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The macro-economic impact of changing the rate of corporation tax

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ABSTRACT

This paper considers the impact of changes in the rate of corporation tax in Ireland affecting the business and financial services sector. A model is estimated that relates services exports and output to world activity, competitiveness and the rate of corporation tax. This model indicates that a reduction in the rate of corporation tax in the 1990s stimulated exports and, even allowing for profit repatriations by foreign firms and replacement of lost tax revenue, it resulted in an increase in domestic output. The increase in profitability suggests that some of the increased output involved relocation of profits to Ireland by multinational firms.

1. Introduction

The dramatic turnaround in Ireland's economic fortunes in the 1990s occasioned much analysis and commentary, as evidenced by the wealth of the literature summarised in (Honohan and Walsh, 2002). One of the factors frequently cited as being important has been the low rate of corporation tax (Barry, 2003). However, this corporation tax regime was introduced in the 1950s for the manufacturing sector while the very rapid growth in that sector, and consequently in the economy, did not take place until the 1990s. Thus the role of the tax regime in the success story, while significant, is not self-evident. However, in the early 1990s this low tax regime was extended to the rest of the economy, in particular to the business and financial services sector. This policy change constitutes a natural experiment which allows us to consider the before and after periods and to derive an estimate of the broader macro-economic impact of this tax change.

Since the late 1990s there has been a dramatic rise in the importance of the market services sector within the Irish economy. The structure of the sector is illustrated in Fig. 1 which shows the share of value added accounted for by each of the three sub-sectors which make up the market services sector. The figure illustrates that the business and financial services sector accounts for around 67% of total value added in the overall market services sector. For other EU countries such as Finland, Germany and France, the share of value added accounted for by financial and business activities has remained broadly unchanged since the mid 1990s. In 2006, value added in business and financial services accounted for 50% of total value added in the market services sector in Finland and 56% in both Germany and France.

The sector's share of total employment has also increased significantly over time as shown in Fig. 2. In particular, the figure illustrates the sharp rise in employment from the late 1990s which coincided with the reduction in the corporation tax rate applicable to the sector over that period. This contrasts with the more gradual increase in the share of business and financial services employment in total employment which occurred in other EU countries such as Finland and Germany over this period.

The business and financial sector is responsible for a significant share of the growing exports of services from the economy. As a result, the sector is today exposed to competitive pressures from outside Ireland whereas in 1970s it was driven by purely domestic factors. While services exports accounted for 14% of all exports in 1990, by 2005 they accounted for 37% of the total. With the growth of the tradable services sector, it is now a key channel through which the growth in world trade impacts on Ireland (Fitz Gerald et al., 2008).

There is an extensive literature on the influence of corporation tax on investment and growth. Taxation affects the volume and location of Foreign Direct Investment (FDI) through its effect on after-tax returns (Hartman, 1984; Boskin and Gale, 1987; Hines, 2003). For Ireland, there is certainly evidence that low rates of corporation tax succeeded in attracting higher levels of FDI than would have been possible in the absence of such a favourable tax regime and that this high level of inward investment played an important role in stimulating economic activity (Honohan and Walsh, 2002; Barry, 2003). In addition there is evidence that the favourable Irish tax regime encouraged highly profitable firms to locate in Ireland with a

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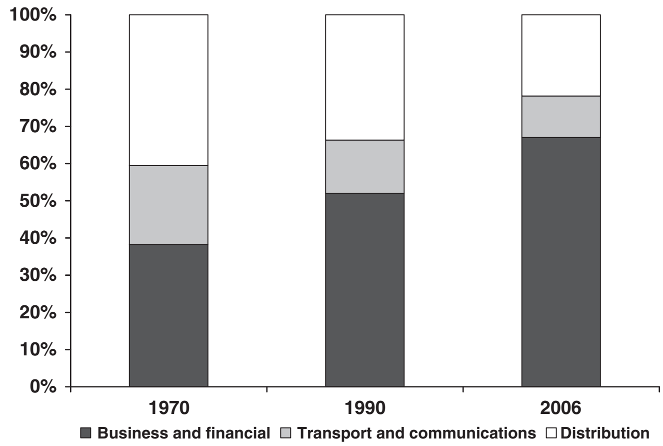

Fig. 1. Structure of market services sector, % of value added.

view to lowering their worldwide tax liabilities (Honohan et al., 1998).

In the light of these findings from the literature, this paper examines the wider economic impact of the fall in corporation tax rates affecting the business and financial services sector in Ireland from 40% in 1994 to 12.5% by 2003. The paper first examines the impact of the tax change on the sector itself before examining the broader macro-economic implications.

The paper is organised as follows: Section 2 outlines the evolution of Ireland's corporation tax system since the early 1980s. Section 3 reviews the international empirical evidence on the impact of taxation on foreign direct investment and growth, highlighting in particular the available evidence for Ireland. Section 4 develops a model of the business and financial services sector. The results from estimating the model are shown in Section 5. Section 6 considers the broader economic significance of these results by embedding the small model of the business and financial services sector into the *HERMES* model of the Irish economy and conclusions are drawn in Section 7.

