

# Corporation tax reform: theory, evidence and avoidance<sup>1</sup>

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A large portion of the burden of corporation tax falls on workers in the form of reduced productivity and, therefore, lower wages. A review of the literature found the average estimate of the labour share of the burden to be 57.6 per cent.

It is no longer true that capital ownership is a proxy for wealth. Greater share ownership and private pension saving mean more people rely on returns from capital for income. The rise of the sharing economy will likely push this trend further.

There are various costs to any form of taxation beyond their direct burden. These include administrative, compliance, demoralisation and deadweight costs. They are disproportionately high in the case of corporation taxes.

Empirical studies of the impact of corporation tax have found that it is associated with lower GDP per capita, lower investment, and less entrepreneurship.

Whilst corporation tax rates have fallen across the OECD, from an average rate of 47 per cent in 1981 to 29 per cent in 2015, corporation tax revenues have stayed the same as a percentage of all taxation, and increased as a share of GDP.

There are efforts at national, EU and international levels to put forward significant reforms to the corporate tax system.<sup>i</sup> They are motivated by a gradual consensus among policymakers that the 20<sup>th</sup> century model of profits taxation is no longer fit for purpose in a globalised world where highly mobile intangible and financial capital is gaining in importance.<sup>ii</sup> At the same time, in the wake of the financial crisis, there is increasing popular discontent about perceived unfairness of national tax systems in an environment of tighter budget constraints. Recent revelations of tax treaties in Luxembourg and bank accounts in Panama have pushed this issue into the limelight.

Economic theory has evolved considerably since corporation taxes began to be implemented across Europe and North America. Over the years, empirical studies have also accumulated on the impact of corporate taxation on other economic variables such as aggregate investment, innovation and worker productivity. Both suggest that corporation taxes are an inefficient way to raise revenue for public services and transfers, and that much of their burden falls on people who are not wealthy owners of capital. The evidence also suggests that the extent of tax avoidance is much overstated.

## **The evolving academic consensus on corporate taxation**

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 (cf. Fuest, 2015; Southwood, 2014) have tended to show that a substantial share of the burden is borne by workers. 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.<sup>iii</sup>

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. Many EU economies are comparably small, trade-oriented, or both, which would suggest that the share of corporate taxes borne by labour will be relatively large. For instance, Fuest et al. (2013) find that for every percentage point increase in the corporate tax rate in Germany, wages decrease by between 0.3 and 0.5 per cent.

Increasingly, research has also raised concerns about potential negative distributional effects of corporate taxation. The principles of proportionality – i.e. tax burdens should reflect economic means – and progressivity – those with greater means should pay a greater share – are at the heart of most modern tax systems. There is also a considerable degree of popular support for these principles. Traditionally, it was assumed that a tax on corporate profits was equivalent to a tax on the wealthy because the wealthy owned the vast majority of assets. But now the evidence suggests that a large share of the burden is borne by workers. What is more, it is difficult to discern whether the workers' share is itself borne proportionately or progressively. It could be that poorer workers bear a greater burden, which would make the tax regressive.

Additionally, the idea that capital ownership is the province of the wealthy is an anachronism. Both share ownership and private pension provision are encouraged by governments.<sup>iv</sup> Private pension schemes have been growing across the EU in recent decades, albeit with stark variations between Member States (EC, 2009). Capital ownership may be expected to widen further as innovative

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<sup>1</sup> Much of this briefing is excerpted from a forthcoming paper by the author for the Institute of Economic Affairs.

business models such as the sharing economy enable households to spend a smaller proportion of disposable income on lumpy durables such as cars, appliances, and housing, and to invest more in financial assets.<sup>v</sup>

## The costs of corporation tax

Tideman and Plassman (2015) identify four key costs of corporate taxation in addition to their direct burden:

- *administrative costs* associated with enforcement and collection;
- *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.<sup>vi</sup>

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. Compliance costs are also high because rules on profits taxation are commonly complex and uncertain, increasing both incentives and opportunities for tax avoidance. For instance, PwC (2016) estimates that the typical UK firm expends 37 hours per year to comply with corporate taxation.<sup>vii</sup> Both of these costs are especially high in the case of multinational enterprises (MNEs) with operations and value chains in a number of different jurisdictions, and who therefore deal with a multiplicity of tax codes.

