Corporate tax policy under the Labour government 1997-2010

GIORGIA MAFFINI



Oxford University Centre for Business Taxation Saïd Business School, Park End Street, Oxford, Ox1 1HP

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Corporate tax policy under the Labour government, 1997–2010

Giorgia Maffini*

This paper reviews and evaluates corporate tax policy under the 1997-2010 Labour Abstract government. During this period the government implemented a classical rate-cut-cum-base-broadening tax policy for large companies. Tax policy for small and medium-sized enterprises (SMEs) is more difficult to characterize: in the first two terms, rates were cut more frequently than for large businesses and the base was narrowed, but in the government's third term, statutory rates for SMEs were increased. Extensive reforms of dividends and capital gains tax at the individual and corporate level have also been implemented: in 1998, the imputation system was abolished and in 2009, foreign dividends became exempt for corporate income tax purposes. A comparison of the statutory and effective rates shows that the UK has lost some ground to the OECD since 2003-4, fundamental reforms of dividends and capital gains taxation have aligned the UK to its competitors and to EU law. We find that the overall effect of the Labour's tax policy on aggregate investment may have been small, for three reasons. Increases in real investment between 1997 and 2007 are largely explained by the economic cycle, while the reduction in the tax component of the user cost of capital was small. Moreover, the increase in aggregate investment was led by an exceptional surge in investment in structures driven by a real estate boom. Finally, we note that most investment was undertaken by large companies, and therefore it was not affected by the large set of tax reforms focusing on SMEs. Keywords: corporate tax, capital gains, dividends, investment, cost of capital JEL classification: G35, G38, H25, H32

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I. Introduction

Increased capital mobility, the emergence of new types of business, and the growth of financial innovation have characterized the global economy between 1997 and 2010. Real investment and profits can now move freely across jurisdictions in search of the highest post-tax return. Profits are often shifted from high-tax to low-tax jurisdictions, independently of where real activities take place. New types of business have also emerged. For them, it is difficult to identify precisely where profits arise. For example, online retailers are headquartered in low-tax countries, customers buy goods via a server generally also located in a foreign jurisdiction, and goods are distributed from foreign (EU) warehouses, with overall very little UK presence. Finally, structured finance has been employed to shift income to low-tax jurisdictions and to transform income streams into low-taxed streams.

In response, developed countries have cut their corporate statutory tax rates and reformed the system of taxation of foreign profits to attract mobile investment and mobile profits. In this context and also under the pressure of the European Court of Justice (ECJ), the Labour government reformed virtually

every part of the UK corporate tax system. The Labour party manifesto for the 1997 general election¹ stated clearly that tax policy would be designed to sustain long-term investment. In an increasingly globalized world, a related concern of the government was the competitiveness of the UK tax system. For example, the 2008 reform of statutory rates and capital allowances was introduced 'to promote growth by enhancing international competitiveness, encouraging investment and promoting innovation' (HMT, 2007).

Although the stated aim of Labour's far-reaching corporate tax reforms was to increase the competitiveness of the UK tax system and to foster investment, overall, the competitive position of the UK with respect to the Organization for Economic Cooperation and Development (OECD) has deteriorated around 2003 and 2004, because of rate cuts in other OECD economies. If a comparison of the statutory and effective rates shows that the UK has lost some ground to the OECD, fundamental reforms of dividends and capital gains taxation have aligned the structure of the UK corporate tax system to its competitors and to EU law. Together with concerns about being internationally competitive, these reforms have been strongly shaped by the action of the ECJ. Most EU countries now adopt a territorial approach, exempting both foreign dividends and capital gains for corporate income tax purposes. As of 2012, after Japan and the UK adopted the territorial principle in 2009, the US remains the only large developed economy taxing repatriated foreign profits. Under a territorial system which exempts foreign profits, companies have an incentive to maximize overall the group profit by locating their real activities and by shifting some of their earnings into low-tax jurisdictions. Under a worldwide system of taxation this incentive is smaller, as foreign profits are taxed at the same rate as domestic profits when and if they are repatriated. This could imply a higher tax burden for companies headquartered in worldwide countries, making them less competitive than multinationals headquartered in territorial jurisdictions.

The neoclassical theory of investment suggests that the corporate income tax reduces investment through an increase in the tax component of the user cost of capital. Despite reaching a diverse set of results in terms of magnitude of elasticities, the empirical evidence suggests a negative impact of tax policy on aggregate capital formation (Hassett and Hubbard, 2002). In accordance with this literature, governments reduce effective corporate tax burdens to boost investment and therefore encourage growth and employment. This paper finds that-while tax reforms did alter post-tax cost of capital on some margins-the effect of Labour's corporate tax policy on aggregate investment is likely to have been small, for a number of reasons. First, the increase in real investment between 1997 and 2007 is largely explained by the economic cycle. Second, the reduction in the tax component of the user cost of capital for large firms was small. Third, the increase in aggregate investment was led by an exceptional surge in investment in structures (residential and non-residential), driven by loose credit conditions and by a real estate boom. Fourth, most investment is undertaken by large companies. Although in its first two terms the Labour government was very active in supporting small and medium-sized enterprises (SMEs), there is no evidence that tax policy targeted to smaller companies promoted higher aggregate investment. In the light of these considerations and of the evidence on avoidance activities, in 2006 the government started to bring the corporate tax rate for SMEs closer to that of larger companies.

The second section of this paper reviews the major changes in tax policy affecting the cost of capital for large companies. Section III illustrates the changes affecting SMEs, and section IV investigates changes in the taxation of capital at the individual level. Table 1 summarizes all the changes described in this paper. Section V analyses the effect of the Labour's corporate tax policy on investment and section VI concludes.

¹ http://www.politicsresources.net/area/uk/man/lab97.htm

Table 1: Summary	y of change	s introduced	between	1996 and 2010
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	Main corporate income tax statutory rate (%)	Starting rate (SR)	Small corporate rate (SCR) (%)	Capital allowances	Dividend taxation	Capital gains taxation (IND: individuals; CORP: corporate entities)
1996	33		24	Main pool rate (25%) Special rate pool (6%) Industrial and agricultural buildings (4%).	Tax credit: 20%	
1997	31		21	FYAs (40%)	Tax credit on dividends abolished for tax-exempt non-individual shareholders	
1998	31		21			IND: Taper relief (TR) introduced Indexation abolished
1999	30		20		Advanced Corporation Tax abolished Tax credit: 10%	
2000	30	Introduced at 10%	20			IND: definition of business asset extended for TR purposes
2001	30	10%	20			
2002	30	0%	19	New rules for intangible assets		IND: minimum holding period shortened (2 yr) for TR CORP: Substantial shareholding exemption
2003	30	0%	19			
2004	30	0% Non corporate distributions rate (NCDR) introduced	19	FYAs (50%)		IND: definition of business asset extended further for TR
2005	30	0%	19	FYAs (40%)		
2006	30	SR eliminated NCDR eliminated	19	FYAs (50%)		
2007	30		20	FYAs (50%)-		
2008	28		21	FYAs repealed; AIA (£50,000) Main pool rate (20%) Special rate pool introduced (10%) Industrial buildings (3%)		IND: TR abolished; Entrepreneur's relief (ER—10% on first £1m, for business assets); Flat 18% CGT introduced
2009	28		21	Industrial buildings (2%)	Introduction of territorial principle	
2010	28		21	AIA (£100,000) Industrial buildings (1%)		IND: ER for first £2m IND: Additional 28% CGT rate ER for first £5m

Notes: FYA is first-year investment allowance; AIA is annual investment allowance; CGT is capital gains tax. The numbers in bold indicate a change with respect to the previous year.

