18.04	20.73	21.55	20.76	20.83	19.09	20.21
Denmark	25.51	25.14	24.86	25.27	25.24	25.20	24.94	25.31	25.21	25.49	26.01
Finland	37.31	38.06	38.59	38.88	39.60	38.49	38.24	37.85	37.64	39.12	39.24
Ireland	16.64	18.19	18.48	17.73	16.89	16.88	17.60	18.02	19.11	20.00	20.78
Norway	31.10	31.20	32.04	31.93	31.58	31.34	32.27	32.05	32.20	32.15	32.35
Sweden	37.56	37.85	37.43	37.65	38.01	38.22	37.72	37.27	37.44	37.40	37.48
United Kingdom	27.54	26.84	26.39	25.77	26.01	26.25	26.34	26.39	25.70	26.30	27.21
OECD - Average	26.40	26.69	26.73	26.57	26.09	26.02	25.84	25.80	25.09	24.60	25.65

Data source: OECD.Stat, <https://stats.oecd.org/viewhtml.aspx?datasetcode=AWCOMP&lang=en#>

**Note:** Singapore is not in this data set because it is not a member of the OECD.

As can be seen from the preceding tables, compared to the other European countries in this research, the UK has relatively low tax wedges when it comes to a single worker on 100% of income and a married couple with two children with both earning 100% of incomes. However, this changes when looking at a married couple when only one adult earns 100% of the household income; the UK is above the OECD average in this instance. Australia scores better than all the other countries, except Singapore, for which there is no data for each of these different household types when it comes to tax wedge.

## Key Points on Tax Wedge, Income, and Social Security Tax Rates

### Denmark



Denmark has the highest rate of income tax among the countries looked at; however, it does not have social security taxes.

According to the OECD, in Denmark, the take-home pay of an average single worker, after tax and benefits, was 64.5% of their gross wage, compared with the OECD average of 75.4%.<sup>99</sup>

The 2023 income tax rates in Denmark are a bottom tax rate of 12.09% and a top rate of 15%; however, municipal tax of 25.018% (on average, but differs by municipality) and a labour market tax of 8% needs to be added.

Denmark also has a church tax, which is imposed at an average flat rate of 0.92% (actual rate depends on municipality) on members of the Danish State Church.<sup>100</sup>

This combination of taxes means, as noted in the KPMG report *Thinking Beyond Borders: Management of Extended Business Travelers – Denmark*, Denmark in 2022 had average marginal tax rates of 8% for earnings up to DKK 52,174; 43.8% for earnings between DKK 52,174 and DKK 618,370; and 56.5% for earnings above that.<sup>101</sup> At the time of writing, DKK 1 equalled about £0.12.

However, the effective personal income tax rates are lower in most cases due to a number of deductions allowed in Denmark.<sup>102</sup> Some of these deductions include transport costs to and from work if the employer doesn't provide a company car or the employer doesn't pay for transportation, contribution to pension schemes, and professional education.<sup>103</sup>

### Norway



Norway had an average tax rate of 27.3% for a single worker and 23.6% for a married worker with two children in 2022.<sup>104</sup>

Norway operates a combined municipal and state income tax system. A base rate of 22% applies to all. Norway assigns progressive tax brackets based on individual income above NOK 198,349 (around £13,784 at time of writing). In addition to the base rate, individuals pay additional tax ranging from 1.7% to 17.5% depending on earnings. This creates a top marginal personal income tax of 39.5%.<sup>105</sup>

Norway's National Insurance scheme (their social security) is funded by tax rates that are applied based on age; in 2023, the majority of contributors aged 17–69 years pays 7.9% if employed or 11.1% if self-employed.<sup>106</sup>

<sup>99</sup> <https://www.oecd.org/tax/tax-policy/taxing-wages-denmark.pdf>

<sup>100</sup> <https://orbitax.com/news/archive.php/Denmark-Publishes-Updated-Tax-51897>; <https://skat.dk/data.aspx?oid=2035568&lang=us>

<sup>101</sup> <https://assets.kpmg.com/content/dam/kpmg/xx/pdf/2023/01/TBB-Denmark.pdf>

<sup>102</sup> <https://boundlesshq.com/guides/denmark/taxes/>

<sup>103</sup> <https://skat.dk/en-us/individuals/deductions-and-allowances/deduction-for-transport/deduction-for-transport-between-home-and-work>; <https://skat.dk/data.aspx?oid=2244303>

<sup>104</sup> <https://www.oecd.org/tax/tax-policy/taxing-wages-norway.pdf>

<sup>105</sup> <https://www.lifeinnorway.net/income-tax/>

<sup>106</sup> <https://www.skatteetaten.no/en/rates/national-insurance-contributions/>

## Sweden



According to the OECD, the average single worker faced a net average tax rate of 24.3% in 2022 and the average tax rate for a married worker with two children was 17.8% in 2022.<sup>107</sup> In 2023, Sweden's national income tax was a single rate of 20% for those earning above SEK 598,500 (around £45,482 at time of writing). Earners above and below the national threshold also pay municipal tax, which varies by municipality but is on average 32%.<sup>108</sup>

Sweden also requires pension contributions of 7% of gross earned income from employees, up to SEK 599,250 (i.e., a maximum fee of SEK 49,938), but the fee is normally fully tax-creditable on the employee's tax return (i.e., the effective cost for the employee is normally nil).<sup>109</sup>

In 2022, Sweden's top marginal income tax rate was 52.27%.<sup>110</sup>

## Finland



According to the OECD, the net average tax rate for the average single worker in 2022 was 31.1% and for the average married worker with two children it was 26.4%.<sup>111</sup>

Finland has five income tax rates that apply, ranging from 12.64% to 44%, depending on earning levels in 2023.<sup>112</sup>

Finland has local income taxes, which vary depending on the municipality in which you are based, with the average being 7.38% in 2023.<sup>113</sup> Social security contributions for workers in Finland are made up of employee pension contributions and Employee Sickness Insurance contributions. For employee pension contributions, the rate is around 7% for employees aged 17–52 years or 63–67 years and 8.65% for employees aged 53–62. An Employee's Sickness Insurance contribution is 1.96%.<sup>114</sup>

There is also a church tax in operation in Finland for members of the Evangelical Lutheran Church of Finland with a range of 1% to 2.10%.<sup>115</sup>

In 2022, Finland's top rate of personal income tax was 53.4%.<sup>116</sup>

## The Nordic Model

In the Nordic countries there are high levels of public spending on a range of services and this spending requires higher taxation in the form of personal income tax and social security contributions.<sup>117</sup> This model was built up differently to many other places in the world due to their being nations of small entrepreneurial enterprises facing a similar set of issues.<sup>118</sup>

It is unlikely that a similar personal income taxation model would work in the UK due to a lack of shared history and different economic, social, and political structures. However, that does not mean there are not lessons to learn from the Nordic model.

<sup>107</sup> <https://www.oecd.org/tax/tax-policy/taxing-wages-sweden.pdf>

<sup>108</sup> <https://orbitax.com/news/archive.php/Sweden-Sets-National-Income-Ta-51471>

<sup>109</sup> <https://www.oecd.org/els/public-pensions/PAG2021-country-profile-Sweden.pdf>; <https://www.verksam.se/web/international/starting-your-national-retirement-pension-and-occupational-pension>

<sup>110</sup> <https://taxfoundation.org/top-personal-income-tax-rates-europe-2023/>

<sup>111</sup> <https://www.oecd.org/tax/tax-policy/taxing-wages-finland.pdf>

<sup>112</sup> <https://www.vero.fi/henkiloasiakkaat/verokortti-ja-veroilmoitus/tulot/ansiotulot/#tuloveroasteikko>

<sup>113</sup> <https://vm.fi/en/taxation-of-earned-income>

<sup>114</sup> <https://www.tela.fi/en/financing-of-pensions/pension-contributions/>; <https://www.etk.fi/wp-content/uploads/2023/02/statutory-social-insurance-contributions-in-finland-in-2023.pdf>

<sup>115</sup> <https://vm.fi/en/taxation-of-earned-income#>

<sup>116</sup> <https://taxfoundation.org/top-personal-income-tax-rates-europe-2023/>

<sup>117</sup> <https://taxfoundation.org/scandinavian-countries-taxes-2021/>

<sup>118</sup> <https://www.investopedia.com/articles/investing/100714/nordic-model-pros-and-cons.asp>