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,”<sup>viii</sup> 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.<sup>ix</sup> Finally, taxes on corporate profits also exhibit higher-than-average excess burdens. Their tax base – profits – is highly mobile and thus responsive to changes in tax rates across countries. Further, by lowering effective – post-tax – returns on investment, corporate taxes discourage saving and investment and therefore undermine an economy’s long-run growth potential. Additionally, because of the enforcement challenges outlined above, corporation tax often has to be coupled with complex rules and regulations to curb avoidance (Tideman and Plassmann, 2015).

## The impact of corporation tax on incomes, 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. He shows corporation taxes to be particularly harmful, concluding that “tax reforms [...] especially away from corporate taxes, are likely to enhance the prospects for economic growth.”

Similarly, 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. Meanwhile, in a recent study, Mukherjee et al. (2015) look at tax rate changes at state level in the United States, finding that rises in the state corporate tax rate adversely affect the number of patents filed, a proxy for entrepreneurship.

## How widespread are base erosion and corporate tax avoidance?

There are increasingly concerns, especially in the rich OECD countries, about a gradual 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. Fig. 1 (see Appendix) shows tax rate trends in representative countries. The average statutory corporate tax rate in Canada, France, Germany, Italy, Spain, the UK and the U.S. has dropped from over 47 per cent in 1981, to 29 per cent in 2015.

The hypothesis of base erosion, however, implies that corporate tax revenues would have declined during this period. But 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 (Figs. 2 and 3 in the Appendix). We can see that corporate tax revenue responds strongly to the economic cycle, with 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 declining tax take over the last thirty years, is not apparent in the data.

This is consistent with an increasing recognition among economists 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.<sup>x</sup> Indeed, international bodies such as the European Commission and the OECD have tended to adopt a supply-side view and to encourage indirect taxes such as VAT and property taxes over the direct taxation of incomes, seen as more inefficient and distortionary (Arnold, 2008).<sup>xi</sup>

Appendix

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

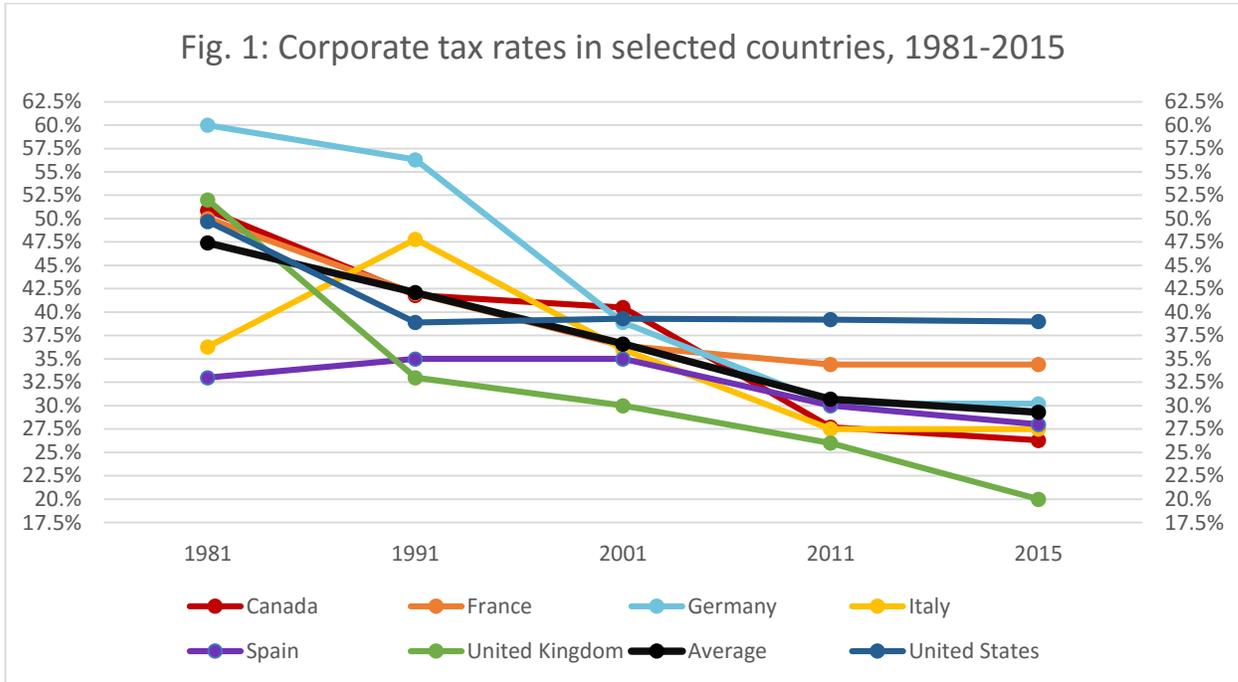


Fig. 2: Corporation tax revenue as a percentage of all tax revenue in selected OECD countries, 1981-2015

