

With some exceptions, such as with the publication of lectures, IEA Discussion Papers are blind peer-reviewed by at least one academic or researcher who is an expert in the field. As with all IEA publications, the views expressed in IEA Discussion Papers are those of the author and not those of the Institute (which has no corporate view), its managing trustees, Academic Advisory Council or senior staff.

Contents

About the author	04
Summary	07
Introduction: why abolish corporation tax?	09
The trouble with corporation tax	11
Base erosion and tax avoidance by multinational firms	17
The consequences of the OECD BEPS package	22
Radical but not equal – proposals for reform	24
Conclusion: a question of tax structure	30
References	32

About the author

Diego Zuluaga is Financial Services Research Fellow at the Institute of Economic Affairs. He writes primarily on regulation in banking, financial markets and the innovative industries, and is a frequent contributor to government consultations at UK and EU levels. Diego is also Head of Research for EPICENTER, a pan-European network of free-market think tanks led by the IEA. He has written for outlets such as CityAM, Prospect Magazine, Newsweek, EurActiv and CapX on a range of policy issues, and appears frequently on broadcast media.

With some exceptions, such as with the publication of lectures, IEA Discussion Papers are blind peer-reviewed by at least one academic or researcher who is an expert in the field. As with all IEA publications, the views expressed in IEA Discussion Papers are those of the author and not those of the Institute (which has no corporate view), its managing trustees, Academic Advisory Council or senior staff.

Summary

- Corporation tax is an inefficient way to raise government revenue. It
 has a negative impact on growth, investment and entrepreneurship.
 A 2014 review of the literature found that 57.6 per cent of the amount
 raised by corporation tax is borne by workers.
- Since 1981, the average corporate tax rate in key OECD countries has dropped from 47 per cent to 29 per cent. However, corporate tax revenues as a share of all taxation have remained stable during this time. They have increased as a share of GDP, in line with growth in the tax burden.
- Economic developments such as globalisation and the growing importance of intangible assets underscore the need for reform of the way in which capital income is taxed.
- The OECD's BEPS proposals are likely to entail new costs and uncertainty for multinational firms. Furthermore, their volume and complexity means that effective implementation will be difficult, especially for developing countries.
- Radical proposals for reform include a tax on turnover, a sales-based corporation tax, and formulary apportionment of multinational profits.
 While these reforms might curb opportunities for tax avoidance, they would have damaging side-effects of their own.
- The only radical reform that would improve on the status quo without introducing new distortions would be to replace corporation tax with a tax on the income distributed to shareholders. Such a system would overcome the weaknesses of the current system, while also reducing incentives for avoidance, and raising revenue in a growth-friendly way.
- This reform could be implemented in stages to ensure the UK's international tax treaties are updated. Once fully implemented, the

- new system would see UK shareholders taxed on their worldwide capital income, while foreign shareholders in UK firms would be exempt.
- It is important to recognise that this discussion is about tax structure, and not necessarily the overall level of taxation. Those who wish to maintain existing levels of taxation would be better served by the proposed reform than by the status quo.

Introduction: why abolish corporation tax?

The taxation of corporate profits is today a widespread revenue-raising practice for governments around the world. In the UK, corporation tax was introduced in 1965. There was far from universal agreement, however, on the appropriateness and efficiency of this levy even at the time of its introduction. Indeed, it was the institution of a corporation tax which prompted the creation of the Institute for Fiscal Studies, arguably the most influential and august assessor of contemporary tax policy in Britain. In the words of its co-founder John Chown, 'never again should a government, regardless of its political colour and intentions, introduce far-reaching tax legislation without the benefit of deep and thorough analysis of secondand third-order effects' (Robinson 1990).

It is a testament to what Nobel Prize winner Milton Friedman (1984) dubbed the 'tyranny of the status quo' that, half a century later, corporation tax remains a key instrument of UK tax policy. This is despite mounting theoretical work showing that, given more realistic assumptions, a significant share of the burden of corporate taxation falls on workers, a finding corroborated by empirical analysis. It is also despite robust and consistent evidence that corporation taxes deter investment and innovation.

The opacity of corporation tax may make for clever politics, as it can lead voters to support increases in taxation which they might oppose if they were aware of where the weight of the additional tax burden actually falls. But it makes for an inefficient and distortionary tax system. Corporation tax may also heighten perceptions of unfairness, fuelling public resentment at the existing economic order.

This paper aims to show that there is a clear and straightforward case for abolishing corporation tax in the United Kingdom. Proposals for radical reform of capital income taxation are reviewed, and a shift towards the taxation of firms' distributed profits at the shareholder level is proposed as the most suitable and efficient replacement.