II. Tax policy for large companies

(i) The corporate income tax

It is widely accepted that more mobile investment activities tend also to be more profitable (Devereux et al., 2002).² In a context of increased globalization, governments across the OECD have cut corporate statutory tax rates to attract the more mobile, more profitable activities (Figure 1). Between 1997 and 2010, the Labour government cut the main corporate income statutory tax rate by 5 percentage points. In his first Budget, Gordon Brown reduced the main rate from 33 to 31 per cent. Two further cuts were implemented in 1999 (to 30 per cent) and in 2008 (to 28 per cent). The preceding Conservative governments and the current Coalition government have been more aggressive. The former cut the main corporate statutory tax rate by 17 percentage points, with the largest cuts being implemented during the first years of Margaret Thatcher's second government: the rate was reduced from 52 to 35 per cent between 1983 and 1986. By 2014, the current Coalition government will have cut the main rate by 7 percentage points (from 28 to 21 per cent) and at a much faster rate than the Labour government did. The differences in how aggressively tax rates were cut lies in the fact that the 1997–2010 government intended to use public spending to increase investment in infrastructure, education, and the national health system. For this goal, revenues were needed. Publicsector gross investment amounted to £69 billion in the last year of Gordon Brown's government. It declined by 30 per cent to £47.8 billion in 2011/12 (Office for Budget Responsibility, 2012).

Generally, governments around the world have at least partially compensated for rate cuts by enlarging the tax base, consisting of trading profits and other chargeable gains less allowable deductions. Usually, investment expenditure cannot be entirely deducted from trading profits, but tax systems provide for partial deductability of investment expenditure though a capital allowance which reduces the tax base. Under the Labour government, the tax base was enlarged only 11 years after the first rate cut when, in 2008, the allowance for plant and machinery was decreased from 25 to 20 per cent and the government announced the phasing-out of allowances for industrial buildings by 2011, with a reduction in the rate of 1 percentage point per year. This was the largest reform in capital allowances since the 1980s. Overall, for large companies, the tax component of the user cost of capital, the effective marginal tax rate (EMTR), declined slightly between 1997 and 2008 because of statutory rate cuts. Despite a further rate cut, it then increased after 2008, when the tax base was substantially reduced (Figure 2).

With two major reforms, the Labour government also changed fundamentally the way capital gains and foreign dividends are subject to the UK corporate income tax. Typically, capital gains, defined as chargeable gains for corporate income tax purposes, are included fully in the chargeable profits and subject to the corporate income tax. The Finance Act 2002 introduced an exception to this rule: the substantial shareholding exemption (SSE). The SSE regime provides that a gain on a disposal by a company of shares in another company is exempt if the company making the disposal and the company whose shares are being disposed of are both trading companies and, additionally, the former company has a substantial shareholding in the latter.³

The UK system of taxation of foreign corporate profits relied on the worldwide principle until 2009: foreign dividends distributed to domestic companies were taxed under the UK corporate income tax system. Taxation of foreign profits would arise only upon distribution: the UK corporate income tax

² This excludes natural-resource-based investment.

 $^{^{3}}$ A substantial shareholding arises when two conditions are met. First, the shareholding must represent at least 10 per cent of the company's ordinary share capital and the company disposing of the shares must also be entitled to at least 10 per cent of the profits and assets available for distribution to equity holders. Second, the shareholding has to be held continuously for at least 12 months.

would be deferred until repatriation of the foreign dividends. Since foreign profits had already been taxed abroad under the local foreign corporate income tax system, the UK would grant a credit for the foreign tax paid in the host country.⁴ Dividends received from a domestic subsidiary were, instead, exempt for the UK parent and therefore required no credit.

In 2006, the *Tests Claimants in the Franked Investment Income Group Litigation v HMRC* case brought before the ECJ spurred Her Majesty's Treasury (HMT) to open talks with UK-based business and other domestic shareholders about reforming the UK system of international corporate taxation.⁵ In the same period, many businesses threatened to leave the UK because of a too burdensome tax system, in particular with respect to the worldwide principle of taxation of foreign income and the relatively onerous anti-avoidance and strict controlled foreign corporation (CFC) rules.⁶ Few actually did.⁷ Additionally, as of 2006, all EU-15 countries, with the exception of Greece and Ireland, had adopted a territorial system of taxation whereby foreign dividends were exempt from domestic tax.

In this context, in 2007, HMT opened a consultation on developing a more competitive international tax system (HMRC and HMT, 2007).⁸ The result of a long consultation process, dotted with various draft attempts, was the adoption of the territorial principle of taxation for foreign corporate profits in 2009 (applicable from 1 July 2009). The UK system became, therefore, an exemption system whereby dividends received from foreign subsidiaries are now exempt from the UK corporate income tax. Under an exemption system, UK multinationals are likely to face a lower tax burden because they have an incentive to relocate real activities and mobile profits into low-tax jurisdictions. On the other hand, under a worldwide system, the incentive is lower as foreign profits, if repatriated, are taxed at the domestic corporate tax rate.

Competition from other European jurisdictions and the rulings of the ECJ, together with domestic pressure by business, pushed the Labour government to align the UK system of taxation of foreign profits with that of its European neighbours. After the UK reform, the global tax landscape was very different from what it was just 10 years before. Japan also moved to territoriality in 2009 so that the largest OECD economies now adopt a territorial system of taxation of foreign profits. The only major economy to tax the worldwide earnings of corporations is the US, where there is a lively debate on moving to a territorial system because of the high tax and compliance costs imposed by a worldwide system on US multinationals, making them less competitive, *ceteris paribus*.

(ii) The impact of reforms on tax competitiveness

Three measures can be used to assess the tax costs associated with the UK corporate income tax system: the corporate statutory rate and two summary measures that account for both the statutory tax rate and the tax base, the EMTR and the effective average tax rate (EATR).⁹

⁴ Before 31 March 2001, multinational groups could significant reduce their UK tax liability on repatriated dividends from foreign subsidiaries with the use of the so-called 'mixer companies'.

⁵ The differential treatment of domestic dividends (exempt from corporate income tax) and foreign dividends (taxed and given a credit for foreign taxes paid) was challenged in the case *Tests Claimants in the Franked Investment Income Group Litigation v HMRC*, by reference to freedom of establishment and of capital movement embedded in the EC Treaty (Bond *et al.*, 2006; Graetz and Warren, 2007).

 $^{^{6}}$ CFC rules are anti-avoidance rules whereby profits of CFC located in low-tax jurisdictions are taxed upon accrual at the domestic corporate income tax rate. UK CFC rules were deemed very stringent (see Griffith *et al.*, 2010) and not in line with business practices.

⁷ Among them, Brit Insurance, Charter, Henderson, Informa, Regus, Shire, and United Business Media.