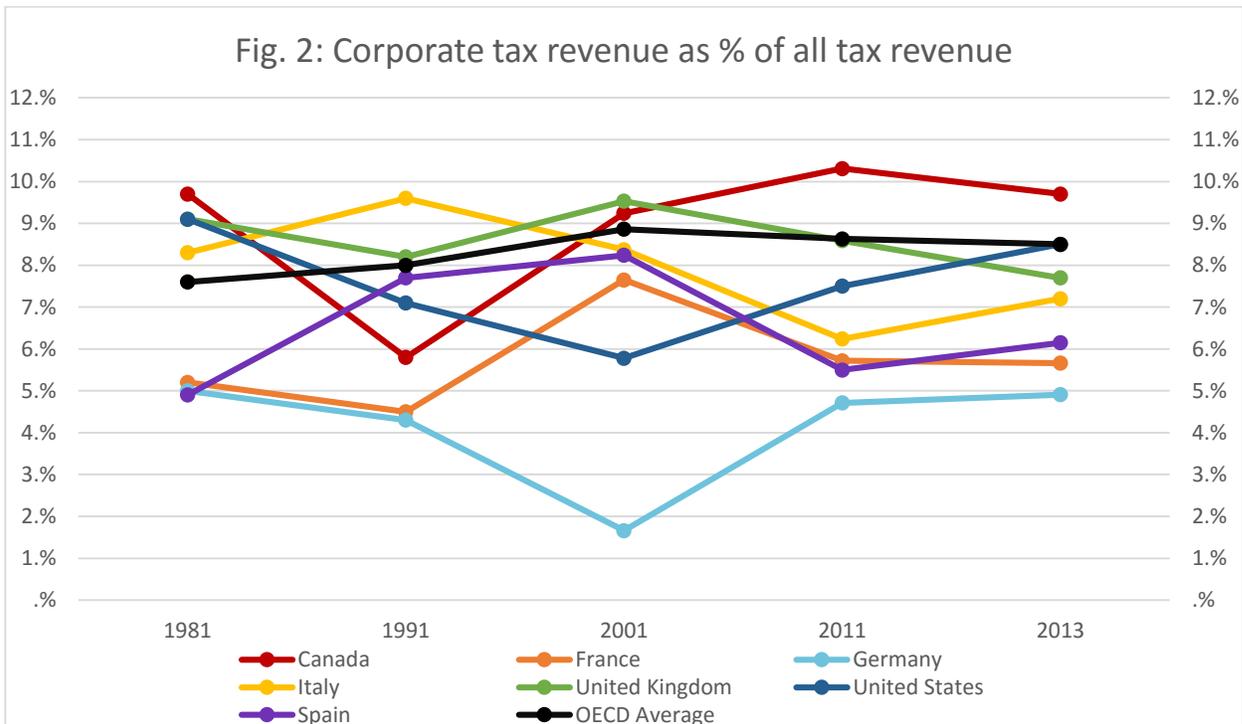
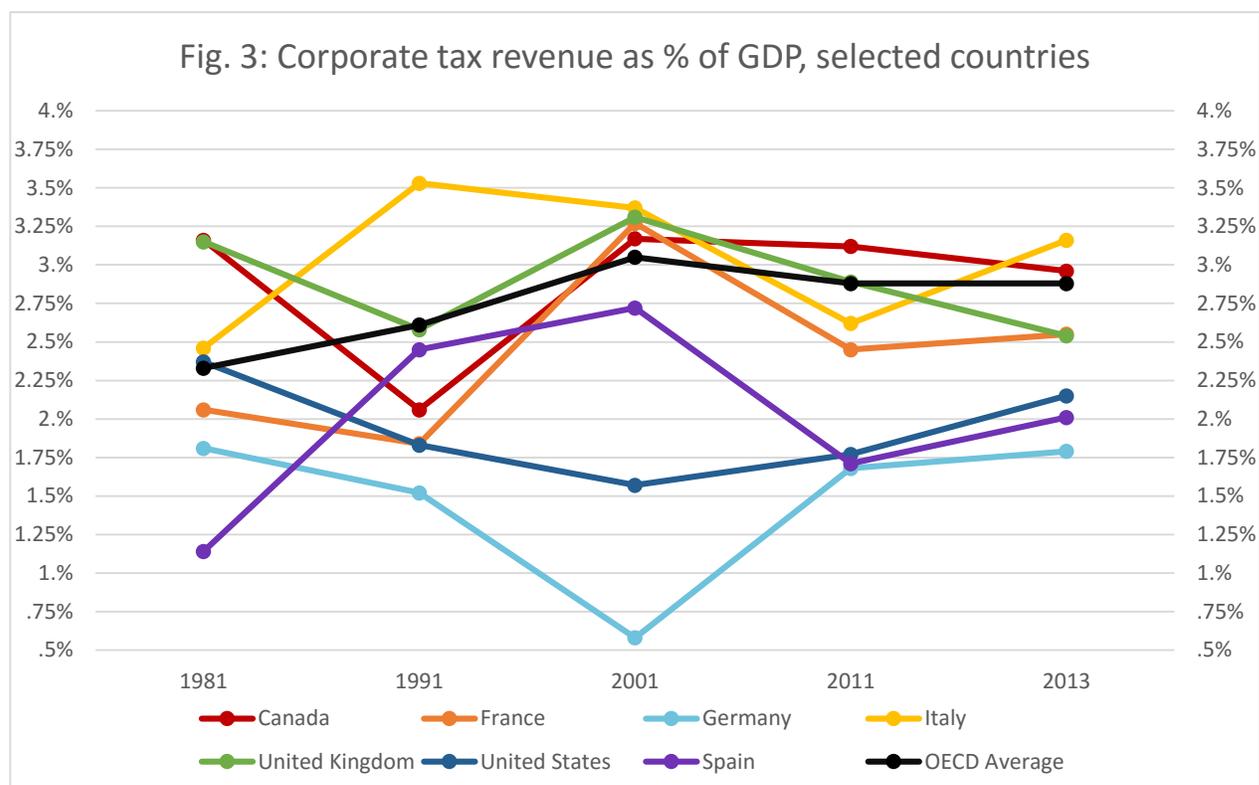