The trouble with corporation tax

Taxes on corporate profits are highly inefficient

There are four efficiency costs (see Tideman and Plassmann 2015) of taxation in addition to their direct burden:

- administrative costs associated with enforcement and collection by public authorities;
- compliance costs related to finding out how much is owed in taxes, filing the relevant paperwork, as well as resources devoted to tax avoidance and evasion;
- demoralisation costs resulting from the perception that taxes are unfair;
- the excess burden from behavioural changes as a result of taxation.²

All of these costs are disproportionately high in the case of taxes on corporate income. Administration costs are high because taxable profits are hard to define and subject to discretion and therefore dispute. This is especially the case for multinational enterprises (MNEs) with operations and supply chains in a number of different jurisdictions. The complexity and variety of activities in which MNEs engage make tax assessments time- and resource-intensive. According to HMRC (2013), corporation tax is one of the costliest to collect, at 0.76 pence per pound gathered. Only capital gains tax, inheritance tax and income tax – including self-assessment – had higher administration costs as a share of revenue (ibid.).

¹ The direct burden of taxation consists of the resources transferred from the private to the government sector in the form of tax.

² The excess burden, also known as the deadweight loss or the tax wedge, results from changes in supply and demand in response to taxation.

Compliance costs are high for similar reasons. A typical domestic firm in the UK expends the equivalent of 37 hours every year complying with corporation tax,³ out of a total of 110 hours devoted to compliance with all taxation (PwC 2016). This burden is especially high for multinational firms, whether headquartered or with a subsidiary in the UK, because of the need to monitor and comply with a multiplicity of tax codes whose provisions change frequently.⁴ Furthermore, the potential gains from tax avoidance are greater, both due to the larger average scale of MNEs and expanded opportunities for profit shifting across jurisdictions.

The demoralisation costs of corporation tax are arguably also high. They arise both from a perception that corporations in general are not 'paying their fair share'5, and from the impression that some firms – ostensibly those with more domestic activity – face a higher tax burden than otherwise similar but more internationalised companies.6 Demoralisation costs are further increased by a persistent misunderstanding from some public officials as to the nature of corporation tax. For instance, a recent inquiry by the Committee for Public Accounts into HMRC's tax settlement with Google states that the tax liability found by HMRC appeared 'disproportionately small' given that 10 per cent of Google's revenue comes from the UK (House of Commons 2016). But corporation tax is a tax on profits, not revenues, and currently most of Google's European profits are booked in Ireland.

Finally, taxes on corporate profits also exhibit higher-than-average excess burdens, for a number of reasons. First, the tax base – profits – is highly mobile and thus responsive to changes in tax rates across countries. Secondly, by lowering effective – post-tax – returns on investment, corporate taxes discourage saving and investment and therefore undermine an

- 3 Average compliance time for corporation tax is substantially lower in the UK than in the United States (87 hours), but higher than in France (26) and Spain (33), which are otherwise more compliance-heavy.
- 4 See Go (2010) for an illustration of the tax challenges faced by multinational firms in any given year.
- 5 Corporations are legal entities and do not actually pay taxes in an economic sense. It is shareholders, employees and consumers who bear the burden of corporate taxation.
- 6 Perceptions of unfairness may or may not reflect reality, but the point of demoralisation costs is precisely that they are subjective and vary depending on the type of tax concerned. For instance, the Managing Director of John Lewis was recently quoted: 'If you think of two companies making the same profit, one of them pays corporation tax at the UK rate, one does not because it claims to be headquartered somewhere else. That is not fair.' http://www.itv.com/news/2016-01-06/ john-lewis-concerned-amazon-tax-problem-is-creating-an-unfair-fight/.

economy's long-run growth potential. Thirdly, because of the enforcement challenges outlined above, corporation tax often has to be coupled with complex rules and regulations to curb avoidance (ibid.). These regulations further raise the relative cost of investment and make it less attractive. They also tend to hinder the international mobility of capital.

A significant portion of corporation tax falls on workers, not shareholders

Corporations are legally liable for the payment of corporate income taxes. However, because they are only legal entities, they cannot possibly bear the economic burden of taxation, which is borne by one or several of the categories of people associated with the firm: shareholders, workers and consumers.

Early theoretical analyses of the economic incidence of corporation tax (Harberger 1962) suggested that the burden fell almost exclusively on shareholders in the form of lower (post-tax) returns on investment. However, these models made a number of strong assumptions, such as an economy closed to international trade, and a fixed capital stock and savings rate, which are unrealistic in a globalised world. Subsequent studies (see Fuest 2015; Southwood 2014) have tended to show that a substantial share of the burden is borne by labour. In his review of the literature, Southwood (2014) finds that the average share of the corporate tax burden shouldered by workers is 57.6 per cent of the amount raised by the tax.⁷

The workers' share of the tax burden comes in the form of lower wages, which are the consequence of reduced productivity as a result of lower capital investment in response to the tax. In general, the more open an economy and the more mobile its capital stock, the larger the burden of corporation tax which will be borne by workers. In the case of a large export-driven economy such as Germany, Fuest et al. (2013) find that for every percentage point increase in the corporate tax rate, wages decrease by between 0.3 and 0.5 per cent.

The characteristics of the UK economy suggest that British workers similarly would bear a non-negligible portion of corporate taxation, perhaps mitigated

⁷ Note that the burden of tax can exceed 100 per cent of the amount raised because of excess burdens and other costs.

somewhat by the fact that the UK imposes a lower corporate tax burden than most other OECD countries. However, corporation tax will still lower investment returns and thus discourage saving, regardless of tax policy in other countries.

