

INTERNATIONAL TRENDS IN TAXATION AND THE TAXATION OF INVESTMENT

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Abstract

This paper updates and extends an earlier analysis (James, 1999) of factors influencing the shape of the international tax system but with particular reference to the taxation of investment. This was done using the strategic management technique of STEP analysis: a technique that has subsequently been reformulated as a PESTEL analysis. Since the original work was undertaken in 1998 there have been many further contributions to our understanding of the issues involved. This paper examines methods of analysing the tax development process, and the pressures affecting it – dealing in turn with Political, Economic, Social, Technical, Environmental and Legal factors. There are several areas that particularly affect the taxation of investment including the increasing mobility of capital, tax competition and tax harmonisation. It is also noted that the percentage of national tax revenues accounted for by corporate income tax has been declining in many countries primarily as a result of falls in headline corporate tax rates. It is concluded that a blending of national and international tax policies is the most appropriate way to deal with the implications of the factors described with national policies requiring increased modification to take account of changing international conditions.

Introduction

This paper examines tax trends in general but with particular reference to the taxation of investment. The factors that influence international taxation have been examined before, for example, by James (1999). However, that analysis was undertaken in 1998 and such is the speed of change that it is worth repeating the exercise in the light of developments since that time. The process of globalisation continues to attract serious attention, for example recently by Bhagwati (2004) as do trends in public sector spending and their implications for taxation – for instance by Lindert (2004). Furthermore, other academic research continues to offer new perspectives on taxation. This includes the increasing recognition of the importance of tax administration (see, for example Sawyer, 2004b) and the contribution that can be made by interdisciplinary study of tax issues (see, for instance Lamb, *et al.*, forthcoming, 2004).

This is not a topic of interest only for tax specialists. It is also highly relevant to enterprises competing in an increasingly global economy. Terpstra and Sarathy (1999) point out that they do this for a number of reasons. However, it has been suggested, by Yip (2002) for example, that most multinational companies appear to lack an adequate global strategy. It is fairly certain that many of them have not developed an adequate strategy that includes future tax issues including the taxation of investment either. Perhaps it is surprising but there are textbooks on business strategy that hardly mention taxation (James, forthcoming 2004). General texts on globalisation and business practice do little better – Parker (1998: 393-394) for example has not much more than a comparison between selected countries of ‘tax freedom day’ (the day in the year when earnings reach average annual tax liability). Textbooks on finance and investment normally have a more significant coverage of taxation, though it tends to be technical rather than strategic. A wider view is often to be found in textbooks on international finance such as Shapiro (2003). However, even in such books the amount of space devoted to relevant issues of taxation is limited. Forward-looking enterprises might find it advantageous to consider the way the international tax system is likely to develop and how it might affect their decisions regarding location, finance and operational issues.

From the public sector viewpoint, tax systems have been under increasing pressure as a result of the opportunities globalisation offers for international tax planning. This includes routine arrangements by the growing multinational sector to use various devices such as transfer pricing and thin capitalisation to reduce their tax liabilities. This is not surprising. Figures from the OECD (2003) indicate, for example, that for all member countries tax revenue is substantial - most of them have total tax revenue of between a third and a half of GDP. There are considerable opportunities to take advantage of different tax rates and provisions in different jurisdictions.

Globalisation has been defined in various ways. Bhagwati (2004: 3) suggested that:

Economic globalisation constitutes integration of national economies into the international economy through trade, direct foreign investment (by corporations and multinationals) short-term capital flows, international flows of workers and humanity generally and flows of technology.

Sawyer (2004b) observes that globalisation requires, or perhaps forces, a high degree of consensus policy and appropriate mechanisms to cater for the innovations that it has spawned, such as in the internationalisation of financial markets. Furthermore, globalisation makes it hard to ascertain where a corporation or enterprise should pay tax, regardless of where it is based. In addition, globalisation has made it easier for individuals, especially skilled professionals, to take the benefit, for example, of earning consultancy income overseas and saving or investing their income on a global scale. Hence, an appreciation of the implications of globalisation is vitally important to developing international tax policy.

Nevertheless, such a straightforward definition for globalisation, as above, has a considerable range of implications for international taxation. This paper develops a simple model of the path of development of the international tax system. It goes on to summarise a new formulation of the previous STEP analysis – a PESTEL analysis - looking in turn at Political, Economic, Social, Technological, Environmental, and Legal aspects (see Johnson and Scholes, 2002). From this perspective it is then possible to look again at such issues as tax competition, tax co-ordination and harmonisation and their likely effects on the taxation of investment.