Fig. 3: Corporation tax revenue as a percentage of all tax revenue in selected OECD countries, 1981-2015



<sup>i</sup> The United Kingdom's ongoing Treasury Select Committee inquiry, the EU's re-launch of proposals for a Common Consolidated Corporate Tax Base (CCCTB), and the OECD's BEPS initiative are examples of efforts at each of these levels.

<sup>ii</sup> The 2014 report by the European Commission's Expert Group on Taxation of the Digital Economy (EC, 2014) illustrates institutional efforts to grapple with changing economies.

<sup>iii</sup> Note that the burden of tax can exceed 100% of the amount raised because of excess burdens and other costs.

<sup>iv</sup> The European Commission, together with the OECD, has been one of the most active promoters of private old age provision and pension reforms. See EC (2009) and OECD (2015) for examples.

<sup>v</sup> Lilico and Sinclair (2016) discuss this and other policy implications of the sharing economy.

<sup>vi</sup> The excess burden, also known as the deadweight loss or the tax wedge, results from changes in supply and demand in response to taxation. It captures the reduction in economic transactions at the margin caused by taxation.

<sup>vii</sup> Interestingly, both France (26) and Spain (33) have shorter time costs of compliance with corporate taxes. Unfortunately, their tax systems are on the whole more compliance-heavy than the UK's.

<sup>viii</sup> Corporations are legal entities and therefore *strictu sensu* cannot pay taxes. Shareholders, employees and consumers bear the burden of corporate taxation.

<sup>ix</sup> 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.

<sup>x</sup> Arthur Laffer, pioneer of the eponymous curve, underscores that the revenue-maximising 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.

<sup>xi</sup> It is therefore not fanciful to suggest that the OECD has itself encouraged the downward trend in corporate tax rates.

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