Corporate income taxes have a negative impact on GDP per capita, investment and entrepreneurship

In a study for the OECD, Arnold (2008) finds that income taxes are associated with lower per capita GDP than indirect taxes such as VAT and taxes on immovable property. His results show corporation taxes to be particularly harmful. Arnold's analysis of 21 countries, after controlling for a number of potential confounding variables, concludes that 'tax reforms [...] especially away from corporate taxes, are likely to enhance the prospects for economic growth'.

The same is true for investment and entrepreneurship. In an analysis of 85 countries, Djankov et al. (2008) find that corporate income taxes have a large negative effect on aggregate investment and entrepreneurial activity. Their results show that a ten percentage point increase in the corporate tax rate reduces the investment-to-GDP rate by two percentage points. They also find corporate income taxes to be negatively correlated with growth and positively correlated with the size of the informal economy, as economic theory would predict.

There is also evidence that corporate income taxes have a negative impact on innovation. An example is Mukherjee et al. (2015), which looks at tax rate changes at state level in the United States and finds that rises in the state corporate tax rate adversely affect the number of patents filed.

Distributional issues

Proportionality, the idea that people should pay taxes according to their means, has been widely accepted as a principle of good tax design since at least the time of Adam Smith (1776).8 This notion has, over the last century, been complemented and sometimes replaced by progressivity, i.e. that taxation should not be proportional to economic means but rather that the relative burden should increase as one's resources increase. A degree of progressivity is present in most modern tax systems, and it is part of governments' attempts at income redistribution.

Corporation tax, however, raises a number of distributional concerns which potentially run counter to the principles of proportionality and progressivity. Traditionally, it was assumed that a tax on corporate profits was equivalent to a tax on the wealthy because the latter owned the vast majority of assets. Yet, as we have seen above, it is now an accepted fact among economists that workers bear a considerable share of the corporate tax burden. What is more, it is difficult to discern whether the workers' share is itself borne proportionately or progressively. On the contrary, it could well be that less productive – and thus poorer – low-skilled and manual workers bear a greater burden than richer ones, which would make the tax regressive.

Furthermore, it is no longer necessarily true that most asset owners are wealthy. More individuals of limited means now own stocks and shares, either directly or through pension plans. Indeed, it is government policy to encourage saving and asset ownership for old age provision. Moreover, it has been suggested (see Lilico and Sinclair 2016) that the rise of innovative business models such as the sharing economy may reduce the proportion of household disposable income spent on lumpy durables such as cars, appliances and housing, which would leave households with more money to invest in financial assets. However, corporation taxes make the ownership of such assets less attractive because they lower returns on investment.

⁸ Smith's other three 'maxims' were certainty, convenience and efficiency. See Meakin (forthcoming) for a detailed explanation of Smith's principles of tax design and the additions and qualifications subsequently made by economists.

⁹ Lilico and Sinclair (2016) discuss this and other policy implications of the sharing economy.

Corporation taxes mislead the public and are politically poisonous

Given the accumulated evidence against corporation tax as an efficient, fair or desirable way to raise government revenue, it is worth asking why it remains in place half a century after its introduction. It is likely that political inertia and the natural conservatism of tax authorities ('an old tax is a good tax') have played a role. 10 However, it is not unreasonable to suggest that confusion resulting from its name and the related political incentives have impeded the sort of repeal and replacement which might in other circumstances have followed the evolving consensus among economists. The belief that corporation tax is actually paid by corporations – understood as somehow an independent entity from their owners, workers and customers – continues to be widespread. It is reflected in media accounts of alleged tax avoidance by multinational companies, and in discussions among policymakers as to who should pay for public goods and services. These are entirely legitimate debates, but they must take account of the fact that only people pay taxes. One may venture that voters and elected officials would be less supportive of corporation tax and more amenable to reform if they knew who actually pays for it.

¹⁰ There is some validity to the dictum quoted above: by definition, economic agents have been able to plan for existing taxes, which is not true of (most) new forms of taxation.

Base erosion and tax avoidance by multinational firms

There are increasingly concerns, especially in rich OECD countries, about alleged erosion of the corporate tax base. It is feared that globalisation and the digital economy are making it easier for multinational firms to avoid corporation tax in some of the jurisdictions where they operate. A related claim is that these developments are putting pressure on countries to lower their corporate tax rates, leading to a 'race to the bottom'.

The average rate of corporation tax in OECD countries has indeed been declining since the 1980s. Figure 1 shows tax rate trends in representative countries, including the UK. The average statutory corporate tax rate in Canada, France, Germany, Italy, Spain, the UK and the USA has dropped from over 47 per cent in 1981, to 29 per cent in 2015. The decline was particularly steep in Britain, which in 2015 boasted the lowest rate among the G20 large economies.¹¹

¹¹ Devereux et al. (2015). It was announced in the 2016 Budget that the UK statutory rate of corporation tax will drop further to 17 per cent in 2020 (HM Treasury 2016). Following the EU referendum in June 2016, then-Chancellor George Osborne announced that the statutory rate would fall further, below 15 per cent (Parker 2016).