## The Republic of Ireland



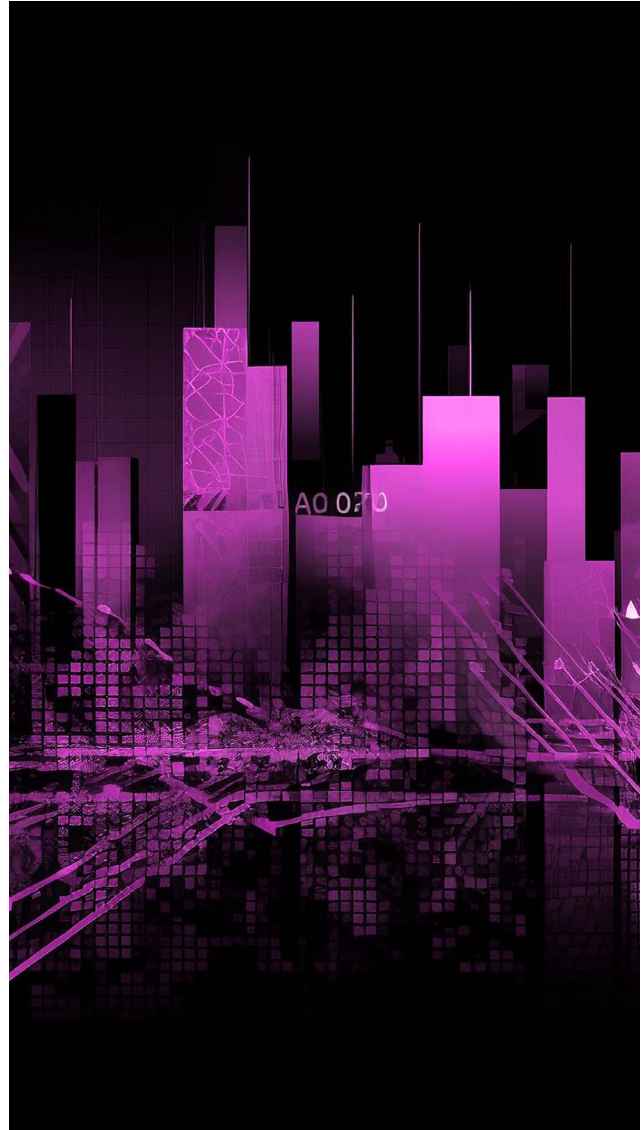
According to the OECD, the average single worker paid a net average tax rate of 27.5% in 2022 and an average married worker with two children was 12.0%.<sup>119</sup>

Ireland has two income tax rates – the bottom rate is 20% and the top rate is 40%. The rates are applied at various thresholds; so, for a single person with no dependents, the bottom rate applies to earnings under €40,000 and the top rate applies for earnings above that. There are then two thresholds for married couples. The first threshold applies to married couples with one income, with the first €49,000 of earnings being taxed at 20% and earnings above that at 40%. The second married-couple threshold is when both partners are earning and the 20% applies for the first €80,000 of earnings and 40% for earnings above that.<sup>120</sup>

Ireland has a tax credit and allowance system for calculating income tax. The tax credits reduce the amount of tax you have to pay. Tax credits are deducted once your liability to income tax has been identified.<sup>121</sup> There are several tax credits that could be used.

Ireland has no local income taxes.

Ireland also applies a Universal Social Charge and social security tax called Pay Related Social Insurance (PRSI). The Universal Social Charge varies depending on gross income above €13,000 a year. PRSI rates vary depending upon earnings and an applied social insurance class.<sup>122</sup>



<sup>119</sup> <https://www.oecd.org/tax/tax-policy/taxing-wages-ireland.pdf>

<sup>120</sup> <https://www.citizensinformation.ie/en/money-and-tax/tax/income-tax/how-your-tax-is-calculated/>

<sup>121</sup> <https://www.citizensinformation.ie/en/money-and-tax/tax/income-tax/how-your-tax-is-calculated/>

<sup>122</sup> <https://www.citizensinformation.ie/en/social-welfare/irish-social-welfare-system/social-insurance-prsi/paying-social-insurance/>, <https://www.citizensinformation.ie/en/money-and-tax/tax/income-tax/universal-social-charge/>

## The High Marginal Tax Rate Issue in the Republic of Ireland

Recently OECD reports have highlighted that Ireland has very high marginal income tax rates at relatively low wages when compared internationally, which makes Ireland an outlier when compared to both the OECD and the EU in this respect.<sup>123</sup> Some have argued that this could act as a deterrent to workers or to investment in upskilling and people's willingness to expand businesses, or both.<sup>124</sup> This would then act as a drag on productivity and economic growth.

To demonstrate this effect, the Irish Tax Institute has produced this table from 2017.<sup>125</sup> This table shows the effective tax rates for various brackets of earnings:

The Step Effect	
Income Level	Top Tax Rate
€18,000	23%
€25,000	29.5%
€50,000	49.5%
€75,000	52%
€105,000 (self-employed income)	55%

Source: Irish Tax Institute, Perspectives on Ireland's Personal Tax System: A Medium to Long Term Approach (2016; page 24), <https://taxinstitute.ie/wp-content/uploads/2018/03/The-Budget-Book-2017.pdf>

This big jump in marginal tax rates can affect the willingness of workers to accept pay increases, promotions, or to engage in working more hours and thus can be a drag on economic growth and productivity.

Another issue with the Irish personal income taxation system is a lack of a broad tax base. The Irish Tax Institute highlights this in *Ireland's Personal Tax System: Response to the Public Consultation* (April 2023) in which they say 'the Irish personal tax base is unusually narrow and dependent on higher paid workers, a significant proportion of whom work for a small group of multinational companies'.<sup>126</sup> To highlight how narrow the Irish personal taxation system is, in its Consultation on Ireland's Personal Tax System: April 2023, Public Consultation Response, Deloitte notes 'In 2018 (the latest year for which data is available) c.25% of top earners paid over 80% of all Income tax'.<sup>127</sup>

Both Deloitte and the Irish Tax Institute suggest that the mixture of a narrow tax base and the high marginal tax rates can act as a disincentive to foreign direct investment and investment by local and multinational businesses.<sup>128</sup>

Given how closely FDI and wider investment is linked to productivity, and the upcoming changes to global corporation tax levels (which we discuss in another section of this report), maintaining an attractive personal income tax system is one way that businesses, investors, and talent can be encouraged to stay and invest in an economy.

This is an issue that the Irish government is aware of, and it held a public consultation on changes to help address this.<sup>129</sup> The questions in the consultation were focused on issues of progressivity of the tax system but also on whether it supports a competitive economy and incentives and encourages work. It remains to be seen what the government's response to this consultation will be, but this is an issue it is aware of and feels it needs to tackle.

<sup>123</sup> <https://www.oecd-ilibrary.org/sites/cdaafef5-en/index.html?itemId=/content/component/cdaafef5-en>

<sup>124</sup> <https://www.oecd-ilibrary.org/sites/cdaafef5-en/index.html?itemId=/content/component/cdaafef5-en>

<sup>125</sup> <https://taxinstitute.ie/wp-content/uploads/2018/03/The-Budget-Book-2017.pdf>

<sup>126</sup> <https://taxinstitute.ie/wp-content/uploads/2023/04/Irish-Tax-Institute-Response-to-the-Public-Consultation-on-Irelands-Personal-Tax-System.pdf>

<sup>127</sup> <https://www2.deloitte.com/content/dam/Deloitte/ie/Documents/Tax/ie-tax-consultation-on-the-personal-tax-system-deloitte-response.pdf>

<sup>128</sup> <https://www2.deloitte.com/content/dam/Deloitte/ie/Documents/Tax/ie-tax-consultation-on-the-personal-tax-system-deloitte-response.pdf>, <https://taxinstitute.ie/wp-content/uploads/2023/04/Irish-Tax-Institute-Response-to-the-Public-Consultation-on-Irelands-Personal-Tax-System.pdf>

<sup>129</sup> <https://www.gov.ie/en/consultation/3ee22-minister-mcgrath-launches-public-consultation-on-the-personal-tax-system/>

## Australia



According to the OECD, the average single worker paid a net average tax rate of 23.0% in 2022 and for an average married worker with two children it was 15.9%.<sup>130</sup>

Australia has four income tax rates: 19%, 32.5%, 37%, and 45%, in 2022–2023. No income tax is paid on the first AUD 18,200 of earnings; earnings between AUD 18,201 and AUD 45,000 is taxed at 19%; earnings between AUD 45,001 and AUD 120,000 is taxed at 32.5%; earnings between AUD 120,001 and AUD 180,000 is taxed at 37%; and earnings above AUD 180,001 is taxed at 45%.<sup>131</sup>