The Taxation of Investment

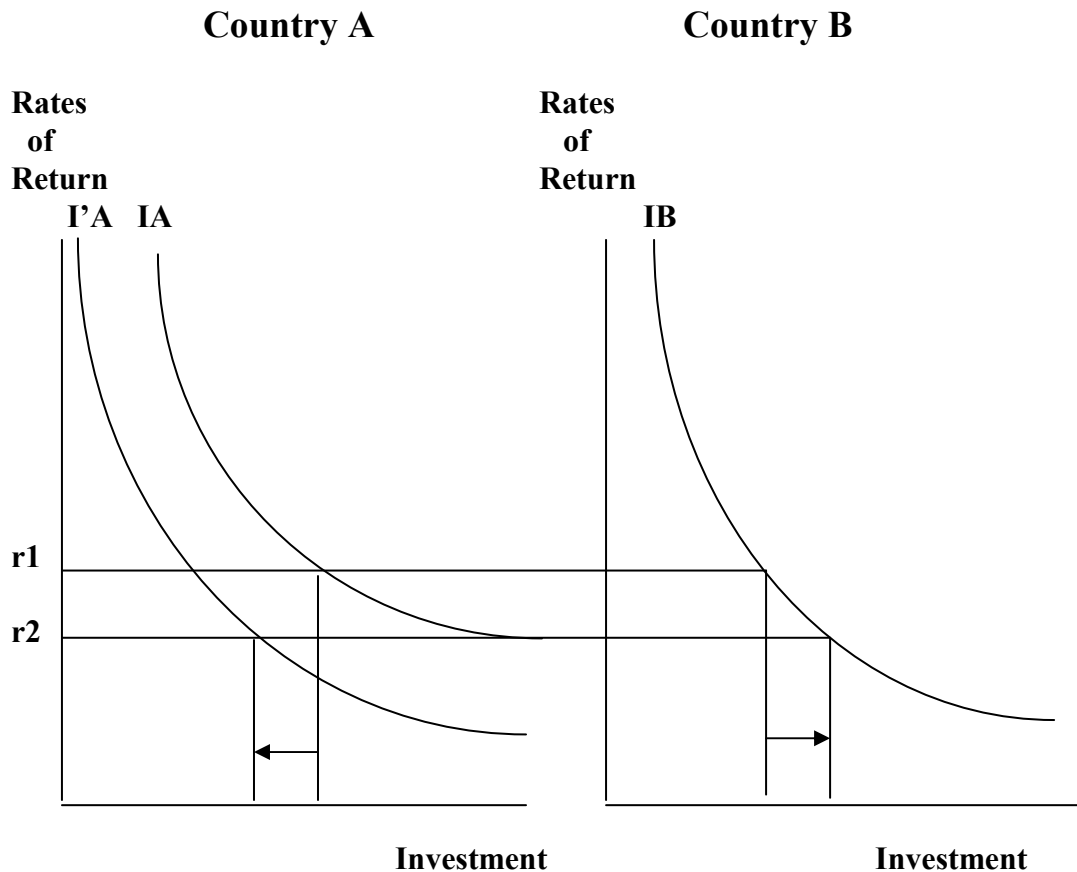
There are many analyses of the taxation of investment, for example by James and Nobes (2003). Such analyses involve examining the effects of taxation on such aspects as the expected return on investments with different degrees of risk, the supply of capital and asset prices. One area that is particularly relevant in the present context is the effect of the tax arrangements regarding one investment on the after-tax returns available to other investments. Scholes *et al.* (2002) discuss this in terms of what they describe as ‘implicit taxation’ – the effects of taxation on the market returns to particular forms of investment. If an investment is favourably taxed, its market price will be bid up and the gross return consequently reduced relative to more highly taxed investments. It could thus be said to be subject to implicit taxation even if it bears no formal taxation. In the same way the market price of a heavily taxed investment will be lower and its gross return higher than a similar investment that is more lightly taxed. It follows that, allowing for risk and market imperfections, the prices of assets adjust so that after-tax rates converge.

Such an approach is helpful in tracing the effects of taxation in one country on the rates of return to investments in other countries and the incentives for different investors to invest in countries with different tax arrangements. A simple example might help illustrate the situation. Suppose that there are two countries A and B that have a series of investment possibilities (IA and IB, respectively). These are ranked from those with the highest return which would be undertaken first followed by those with successively lower returns which would be undertaken as the level of investment rose. Suppose also that there are no restrictions on capital flows. To begin with both countries do not tax investment income and therefore, as illustrated in Figure 1, investment is allocated between the countries so that the rate of return r_1 is equalised.

Should the rate of return change in one of the countries then it would be profitable to reallocate investment until the rates were in line once more.

Figure 1

The Effect of Different Rates of Taxation on Investment.



Suppose now that a tax on investment income were imposed in Country A only. This would have the effect of reducing the after-tax return from IA to I'A. Investment would therefore tend to divert from Country A to Country B. The gross return would rise in Country A (to compensate for the tax) and fall in Country B until the rates were equalised again, taking account of the effects of taxation. It is worth noting that the tax on investment in Country A has had the effect of reducing returns on investment in the non-tax Country B. The tax in Country A might therefore be said to have resulted in an implicit tax on investment in Country B.

Such differences in the taxation of investment income will also affect the way investors choose to behave. It is reasonably obvious that highly taxed investors will

benefit most from lower tax rates on investment. However, it is also true that taxpayers facing low or zero marginal rates of tax (and this might sometimes include large corporations) may benefit by investing in countries with higher gross returns caused by higher levels of taxation.

There are many other effects, of course, that will affect taxation and investment but before looking at possible future developments in these areas it is helpful to summarise recent important trends in global taxation.

International Tax Trends

Messere *et al.* (2003) have identified a number of trends in taxation over the period 1950 to 2000. One is the growth of social security taxation that matches an increase in emphasis on social welfare. Another has been the extensive adoption and increase in reliance on value added taxes. Following the introduction by Australia of its goods and services tax in 2000, the USA is now the only OECD country without a VAT as a general consumption tax. A further trend involves structural changes to personal income taxes over the period 1986 to 2000 with moves in many countries to broaden the income tax base, reduce the highest rates and flatten the income tax schedule.

Messere (2004) has gone on to discuss trends in tax revenue in OECD countries. The first issue is that the very long term trend of increases in the ratio of total tax receipts to GDP might have ended. In some countries the tax ratio peaked some time ago – in the UK in 1982, Norway in 1986, the Netherlands in 1987 and Ireland in 1988. In the last few years the tax ratio peaked in many more countries. Table 1 shows the total tax ratios for all 30 member countries from 1995 to 2002 and over half of them have peaked since 1999. However, there are many differences in the trends in other countries which reflect national circumstances and it is not easy to predict how the levels of tax revenue will change in the future.

A further trend noted by Messere (2004) is some convergence. This applies both to the level of taxation and to developments in tax structures. However, such convergence is neither systematic nor universal and the evidence for the effects of globalisation as such is not conclusive.

Investment might particularly be affected by future developments as capital is thought to be more mobile than labour. Messere *et al.* (2003) noted that from the mid 1980s there had been moves to reduce corporate income tax rates and widen the tax base. Devereux *et al.* (2002) examined this trend using data for the 18 countries of the European Union and G7. They found that statutory corporate income tax rates had fallen over the 1980s and 1990s – and Slemrod (2004) found that both statutory and effective tax rates had declined. Devereux *et al.* (2002) also noted that tax bases were broadened between the early 1980s and the end of the 1990s. They also found that the effective average rate of tax had tended to fall by more for more profitable projects. There is evidence that firms and capital have become more mobile. In addition, it appears that more profitable firms have become more mobile than less profitable firms. Finally Devereux *et al.* (2002) found that tax revenues on corporate income have remained fairly stable as a proportion of GDP since 1965 but have declined as a

proportion of total tax revenue over the same period. However, the main subject of this paper is how the international tax system might develop in the future and the best place to start is the process of tax change.