⁸ The consultation raised the issue of taxation of foreign profits in a broad perspective: taxation of foreign dividends but also CFC rules and interest relief were considered. As for the taxation of dividends, the reform of the CFC regime was in part motivated by an ECJ ruling. In September 2006 in the *Cadbury Schweppes plc* case, the ECJ held that the UK CFC rules restricted the freedom of establishment within the EU.

⁹ Such measures help in comparing the UK to other countries, but only relative to the costs associated to the corporate tax system: they tell us whether the UK corporate tax burden is low enough to attract and foster investment in competition with

By shifting profits from a high-tax to a low-tax country, multinational corporations can decide where to locate profits, independently of where they locate real activities. The marginal incentive to shift an additional unit of corporate profits depends on the corporate statutory tax rate: the lower the rate differential, the lower the incentive to shift income to a low-tax jurisdiction. Figure 1 shows that the UK rate had been substantially lower than the average OECD statutory corporate tax rate until 2004, when cuts in other OECD countries meant that the UK rate of 30 per cent was higher than the OECD average for the first time in 20 years. Although the UK rate has been consistently lower than the French and German rates, smaller, low-tax OECD jurisdictions, such as Ireland and the Netherlands, have been more relevant for profit-shifting activities.

The EMTR is the tax component of the user cost of capital.¹⁰ It affects the scale of investment. Figure 2 shows that, since the early 1990s, the UK EMTR has been higher than the OECD average and that this gap widened further in 2008 with the reform of capital allowances. Generally, the UK EMTR has been higher than the French one, reflecting generous French capital allowances, while the UK rate has been higher than the German EMTR only from 2006 onwards (with an exception in 2000).

The EATR measures the difference in the before- and after-tax net present value of a profitable project. It affects the location of investment: it is relevant in a context where a firm needs to decide among a set of mutually exclusive projects (Devereux and Griffith, 1998, 2003). This is the typical decision faced by a multinational choosing to locate investment in one of the OECD countries. Figure 3 shows that the UK EATR is not particularly competitive compared to the OECD average, although the OECD average includes smaller countries which would not necessarily be competitors of the UK. The UK EATR has, however, also generally been lower than the comparable rates in France and Germany. This implies that the UK is a relatively more attractive location for investment.

Overall, the competitive position of the UK with respect to the OECD has deteriorated since around 2003 and 2004, when the main corporate statutory tax rate and the EATR started to exceed the OECD average because of cuts implemented in other OECD economies. Nonetheless, the UK rates remained below the French and German equivalents, suggesting that for the location of profits and of investment, the UK was more attractive than the two largest continental European economies. The UK tax component of the user cost of capital (EMTR) has historically been higher than the OECD average. Since 2005, it has also exceeded the French and German ones, with the gap widening after the 2008 reduction in capital allowances.

If a comparison of the statutory and effective rates shows that the UK has lost some ground to the OECD and, more specifically, also to France and Germany, fundamental reforms of dividends and capital gains taxation have aligned the structure of the UK corporate tax system to its competitors and to EU law. Adding dividend exemption to the existing UK exemption from tax on disposals of qualifying shareholdings has certainly increased competitiveness, especially in attracting the headquarters of multinationals and holding companies. Most EU countries now adopt a territorial approach, exempting foreign dividends and capital gains for corporate income tax purposes. As of 2012, after Japan adopted the territorial principle in 2009, the US remains the only large developed economy with a worldwide system of taxation of corporate profits.

other countries, *ceteris paribus*. They are not suitable to derive conclusions on the broader welfare implications of tax policy measures or on the broader economic performance of the UK.

¹⁰ It is the percentage difference between the before- and after-tax cost of capital for a hypothetical investment project breaking even. This approach to the cost of capital was first proposed by Jorgensen (1963) and Hall and Jorgensen (1967).













(iii) Sector effects of rate-cut-cum-base-broadening tax measures

Rate-cutting base-broadening tax policy measures shift the tax burden from more profitable, more mobile to less mobile investments. As profit increases, capital allowances are less important and the statutory tax rate becomes more important to determine the tax burden. The sectors which will benefit more from rate-cut-cum-base-broadening tax policies are therefore relatively more profitable sectors where capital allowances are overall less important for the determination of the tax bill. Additionally, under the 2008 changes in capital allowances, sectors with relatively more investment in industrial buildings experienced a relatively larger increase in their tax, *ceteris paribus*, after the reduction and phasing out of capital allowances for industrial buildings.

Sectors where the intensity of capital allowances for plant and machinery (that is, value of capital allowances claimed over gross trading profits) is high include transport and communications (between 45 and 55 per cent), agriculture, and the hotels and catering sector (both at around 35 per cent). Elsewhere capital allowances for plant and machinery represent about less than one-fourth of gross trading profits (Figure 4). The sectors with higher capital allowances intensity in industrial buildings are the hotels and catering industry (between 35 and 42 per cent) and the transport and communication industry (between 53 and 55 per cent). In the manufacturing sector, allowances for industrial buildings represent between 2.2 and 1 per cent of gross trading profits, while the remaining sectors stay well below 2 per cent, with the finance industry close to zero (Figure 5).

The UK rate-cut-cum-base-broadening measures are therefore likely to have redistributed the tax burden from the agricultural sector, hotels and catering, and transport and communication sectors to highly profitable sectors with lower investment intensity, in particular the financial services sector, business services, distribution and repairs, construction, and other services. Whether these rate-cut-cum-base-broadening measures adversely affected the manufacturing sector is less clear since the capital allowances intensity in the manufacturing sector is not the highest in the economy: it displays an average value for both plant and machinery and industrial buildings allowances as a percentage of gross trading profit.¹¹

¹¹ Although the manufacturing sector is the largest investor in plant and machinery if the public sector is excluded, it seems that such investment is compensated for by somewhat high profits. This is confirmed by the analysis of the sector capital intensity (that is, the ratio of investment over value added): on average, between 1990 and 2009, capital intensity in the manufacturing sector was 12 per cent, a figure very close to that of the financial and insurance sector and that of the wholesale and retail sectors (both at 11 per cent), and also close to the economy average of 13 per cent. Capital intensity is much higher in the agriculture and forestry sector (43 per cent), the electricity, gas, and water supply sectors (41 per cent) and the transport and storage sectors (36 per cent).



Figure 4: Allowances for plant and machinery (% of gross trading profits)

Source: own calculations using HMRC (2012)



Figure 5: Capital allowances for industrial buildings (as % gross trading profit)

Source: own calculations using HMRC (2012)

III. Tax policy for small and medium-sized companies

The 1997 Labour manifesto generally promised to back small business by stating: 'support for small business will have a major role in our plans for economic growth'. Small business is frequently at the centre of the economic and tax policy of many governments: it is often associated with innovation, entrepreneurship, and, therefore, with growth and employment. Unfortunately, there is no robust empirical evidence showing that small business brings these benefits.