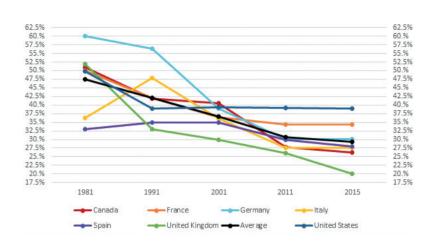


Figure 1: Corporate tax rates in selected countries, 1981-2015

However, the hypothesis of base erosion implies that corporate tax revenues would have declined during this period. Yet, there is no evidence of that. In fact, the share of corporate taxation in all taxation has remained stable in the last 35 years across the OECD, and it has increased as a share of GDP. Figures 2 and 3 depict the trajectory for selected countries and for the OECD as a whole.

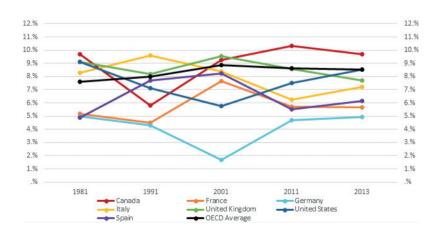


Figure 2: Corporate tax revenue as a percentage of all tax revenue

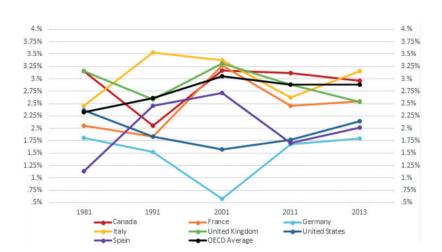


Figure 3: Corporate tax revenue as a percentage of GDP, selected countries

We can see that corporate tax revenue responds strongly to the economic cycle, with steep declines in periods of national recession (see the UK in the late 1980s/ early 1990s, and Germany in the late 1990s/ early 2000s). But a positive relationship between rates and revenues, which would imply a gradually declining tax take over the last thirty years, is not apparent in the data.

In fact, rather than being solely the product of tax competition, the drop in statutory rates reflects progress in economic science. A growing focus by economists on the supply side has led to the recognition that the level of taxation has important consequences for economic activity. Low taxes can lead to a rise in revenues via greater investment, labour participation and consumer demand. The Laffer Curve, which posits that all taxes feature a revenue-maximising rate beyond which receipts start to decline as economic activity is discouraged, has popularised this insight.¹²

Governments and official bodies such as the International Monetary Fund, the European Commission and the OECD have largely adopted a supply-

¹² Arthur Laffer, pioneer of the eponymous curve, underscores that the revenuemaximising rate is not necessarily the optimal rate, which would maximise both the public and the private benefits of economic activity. This optimal rate would normally lie below the revenue-maximising rate.

side view and have, in addition, tended to encourage indirect taxes such as VAT and property taxes over the direct taxation of incomes, seen as more inefficient and distortionary (see Arnold 2008). Turthermore, the decline in corporate tax rates across the Western world has been accompanied by a broadening of the tax base through reductions in capital allowances and other exemptions. As a result, corporate tax bases are likely to have grown rather than eroded over the last thirty years. 14

Nevertheless, it is true that global economic developments, such as increasingly open trade, greater use of financial instruments by companies, and the growing role of intangible assets in value creation are making it easier for capital to move around the world. This is an overwhelmingly positive phenomenon which has contributed to the worldwide rise in living standards, illustrated by declining poverty rates, the growth in the FDI stock and lower prices for many consumer goods. However, it could also give multinational firms increased scope for tax avoidance, using, for instance, financial transactions between subsidiaries, transfer pricing arrangements, and company operations in tax havens to reduce their overall tax bill.

Studies using different methodologies have consistently found there to be some tax-avoiding activity by MNEs. In her review of the literature, Riedel (2015) puts the lower bound of these estimates at five per cent of multinational firms' income, and the upper bound at 30 per cent or more. While finding a similar consensus in the literature, Hines (2014) places the likely share of corporate profits diverted by firms to low-tax jurisdictions at two to four per cent. The OECD (2015) in turn estimates annual corporate tax avoidance at US\$100 billion to US\$240 billion, equivalent to between four and ten per cent of global corporate tax revenue.

In fact, what is striking about these figures is that they show a much smaller degree of multinational tax avoidance than might be expected in light of the narrative about firms' ability to game national tax systems. Hines (2014) argues that transfer pricing rules, limits on debt interest deductions and other international and national regulations constrain MNEs' opportunities for tax avoidance. He argues that, even if efforts to rein in avoidance were

¹³ It is therefore not fanciful to suggest that the OECD itself has powerfully contributed to the downward trend in corporate tax rates.

¹⁴ See Devereux, Griffith and Klemm (2004) for an analysis of the impact of basebroadening in a UK context, and Kawano and Slemrod (2014) for an examination of the relationship between corporate tax rates and revenues.

successful, the additional revenue raised by tax authorities would amount to substantially less than one per cent of the global tax take.

It may be noted that these academic estimates are substantially lower than the figures typically cited, for instance, by the Tax Justice Network (TJN), which in 2012 put global profit shifting at \$600-800 billion (Cobham and Jansky 2015). This is because the TJN figures are obtained using formulary apportionment (see below), which is not the way in which the international tax system currently operates. In other words, they attribute profits in a way which is different to current established practice and therefore do not reflect tax avoidance in the existing system, but rather theoretical estimates from the authors' own assumptions.