Table 1 OECD Total Tax Ratios 1995-2002

Country	1995	1996	1997	1998	1999	2000	2001	2002
Australia	29.7	30.3	30.0	30.0	30.8	31.5	30.1	n.a.
Austria	41.6	43.5	44.4	44.1	44.0	43.3	45.4	44.1
Belgium	44.6	44.9	45.3	45.9	45.3	45.7	45.8	46.2
Canada	35.6	35.9	36.7	36.7	35.9	35.6	35.1	33.5
Czech Republic	40.1	39.3	38.6	37.9	38.9	38.9	38.4	39.2
Denmark	49.4	49.9	49.8	50.1	51.5	49.5	49.8	49.4
Finland	45.1	47.4	46.2	46.0	47.0	47.3	46.1	45.9
France	44.0	45.0	45.2	45.1	45.7	45.2	45.0	44.2
Germany	38.2	37.4	37.0	37.1	37.7	37.8	36.8	36.2
Greece	32.4	40.2	34.0	35.8	37.0	37.5	36.9	34.8
Hungary	42.4	40.7	39.0	38.8	39.1	39.0	39.0	37.7
Iceland	31.8	33.0	32.9	34.8	37.2	38.3	36.5	36.7
Ireland	32.8	32.8	32.2	31.5	31.0	31.2	29.9	28.0
Italy	41.2	42.7	44.2	42.5	43.3	41.9	42.0	41.1
Japan	27.6	27.5	27.9	26.8	26.4	27.5	27.3	n.a.
Korea	20.5	21.4	22.7	22.9	23.6	26.1	27.2	28.0
Luxembourg	42.3	42.4	41.5	40.2	40.1	40.4	40.7	42.3
Mexico	16.7	16.7	17.5	16.6	17.3	18.5	18.9	18.0
Netherlands	41.9	41.5	41.9	40.0	41.2	41.1	39.5	39.3
New Zealand	37.0	34.9	35.5	34.1	33.9	33.8	33.8	34.9
Norway	41.1	41.1	41.8	42.7	40.4	39.0	43.3	43.1
Poland	39.6	39.4	38.8	37.6	35.0	34.3	33.6	34.3
Portugal	32.5	32.3	32.8	33.3	34.0	34.3	33.5	34.0
Slovak Republic	n.a.	n.a.	n.a.	35.9	34.4	34.9	32.3	33.8
Spain	32.8	32.6	33.5	34.0	35.0	35.2	35.2	35.6
Sweden	48.5	50.4	51.6	52.0	52.3	54.0	51.4	50.6
Switzerland	28.5	29.0	28.5	29.7	29.8	31.2	30.6	31.3
Turkey	22.6	25.4	27.9	28.4	31.3	33.4	36.5	33.2
United Kingdom	34.8	34.8	34.9	36.7	36.1	37.2	37.3	35.9
United States	27.6	27.9	28.3	28.9	28.9	29.7	28.9	n.a.

Source: *OECD Revenue Statistics (2003)*, page 39 Table 3 and adapted from the presentation by Messere (2004)

Notes

n.a. = not available. The 2002 figures are provisional.

The Tax Development Process

It cannot be said that the development of the international tax system has always followed a smooth and predictable path. The tax systems in different countries are the result of differing national choices over how and how much tax revenue should be raised and these choices change over time. The development of tax systems can only be properly analysed when it is appreciated that it is a dynamic process subject not only to different pressures, but pressures and changes that react with each other.

There are several possible ways of modelling such a process and one helpful approach is the use of forcefield analysis developed and adapted from the work of Lewin (1951). Some individuals might view the development of tax systems as a process of rational reforms in changing circumstances. The drawback with that optimistic view is that it is not reflected in the actual process of tax reform and does not take account of the complex array of different interests and factors involved in the way tax systems develop and the nature of the political process itself. It also overlooks the considerable innocence of many contributors to fiscal discussions with respect to the desirable features of a tax system (James and Nobes, 2003) and the difficulties in striking the right balance between them.

Forcefield analysis reflects the reality that at any time there will be all sorts of different pressures for change developing, and there will also be a variety of forms of resistance to change. Inertia is also an important political factor as Rose and Karran (1987: 5) demonstrate with particular reference to taxation. As they put it: 'if keeping out of trouble is a basic law of politics, then not making decisions about taxes is one way to avoid trouble - in the short run at least.' At any particular time there will be a whole range of pressures for changing taxation and forces resisting change in various ways and with differing intensities. This is illustrated in Figure 2 where the tax status quo becomes less appropriate over time and the pressure for change grows. However, there is resistance to change which may eventually be overcome. However the resistance to change may remain sufficiently strong to deflect the reform from achieving the optimal position and the result is a less satisfactory compromise. Figure 3 expands this process to illustrate how the international tax system is similarly modified over time as a result of changing pressures which are the key to understanding likely future developments.