While the tax treatment of large corporations changed only slightly during the first 11 years of the Labour government, frequent and sometimes contradictory changes characterized tax policy for SMEs, both in terms of the tax rate and the base.¹² In the first term of the Labour government, the small companies' rate (SCR)¹³ was cut to 21 per cent in 1997 (from 24 per cent) and then to 19 per cent in 1999. A more radical reform was implemented in 2002 with the introduction of the starting rate (SR) at 10 per cent for companies with annual profits below £10,000. The SR was then cut to zero in 2002. Thus far, the reduction in the statutory corporate tax rate for SMEs mirrored cuts in the main statutory corporate tax rate for larger companies. The trend then reversed in 2004 when, for companies subject to the SR, the non-corporate distribution rate (NCDR)¹⁴ was introduced at 19 per cent and applied to corporate distributions to non-corporate persons. In 2006, the SR was abolished; in 2007 the SCR was raised to 20 per cent and then to 21 per cent a year later. Statutory rates between SMEs and larger businesses started to converge, a trend continuing today under the Coalition government.

The tax base for SMEs was narrowed in 1997 with the introduction of the first year investment allowance (FYA) for investment in plant and machinery at a rate of 40 per cent.¹⁵ The FYA was repealed in 2008. The EMTR, that is the tax component of the user cost of capital, for very small companies and for SMEs has always been lower than that of large companies. Between 1997 and 2004, it diverged even further and then started to converge to that of large companies (Figure 6), reflecting mainly a smaller gap in corporate statutory tax rates. The model used to calculate the EMTR in Figure 6 does not include the Annual Investment Allowance (AIA) for plant and machinery introduced in 2008. This is a flat-rate allowance for capital expenditures with a threshold of £50,000, subsequently increased to £100,000 in 2010.¹⁶ Although the AIA is available for all firms, it is likely to narrow the tax base for SMEs even further as it covers a substantial amount of investment in plant and machinery for SMEs.¹⁷

¹² For a discussion of the definition of SMEs, see Crawford and Freedman (2010). Here, the term SMEs identifies corporations subject to the small companies' rate or to the starting rate of corporate tax.

¹³ In 1973, the Conservative government led by Edward Heath introduced the small companies' rate at 42 per cent for companies with profits below £25,000. At that time, the main corporate income tax rate was increased to 52 per cent. Since 1994, the small companies' rate applies to companies with profits below £300,000 per year. Between £300,000 and £1,500,000, the company is taxed at the main rate, but most companies can claim marginal relief. This gives a smooth progression in the average tax rate from the lower rate to the main rate (HMRC, 2012).

The NCDR was a minimum rate of corporate tax applied to dividend distributions to persons who are not companies. The NCDR reduced the benefit of incorporation for companies paying the lowest rates of corporate income tax as distributions to non-corporate shareholders would be taxed at least at 19 per cent.

¹⁵ The FYA was then increased to 50 per cent for fiscal years 2004/5, 2006/7, and 2007/8.

¹⁶ The AIA corresponds to a cash flow tax for companies with total investment equal or below the AIA limit. A cash flow tax grants immediate expensing of all investment expenditures. Hence, it does not distort investment decisions. An integrated analysis of corporate tax revenues and aggregate investment data shows that the AIA covers an important and growing share of gross capital formation in plant and machinery: 4.4 per cent in 2008-09, 9.3 per cent in 2009-10 and 13 per cent in 2010-11. ¹⁷ The AIA was also introduced for simplification purposes, in particular for SMEs.

Figure 6: Effective marginal tax rate (EMTR) by size of companies



Three elements characterized corporate tax policy for SMEs. First, its guiding principles were often at odds with those driving tax policy for large companies. Rate-cut-cum-base-broadening policies are aimed at attracting more mobile and, therefore, more profitable activities. Reducing both the tax rate and the tax base for firms with lower profits is by definition contrary to this principle. Second, between 1997 and 2010 there was a substantial variation in marginal and average tax rates for firms with low profits. Continuous changes in the rates and the tax base are likely to have introduced uncertainty and complexity for a lot of agents. Provisions for the taxation of SMEs affect a large number of companies. Between 2003/4 and 2010/11, only about 5 per cent of companies paid the main statutory rate.¹⁸ Third, the tax legislation created avoidance opportunities: incorporated businesses with low profits enjoyed lower taxation and lower national insurance contributions than unincorporated businesses and sole traders (Crawford and Freedman, 2010). Crawford and Freedman highlight three reasons why the UK tax system displays an incentive to incorporate. First, corporate tax rates are lower than income tax rates and therefore owner-managers subject to higher rates of personal income tax would enjoy a higher post-tax return when sheltering income in the company. This incentive is even larger for small companies facing the reduced SCR and it was very large in 2000-4 when the SR was introduced at a rate of 10 per cent, then reduced to zero in 2002.

The fact that distributed profits attract another layer of taxation (that is, dividend taxation) corrected only partially the incentive to incorporate. For companies subject to the SCR, Table 2 shows that the total tax burden on dividends was at least the same as the burden on employment income. In some years (between 2002 and 2006), when the SCR was reduced to 19 per cent, the tax burden was marginally lower. For companies subject to the SR, the incentive to incorporate was instead very large: basic-rate shareholders would end up paying a total rate of between zero and 10 per cent, while higher-rate taxpayers would end up paying a rate of between 25 and 32.5 per cent, where their marginal rate of personal income tax would be 40 per cent. Additionally, profits could be retained within the firm until the owner sold or liquidated it. In this case, the capital gain would be subject to the taper relief rules granting an effective tax rate of 10 per cent on business assets held for more than 2 years. After 2008, capital gains were subject to a flat 18 per cent rate. The second incentive to incorporation derives from the fact that capital income (that is, dividends and capital gains) is not subject to National

¹⁸ Companies paying the main corporate tax rate contributed between 68.79 per cent and 78.37 per cent of total corporate income tax in the same period.

Insurance contributions. Finally, to reduce the tax rate applicable to dividends, the shareholding could be split across household members (Crawford and Freedman, 2010).

In the light of these considerations, the government decided to bring rates for SMEs closer to those of larger companies (Figure 6).

Table 2: Corporate plus dividend taxes on dividends distributed by SMES (%)						
	1996	1999	2000	2002	2004	2010
Statutory small corporate tax rate (SCR)	24	20	20	19	19	21
Basic-rate shareholders	24	20	20	19	19	21
Higher-rate shareholders	43	40	40	39.25	39.25	40.75
Additional-rate shareholders						49.53
Statutory starting rate (SR)			10	0	NCDR (19)	
Basic-rate shareholders			10	0	19	
Higher-rate shareholders			32.5	25	39.25	

Table 2: Corporate plus dividend taxes on dividends distributed by SMEs (%)

Note: Following Bond *et al.* (1996), the total tax rate is calculated as 100-100[(1-t)(1-m)/(1-c)], where *t* is the corporate statutory tax rate, *m* is the applicable personal income tax rate, and *c* is the imputation rate.

IV. Taxation of capital income at the individual level

(i) Dividends

An important component of the user cost of capital is the taxation of dividends at the individual shareholder's level. In this area, once again, the ECJ has been a fundamental driver of reform. Many commentators suggest that the abolition of the advanced corporation tax imputation system in 1999 was the result of the anticipation of an adverse ruling by the ECJ (Graetz and Warren, 2007).¹⁹ More generally, Bond *et al.* (2006) argue that the ECJ case law has generated considerable changes in dividend taxation systems across Europe: for example, Germany, France, Italy, and the UK have all abandoned their imputation systems to introduce forms of partial exclusion of dividends from the personal income tax schedule.