It is important to recognise that any attempt to limit multinationals' ability to transfer capital around the world will not be a free lunch. ¹⁵ The corporate profits which are currently not taxed by national exchequers can, for the most part, be assumed to be deployed to other productive uses, so an increase in payable taxes is likely to reduce investment returns. This may well not hold governments back from claiming additional revenue from MNEs, but it is important to be aware of the costs as well as the purported benefits from such action.

At any rate, tax avoidance underscores perceptions of unfairness in the tax system, especially in the differential treatment of domestic and multinational firms, raising the demoralisation costs of corporation tax (see above). It also highlights the compliance burden of the tax, with substantial resources devoted to profit shifting. Finally, the fact that some corporate income is moving in response to tax policy shows that, absent tax factors, it would be devoted to other uses. ¹⁶ Avoidance therefore illustrates the excess burden of corporate taxation. Thus evidence of profit shifting strengthens the case for fundamental reform of the way in which capital income is taxed.

¹⁵ Teather (2005) offers a comprehensive account of the potential costs from curtailing tax competition and global capital flows.

¹⁶ This is not to say that the current uses to which diverted profits are devoted are not productive, but rather that in the absence of corporation tax, relative returns would change and would make other activities more attractive, in line with real economic factors rather than tax factors.

The consequences of the OECD BEPS package

The OECD package to tackle Base Erosion and Profit Shifting (BEPS) seeks to limit tax avoidance by reforming international tax frameworks and improving coordination between tax jurisdictions. The package, presented at the end of 2015, calls on national governments to implement a number of measures to achieve greater transparency in tax collection and curb firms' ability to transfer resources across the jurisdictions where they operate. These measures include: limits on interest deductibility to between 10 and 30 per cent of applicable EBITDA;¹⁷ country-by-country reporting by MNEs of the profits attributable to each jurisdiction; changes to the transfer pricing regime and definitions of permanent establishment aimed at reducing opportunities for profit shifting; and measures to prevent abuse of bilateral tax treaties.¹⁸

While implementation is at its very early stages, a number of observations can be made regarding the likely impact of the proposals. Country-by-country reporting will increase the compliance burden on MNEs. A different application of transfer pricing and permanent establishment rules will force many firms to rearrange their business structures to comply with the new requirements. ¹⁹ Limits on interest deductibility may reduce opportunities for tax avoidance, but they could also hurt the ability of MNE subsidiaries to finance their day-to-day operations. It is unclear

¹⁷ Earnings before interest, taxes, depreciation and amortisation.

¹⁸ This is not an exhaustive list but is rather intended as an illustration of the BEPS proposals. See OECD (2015) for a detailed outline and EY (2015) for an analysis of the measures.

¹⁹ Changing the tax arrangements of tax-avoiding multinationals is indeed one of the objectives of the BEPS proposals, but it is important to recognise the transitional costs associated with them.

how large this effect will be, but it could have a material impact on firms' profitability.

Finally, the BEPS proposals add to the climate of regulatory uncertainty that has surrounded international taxation in recent years. Uncertainty discourages investment and makes firms less likely to expand their operations to new markets, especially when the new rules will also curtail the ability of subsidiaries to borrow from each other. All of these effects would raise the operating costs of multinationals. While these higher costs will partly be related to fewer opportunities for tax avoidance, they could also result in higher prices for consumers and less economic activity – and employment – than might otherwise take place.

On the other hand, there is reason to be sceptical as to whether national tax authorities will be able to effectively implement the measures proposed by the OECD. The BEPS proposals on the whole amount to thousands of pages of legal definitions, new regulations and reinterpretations of existing rules. The language is in many cases vague and open to interpretation, while implementation will require international agreement and cooperation between dozens of tax authorities, a time- and resource-intensive process. Moreover, while well-staffed treasuries in developed countries may be able to cope with the volume of new regulations and procedures, it is questionable that their stretched and less sophisticated counterparts in developing countries will have the means and the expertise to do so. This observation is especially relevant given that poorer countries are often cited as the biggest losers from corporate tax avoidance.²⁰

²⁰ In fact, developing countries are overwhelmingly reliant on foreign investment for their economic growth. Thus, to the extent that international moves to tackle tax avoidance also have an impact on investment flows and the FDI stock, poor countries stand to lose disproportionately.

Radical but not equal –proposals for reform

It has been argued above that the existing system for the taxation of capital income is deficient. A number of scholars have come to a similar conclusion and proposed a range of reforms. However, not all of these proposals would resolve the efficiency problems associated with corporation tax, and some of them would probably entail negative consequences of their own.

A tax on turnover

A number of commentators, including former Chancellor of the Exchequer Lord Lawson, have called for corporation tax to be replaced by a tax on turnover. Such a tax has some *prima facie* benefits over the status quo. It is relatively transparent as it would be levied on the UK revenue of companies, which would eliminate some uncertainty and disputes over profit attributions and presumably reduce opportunities for avoidance. Moreover, to the extent that one believes all corporations – regardless of profitability – should pay some tax to account for the public goods and services – defence, rule of law, infrastructure, and so on – that they use, a turnover tax would seem a neutral way of levying this payment.