In Australia, residents must also pay a Medicare levy, which is at a flat rate of 1.5% on a person's income; a Medicare levy surcharge is also charged between 1% and 1.5% on high income earners.<sup>132</sup>

There are no other social security taxes in Australia other than the Medicare levy.<sup>133</sup>

### Australia Stage 3 Income Tax Reforms

On 1 July 2024 the personal income tax bands and rates in Australia are due to change. The changes will include removing the AUD 120,000 to AUD 180,000 tax bracket, increasing the top tax bracket threshold from AUD 180,000 to AUD 200,000 and reducing the marginal tax rate faced by the AUD 45,000 to AUD 200,000 tax bracket from 32.5% to 30%.<sup>134</sup>

There is a debate going on in Australia about whether these changes should take place and what their effect will be. Those against the changes believe they will be expensive and lead to the government reducing spending, and that they will make the Australian tax system less progressive and benefit higher earners more.<sup>135</sup> However, there is also support for these reforms from the IMF, which believes that these reforms will reduce bracket creep and the personal income tax burden.<sup>136</sup>

**Note:** *Band creep* or *bracket creep* is when income tax band threshold rates are maintained, and inflation is likely to result in increased wages (though not in real terms). As a result, more people will enter into a higher tax rate or an additional tax rate.

This debate in Australia is centred around the competing aims of taxation around providing enough revenue for government, redistribution and progressivity, and helping to boost growth and productivity.

We wait to see if the Australian income tax reforms lead to more economic growth and a boost to productivity by removing bracket creep and the tax burden. The hope is that these measures will mean people will work more hours, seek promotions and higher paid roles, and be more innovative to earn more.

<sup>130</sup> <https://www.oecd.org/tax/tax-policy/taxing-wages-australia.pdf>

<sup>131</sup> <https://www.ato.gov.au/Rates/Tax-rates--Australian-residents/#Australianresidentstaxrates2020to2024>

<sup>132</sup> <https://hallandwilcox.com.au/thinking/a-guide-to-taxation-in-australia/>

<sup>133</sup> <https://www.oecd-ilibrary.org/sites/04a77ac8-en/index.html?itemId=/content/component/04a77ac8-en>

<sup>134</sup> [https://www.aph.gov.au/-/media/05\\_About\\_Parliament/54\\_Parliamentary\\_Depts/548\\_Parliamentary\\_Budget\\_Office/Costings/Publicly\\_released\\_costings/2021/Distributional\\_analysis\\_of\\_the\\_stage\\_3\\_tax\\_cuts.docx?la=en&hash=6B35B00FD26AB5C4862E4E25FCB4457A2962B897](https://www.aph.gov.au/-/media/05_About_Parliament/54_Parliamentary_Depts/548_Parliamentary_Budget_Office/Costings/Publicly_released_costings/2021/Distributional_analysis_of_the_stage_3_tax_cuts.docx?la=en&hash=6B35B00FD26AB5C4862E4E25FCB4457A2962B897)

<sup>135</sup> <https://www.taxreturn.com.au/stage-3-tax-cuts-everything-you-need-to-know>

<sup>136</sup> <https://www.theguardian.com/australia-news/2022/nov/16/australia-should-keep-lifting-interest-rate-and-deliver-stage-three-tax-cuts-imf-says>

## Singapore



Because Singapore is not a member of the OECD, it does not supply figures on the tax wedge or net average tax rate.

Singapore has a number of different income tax rates ranging from 2% on earnings above SGD 20,000 but not over SGD 30,000, to a top rate of 22% for earnings above SGD 320,000.<sup>137</sup>

In 2024 this will change with a 23% tax rate introduced for earnings over SGD 500,000 and a 24% rate for earnings over SGD 1 million.<sup>138</sup> Because there are so many rates, we include the table Singapore Resident Tax Rates From 2024 for the year 2024 and onward.

Singapore also has the Central Provident Fund (CPF), which employees pay into. The CPF is Singapore's national pension scheme. Contributions are payable by Singapore citizens and those who are Singapore permanent residents. Employers and employees contribute 17% and 20%, respectively, for employees aged 55 and younger. Employees respective maximum contributions are therefore SGD 1,200.<sup>139</sup>

### The Singaporean Income Tax Model

Singapore is unique in this study for having so many different tax rates and for having such a low headline rate of personal income tax, currently 22%, and set to increase to 24% in 2024. The system is deliberately designed to help attract and keep talent and encourage individuals to contribute to the economy. A recent PWC white paper, *Singapore: Sovereignty, Society, Substance, Success: White paper on Singapore's tax policy*, said that 'Personal Income Tax is a vital part of Singapore's taxation system as well as its talent strategy'.<sup>140</sup> The Inland Revenue Authority of Singapore says 'The fundamental tenet of Singapore's tax policy is to keep tax rates competitive both for corporations as well as individuals. . . . Keeping our individual rates low will encourage our people to work hard. It will also make risk-taking worthwhile and encourage entrepreneurship'.<sup>141</sup>

<sup>137</sup> <https://www.iras.gov.sg/taxes/individual-income-tax/basics-of-individual-income-tax/tax-residency-and-tax-rates/individual-income-tax-rates>

<sup>138</sup> <https://www.iras.gov.sg/taxes/individual-income-tax/basics-of-individual-income-tax/tax-residency-and-tax-rates/individual-income-tax-rates>

<sup>139</sup> <https://www.cpf.gov.sg/employer/employer-obligations/how-much-cpf-contributions-to-pay>; [https://www.cpf.gov.sg/content/dam/web/employer/employer-obligations/documents/CPFContributionRatesTable\\_1Jan2022.pdf](https://www.cpf.gov.sg/content/dam/web/employer/employer-obligations/documents/CPFContributionRatesTable_1Jan2022.pdf)

<sup>140</sup> <https://www.pwc.com/sg/en/publications/assets/tax-policy-white-paper.pdf>

<sup>141</sup> <https://www.iras.gov.sg/who-we-are/what-we-do/taxes-in-singapore/the-singapore-tax-system>

## Singapore Resident Tax Rates from 2024 (SGD)

Chargeable Income	Income Tax Rate (%)	Gross Tax Payable (\$)
First \$20,000	0	0
Next \$10,000	2	200
First \$30,000	-	200
Next \$10,000	3.50	350
First \$40,000	-	550
Next \$40,000	7	2,800
First \$80,000	-	3,350
Next \$40,000	11.5	4,600
First \$120,000	-	7,950
Next \$40,000	15	6,000
First \$160,000	-	13,950
Next \$40,000	18	7,200
First \$200,000	-	21,150
Next \$40,000	19	7,600
First \$240,000	-	28,750
Next \$40,000	19.5	7,800
First \$280,000	-	36,550
Next \$40,000	20	8,000
First \$320,000	-	44,550
Next \$180,000	22	39,600
First \$500,000	-	84,150
Next \$500,000	23	115,000
First \$1,000,000	-	199,150
In excess of \$1,000,000	24	

Source: Inland Revenue Authority of Singapore, <https://www.iras.gov.sg/taxes/individual-income-tax/basics-of-individual-income-tax/tax-residency-and-tax-rates/individual-income-tax-rates>