Figure 2 A Forcefield Approach to Changes in Taxation

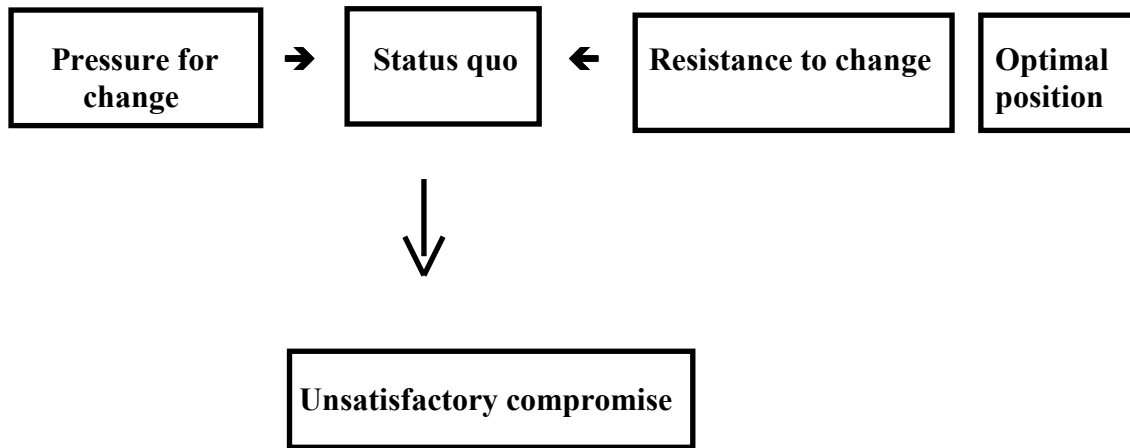
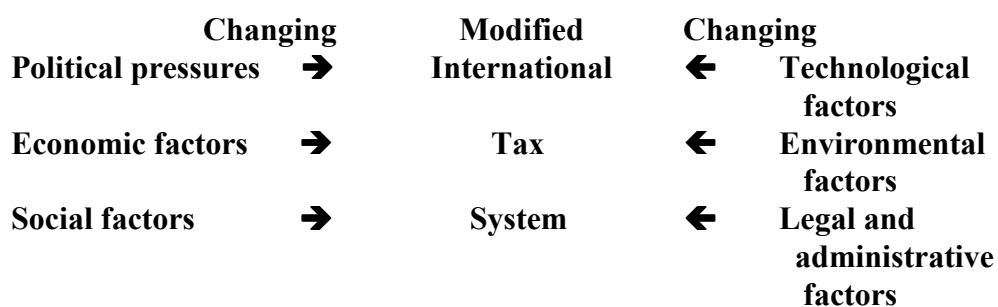
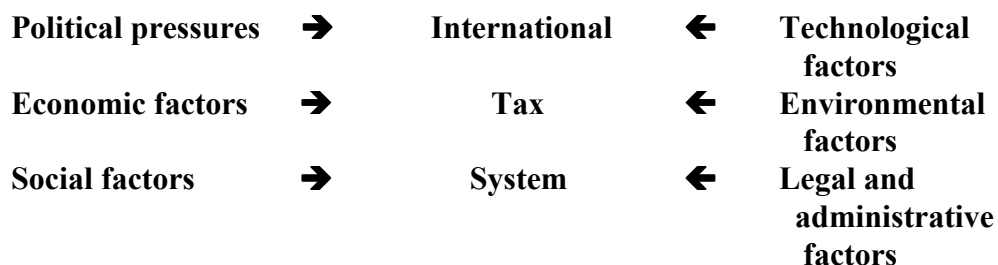


Figure 3 A Forcefield Approach to the Development of the International Tax System (PESTEL Analysis)



Path of International Tax Development

Methods of Analysing Developments in Taxation

If such a forcefield model represents the essence of the process then it is clearly impossible to predict the precise path of future international tax developments. The way forward is to examine more closely the pressures for change and the pressures resisting change, or to use other methods to predict the likely shape of the future international tax environment. There are several possible approaches but all must in some way or another incorporate likely developments in political, economic, social, technological, environment and legal factors which affect taxation. One method is economic forecasting but used on its own this suffers from some severe limitations. Denis Healey as UK Chancellor of the Exchequer put it quite well when he said in his Budget speech of 12 November 1974 that:

The best forecast(s) which the Treasury can make of expenditure, imports and gross domestic product...give a spurious impression of certainty. But their origin lies in the extrapolation from a partially known past, through an unknown present, to an unknowable future according to theories about the causal relationships between certain economic variables which are hotly disputed by academic economists, and may well in fact change from country to country or from decade to decade. (quoted in James, 1984: 80).

Economic forecasting can contribute to our knowledge but its accuracy is questionable and it does not satisfactorily incorporate many of the social and political factors relevant to the shape of future taxation.

Another possibility is to construct plausible scenarios of likely economic, political and social developments that can then be used to develop strategies (Schwartz, 1996 and Van der Heijden, 1996). This again has some advantages and might be a worthwhile exercise elsewhere but it does not always cover the situation systematically. A further approach is to take a rather sweeping view on a multi-disciplinary basis as, for example, is done by Northcote (1991) but without using a single consistent technique.

A method that seems to offer a useful and systematic analysis in this context was originally known as STEP analysis in which the relevant Social, Technological, Economic and Political factors are examined in turn as laid out, for example, by Mercer (1992). There are alternative formulations of this approach such as the 'PEST' analysis which reorders the main categories into Political, Economic, Social and Technological, and Johnson and Scholes (2002) have also recently found it worth adding Environmental and Legal aspects explicitly so producing 'PESTEL'. In examining taxation, in our view it is also worth including administrative aspects and these might conveniently included under Legal factors. This framework can now be used to analyse likely future pressures on the development of the international tax system.

A PESTEL Analysis of the Development of Tax Systems

Analyses involving political, economic and the other factors have been undertaken in the private sector but very little has been done in this way for taxation. Some earlier work by James and Wallschutzky (1995) and by James (1995 and 1997) examined such factors with respect to tax administration and it is not necessary to repeat that work in this paper though one of the main conclusions was that tax systems will become more complex in the future. There have also been studies of change with respect to particular taxes, for example by Chennells and Griffith (1997) who examined corporate income taxation. If the PESTEL procedure is followed with respect to international taxation, likely trends emerge as some of the key Political, Economic, Social, Technological, Environmental, and Legal and Administrative factors are dealt with in turn.

Political Aspects

One of the most dramatic economic changes in the twentieth century has been the growth of the public sector. This might have a specific implication in the present context since increased public spending might have a tendency to ‘crowd out’ or displace private investment. A large proportion of public spending in industrialised countries is made up of different forms of welfare expenditure which is examined further below. One particular effect might be that as social welfare coverage is extended, individuals might save and invest less for their own futures. The political environment in which the commitment to social welfare is almost certain to continue at a high level (Boreham *et al*, 1996) and to influence the tax system, not only in its demand for revenue but also in the interaction between social welfare payments, economic incentives and tax liability. Also, with countries holding different political agendas, reaching any form of consensus on a given tax structure will be extremely difficult to achieve, particularly since taxation remains one of the last areas where nations hold some degree of sovereignty (Sawyer, 2004b).