However, the fundamental differentiating trait of a turnover tax, namely that it applies to revenue rather than profits, means that loss-making firms would face the same burden as profitable ones. This could present struggling businesses with an insurmountable hurdle. Furthermore, it would eliminate the tax benefit of capital expenditure, potentially discouraging companies from seeking expansion through spending. A suitable example is Amazon, which has deliberately kept its margins thin in a bid to capture a larger share of the market by lowering costs to

consumers. With the current corporation tax, Amazon was able to offset some of the cost of this expansion via a lower tax bill, but a turnover tax would eliminate this advantage.

Destination-based corporation tax, with sales as the activity proxy

In order to limit opportunities for avoidance, it has been proposed to attribute profits not on the basis of where value is generated, but rather where firms make their sales (see Devereux 2014). This proposal is attractive because it relies on a seemingly straightforward proxy for profit attribution, namely the share of a company's sales in each tax jurisdiction. It would therefore reduce uncertainty regarding taxes owed in each country, and would eliminate opportunities for avoidance through profit shifting.

Yet, a destination-based corporate tax raises concerns of its own. The first is the rationale behind attributing profits in proportion to where sales are made, even though the relationship between profits and sales is tenuous. Indeed, it is possible and even likely that many multinational firms have thinner profit margins in countries where their sales are greater, as a result of additional expenditures on marketing, staff and physical infrastructure. Furthermore, at a time when intangibles such as intellectual property play an increasingly important role in many sectors, ignoring them in tax assessment would not be sensible.

A destination-based corporation tax could result in companies' ceasing operations in jurisdictions where their sales are large compared to their profit margins, harming consumer welfare. Depending on how it was designed, such a tax could also discourage vertical consolidation – which in many ways can increase efficiency – if it meant that tax liabilities would rise as a result.²¹

²¹ In a destination-based system, transactions between two independent firms in different tax jurisdictions would be subject to corporation tax where the purchasing firm was located. However, if the two firms merged, then tax would be calculated on the basis of consolidated profits and attributed to the location of the final sale, i.e. where the purchasing firm's customers resided. If the latter location had a higher corporate tax rate than the location of the purchasing firm, vertical consolidation would be discouraged. This would be a distortion created by the tax system, part of the excess burden of the tax.

Formulary apportionment

A third reform proposal involves the allocation of taxable profits on the basis of a formula. An example of such formulary apportionment – also known as unitary taxation – is the Common Consolidated Corporate Tax Base (CCCTB) proposed by the European Commission. ²² As with a destination-based tax, profits for the given multinational would be calculated on a consolidated basis, and then apportioned to the various countries where the MNE operated. But rather than attributing profits using sales, formulary apportionment uses a number of components to calculate attributable profits in each jurisdiction. Proposed formulae typically include staff – employment numbers and total wages – physical assets and sales.

Formulary apportionment – including the EU's CCCTB proposal – tends to exclude intangibles from the calculation because they are seen as highly mobile and thus prone to be used for avoidance purposes. Yet, excluding them from calculations of taxable profits would ignore their growing role in value creation and thus attribute profits in an entirely arbitrary way determined by legislators. Furthermore, a one-size-fits-all formula conceals the fact that corporation tax applies to firms of large and small scale, in myriad sectors, and with very many and very different business structures. It is unlikely that a single formula could appropriately reflect this diversity. Instead, it would penalise some firms and benefit others.²³

In this regard, it is worth pondering the significant transitional costs likely to result from moving to a formulary system, and the incentives for firms to lobby elected officials to shape the formula according to their preferences. It would be a recipe for rule by special interests and lead to protracted disputes over the final arrangement.

²² http://ec.europa.eu/taxation_customs/taxation/company_tax/common_tax_base/ index_en.htm. See Zuluaga (2014) for a critical assessment of the merits of the CCCTB.

²³ This would depend on the composition of the formula as well as the weight given to each of its components.

The international dimension – an additional conundrum

All of these proposals would have international implications. The UK is currently party to a number of multilateral and bilateral agreements with other countries to prevent the double taxation of corporate profits in two or more different jurisdictions, and to facilitate cooperation and dispute resolution between tax authorities and firms. Any of the reform proposals above would require a renegotiation and redesign of these treaties. Indeed, it is not readily apparent that the risk of multiple taxation could be mitigated unless other countries agreed to adopt a new framework that was similar to the UK's. In other words, the unilateral enactment of wide-ranging reform along the lines suggested above would introduce greater policy uncertainty – and the possibility of much higher tax bills – into the operations of any multinational firm that was active in Britain.

An alternative proposal: a gradual transition towards the direct taxation of shareholders

It is clear from the above that the taxation of profits at the corporate level has significant shortcomings, in the form of high related costs; damaging unintended consequences for growth, investment and worker productivity; and incentives for tax avoidance by multinational firms. However, the reform proposals examined so far would not meaningfully improve on the status quo, as they would fail to address some of the key weaknesses of the existing system and introduce problems of their own.