## The UK

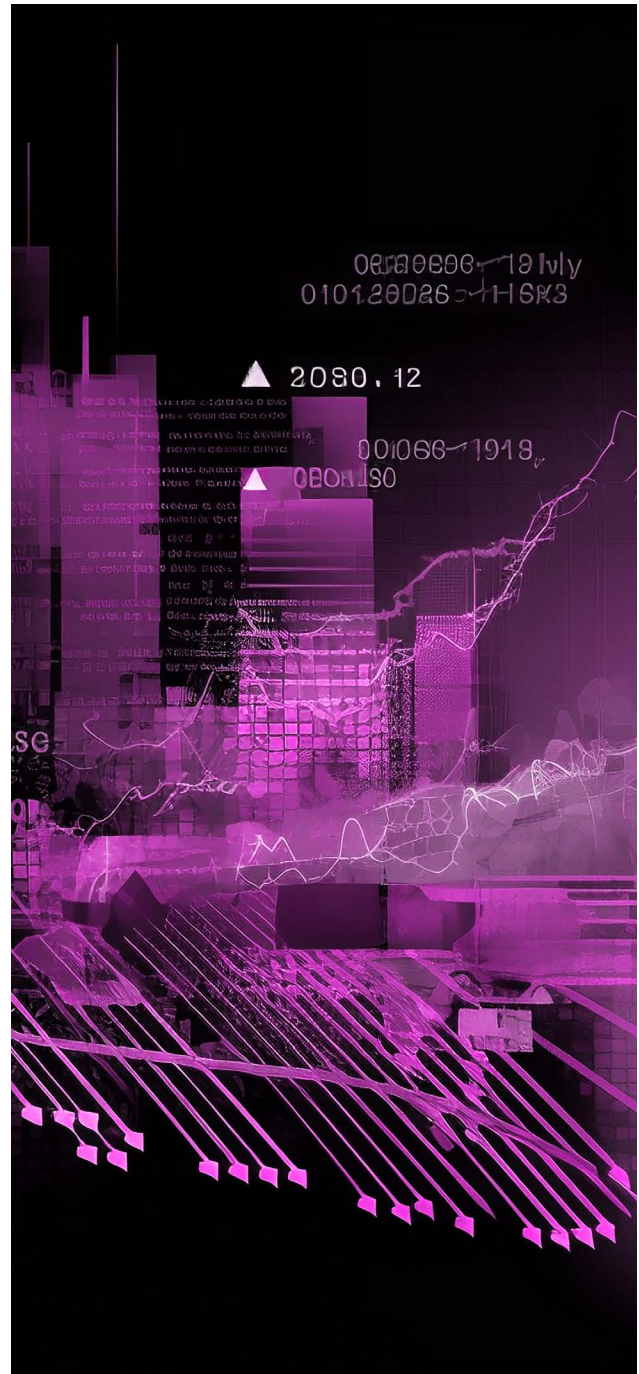


According to the OECD, the average single worker paid a net average tax rate of 23.6% in 2022 and the employee net average tax rate for an average married worker with two children was 18.8%, which is the 11th highest in the OECD, and compares with the OECD average of 14.1%.<sup>142</sup>

The UK has three rates of personal income tax (except for Scotland, where the devolved government has tax-raising powers and thus where the tax rates differ from the rest of the UK). For England, Wales, and Northern Ireland, the three tax rates are 20% for earnings between £12,571 and £50,270; 40% for £50,271 to £125,140; and 45% for earnings above £125,140.<sup>143</sup>

The UK also has an income-tax-free personal allowance of £12,570. However, once earnings exceed £100,000, the personal allowance reduces by £1 for every £2 earned based on adjusted net income over that limit.<sup>144</sup> For social security taxes on the employee, the UK operates a National Insurance scheme. In 2022, the UK experienced a number of changes to national insurance with the introduction of a linked Health and Social Care levy and then removal of that levy following changes of various prime ministers and chancellors. The rates in 2023 for national insurance contributions are as follows:

- No contributions are payable on the first £242 per week.
- Contributions of 12% are payable on earnings between £242 and £967 per week (the upper earnings limit).
- Earnings above the upper earnings limit receive a 2% charge.
- The self-employed pay contributions are 9.73% on earnings above £11,908 up to £50,270 per annum.<sup>145</sup>



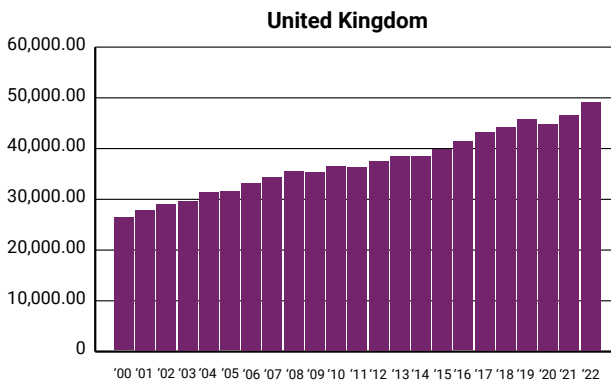
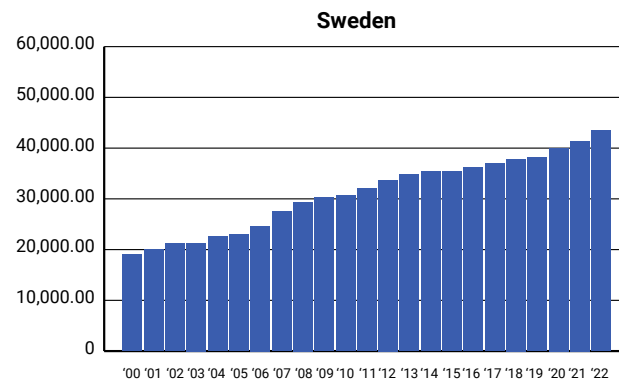
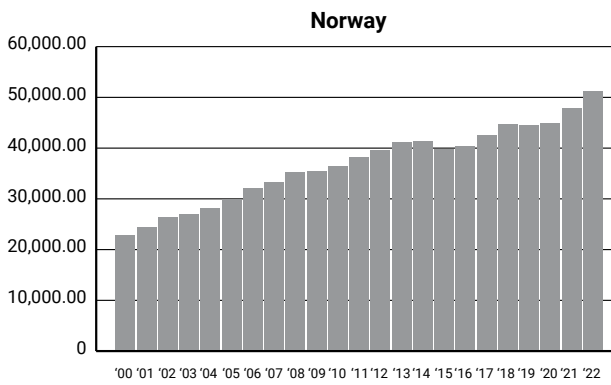
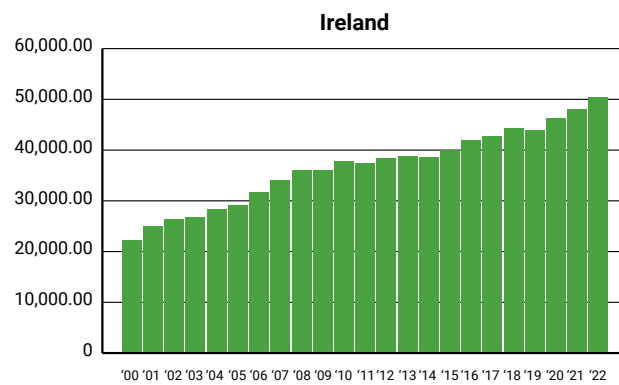
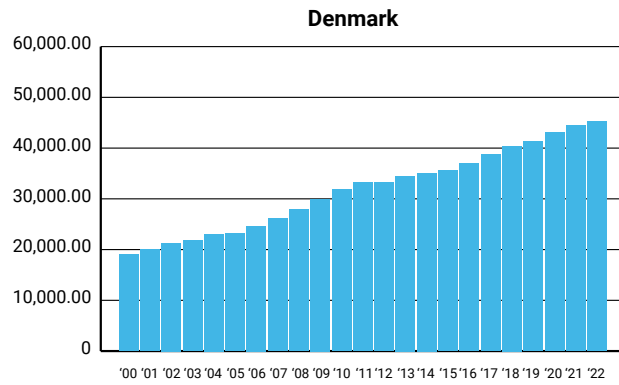
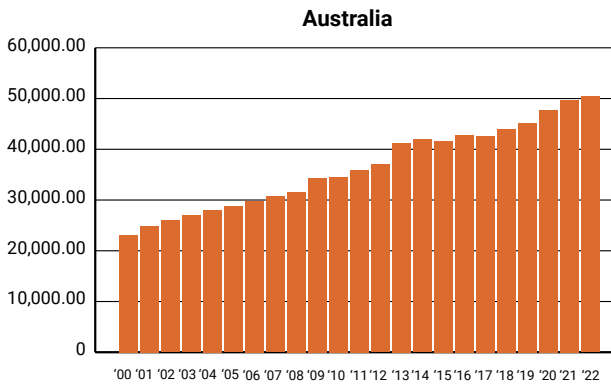
<sup>142</sup> <https://www.oecd.org/tax/tax-policy/taxing-wages-united-kingdom.pdf>

<sup>143</sup> <https://www.gov.uk/income-tax-rates>

<sup>144</sup> <https://www.gov.uk/income-tax-rates/income-over-100000>

<sup>145</sup> <https://www.litrg.org.uk/tax-guides/employment/what-national-insurance-do-i-pay-employee>; <https://pro-taxman.co.uk/national-insurance-and-the-self-employed/>