2. Corporation tax in Ireland

Since 1980, a 10% rate of corporation tax applied to all new enterprises in the manufacturing sector in Ireland. The Irish government, with European Commission approval, announced the establishment of the Irish Financial Services Centre (IFSC) in 1987. In effect this meant that from 1989 the 10% manufacturing rate of corporation tax was extended to companies engaged in internationally traded financial services activities in the centre of Dublin.

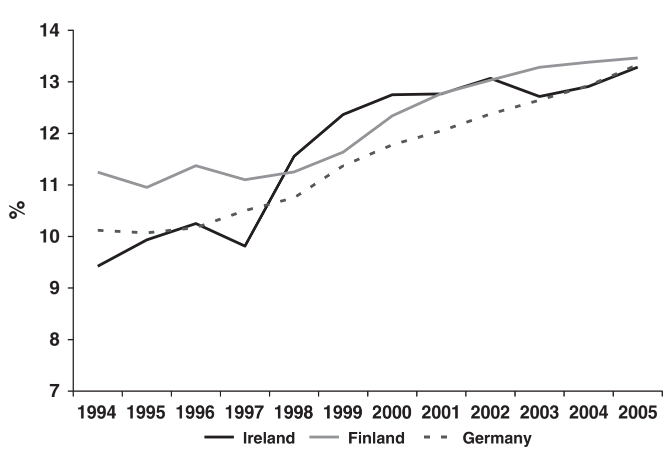

Fig. 2. Business and financial services, share of total employment, %.

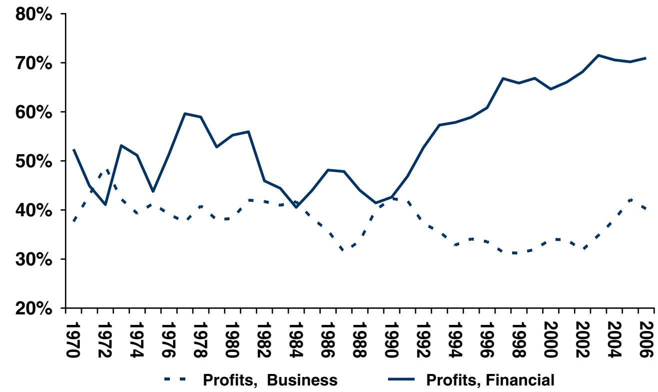

Fig. 3. Profit share of value added, business and financial services, %.

In 1996, to comply with EU rules, the Irish government decided to move to apply a rate of 12.5% on corporate profits across all activities from 2003. This meant that the rate of corporation tax applicable to activity in the bulk of the business and financial services sector fell gradually from 40% in 1994 to 32% in 1998 and finally to 12.5% by 2003.[1] This common rate of tax of 12.5% today also applies to all new firms in the sectors covered by the previous 10% rate. The 12.5% rate applies to trading profits generally, whether arising from the manufacture and sale of goods or otherwise.[2] Companies that were claiming the relief before July 1998 may still avail of the 10% rate until 2010. All IFSC companies moved to the 12.5% rate from January 2006.

The effect of these changes was to extend the attraction of Ireland for mobile firms in the business and financial services sector. It also meant that such firms could benefit from a strategic use of tax planning by locating highly profitable activities in the business and financial services sector in Ireland (through transfer pricing). This possibility had already been available to firms in the manufacturing sector as documented in Honohan et al. (1998). This change in the tax regime proved particularly attractive to firms in the financial sector. As shown in Fig. 3, the profit rate in the financial services sector rose well above its historic norm in recent years whereas the profit rate in the rest of the business services sector has shown no such trend.[3] Over the same period the profit share in other countries such as France, Germany, U.K. and the Netherlands did not show a similar rise suggesting that the change in behaviour in Ireland was unusual. The increase in the profit rate in Ireland is thus indicative of a growth in the importance of transfer pricing.

Further evidence of the impact of the change in the corporation tax regime can be seen in Table 1, which gives an estimated breakdown of the yield from corporation tax from various sectors of the economy since 1994. The table shows that, in spite of the reduction in the tax rate over the period, tax revenue from companies in the business and financial services sector (other than IFSC companies) accounted for 29% of the total corporation tax yield in 2005, compared to 20% in 1994.

The low rate of corporation tax attracted highly profitable firms to Ireland and also incentivised multinational firms to channel as much of their profits as legitimately possible through their Irish operations. This is evidenced by a very high profit rate in the manufacturing sector in recent years (Honohan et al., 1998). This issue is discussed further in Section 3.

[1] This excludes activity in the IFSC which had benefited from the low rate of tax since 1989.

[2] A higher corporation tax rate of 25% has been applied to passive income, income from a foreign trade, also since 2003.

[3] Due to the absence of more refined national accounts data the figure for profits used here includes self-employed earnings but excludes income from rent.