For reform to be beneficial, it should remove the principal distortion in the existing system, namely the use of corporate profits as the tax base. As we have seen, these are highly mobile and their attribution is subject to discretion and dispute. At the same time, successful reform plans should identify an alternative tax base which, unlike turnover, did not entail potential new distortions and perverse incentives. Finally, beneficial reform would aim to simplify the existing tax code, to apply the commonly agreed criteria of good tax design, and to avoid a contradiction between tax policy and other objectives such as proportionality and economic growth.

²⁴ For a comprehensive list of the UK's tax treaties, see https://www.gov.uk/government/ collections/tax-treaties.

The replacement of corporation tax by a tax on distributed earnings at the shareholder level would seem to tick all the boxes. First of all, it would eliminate the distortions in firm behaviour caused by corporate income taxation. It would shift the tax base from a relatively mobile entity – corporations – to a less mobile one – individuals – thus reducing opportunities for avoidance. When fully implemented, it could be levied as income tax, under the same principles of convenience and progressivity.

Crucially, while there would probably still be some economic incidence on workers, ²⁵ undistributed profits – those reinvested in the firm – would remain untaxed. Moreover, a tax on shareholders would eliminate the differential treatment of debt and equity financing at the corporate level, which encourages leverage with potentially damaging consequences.

Ideally, reform of corporation tax along the lines suggested ought to take place alongside a wider simplification of the UK tax code. The proposals of the 2020 Tax Commission (Heath et al. 2012) merit consideration in this respect. However, movement towards the direct taxation of shareholders could also happen independently of other tax policy changes.

The first step would be to abolish corporation tax as it currently exists, and to replace it with a tax on distributed income, which would be set at a single rate and levied at the firm level. This could be the prevailing rate of corporation tax prior to the reform, or a higher or lower rate, as deemed appropriate. Such a system is currently in operation in Estonia, which was recently recognised as the most tax-competitive country in the OECD. 27

There could then be an extended transitional phase during which the UK would renegotiate its tax treaties with other jurisdictions, with a view to adapting existing double taxation agreements to the direct taxation of shareholders. The aim would be to ensure that distributions to UK shareholders from firms based in other countries would be exempt from tax in those jurisdictions and subject to tax in Britain.

²⁵ Because the tax would still reduce (post-tax) returns on investment, thus discouraging capital accumulation and making workers less productive than they otherwise could be.

²⁶ The chosen rate would partly depend on whether revenue neutrality was one of the objectives of the reform, and how much weight was placed on having an internationally competitive, growth-promoting tax code.

²⁷ http://taxfoundation.org/blog/estonia-s-growth-oriented-tax-code.

A reciprocal system would apply to foreign shareholders in companies incorporated in the UK.²⁸ Whether or not corporation tax continued to apply in other countries is in principle irrelevant in this regard. Agreements would be about the coordination of dividend taxation.²⁹

Once treaties had been updated with a large enough number of countries, the final step would be to stop levying capital income tax at the corporate level, and to assess it directly from shareholders (with appropriate exemptions for foreign dividend income as per above). After this change, capital income tax could be levied at the same rates and under the same conditions as taxes on income from work.

²⁸ It might be argued that the proposed reform would not be capital import neutral, i.e. that domestic shareholders would face a different tax burden from foreign ones. The conflict between capital import neutrality and capital export neutrality – i.e. the equal treatment of foreign and domestic investments – in a world of national tax rates and tax bases is well-known in the literature. This proposal is capital export neutral, but not capital import neutral. For a sceptical survey of various neutrality approaches, see Weisbach (2014).

²⁹ There would still be double taxation issues given that a UK company with operations in another jurisdiction might still be subject to corporation tax in that jurisdiction. However, such double taxation already exists in the UK and elsewhere, in that profits are taxed twice – at the firm level and at the shareholder level. The proposed reform would therefore still be an improvement over the status quo.

Conclusion: a question of tax structure

Discussions of corporation tax tend to mirror discussions about the optimal tax level: those in favour of reform tend to also favour a reduction in the overall tax burden, while those who support the status quo or more interventionist reforms are concerned about raising revenue for the many functions that governments engage in today.

However, it is crucial to differentiate between the tax level – how much people should pay in taxes – and the tax structure – what forms taxation should take. The above discussion is concerned with matters of tax structure. It suggests that corporation tax is a very inefficient way of raising revenue from capital income – regardless of the view one may hold about the optimal tax level.

There is reason to believe that most developed countries are already at the limit of what they can raise in tax revenue as a share of GDP. For instance, the United Kingdom has never been able to raise more than 37 per cent of national income in tax in a given year. This applies both to the periods in which marginal tax rates were relatively high, and periods when they were lower.³⁰ In other European countries, such as France, Italy and Spain, heavy and burdensome taxes³¹ are widely cited as important barriers to productivity growth, employment and entrepreneurship.³²

³⁰ See OECD Tax Database for UK figures going back to 1965: https://data.oecd.org/ tax/tax-revenue.htm.

³¹ This refers to both the rates – average and marginal – of tax as well as the types of tax from which the bulk of government revenue is obtained. Many of the latter are among the most inefficient forms of taxation according to commonly agreed criteria (see, for instance, Tideman and Plassmann 2015; Arnold 2008).