# Take Home Pay After Taxation



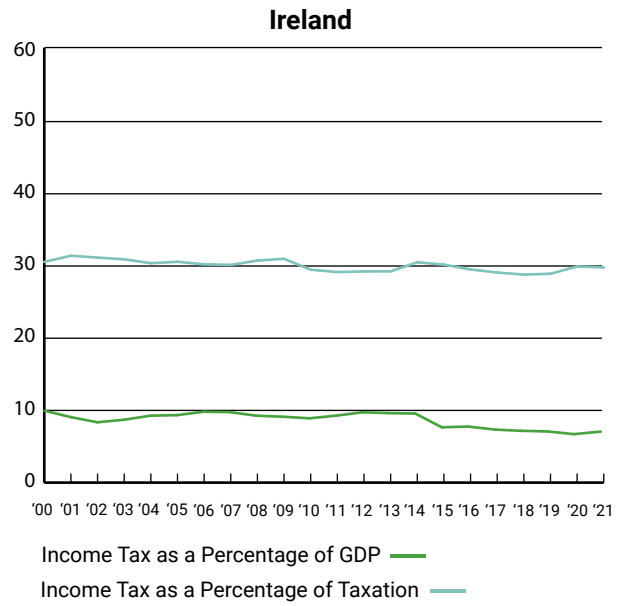
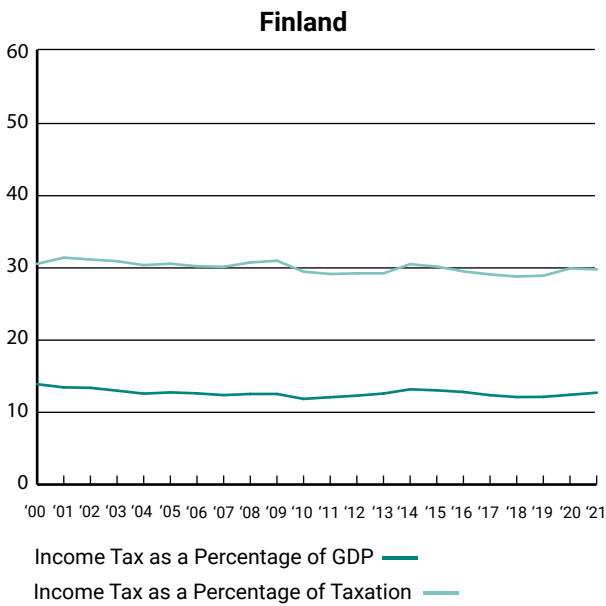
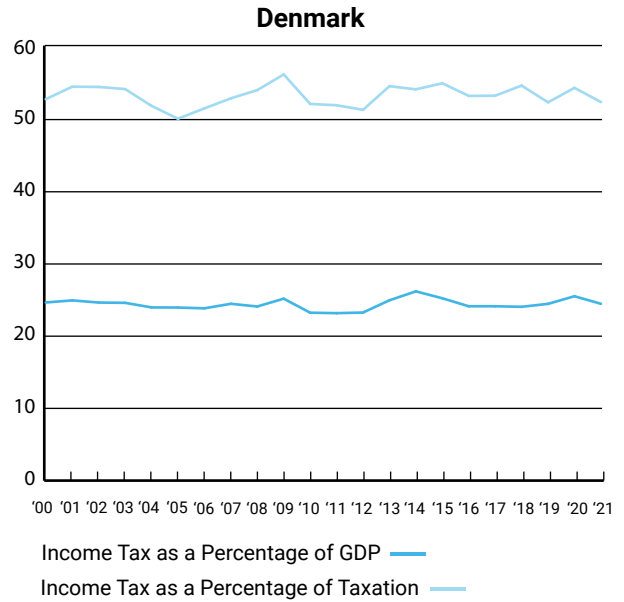
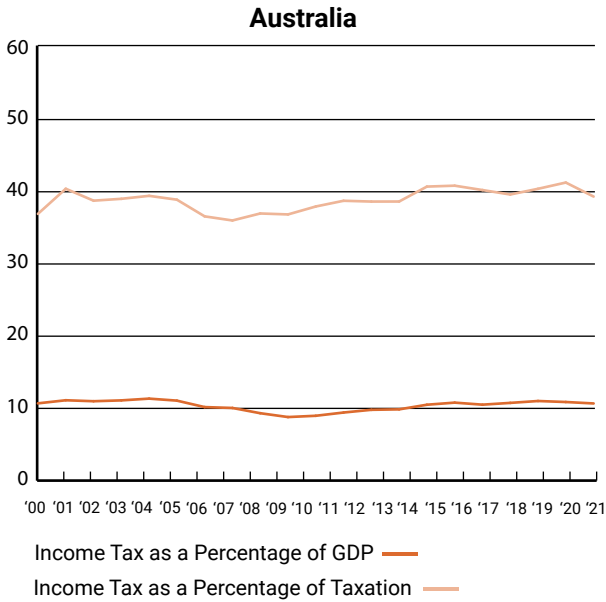
The "Take Home Pay for Average Single Worker" graphs indicate that, in every country, take-home pay after taxation has increased since 2000. This has more to do with people earning more, but changes in the taxation models will have had an impact. It shows the UK scores above an OECD average for take-home pay for a single worker; however, Norway, Australia, and Ireland score better than the UK in this regard in the most recent years. To help ensure the UK tax system remains competitive for individuals and helps boost growth and productivity, the UK government should ensure that the UK keeps pace with these countries.

Data source: OECD.Stat, <https://stats.oecd.org/index.aspx?queryid=55145#>

Note: Singapore is not in this data set because it is not a member of the OECD.

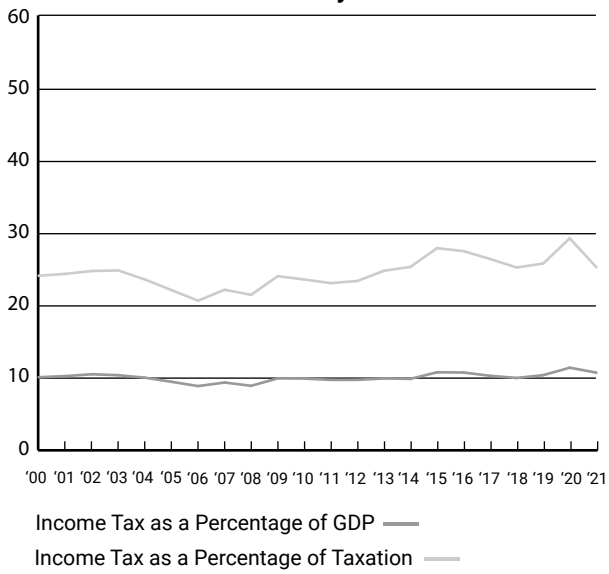
## Income Tax as a Percentage of GDP and Percentage of Taxation

As the percentage of taxation and percentage of GDP graphs show, the UK is very near OECD average for personal income tax as a percentage of GDP and as a percentage of total taxation. Only Norway is nearer to the OECD average when it comes as a percentage of taxation.