Between 1973 and 1999, the UK had a partial imputation system whereby partial tax relief on dividend income was granted to shareholders for the corporation tax paid on profits by the firm.²⁰ On behalf of

¹⁹ Three elements of an imputation system may violate the basic principles of freedom of establishment and free movement of capital set out in the EU Treaty. First, dividend tax credits are not granted for foreign corporate income taxes. Second, dividend tax credits are not granted to foreign shareholders. Third, in systems where companies are required to pay corporation tax as an advanced personal income tax payment, companies with insufficient domestic taxable income would not be able to offset the pre-payment and they would therefore incur in additional taxation (Bond *et al.* (2006)). Additionally, the UK ACT system required companies to make an advance payment of tax when they distributed dividend payments to shareholders. A UK parent company receiving a dividend from a UK-based subsidiary received it as "franked investment income" which offset its own ACT bill when it paid dividends. But UK parent companies receiving dividends from overseas subsidiaries were not able to offset their ACT bills in the same way, creating grounds for an eventual ECJ challenge.

²⁰ Partial refers to the fact that the tax credit (20 per cent) was lower than the corporate income tax paid on distributed profits (31 per cent in 1997). A classical system had been in place between 1964 (when the corporation income tax was first introduced) and 1973 whereby profits were taxed at a single corporate tax rate and dividends were further taxed under the personal income tax rate. The partial imputation system was introduced in 1973 to eliminate the double taxation on distributed profits.

the shareholders, companies had to pay additional corporation tax (the advanced corporation tax—ACT) on distributed profits shortly after having paid out dividends, at a rate of 20 per cent (imputation rate). After about 9 months, the ACT could be offset against the main corporate income tax liability. Individual shareholders would receive a tax credit equal to the ACT tax paid on distributed profits and would subject the dividend to the personal income tax schedule.

The result was that both retained and distributed profits were taxed at the corporate income tax rate for basic-rate taxpayers (see Table 3).²¹ The rate was higher (49.75 per cent in 1996) for top-rate taxpayers. Tax-exempt entities, such as pension funds, would receive the tax credit, despite not being subject to taxation. Hence, dividends received by those entities were taxed at a lower rate than that of the corporate income tax (16.25 per cent in 1996). The system was in fact one which favoured the distribution of dividends over retained profits (last row of Table 3).

The earliest reform of dividends taxation was announced in Gordon Brown's first Budget with the abolition of the tax credit on dividends for tax-exempt UK resident pension funds and pension businesses of UK resident insurance companies. For dividends distributed by UK resident companies on or after 2 July 1997, the Finance Act 1997 eliminated the right of UK-resident tax-exempt entities to claim a tax credit.

Two years later, in 1999, the ACT was abolished. Dividend income became subject to lower rates than other forms of income: the basic personal income statutory rate was lowered to 10 per cent and therefore a 10 per cent tax credit on dividends was introduced. Higher-rate taxpayers would pay a rate of 32.5 per cent so that the overall personal income tax rate, including the tax credit, would be 25 per cent, as before.²² When the 50p additional rate²³ was introduced in 2010, the top rate for dividend income became 42.5 per cent, so that additional rate taxpayers would face a total rate of 36.1 per cent on received dividends. As a result, the system does not currently favour distribution of dividends over retention of earnings. For exempt and basic rate shareholders, dividends bear the same burden as retained earnings (Table 3).

As before the reform, under the current partial imputation system, the imputation rate (10 per cent) is lower than the corporate income tax rate. This implies that only a fraction of the firm's corporate income tax is considered as an advanced payment of the shareholder's income tax. The residual corporate income tax is an additional level of taxation, as under a classical system. The current UK system also has elements of a shareholder relief system: shareholders are subject to lower tax rates on dividends than on other forms of income and, at the same time, they can credit part of the firm's corporate income tax against their personal income tax (Bond and Chennells, 2000).

	1			/
	1996	1997	1999	2010
Exempt shareholder	16.25	31	30	28
Basic-rate shareholder	33	31	30	28
Higher-rate shareholder	49.75	48.25	47.5	46
Additional-rate shareholder				54
Tax on undistributed profits	33	31	30	28

Table 3: Corporate (main rate) and personal income taxes on dividend income (%)

Note: The corporate statutory tax rate was 33 per cent in 1996, 31 per cent in 1997, 30 per cent in 1999, and 28 per cent in 2010. The basic rate of personal income tax was 20 per cent and the higher

²¹ Following Bond *et al.* (1996), the total tax rate is calculated as in Table 2.

²² Assuming a £100 dividend payment, a higher-rate taxpayer would pay £32.50 in tax minus the tax credit (10%*£100 = £10) for a total of £22.50, whereby 22.5/90 = 25 per cent.

 $^{^{23}}$ The additional rate of personal income tax of 50 per cent was introduced for incomes above £150,000.

rate was 40 per cent in 1997 and 1999. The basic rate for dividends was 10 per cent and the higher rate was 32.5 per cent from 1999 onwards. An additional rate of 42.5 per cent was introduced in 2010 for taxpayers with income above £150,000. The imputation rate was 20 per cent until 1998 and 10 per cent from 1999 onwards.

(ii) Capital gains

Consistent with the Labour party manifesto for the 1997 general election, the taxation of capital gains was overhauled during the Labour government. In an effort to encourage long-term investment, the government abolished indexation relief and introduced the taper relief in April 1998.²⁴ The taper relief reduced the amount of chargeable gain for capital gains tax (CGT) purpose, the longer the asset was held and according to the type of asset—that is, whether the asset was a business or a non-business asset. For example, between 2002 and 2007, only 25 per cent of the capital gain derived from disposal of qualifying business assets held only for 2 years was subject to taxation. Figure 7 describes how chargeable gains have evolved between 1998 and 2007. Gins were tapered according to the length of time the asset has been held after 5 April 1998. The taper relief rules applied to individuals, partnerships, estates, and trusts.

The chargeable gain was subject to the income tax rates on savings income:²⁵ 20 per cent, 40 per cent, and the additional starting rate of 10 per cent from April 2000. The taper relief system turned out to be very complicated: there were two different types of assets (business versus non-business) and up to 11 effective tax rates were applicable to the same asset if held for different periods. On this already complex structure, many changes were introduced to the amount of chargeable gains and to the definition of business assets.²⁶ Because of this complexity and of no evidence on its effect on long-term investment, the taper relief was abolished in 2008, 10 years after its introduction (Adam, 2008).

In 2008, a flat CGT rate of 18 per cent was introduced, taking the taxation of capital gains out of the personal income tax system. In the same year, for qualifying business assets only, the government instituted the entrepreneur's relief (ER) with a rate of 10 per cent on the first £1m of capital gain.²⁷ The ER allows individuals to claim relief on qualifying gains arising upon disposal of a trading business (or parts of it), of its assets, of a partnership interest, or of shares in a company.

²⁴ A consultation was launched the year before, during Gordon Brown's first budget. For an account of the debate around the introduction and abolition of the taper relief and the introduction of the flat rate of capital gains tax, see Seely (2010).
²⁵ This is true since 1998. Before that, capital gains were taxed at a flat rate of 30 per cent.