³² High taxes also hamper saving and private provision for old age. Both are increasing in importance given rising life expectancy and declining birth rates.

But the sort of reform proposed here relates to the structure of the tax system and not necessarily to the overall level of taxation. One can confidently predict that even those who wish the tax burden to remain at current levels will be able to raise revenue more efficiently under the reforms proposed, with benefits to the wider economy.

References

Arnold, J. (2008) Do tax structures affect aggregate economic growth? Empirical evidence from a panel of OECD countries. OECD Economics Department Working Paper No. 643.

Cobham, A. and Jansky, P. (2015) Measuring misalignment: The location of US multinationals' economic activity versus the location of their profits. International Centre for Tax and Development Working Paper 42.

Devereux, M. and de la Feria, R. (2014) Designing and implementing a destination-based corporate tax. Oxford University Centre for Business Taxation WP 14/07.

Devereux, M., de la Feria, R., Habu, K., Lepoev, S. and Maffini, G. (2016) G20 corporation tax ranking. Oxford University Centre for Business Taxation Policy Paper Series.

Devereux, M., de la Feria, R., Griffith, R. and Klemm, A. (2004) Why has the UK corporation tax raised so much revenue? Institute for Fiscal Studies WP 04/04.

Djankov, S., Ganser, T., Caralee McLiesh, C., Ramalho, R. and Schleifer, A. (2008) The effect of corporate taxes on investment and entrepreneurship. National Bureau of Economic Research Working Paper 13756.

European Commission (2014) Report: European Commission expert group on taxation of the digital economy.

European Commission (2009) Private pension schemes: their role in adequate and sustainable pensions.

EY (2015) OECD releases final reports on BEPS Action Plan. Global Tax Alert, 6 October 2015.

Friedman, M. (1984) *The Tyranny of the Status Quo*. New York: Houghton Mifflin.

Fuest, C. (2015) Who bears the burden of corporate income taxation? ETPF Policy Paper 1. Mannheim: Centre for European Economic Research.

Fuest, C., Peichl, A. and Siegloch, S. (2013) Do higher corporate taxes reduce wages? Micro evidence from Germany. IZA Discussion Paper No. 7390.

Go, S. (2010) The global tax environment: challenges for multinationals. PwC. Available at: http://www.pwc.tw/en/topics/tax/taxation-201007.html

Harberger, A. C. (1962) The incidence of the corporation income tax. *Journal of Political Economy* 70(3): 215-240.

Heath, A. (Chairman) (2012) *The Single Income Tax: Final report of the 2020 Tax Commission*. London: TaxPayers' Alliance.

Hines, J. (2014) How serious is the problem of base erosion and profit shifting? *Canadian Tax Journal* 62(2): 443-453.

HM Revenue and Customs (2013) Pocket guide 2013: facts and figures about what we do.

HM Treasury (2016) Budget 2016.

House of Commons Committee of Public Accounts (2016) Corporate tax settlements. Twenty-fifth report of session 2015-2016.

Kawano, L. and Slemrod, J. B. (2015) How do corporate tax bases change when corporate tax rates change? With implications for the tax rate elasticity of corporate tax revenues. Available on the Social Science Research Network.

Lilico, A. and Sinclair, M. (2016) The cost of non-Europe in the sharing economy. Report for the European Parliament. Brussels: European Parliamentary Research Service.

Mukherjee, A., Singh, M. and Zaldokas, A. (2015) Do corporate taxes hinder innovation? Paper prepared for the Paris December 2015 Finance Meeting EUROFIDAI – AFFI.

Organisation for Economic Cooperation and Development (2015) OECD/G20 base erosion and profit shifting project: explanatory statement.

Parker, G. (2016) George Osborne puts corporation tax cut at heart of Brexit recovery plan. *Financial Times*, 3 July.

Price Waterhouse Coopers (2016) Paying taxes 2016. Joint report with the World Bank Group.

Riedel, N. (2014) Quantifying international tax avoidance: a review of the academic literature. Paper prepared for the European Tax Policy Forum.

Robinson, B. (1990) The early days of the IFS. Fiscal Studies 11(3): 1-11.

Smith, A. (1905) [1776] An Inquiry into the Nature and Causes of the Wealth of Nations. Available on the Library of Economics and Liberty. London: Methuen & Co. Ltd.

Southwood, B. (2014) Who pays corporation tax. London: Adam Smith Institute.

Teather, R. (2005) *The Benefits of Tax Competition.* Hobart Paper 153. London: Institute of Economic Affairs.

Tideman, N. T. and Plassmann, F. (2015) Sources of public revenue that make nations richer. *Economic Affairs* 35(2): 197-214.

Weisbach, D. A. (2014) The use of neutralities in international tax policy. Coase-Sandor Institute Working Paper No. 697. Chicago: University of Chicago Law School.

Zuluaga, D. (2014) Updating the Common Consolidated Corporate Tax Base. EPICENTER Briefing.

The Institute of Economic Affairs 2 Lord North Street London SW1P 3LB Tel 020 7799 8900 email iea@iea.org.uk