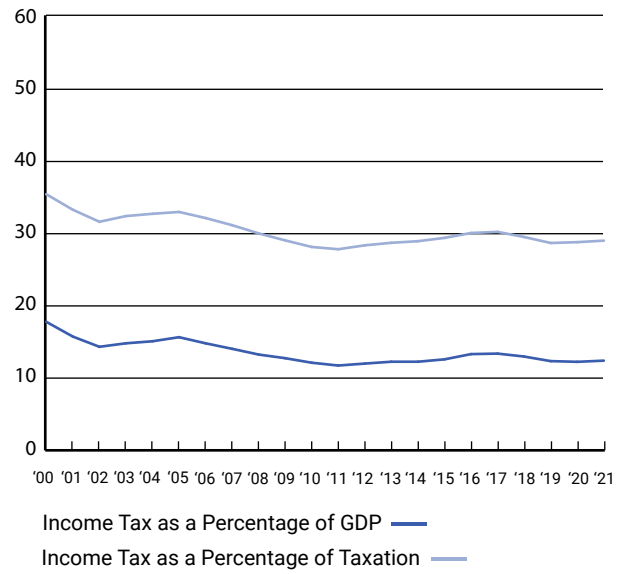




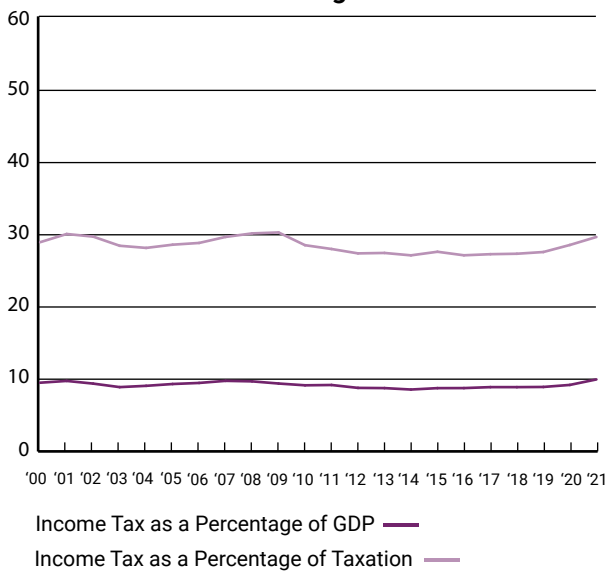
### Norway



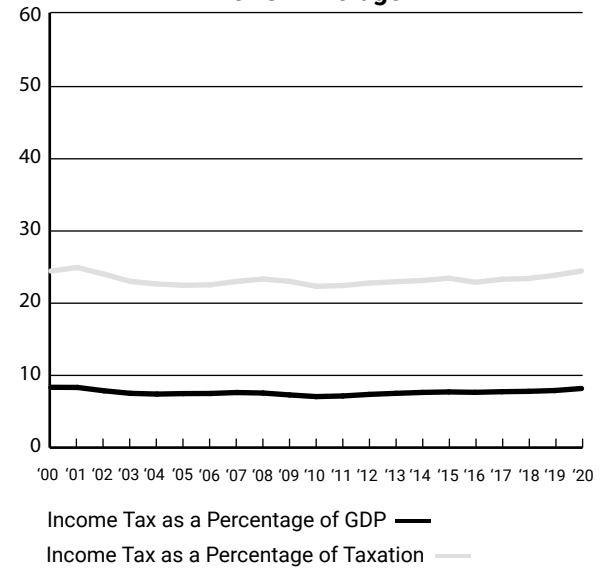
### Sweden



### United Kingdom



### OECD Average



Data source: OECD.Stat, <https://data.oecd.org/tax/tax-on-personal-income.htm#indicator-chart>

**Note:** Singapore is not in this data set because it is not a member of the OECD.

## Lessons for the UK

### Tax wedge couples with kids

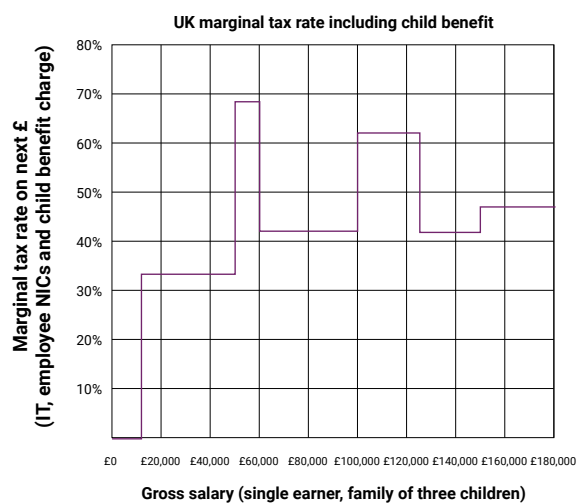
Going forward, future changes to UK income tax and social security contributions policy should look to ensure that the UK becomes more competitive when it comes to the tax wedge for couples with kids. This can help ensure that more return to work and take part in the economy, which will help drive up economic growth and support productivity.

### Learn lessons from Ireland, Australia, and Singapore

As discussed previously, both Ireland and Australia are either reviewing or planning to change their income taxation system in order to encourage work, to stop income tax band creeps, and to remove the distorting economic effects these can have. Singapore has very low-income tax levels.

The UK should review its future plans and systems to ensure that band creep and disincentives to work or earn more are removed. The UK has two groups who face very high marginal tax rates; if these were changed, it could help the UK with this issue, as described in the following text:

- **Ensure the top rate of marginal tax does not exceed the top rate of income tax and national insurance contributions.** Currently in the UK personal income taxation system there are two groups of people who can be experiencing very high marginal rates of income tax (rates above 60%): people earning over £100,000 due to the increasing loss of their personal allowance, and people who earn over £50,000 who are in receipt of child benefit but start to lose it once they begin earning above the aforementioned amount. The following table shows how these marginal rates work.



Source: The Times <https://www.thetimes.co.uk/article/five-big-ways-to-fix-britains-broken-tax-system-d2l8wkrxl>

These two high marginal tax rates are a disincentive to work more hours, accept pay increases or promotions, and move to higher paying roles. They can also encourage some to reduce their hours or put more money into pensions; though good for savings and their future, it is not benefiting the economy now.

The effective marginal rate of income tax for those earning over £100,000 can be worse when the removal of tax-free childcare is taken into account.<sup>146</sup> There is also the potential for this to get worse with the new free childcare hours that UK Chancellor Hunt announced in his 2023 Spring budget, which will not apply to families in which one of the parents has an adjusted net income of over £100,000.<sup>147</sup> This could put further pressure on these workers to work fewer hours or stay in lower paying roles, which is a drag on the economy and productivity.

These two issues with high marginal tax rates link to the preceding point in the section on tax wedge in regard to the average couple with two children; however, by removing these anomalies, which cause a productivity distortion in the income taxation system, the UK should be able to see its tax wedge score improve.

<sup>146</sup> <https://www.gov.uk/tax-free-childcare>

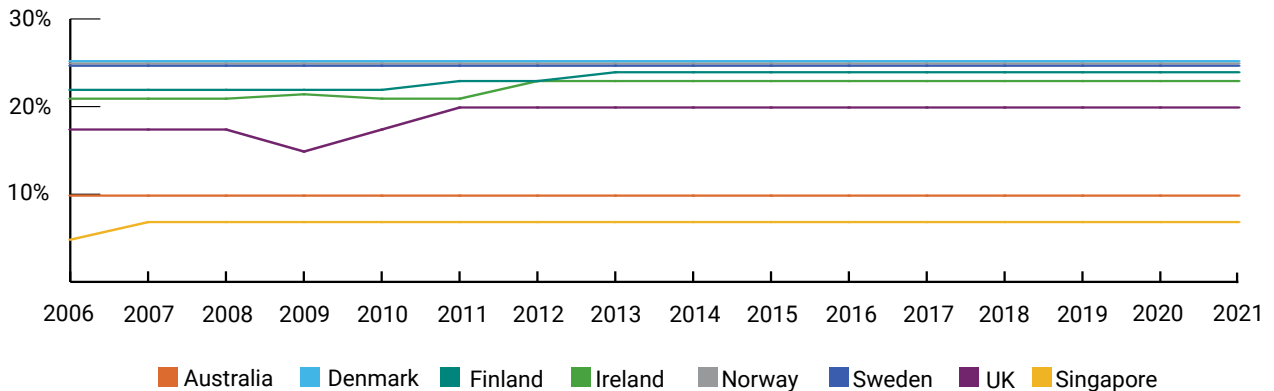
<sup>147</sup> <https://educationhub.blog.gov.uk/2023/07/07/free-childcare-how-we-tackling-the-cost-of-childcare/>

# VAT and Consumption Taxation

The following graphics explore one consumption tax that each of the countries in this study has: VAT. We look at historic rates, current rates, and VAT thresholds for businesses to see if there are any productivity lessons for the UK.

## Standard VAT Rates in Each Country Since 2006

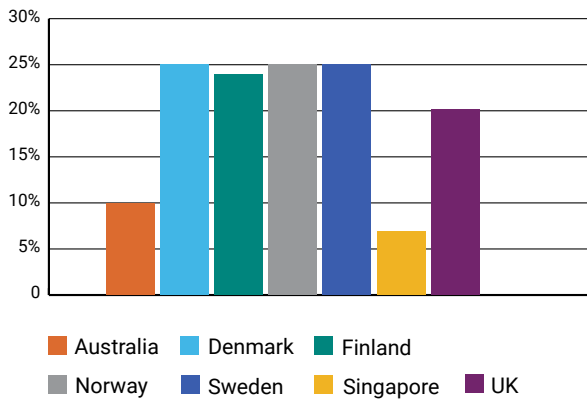
Standard VAT Rates By Country



Data sources: OECD, <https://www.oecd.org/tax/tax-policy/tax-database/> [VAT/GST: standard and any reduced rates - Historical (1967–2021)]; Inland Revenue Authority of Singapore, [https://www.iras.gov.sg/taxes/goods-services-tax-\(gst\)/basics-of-gst/current-gst-rates](https://www.iras.gov.sg/taxes/goods-services-tax-(gst)/basics-of-gst/current-gst-rates)

## VAT Rates in Each Country: 2023

Current VAT Rates



Sources: Global VAT Compliance, <https://www.globalvatcompliance.com/globalvatnews/world-countries-vat-rates-2020/>; Avalara, <https://www.eurofiscalis.com/en/vat-rates-in-eu/>; <https://www.avalara.com/vatlive/en/country-guides/europe/norway/norwegian-vat-rates.html>

In our study, the Nordic countries have the highest current and historic VAT rates, whereas Singapore has the lowest at 7%, followed by Australia at 10%. As can be seen from the preceding graphic, there has been little movement in VAT rates among the countries, with the exception of the UK in 2008–2010, when there were changes made as part of tax responses to the financial crash.