²⁶ Figure 7 shows that the schedule for chargeable gains for business assets was changed three times in ten years. Additionally, the definition of business asset and the thresholds for qualifying business asset were changed repeatedly. Initially, a business asset was defined as an asset used for the purpose of an individual's or partnership's trade. The Finance Act 2000 broadened the definition including shareholdings in unquoted trading companies, employee shareholdings in quoted trading companies, and non-employee stakes larger than 5 per cent in quoted companies. From 2000 onwards, non-business assets were essentially individual shareholdings in quoted companies. The Finance Act 2001 broadened the definition of business asset to shareholdings of employees of less than 10 per cent in non-trading companies (or groups). The Finance Act 2003 then extended the definition of a business asset further, including any asset owned by an individual and used partly or wholly for the purpose of a trade.

²⁷ This is a lifetime limit. The Entrepreneur's Relief threshold was increased to £5m for gains between 23 June 2010 to 5 April 2011, and to £10 million for disposals on or after 6 April 2011. In June 2010, the current coalition government introduced an additional rate of 28 per cent for the taxation of capital gains. The 28 per cent rate applies if gains and income together exceed the basic rate band (that is, £35,000 for 2011-12).



Figure 7: Percentage of chargeable gains under the taper relief

(iii) Summary

The 1998 reform of the imputation system, the 1999 introduction of the taper relief, and the 2008 introduction of a flat CGT have subjected capital income to a different, often lower tax rate than labour income. The UK tax system, therefore, departed further from the principle of comprehensive income taxation to adopt a differential (lower) taxation of capital income. This is a common trend in OECD countries. Optimal taxation prescribes that each type of income should be taxed at a different rate, depending on its elasticity. More mobile factors, such as capital, should then be taxed at a lower rate than less mobile ones (that is, labour and land). In a small open economy with no location-specific rents, the tax rate on capital should be zero (Gordon, 1986; Razin and Sadka, 1991).²⁸

Excluding some types of income from the personal income tax schedule and taxing them preferentially raises two important problems, though. First, it leaves arbitrage opportunities to taxpayers. Section III describes how unincorporated business and sole traders had an incentive to incorporate because of lower tax rates on corporate income and on capital gains. Moreover, under a progressive income tax system, horizontal equity problems can arise: households receiving the same amount of income could be taxed differently if such income is of a different, low-taxed type.

²⁸ The zero capital tax result has recently been challenged by Saez and Piketty (2012) and Saez (2013).

V. Investment

(i) The corporate income tax for large companies

The neoclassical theory of investment suggests that traditional corporate income tax systems reduce investment because the corporate tax increases the tax-adjusted user cost of capital (Jorgensen, 1963; Hall and Jorgensen, 1967). Early empirical studies on the effect of corporate tax incentives on investment often uncover small effects.²⁹ Bond and Xing (2012) highlight that such studies generally suffer from a poor identification strategy, due to the lack of variation in the tax provisions or the potential endogeneity of tax changes. They address this identification problem by pooling data for 14 OECD countries during 1982–2007. They find a significant long-run effect of corporate taxes on aggregate investment in plant and machinery.

Between 1997 and 2007, UK total real gross capital formation has increased from £1,600m to £2,550m, that is, from 19 per cent of total value added in 1997 to 21 per cent 10 years later. It then declined sharply, at the onset of the financial crisis in 2007,³⁰ to reach 17 per cent of value added in 2009 (corresponding to £2,000m in real gross investment); by far the lowest ratio in the data series used here and going back to 1970. Unfortunately, aggregate investment data by type of assets and sector are available only until 2009. This is problematic for two reasons. First, base-broadening measures have been implemented only in 2008. Given adjustment costs, it is going to be hard to find evidence of changes in investment behaviour just 12 months after the reform. Second, the effect of the financial crisis starting in the summer of 2007 introduces significant noise. The analysis will then be focused only on the period 1997–2007.

Three elements seem to suggest that the UK tax policy did not have a large effect on aggregate real investment. First, investment has been driven by the economic cycle: real investment as a percentage of value added has remained somewhat stable at around 20 per cent between 1997 and 2007. Second, the tax component of the user cost of capital (that is, the EMTR) declined only slightly between 1997 and 2007 (Figure 2). Third, the increase in UK real investment has been mainly driven by a surge in investment in residential and non-residential structures (Figure 5), led mainly by loose credit conditions and by a real estate boom. Tax policy during the Labour government did not target investment in structures specifically. On the contrary, it actually first reduced and then phased out allowances for industrial and agricultural buildings. The largest part of aggregate UK investment, namely investment in structures, seems to be unaffected by tax policy. Bond and Xing (2012) find that investment in structures does not respond to changes in the EMTR. This is consistent with what was observed for the UK.

Bond and Xing (2012) instead find a strong negative effect of the EMTR on investment in plant and machinery. Since the EMTR declined (although only slightly), investment in plant and machinery should have increased between 1997 and 2007. This is what Figure 8 shows. Nonetheless, investment is likely to have been influenced by the economic cycle. To account for this, one could investigate investment at a sector level and control for value added. Between 1990 and 2009, about 14 per cent of total UK investment in plant and machinery was undertaken in the manufacturing sector and around 80 per cent of the sector investment was, in fact, in plant and machinery. Real investment in the manufacturing sector increased as a percentage of value added between 1997 and 2007 (Figure 9). The same can be said for two other sectors contributing substantially to total investment in plant and

²⁹ For surveys of the literature, see Chirinko *et al.* (1999), Hassett and Hubbard (2002), and Bond and Van Reenen (2007).

³⁰ The financial crisis started in July 2007 when BNP Paribas SA, the largest French bank blocked withdrawals from three of its investment funds (Parvest Dynamic ABS, BNP Paribas ABS Euribor, and BNP Paribas ABS Eonia) as it was not possible to fairly value their holdings. The funds invested heavily in subprime securities which became impossible to price: in the summer of 2007, asset-backed securities, mortgage loans, in particular subprime loans, did not have any buyers after US subprime mortgage losses unsettled credit markets.

machinery: the transport sector (contributing for about 8 per cent of total investment in plant and machinery) and the wholesale sector (about 5 per cent of total investment).

Between 1997 and 2007, although not conclusive, descriptive evidence leaves room for tax policy for large companies to have increased investment in plant and machinery, through a reduction in the main corporate statutory tax rate and, consequently, in the EMTR. The effect is likely to have been small, as the reduction in the statutory tax rate was gradual and small.





Source: EU KLEMS (O'Mahony and Timmer, 2009).

Figure 9: Real investment (as % of real value added)



Source: EU KLEMS (O'Mahony and Timmer, 2009).

(ii) Investment of SMEs

If EMTRs and EATRs for large businesses declined only slightly before 2008, the statutory corporate rates for SMEs declined substantially until 2006. Their tax base shrank, most likely also after 2008 when the AIA was introduced. Figure 6 shows that, between 1997 and 2008, the EMTR for very small

companies and for SMEs has declined more than the EMTR of large companies. Between 1997 and 2006, a significant portion of the Labour's tax policy was devoted to reducing the cost of capital for SMEs and therefore fostering their investment. Nonetheless, aggregate data on investment of SMEs show a mixed picture.³¹ Between 1998 and 2001, investment of micro enterprises (that is, firms with between zero and 10 employees) increased both in absolute terms and as a percentage of total net capital expenditure (Figure 10). It then declined in the subsequent 2 years, despite the reduction of the SR to zero. Investment of dividend distribution and the FYA was increased to 50 per cent (from 40 per cent). Interestingly, investment for micro enterprises kept on increasing in 2006 and 2007 when the SR was eliminated and the SCR was increased by 1 percentage point to 20 per cent. Again, in the same years, the FYA was raised to 50 per cent. It seems that capital allowances were more effective at increasing investment than cuts in the statutory rate.