One possible constraint on the size of public sectors is economic competition between governments – both in terms of tax and regulatory policy instruments. It has been suggested that this might lead to a ‘race to the bottom’ with public services reduced below desirable levels. However there is also an extensive literature that suggests there may be a political process bias that leads to public sectors being inefficiently large (see, for example, Cullis and Jones, 1998). Therefore it has been suggested by many such as Oates (2001) that a competitive constraint on the growth of public sectors may be no bad thing.

Economic Aspects

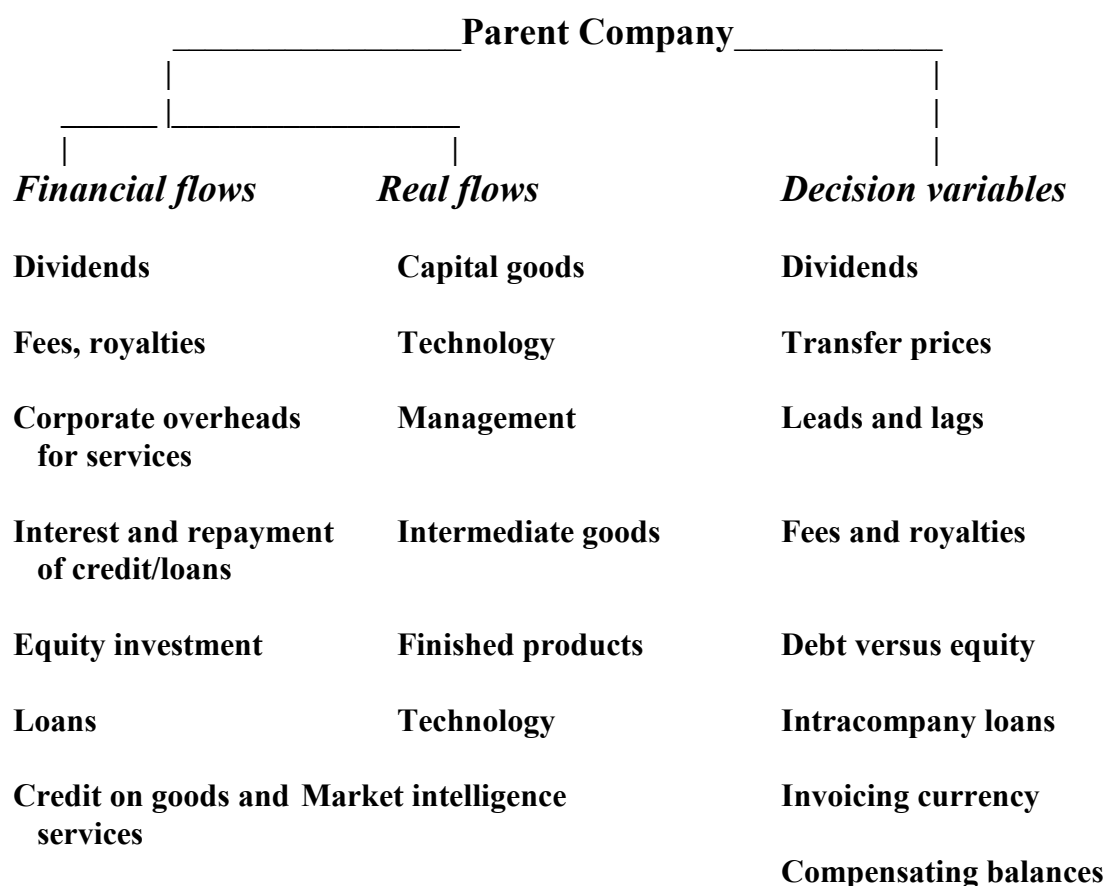
There are some powerful economic trends that will affect the development of tax system and the taxation of investment. Although, of course, incomes can fall as well as rise, the general trend is for *per capita* income to rise. This is likely to contribute to the increasing variety and complexity of financial instruments and presents new

challenges for regulatory machinery (in a European context see for example, McKenzie and Khalidi, 1996). Globalisation has been much discussed by commentators, such as Bhagwati (2004) mentioned above, and is accompanied by increasing mobility of capital and labour. Together with the sociological and technological factors discussed below, it can be seen that one of the strongest trends is that taxation will continue to become more complex. Although there are movements towards tax simplification from time to time, they usually fall far short of becoming a consistent strategy for simplification and so the increase in complexity continues (James and Wallschutzky, 1997).

A further economic factor has been an increase in competitive pressure in many markets. In the past competition has often been restricted by physical distance between competing producers and because often only very limited information has been available to buyers and sellers. Many enterprises have survived because they have been located sufficiently far from effective competition or their customers have been not been fully aware of rival goods and services. With technological developments of the sort described below, physical distance becomes less important in many markets and consumers have access to a great deal more information than they had previously. It is clear that many enterprises are likely to face greater competition than they have done in the past.

A related aspect is the growth of the multinational sector. It is not perhaps always obvious why multinational corporations should have an advantage over local firms in their own markets. However multinationals may have advantages of economies of scale and management and the ability to make global decisions regarding production, sales and finance. As indicated above they might be able to arrange their activities in order to move tax liability from high tax countries to lower tax ones. Transfer prices – that is the prices attached to goods and services as they move from one part of an organisation to another – have been a focus of attention in this area. Swenson (2001: 22) found US evidence that while transfer prices are used to shift income ‘the manipulation of product transfer prices is not generally responsible for large movements in reported income’. Certainly multinational enterprises have many means of transferring resources across international boundaries as indicated in Figure 4. The left hand column represents financial flows such as dividends, fees and loans that can pass between parts of a multinational corporation located in different countries. The middle column represents real flows of goods and services and various decision variables are shown in the right hand column. Taxation, of course, may be at the most just one of many considerations that determine such decisions and the motivation can be a source of dispute between the enterprise and the relevant authorities. However, in terms of the taxation of investment, this poses an increasing challenge to tax authorities in maintaining the integrity of their tax systems in the face of increasingly mobile capital.

Figure 4 The Multinational Corporate Financial System



Source: adapted from Shapiro (2003) Exhibit 20.1

Multinational corporations can also have these types of links, with the possible exception of equity investments and dividends, between affiliates.