Singapore only introduced their goods and services tax (i.e., VAT) in 1994 as part of measures taken to broaden the tax base, while also reducing corporation and personal income taxation.<sup>148</sup>

<sup>148</sup> <https://www.mof.gov.sg/policies/taxes/goods-and-services-tax>; [https://www.iras.gov.sg/taxes/goods-services-tax-\(gst\)/basics-of-gst/current-gst-rates](https://www.iras.gov.sg/taxes/goods-services-tax-(gst)/basics-of-gst/current-gst-rates)

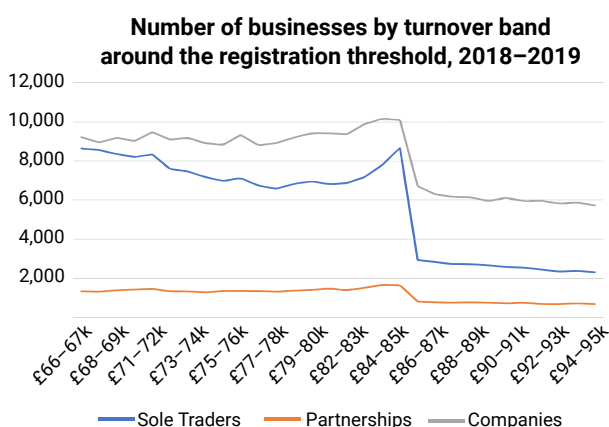
The UK is caught in the upper middle between the higher VAT-taxing Nordic countries and the lower-taxing Singapore and Australia. Although there seems little the UK can learn on VAT rates from the countries in this study, some lessons may be learned that could affect productivity on VAT registration thresholds, which we explore in the following text.

### VAT Registration Thresholds

Country	VAT Annual Turnover Limit for Registration
UK	GBP 85,000
Denmark	DKK 50,000
Finland	EUR 10,000
Ireland	EUR 75,000
Norway	NOK 50,000
Sweden	SEK 30,000
Australia	AUD 75,000
Singapore	SGD 1,000,000

Source: Marcus Ward Consultancy Ltd, <https://www.marcusward.co/vat-worldwide-rates-and-registration-limits/> and Avalara, <https://www.avalara.com/vatlive/en/country-guides/asia/singapore.html>

The preceding table shows the rates at which businesses must register for VAT. The Nordic countries have a very low VAT threshold, whereas Ireland, the UK, and Australia have a much higher threshold. Singapore has the highest threshold. In the UK, the current threshold rate seems to mean many SMEs choose not to expand and grow to avoid having to be VAT registered. This reluctance to expand and grow due to the VAT threshold is holding back productivity and economic growth, as can be seen in the following graph.



Source: Financial Times, <https://www.ft.com/content/618bfe59-a1f9-4fc1-b128-acb564eacfe3>

UK Chancellor Hunt announced in his most recent budget that the thresholds would remain frozen until March 2026, having already been frozen since 2017–2018.<sup>149</sup> The Office of Budget Responsibility estimates that, by 2026, up to 44,000 firms may cap their expenditure so as to not meet the VAT thresholds.<sup>150</sup>

Businesses curtailing their growth to continue to be below the VAT threshold is a drag on productivity and economic growth. Tax Policy Associates note in ‘Is VAT stopping 26,000 businesses from growing? More on the VAT growth brake,’ that currently ‘about 3,500 companies per £1k turnover band go “missing” (compared to about 2,000 in 2014/15) and about 4,500 sole traders per £1k turnover (around 3,500 in 2014/15)’.<sup>151</sup> The reason for this is due to the perceived cost and administrative burden businesses will face once they meet or exceed that threshold.

AICPA & CIMA members in the UK have raised this issue with us, in particular, AICPA & CIMA members in practice who help advise SMEs on a range of issues, including how to grow their businesses and improve their models, strategies, and operation.

The Nordic countries in our study are unlikely to face this issue due to their low threshold for VAT registration, whereas Singapore with its high threshold is also unlikely to face this. Neither of these present a real solution that the UK could follow because raising UK VAT to Singapore levels would cost the economy too much and potentially create a cliff edge further along. Reducing UK VAT to Nordic levels would create pressure on businesses when they are already facing economically volatile headwinds.

One solution AICPA & CIMA members have put forward is better encouragement, information, and support for SMEs to VAT register. The government should consider this approach and ensure in the future that the VAT threshold does not create a cliff edge and artificially stop companies from growing, expanding, and being more productive in the economy.

<sup>149</sup> <https://www.aicpa-cima.com/advocacy/download/uk-spring-budget-briefing-2023>

<sup>150</sup> <https://obr.uk/box/the-impact-of-the-frozen-vat-registration-threshold/>

<sup>151</sup> [https://www.taxpolicy.org.uk/2023/01/30/vat\\_brake2/](https://www.taxpolicy.org.uk/2023/01/30/vat_brake2/)

# Stamp Duty

The following tables explore the stamp duty policy of each country in our study and indicates if there are any lessons the UK can learn from the other countries to help improve productivity.

## Stamp Duty in Each Country

United Kingdom	
Has Stamp Duty on Residential Property?	Has Stamp Duty on Commercial Property?
Yes	Yes
Rules and Rates of Regime	Rules and Rates of Regime
<p>The UK has various rules and rates depending on whether you are a first-time buyer, a second home buyer, or a non-UK resident.</p> <p><b>First Time Buyers Rates:</b></p> <ul style="list-style-type: none"> <li>Property value up to £425k – 0%</li> <li>The next £500,000 (the value between £425,001 to £925,000) – 5%</li> <li>The next £575,000 (the value between £925,001 to £1.5 million) – 10%</li> <li>The remaining amount (the value above £1.5 million) – 12%</li> </ul> <p><b>Non-First-Time Buyers Moving into Primary Residence:</b></p> <ul style="list-style-type: none"> <li>Property value up to £250k – 0%</li> <li>The next £675,000 (the value between £250,001 to £925,000) – 5%</li> <li>The next £575,000 (the value between £925,001 to £1.5 million) – 10%</li> <li>The remaining amount (the value above £1.5 million) – 12%</li> </ul> <p><b>Second Homes and Buy to Let Landlords</b></p> <ul style="list-style-type: none"> <li>Up to £250,000 – 3%</li> <li>The next £675,000 (the value between £250,001 to £925,000) – 8%</li> <li>The next £575,000 (the value between £925,001 to £1.5 million) – 13%</li> <li>The remaining amount (the value between £1.5 million) – 15%</li> </ul> <p><b>Non-UK Residents</b></p> <ul style="list-style-type: none"> <li>Up to £250,000 – 2%</li> <li>The next £675,000 (the value between £250,001 to £925,000) – 7%</li> <li>The next £575,000 (the value between £925,001 to £1.5 million) – 12%</li> <li>The remaining amount (the value between £1.5 million) – 14%<sup>152</sup></li> </ul>	<p>The UK has stamp duty for non-residential property.</p> <p><b>Non-residential property</b></p> <ul style="list-style-type: none"> <li>Commercial property, for example shops or offices</li> <li>Property that isn't suitable to be lived in</li> <li>Forests</li> <li>Agricultural land that's part of a working farm or used for agricultural reasons</li> <li>Any other land or property that is not part of a dwelling's garden or grounds</li> <li>Six or more residential properties bought in a single transaction</li> </ul> <p><b>Freehold Sales and Transfers</b></p> <ul style="list-style-type: none"> <li>Up to £150,000 – 0%</li> <li>The next £100,000 (the portion from £150,001 to £250,000) – 2%</li> <li>The remaining amount (the portion above £250,000) – 5%</li> </ul> <p><b>New leasehold sales and transfers</b></p> <ul style="list-style-type: none"> <li>£0 to £150,000 – 0%</li> <li>The portion from £150,001 to £5,000,000 – 1%</li> <li>The portion above £5 million – 2%<sup>153</sup></li> </ul>