Investment of small enterprises (that is, with between 11 and 50 employees) was instead more stable and it did not seem to vary substantially with tax policy. Although more volatile, the same could be said for the investment of medium enterprises (that is, with between 51 and 250 employees): between 1997 and 2007, net capital expenditure lingered around £12 billion in absolute terms and around 13 per cent of total net capital expenditure (Figure 10).

In this context, aggregate data do not show evidence of a large response of investment to tax incentives for SMEs. As pointed out in Crawford and Freedman (2010), a reduction in statutory rates is more likely to have encouraged arbitraging activities in the form of incorporation of small and very small businesses which would have been otherwise operated by sole traders or as unincorporated entities. Additionally, since the largest part of investment is undertaken by large companies (between 76 per cent in 1998 and 63.5 per cent in 2007), tax policy targeted to SMEs may not deliver higher aggregate investment.

(iii) Investment effects from changes in personal capital income taxation

The 1997 reform abolishing the dividend tax credit for tax-exempt resident entities has been studied by Bell and Jenkinson (2002) and Bond *et al.* (2007), who tried to establish whether the reform had any impact on equity prices and therefore on the cost of capital. Their findings are important: tax policy prescriptions for influencing the cost of capital will be different depending on whether dividend taxes are neutral or have an effect on equity prices.³²

Bell and Jenkinson (2002) find that the mean drop-off ratio for listed UK companies fell considerably after the reform, indicating an effect of dividend tax on equity prices. Bond *et al.* (2007) investigate a longer period of data and find that the reform had little impact on the price of UK equities. This is consistent with the tax-adjusted capital asset pricing model (Brennan, 1970) whereby the impact of dividend taxes depends on the average of dividend tax rates across all investors. Since the UK is a small open economy and resident pension funds affected by the elimination of the tax credit were small with respect to the world capital market, the reform would have had little impact on overall equity prices. The main effect would be the change to the composition of the portfolio of pension funds, but such reallocation would not affect equity prices.³³

³¹ Aggregate data used here do not include investment in residential structures (dwellings). Data are derived from the Office for National Statistics (ONS) Annual Business Survey (ABS). Only net capital expenditure is available by firm size and therefore, the data in Figure 6 are not readily comparable with the EU KLEMS data presented in previous figures.

 $^{^{32}}$ For a brief review of the vast international literature on the effect of dividend taxes on equity prices, see Bell and Jenkinson (2002) and Bond *et al.* (2007).

³³ Bond *et al.* (2007) find that at the end of 1994, UK resident pension funds owned around 28 per cent of all UK equities quoted on the London Stock Exchange (LSE). This share fell to 18 per cent by the end of 2000. At the end of 1994, foreign

The findings in Bond *et al.* (2007) suggest that for a small open economy such as the UK, domestic dividend taxes have little or no impact on equity prices and therefore on the cost of capital.

For this reason, to effectively reduce the cost of capital and encourage investment, it is coherent to move resources from dividends and capital gains taxation to corporate income taxation. This is what the Labour government did in 1997 with the elimination of the dividend tax credit for tax-exempt entities. The reform helped financing a reduction in the main rate of corporate tax (from 33 to 31 per cent) and in the SCR (from 24 to 21 per cent).³⁴ The 1999 elimination of the ACT could be seen in the same light: the tax cost to the shareholders did not change while the overall tax burden (that is, corporate plus personal taxes) on dividends declined, mainly because of cuts in the corporate statutory rate (Table 2). The reform of the imputation system was implemented in such a way that it would not change the amount of tax paid by individual shareholders.³⁵

A small open economy argument would also suggest that domestic capital gains taxation has little effect on the cost of capital, at least for widely held equities. Three additional elements point to a small influence of CGT on the cost of capital and on overall investment. First, CGT is paid only by a small number of individuals, generally below 200,000. Second, a large proportion of UK equities is held by foreign investors (Bond *et al.*, 2007) and capital gains realized by non-UK residents are exempt for UK tax purposes. Third, most investment is undertaken by large (Figure 10) and mature firms (Bond *et al.*, 2007) which are more likely to be widely held. Therefore, a reduction in the CGT might have little effect on overall investment.

Nonetheless, small, new businesses are more likely to be held by domestic residents and, therefore, domestic capital gains taxation could particularly affect investment in this sector. Decisions of ownerfounders of the firm or of serial entrepreneurs, such as business angels investing in new ventures, could be affected by the CGT levied upon their gains when they dispose of their holding in the business.

In 1998, the government introduced the taper relief. Despite being designed to encourage long-term investment—that is, the type of investment which would be related to small, innovative firms—as early as 4 years after its introduction chargeable gains on business assets were halved following a 1-year holding period and they dropped to 25 per cent of total gain for holding periods of 2 years and over. Holding periods of 1 and 2 years do not exactly amount to long-term investment. It is therefore not surprising that there is no evidence that the taper relief encouraged long-term investment (Adam, 2008).

shareholders of UK equities quoted on the LSE represented 16 per cent of total shareholders, while at the end of 2000, they represented 32 per cent.

³⁴ Bond *et al.* (2007) note that, before 1997, the cost of granting a dividend tax credit to tax-exempt resident entities amounted to around \pounds 5 billion per year. This corresponded to about 20 per cent of UK corporation tax revenue.

³⁵ In 2010, net personal tax on dividends increased substantially for additional rate shareholders. For the reasons highlighted above, this is unlikely to have changed the cost of capital substantially.



Figure 10: Net capital expenditure by firm size (% total net capital expenditure)

Source: ONS Annual Business Survey.

VI. Conclusion

The 1997–2010 Labour government often pledged to employ tax policy to improve the competitiveness of the UK tax system and to encourage investment.

For large companies, between 1997 and 2010, a classical rate-cut-cum-base-broadening tax policy was implemented, with the base-broadening element appearing at a later stage, only in 2008. Tax policy for SMEs is more difficult to characterize: during the first two terms of government, rates were cut more frequently than for larger businesses and the base was narrowed. The course of tax policy changed in the third term, with an overall increase in the statutory rates for SMEs. Extensive reforms of dividends and capital gains tax at the individual and corporate level have also been implemented.

Overall, and despite these changes, the competitive position of the UK with respect to the OECD has worsened around 2003 and 2004, when other OECD economies cut their statutory corporate tax rates. If a comparison of the statutory and effective rates shows that the UK has lost some ground to the OECD and more specifically, also to France and Germany, fundamental reforms of dividends and capital gains taxation have aligned the structure of the UK corporate tax system to its competitors and to EU law. Most EU countries now adopt a territorial approach, exempting both foreign dividends and capital gains for corporate income tax purposes. As of 2012, after Japan adopted the territorial principle in 2009, the US remains the only large developed economy taxing repatriated foreign profits. At the personal level, the Labour government has also reformed the taxation of capital. In 1999, the imputation system was abolished. In 2008 a flat CGT was implemented, after the complicated and unsuccessful experiment of the taper relief. Most OECD countries have now abolished their imputation systems, and subject dividends and capital gains to a separate tax schedule.