Social Aspects

Several important social trends that will influence the development of tax systems have been identified. They include demographic changes, social mobility and increasing levels of education and consumer awareness. In many countries such factors are a major cause of the increasing complexity of tax systems. A further trend has been the increasing proportion of income that has been spent on redistribution. Lindert (2004: 5) found that there was a recognisable pattern to social spending such

that the situation in developing countries was similar to the earlier history of the industrialised members of the OECD. By 1980 all of these OECD countries took 10 percent from taxpayers for the poor, elderly and sick and more for public education. Although Table 1 above suggests that tax revenues have peaked for industrialised countries, if Lindert is right about the existence of a pattern to the growth of social welfare spending, then there will continue to be pressure for increased tax revenue in developing countries. In view of the different trends in international taxation particular care will be needed if this leads to increased taxation of investment income.

An alarming trend is the gradual declining percentage of the population actively engaged in the workforce and directly contributing to tax revenues, which in turn places greater burdens on remaining workers. Demographic factors such as ageing populations will maintain upward pressure on social welfare spending and reinforce some of the other possible effects on the taxation of investment.

The increase in the average age in many populations also has other implications. Older people in prosperous economies tend to have more complex financial affairs, with more of them accumulating or drawing on a range of investments and pensions. In addition families are becoming less stable in many countries and one result of a higher divorce rate is that the number and variety of sources of personal incomes are increasing. There is also an increase in social and geographical mobility. The level of education achieved by many people is rising which, together with increased incomes, may encourage and enable them to take a more effective and active interest in their tax affairs. These and similar sociological factors will increase the pressure on tax systems to become even more complex in order to take account of increasingly complicated and changing personal circumstances.

Technological Aspects

Technological change is likely to cause the most drastic changes in the future tax environment. The most important phenomena are the development of the internet and the world wide web. The internet is a network of computer networks that enables computer users to share services and communicate with each other in ways that transcend national boundaries. The world wide web is the graphical hypertext part of the internet that incorporates images, video and audio elements as well as text. It can also contain embedded links to other web documents or information. The internet was originally designed to reduce the damage to communications by nuclear attack since there is no central computer which can be targeted. In the same way the internet poses enforcement problems for revenue agencies as services and funds can flow in ways that are very difficult for revenue authorities to track (Sawyer, 1999).

Technological change is a major factor in the development of the global economy. Electronic commerce or 'e-commerce' - the ability to undertake transactions involving the exchange of goods and services electronically - is a rapidly growing phenomenon. There are now both retail and wholesale catalogues of goods and services which are accessible on the world wide web. Many commercial items are suitable for trading over the internet, for example computer software and recorded entertainment. On-line information, including research data bases, periodicals and some encyclopaedias are

available, as are consulting and similar services and financial transactions and stock trading now take place electronically around the world. The all-embracing nature of e-commerce is emphasised by the legal definition of electronic commerce provided in the USA by the Internet Tax Freedom Act 1998 (s. 155(4), quoted in Hickey, 2000):

Any transaction conducted over the Internet or through Internet access, comprising the sale, lease, licence, offer, or delivery of property, goods, services, or information, whether or not for consideration, and includes the provision of Internet access.

Tax systems themselves, of course, have taken advantage of technological change, for example with the introduction of the facility to transmit tax returns electronically to the revenue authorities and also to pay taxes electronically (see for example James and Wallschutzky, 1993). The implications of the wider technological revolution have also been increasingly examined in many countries and a great deal of progress made to exploit the new technological opportunities. Work includes that done by the Australian Tax Office (1997) and Wallschutzky (1998) in Australia, Revenue Canada Taxation (1998), the Inland Revenue Department (1997) in New Zealand and by the Department of the Treasury (1996) and the Internal Revenue Service (2001) in the USA. In general it seems clear that countries are proceeding with caution and it is fair to agree with Hughes and Glaister (2003) that the principle of neutrality is widely recognised – that is the tax system itself should not distort commercial decisions. The issues are increasingly widely recognised – for example the National Tax Journal devoted a whole issue to the taxation of electronic commerce in December 2000 and other contributions include those by Goolsbee and Zittrain (1999) and Warren (2002). There is no doubt that ecommerce will have a considerable impact on the shape of the international tax system.

One difficulty is that in some ways physical national boundaries are less relevant than they once were and there is the possibility that different countries will try to assert inconsistent rules leading to conflict between different jurisdictions and uncertain and inconsistent taxation. It will be necessary to establish how existing tax systems are to be applied to international electronic commerce.

Tax systems have evolved in a world where commercial events take place in clearly identifiable physical locations. Tax can be levied on the ‘source principle’ whereby a country levies tax on income arising within its jurisdiction whether that income is for the benefit of residents or non-residents. Residence itself is also a basis of taxation. Usually taxpayers resident within a particular jurisdiction are taxed on a wider range of incomes than are taxpayers who are non-resident. In terms of indirect taxation, tax can be based on the ‘origin principle’, that is, goods or services should be taxed according to where they originate or on a ‘destination’ basis when taxation is levied on the basis of where they are consumed. With electronic commerce transactions can take place on computer servers anywhere and in a sense occur in some form of intangible ‘cyberspace’. It will not always be easy to see how such transactions fit into traditional concepts as ‘source’, ‘residence’, ‘origin’ and ‘destination’ (see for example, Breen, 1992; Hinnekens, 1998).

One result in particular is that taxation based on the source of income is likely to prove more difficult to apply in the future. It may be that the emphasis will have to

shift to taxation based on residence, though the concept of residence also encounters some difficulties when transactions are carried out in cyberspace (see for example, Sweet, 1998). However, if residence did become more important for tax purposes this in turn may have implications for the migration of individuals and enterprises between countries and the effects of tax competition discussed below. Another area is the response to the difficulty of ensuring tax compliance in respect of electronic transactions that are difficult or impossible for revenue authorities to trace. Some forms of electronic money might pose similar problems to cash in terms of tax evasion. Other difficulties may also be involved in identifying who is party to various economic events and verifying records of electronic transactions. It would seem that there are important issues of this sort that will require considerable international co-operation in the future (see for example, Sawyer 2000a, 2000b, 2003, and 2004a).