<sup>152</sup> <https://www.gov.uk/stamp-duty-land-tax/residential-property-rates>; <https://www.hawesandco.co.uk/calculators/stamp-duty>

<sup>153</sup> <https://www.gov.uk/stamp-duty-land-tax/nonresidential-and-mixed-rates>

## Sweden

<b>Has Stamp Duty on Residential Property?</b>	<b>Has Stamp Duty on Commercial Property?</b>
Yes	Yes
<b>Rules and Rates of Regime</b>	<b>Rules and Rates of Regime</b>
Stamp duty land tax is levied on transfers of real property. The duty is 1.5% of the purchase price for individuals. <sup>154</sup>	Stamp duty for corporate buyers of real estate is 4.25%. <sup>155</sup>

## Denmark

<b>Has Stamp Duty on Residential Property?</b>	<b>Has Stamp Duty on Commercial Property?</b>
Yes	Yes
<b>Rules and Rates of Regime</b>	<b>Rules and Rates of Regime</b>
A duty of DKK 1,750 plus 0.6% of the transfer sum applies to a deed of transfer of real estate. <sup>156</sup>	Transfer of real estate (DKK 1,750 plus 0.6% of the transfer sum). <sup>157</sup>

## Finland

<b>Has Stamp Duty on Residential Property?</b>	<b>Has Stamp Duty on Commercial Property?</b>
Yes	Yes
<b>Rules and Rates of Regime</b>	<b>Rules and Rates of Regime</b>
A transfer tax of 4%. <sup>158</sup>	A transfer tax of 4% of the sales price is payable on the transfer of real estate situated in Finland. <sup>159</sup>

## Norway

<b>Has Stamp Duty on Residential Property?</b>	<b>Has Stamp Duty on Commercial Property?</b>
Yes	Yes
<b>Rules and Rates of Regime</b>	<b>Rules and Rates of Regime</b>
A 2.5% rate applies to the purchaser. <sup>160</sup>	A 2.5% stamp duty for the purchaser. <sup>161</sup>

<sup>154</sup> <https://www.lantmateriet.se/en/real-property/change-owner/stamp-duty-and-fees/>

<sup>155</sup> <https://www.lantmateriet.se/en/real-property/change-owner/stamp-duty-and-fees/>

<sup>156</sup> <https://bomae.dk/en/buyer-guide/an-overview-on-how-to-buy-property-in-denmark-as-a-foreigner/>

<sup>157</sup> <https://bomae.dk/en/buyer-guide/an-overview-on-how-to-buy-property-in-denmark-as-a-foreigner/>

<sup>158</sup> [https://www.vero.fi/en/individuals/housing/buying\\_a\\_home/](https://www.vero.fi/en/individuals/housing/buying_a_home/); [https://www.vero.fi/en/individuals/housing/buying\\_a\\_home/Transfer-tax-calculator/](https://www.vero.fi/en/individuals/housing/buying_a_home/Transfer-tax-calculator/)

<sup>159</sup> [https://www.vero.fi/en/individuals/housing/buying\\_a\\_home/](https://www.vero.fi/en/individuals/housing/buying_a_home/); [https://www.vero.fi/en/individuals/housing/buying\\_a\\_home/Transfer-tax-calculator/](https://www.vero.fi/en/individuals/housing/buying_a_home/Transfer-tax-calculator/)

<sup>160</sup> <https://www.skatteetaten.no/en/business-and-organisation/vat-and-duties/excise-duties/about-the-excise-duties/document-tax/>

<sup>161</sup> <https://www.skatteetaten.no/en/business-and-organisation/vat-and-duties/excise-duties/about-the-excise-duties/document-tax/>

## Ireland

Has Stamp Duty on Residential Property?	Has Stamp Duty on Commercial Property?
Yes	Yes
Rules and Rates of Regime	Rules and Rates of Regime
<p>Stamp duty rates on residential property purchases in Ireland 2023:</p> <ul style="list-style-type: none"> <li>• 1% stamp duty on properties valued under €1 million.</li> <li>• For properties valued over €1 million, a stamp duty rate of 1% applies to the first €1 million and a rate of 2% applies to the balance.</li> <li>• 10% stamp duty – on bulk purchases of property.</li> <li>• New from 2021 May 20: This rate applies to bulk purchases of property (10 or more).<sup>162</sup></li> </ul>	<p>The stamp duty rate on the purchase of non-residential property in 2023 is 7.5%.<sup>163</sup></p>

## Australia

Has Stamp Duty on Residential Property?	Has Stamp Duty on Commercial Property?
Yes	Yes
Rules and Rates of Regime	Rules and Rates of Regime
<p>Stamp duty is decided by each state and territory, so different rates can apply.</p> <p>Most have various rates based on property values and can be seen here:</p> <p><a href="https://conveyancing.com.au/articles/stamp-duty">https://conveyancing.com.au/articles/stamp-duty</a></p>	<p>Like residential stamp duty, the rate is set by each state and territory, so it can vary.</p>

## Singapore

Has Stamp Duty on Residential Property?	Has Stamp Duty on Commercial Property?
Yes	Yes
Rules and Rates of Regime	Rules and Rates of Regime
<p>Purchase price/Market value rates for residential properties (SGD)</p> <ul style="list-style-type: none"> <li>• First \$180,000 – 1%</li> <li>• Next \$180,000 – 2%</li> <li>• Next \$640,000 – 3%</li> <li>• Next \$500,000 – 4%</li> <li>• Next \$1.5 million – 5%</li> <li>• In excess of \$3 million – 6%<sup>164</sup></li> </ul>	<p>Purchase price/Market value rates for non-residential properties (SGD)</p> <ul style="list-style-type: none"> <li>• First \$180,000 – 1%</li> <li>• Next \$180,000 – 2%</li> <li>• Next \$640,000 – 3%</li> <li>• Next \$500,000 – 4%</li> <li>• Next \$1.5 million – 5%</li> <li>• In excess of \$3 million – 5%<sup>165</sup></li> </ul>

<sup>162</sup> <https://www.revenue.ie/en/property/stamp-duty/property/rates.aspx>; <https://www.gov.ie/en/press-release/0b75f-minister-donohoe-announces-stamp-duty-measure-for-bulk-purchasers-for-homes/>

<sup>163</sup> <https://www.revenue.ie/en/property/stamp-duty/property/rates.aspx>

<sup>164</sup> [https://www.iras.gov.sg/taxes/stamp-duty/for-property/buying-or-acquiring-property/buyer's-stamp-duty-\(bsd\)](https://www.iras.gov.sg/taxes/stamp-duty/for-property/buying-or-acquiring-property/buyer's-stamp-duty-(bsd))

<sup>165</sup> [https://www.iras.gov.sg/taxes/stamp-duty/for-property/buying-or-acquiring-property/buyer's-stamp-duty-\(bsd\)](https://www.iras.gov.sg/taxes/stamp-duty/for-property/buying-or-acquiring-property/buyer's-stamp-duty-(bsd))

The preceding table shows the following:

- The Nordic countries in our study have flat rates of stamp duty for both residential and commercial properties and real estate. The highest rate among the Nordic countries is Sweden with a 4.25% of commercial stamp duty.
- Ireland, Australia, and Singapore are the most similar to the UK in that they also have various rates depending on the different values for properties.
- Ireland, Australia, and Singapore rates for residential properties are much lower than UK rates. For example, Ireland and Singapore rates start at 1% and, although there is no tax-free allowance, the overall rates are much lower.
- The UK rate starts at 5% for residential properties and can jump to 12%. No other country in the study has rates that high.
- On commercial properties, UK rates perform a little better, starting at 2% and not exceeding 5%.

Given the high property prices in the UK, these high stamp duty costs and various escalating rates can hamper productivity by increasing cost disincentives for labour and companies to move to different regions of the country. It hinders labour from going to where there are either jobs or where skills are needed. It keeps companies from moving to where those with skills are located. It prevents both companies and individuals from moving to where they can make a more productive output. The UK should consider the following:

- Reducing the rates on residential property stamp duty to be more in line with highly productive countries
- Having smaller differences between the rates to create fewer distortions
- Reducing the top rate on commercial property stamp duty and having a smaller jump between the bottom and top rate

These changes would mean less of a cost burden for individuals and businesses to move to a location where they can be more economically active and where more productive activities are taking place.







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