In accordance with the theoretical and empirical results of the literature on the effect of tax policy on investment, governments reduce the tax burden on investment so as to encourage capital accumulation and growth. Although not conclusive, descriptive evidence leaves room for rate-cutting measures implemented between 1997 and 2007 to have increased investment in plant and machinery through a reduction in the user cost of capital. Data limitations restrict the analysis of the subsequent period, after

capital allowances were reduced and therefore the EMTR increased. The overall effect of tax policy on aggregate investment may, however, have been small. First, the increase in real investment between 1997 and the beginning of the financial crisis (2007) can be largely explained by the economic cycle. Second, the reduction in the tax component of the user cost of capital was small. Third, the increase in aggregate investment was led by an exceptional surge in investment in structures (residential and non-residential), driven by loose credit conditions and by a real estate boom. Tax policy has not specifically targeted this sector. Fourth, most investment has been undertaken by large companies. The Labour government has been very active in supporting SMEs, therefore focusing on a group of companies that is less relevant in terms of aggregate investment.

It is not surprising that the UK tax policy has had a little effect on overall investment. Not only was the reduction in the user's cost of capital small, but secular trends, such as the increased capital mobility, the emergence of new types of business, and the development of financial innovation, have considerably diluted the impact of national corporate tax policies. These trends strongly undermine the very principle on which the traditional corporate tax systems are based—that is, the source principle postulating that income should be taxed where it arises.

In this environment, rethinking the tax system is a precondition to ensuring that policy targets can be effectively achieved so as to foster investment and therefore growth and employment. This has become even more urgent in a scenario where historical trends, such as a shrinking labour demand and declining real wages in developed economies, have become more pronounced since the onset of the economic crisis in 2007.

References

Adam, S. (2008), 'Capital Gains Tax', Green Budget 2008, London, Institute for Fiscal Studies.

- Bell, L., and Jenkinson, T. (2002), 'New Evidence of the Impact of Dividend Taxation and on the Identity of the Marginal Investor', *Journal of Finance*, **57**,1321–46.
- Bond, S., and Chennells, L. (2000), 'Corporate Income Taxes and Investment: A Comparative Study', Final Report, London, Institute for Fiscal Studies.

- Van Reenen, J. (2007), 'Microeconometric Models of Investment and Employment', ch. 65, *Handbook of Econometrics*, vol. 6A, Elsevier.

- Xing, J. (2012), 'Corporate Taxation and Capital Accumulation', Oxford University Centre for Business Taxation Working Paper 10/15.
- Chennells, L., and Devereux, M. P. (1996), 'Company Dividends and Taxes in the UK', *Fiscal Studies*, **16**(3), 1–18.
- Devereux, M. P., and Klemm, A. (2007), 'The Effects of Dividend Taxes on Equity Prices: A Re-Examination of the 1997 UK Tax Reform', Oxford University Centre for Business Taxation Working Paper, 07/01.
- Gammie, M., and Mokkas S. (2006), 'Corporate Income Taxes in the EU: An Economic Assessment of the Role of the ECJ', London, Institute for Fiscal Studies, mimeo.
- Brennan, M. J. (1970), 'Taxes, Market Valuation and Financial Policy', *National Tax Journal*, 23, 417–29.
- Chirinko, R. S., Fazzari, S. M., and Meyer, A. P. (1999), 'How Responsive is Business Capital Formation to its User Cost?: An Exploration with Micro Data', *Journal of Public Economics*, **74**(1), 53–80.
- Crawford, C., and Freedman, J. (2010), 'Small Business Taxation', in J. Mirrlees, S. Adam, T. Besley,
 R. Blundell, S. Bond, R. Chote, M. Gammie, P. Johnson, G. Myles, and J. Poterba (eds), *Dimensions of Tax Design: The Mirrlees Review*, Oxford, Oxford University Press.
- Devereux, M. P., and Griffith, R. (1998), 'Taxes and the Location of Production: Evidence from a Panel of US Multinationals', *Journal of Public Economics*, **68**(3), 335–67.
- (2003), 'Evaluating Tax Policy for Location Decisions', *International Tax and Public Finance*, **10**, 107–26.
- Klemm, A. (2002), 'Corporate Income Tax Reforms and International Tax Competition', *Economic Policy*, **17**, 451–95.
- Gordon, R. H. (1986), 'Taxation of Investment and Savings in a World Economy', American Economic Review, **76**, 1086–102.
- Graetz, M. J., and Warren, A. J. (2007), 'Dividend Taxation in Europe: When the ECJ Makes Tax Policy', *Common Market Law Review*, **44**, 1577–1623.

- Griffith, R., Hines, J., and Sørensen, P. B. (2010), 'International Capital Taxation', in J. Mirrlees, S. Adam, T. Besley, R. Blundell, S. Bond, R. Chote, M. Gammie, P. Johnson, G. Myles, and J. Poterba (eds), *Dimensions of Tax Design: The Mirrlees Review*, Oxford, Oxford University Press
- Hall, B., and Jorgensen D. (1967), 'Tax Policy and Investment Behavior', *American Economic Review*, 57, 391–414.
- Hassett, K. A., and Hubbard, R. G. (2002), 'Tax Policy and Business Investment,' ch. 20 in A. J Auerbach and M. Feldstein (eds), *Handbook of Public Economics*, vol. 3, Elsevier.
- HMRC (2012), 'Corporation Tax Statistics', October release, London, HM Revenue and Customs.
- HMT (2007), 'Taxation of the Foreign Profits of Companies: A Discussion Document', June, London, HM Revenue and Customs and HM Treasury.
- HMT (2007), 'Budget 2007: Building Britain's Long-term Future: Prosperity and Fairness for Families', March, London, HM Treasury, available at www.hm-treasury.gov.uk/budget2007
- Jorgensen, D. (1963), 'Capital Theory and Investment Behavior,' American Economic Review, 53, 247–59.
- Office for Budget Responsibility (2012), 'Forecast Evaluation Report', London, Office for Budget Responsibility.
- O'Mahony, M., and Timmer, M. P. (2009), 'Output, Input, Productivity Measures at the Industry Level: The EU KLEMS Database', *The Economic Journal*, **119**(538), F374–403.
- Razin, A., and Sadka, E. (1991), 'International Tax Competition and Gains from Tax Harmonization', *Economic Letters*, **37**, 69–76.
- Saez, E. (2013), 'Optimal Progressive Capital Income Taxes in the Infinite Horizon Model', *Journal of Public Economics*, **97**, 61–74.

— Piketty, T. (2012), 'A Theory of Optimal Inheritance Taxation', CEPR Discussion Paper No. 9241.

Seely, A. (2010), "Capital gains tax: background history", Standard note, House of Commons, Business and Transport Section, 2010. Available at: <u>http://www.parliament.uk/briefing-papers/SN00860</u>

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