This could be difficult to achieve since, of course, not all countries have the same priorities. However, the benefits from the development of global electronic commerce in the form of increased wealth in all countries are very large. One aim therefore should be to avoid the creation of unnecessary barriers to its development, including taxation.

The Environment

There has also been an increasing concern for the environment. It has been recognised that some economic activities, such as those causing pollution, impose costs on the wider community and that it might be possible to improve the situation by assigning such costs to the consumers and producers by imposing a special tax (see for example, Gensler, 1995). The result has been proposals for various forms of corrective taxes such as ‘pollution charges’, ‘green taxes’ and so on and these are examined by authors such as Nicolaisen *et al.* (1991), Smith (1992), Symons *et al.* (1994), Oates (1995) and Bovenberg (1999).

International environmental policy was, of course, influenced by the Global Climate Change Accord signed at Kyoto which called for reductions in ‘greenhouse’ gas emissions and environmental taxes have been increasingly seen as a solution. Many countries have made significant moves in this direction for example in Scandinavia (Brännlund and Gren, 1999). Denmark in particular has been one of the leading countries in the adoption of environmental taxes and now has such taxes on heating, transport fuels, electricity, water, waste, the registration and use of cars, pesticides and plastic bags (Jacobsen *et al.*, 2003). New Zealand is an example of a country outside of Europe that is undertaking tax reform in the light of the Kyoto Protocol. How far ‘Green Tax Reform’ will influence developments in international taxation is not yet clear but it is likely to be increasingly significant not least because environmental concerns are not limited to particular tax jurisdictions.

Legal and Administrative Aspects

Legal and administrative aspects can be considered jointly as they represent the roles of, and issues faced by, legislators and administrations, particularly tax administrators.

While the traditional perspective has been one that focuses on domestic tax policy and its associated administration, increasingly administrations are looking across jurisdictions with increasing globalisation. A largely unwritten understanding has operated such that each country's tax administration practice is outside the jurisdiction of any other, thereby allowing a large degree of national sovereignty to prevail. However, the internationalisation of taxation has forced nations to undertake more mutual cooperation and assistance in administrative areas, through forums such as the OECD with mutual understandings for information sharing (see OECD 1995a), and through meetings of key administration officials (Sawyer, 2004b).

An increasing use of international treaties, the overwhelming majority of which are currently bilateral is evident, with a growing impetus for more multilateral agreements, such as illustrated by the Nordic countries agreement (see for example, Hengsie, 2002). Calls have also been made for some form of international multilateral treaty (see McIntyre, 2002) and potentially an International (or World) Tax Authority to administer taxation globally (see for example Tanzi, 1999), a concept akin to other global organisations such as the World Trade Organisation (Sawyer, 2004b).

Measurable advances have been made with tax administrations agreeing to a number of policies for the taxation of electronic commerce, along with sharing of revenue strategies and approaches to combating avoidance and evasion. Two areas fertile for further development and increased cooperation between tax administrations are cross-border binding rulings and advance pricing agreements (APAs), building upon the OECD's (1995b) transfer pricing guidelines (Sawyer, 2004b). As noted by Sawyer (2002), progress has been slow in developing comparable (and converging) domestic binding rulings regimes, with slightly more tangible evidence of tax administrations facilitating greater certainty through offering APA facilities that may operate in a multilateral capacity.

Future Possible Developments

Protectionism

One possible response to the increased competitive pressures of globalisation is protectionism. In terms of taxation the most explicit form of protectionism is the use of tariff barriers to favour domestic production even though the resulting fall in international trade can make all countries worse off, including the one that originally imposed the tariffs (see, for instance Kindleberger and Lindert, 1978). The result may be global recession. The General Agreement on Tariffs and Trade (GATT) and its successor, the World Trade Organisation, have been a major force in reducing the average level of tariffs to only about 10 per cent of the level when GATT began its work in 1948 (*The Economist*, 16 May 1998). It is to be hoped that the mistakes of the past in this respect will not be repeated in the future but there are pressures to move in such a direction. What needs to be considered is international co-operation with respect to problems raised by technological advance, tax competition and tax harmonisation.

Increasing Tax Competition

A different form of international rivalry takes the form of tax competition which has particular implications for the taxation of investment. Tax competition may be defined as the ‘competition between different tax jurisdictions to encourage businesses and individuals to locate in their areas’ (James, 1998: 144).

In relation to the influence that globalisation is having on taxation, and specifically tax competition, Tanzi (1996: 4) observes:

The connection between globalization and taxation is particularly complex because of its interconnection with tax competition and because of the large number of actors. Globalization increases the scope for tax competition because it provides countries with an opportunity to export part of their tax burden to other countries. Some countries will use or even abuse this opportunity. Tax competition may magnify the inevitable effects of globalization. However, the complexity of the likely reactions of the countries makes the end result difficult to forecast. The fact that there is no world organization with the explicit responsibility to provide a sort of surveillance on the behavior of countries in tax matters makes tax competition more likely (Emphasis added).

There is evidence that investment decisions are sensitive to tax rates. A study by Grubert and Mutti (2000) of aggregated data from the tax returns of over 500 US multinationals found that average tax rates of the host country have a significant effect on the choice of location and the amount of capital invested.

Clearly some countries may choose to have lower tax rates than others for all sorts of reasons. Defining ‘harmful preferential tax regimes’ precisely is therefore difficult but the OECD (1998) suggested there are four key factors that might assist in identifying them, namely:

- i) the regime imposes a low or zero effective tax rate on the relevant income;
- ii) the regime is “ring-fenced” (in other words, certain activities are isolated for tax purposes from other activities);
- iii) the operation of the regime is non-transparent; and
- iv) the jurisdiction operating the regime does not effectively exchange information with other countries.

As well as a number of specific recommendations, the OECD’s (1998) Report suggested there was a strong case to intensify international co-operation in formulating a response to the problem.

Not all the effects of tax competition are negative. Tax competition is designed to provide an incentive for incoming investment and it might generate new as well as diverted investment. It has also been argued by those who wish to control public expenditure that tax competition might have a further beneficial effect in encouraging governments generally to keep tax rates down in order to avoid the loss of economic resources. Keen (2001: 762) has suggested that even preferential tax regimes might perform a useful function. Illustrating his analysis with the case of Ireland, he concluded that preferential regimes might limit more general tax competition and

‘prohibiting them may lead to tax competition that is less dramatic, but also more pervasive and consequently also more harmful’.

However, there is a general presumption that artificial flows of economic resources encouraged only by the potential for tax avoidance are not likely to be in the interests of the global community as a whole. The world as a whole cannot make itself better off in this way. Instead it is likely to make itself significantly worse off if industries locate, not where it is economically most advantageous, but where the tax regime is most favourable. One concern of most revenue authorities is that it increases the scope for tax avoidance and possibly tax evasion as well. More immediately it can cause difficulties for individual countries in maintaining the integrity of their tax systems.

The difficulty has been recognised by many commentators and some international organisations. For example, in May 1996 the Ministers of Member Countries of the OECD asked that organisation to ‘develop measures to counter the distorting impact of harmful tax competition and financing decisions’, and this resulted in the publication of the report already referred to above (OECD, 1998). The OECD’s (1998) Report pointed out that it is difficult for individual countries to combat such harmful tax practices without putting their taxpayers and economies at a competitive disadvantage. As well as a number of specific recommendations, the Report suggested there was a strong case to intensify international co-operation in formulating a response to the problem and one general dimension is the development of tax harmonisation. For a recent update on measures designed in part to reduce harmful tax competition by the OECD and European Union, see Spencer (2004).

Tax Harmonisation

Tax harmonisation appears to be an obvious measure to counter some of the issues raised. It reflects various positions along a continuum with unrestricted tax competition at one end and complete harmonisation at the other end (Sawyer, 2004b). More generally it is also likely to produce a more robust international tax system in the face of the changes described using the PESTEL analysis than if each country went entirely its own way. There are specific links with tax competition and tax co-ordination. For example, Rounds (1992) examined tax competition and tax harmonisation in Australia, Canada and the USA and found that they were not necessarily conflicting goals. Other contributions have been made, for instance, by Kanbur and Keen (1993), and Janeba (1995). Edwards and Keen (1996) and others have indicated some of the benefits arising from a greater degree of tax co-ordination.

However, while tax harmonisation might appear to be a simple issue in principle, as has already been discussed in this journal (James, 2000) the experience in Europe suggests that the concept is more complex and its achievement difficult. Elements of the idea of tax harmonisation can be found in the 1957 Treaty of Rome and in 1960 the European Commission set up the Fiscal and Financial Committee to study harmonisation (Neumark Committee, 1963). The Ruding Committee was formed in 1990 to examine the case for greater tax harmonisation in the European Union (Commission of the European Community, 1992) and was concerned with two main issues - to reduce tax discrimination against cross-border investment and proposals for

the harmonisation of tax bases and tax rates. However it seems fair to say that even after all these years, European tax harmonisation remains an elusive goal.

Significant progress has been made with harmonising consumption taxation, specifically the VAT, in the European Union (Sawyer, 2004b) though there is still a long way to go to achieve full harmonisation. There is also evidence that harmonisation has proved difficult in other regions – for example, even with the harmonisation of corporate taxation between Australia and New Zealand (James and Oats, 1998), although one recent initiative has provided evidence of a movement in the direction of harmonisation, namely implementation of trans-Tasman triangulation (or mutual recognition of imputation and franking credits; see Dunbar, 2002 and 2003).

Conclusions

The PESTEL analysis employed in this paper is a significant extension of earlier studies employing a STEP analysis, particularly through the inclusion of the environment, and legal and administrative factors. The addition of these factors not only sheds further light on the potential path of an evolving international tax system, but provides a more robust model for analysing the path taken and has the potential to offer improved predictions of future movements. Nevertheless, one should not fail to recognise that a PESTEL analysis is a multidimensional analysis of a complex and evolving process and making specific predictions can be unwise and unproductive.

One implication that arises through taxation on investment is the impact that the imposition of formal taxes has in giving rise to implicit taxation. Specifically, as discussed earlier, implicit taxation will arise in a country following another country raising taxes on investment within its jurisdiction. Implicit taxes thus alter investors' behaviour both within a country and globally, further emphasising the importance of fully recognising the impact of taxation of investment decision-making. Consequently we suggest that recognition of this phenomenon should encourage further efforts directed at tax harmonisation.

Globalisation, in conjunction with the growth in the internationalisation of financial markets and multinational enterprises, requires tax authorities and governments to find new ways to balance the maintenance of their national tax revenues and their unwillingness to harm the international competitiveness of their domestic business systems. International tax policy must be revisited in the light of the impact that financial globalisation, in particular, is having on income generation and consumption. A blending of national and international tax policies is considered the most appropriate way to deal with the implications of globalisation, with national policies requiring increased modification to take account of changing international conditions.

It has been suggested that globalisation limits the revenue countries could raise would lead to a convergence in tax levels but the evidence in Table 1 does not give strong support to such a view. Taken holistically, the level of tax revenue as a percentage of GDP has not declined significantly over the period 1995 to 2002.

However, what Table 1 does not show is the changing tax mix that comprises total tax revenues for many countries. The contribution from corporate income tax as a percentage of total tax revenue has been declining, primarily as a result of a decline in the headline corporate tax rate(s) in many countries. Tax revenues have in total remained robust through greater reliance on indirect taxation (such as VAT and GST), which is ultimately paid by individuals. Income tax rates on individuals have not altered significantly over the last decade, with the overall increases in income and wealth across most OECD member countries contributing to the increasing portion of tax revenue coming from this source. Hence what appears to be occurring is both a broadening of the tax base and a significant shift in the incidence of tax from the more mobile resources (capital, including companies and highly mobile workers) to the less mobile, namely individuals in more fixed employment positions.

National sovereignty over taxation policy remains a ‘card held close to the chest’ by many nations, a factor which restricts the development of the international tax system, which is not necessarily a ‘bad thing’. Lessons may be learnt from other areas where sovereignty has been given up, such as with international trade, and this should guide discussions and developments with respect to taxation. Should significant movement in loosening up sovereignty occur, then the pace of developments in international taxation may increase noticeably, although the likely final destination remains unascertainable.

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