Tax Implementation Issues in the United Kingdom

Joel Slemrod

University of Michigan

John Whiting

PricewaterhouseCoopers

Jonathan Shaw

Institute for Fiscal Studies

Conference draft. Citations are incomplete.

Not for quotation without permission.

Comments are welcomed.

March 19, 2007

Prepared for *Reforming the Tax System for the 21st Century: The Mirrlees Review*. We gratefully acknowledge helpful comments on an earlier draft from Stuart Adam, Malcolm Gammie, Alan Plumley, and Shlomo Yitzhaki, as well as valuable input from Kate Bedwell.

I. TAX SYSTEMS AND IMPLEMENTATION

1. Introduction

1.1. Tax triggering and tax remittance

The British tax system is not exactly what appears to be. Reading the tax laws is not enough to understand the consequences of the tax system for the distribution of the tax burden among British citizens or for the efficient operation of the economy. It is not enough because how the tax code is implemented is often critical to understanding its consequences.

In this chapter we investigate how the British tax system is implemented, address how its implementation affects its consequences, and offer some recommendations to improve its implementation. To do this requires us to step outside of the usual framework for tax analysis. Nearly all of modern tax theory is concerned with what actions, or states of affairs, *trigger* tax liability, and virtually none is concerned with the remittance of funds to the government to cover that liability. Implementation of actual tax systems, however, requires considerable attention to the *remittance* of monies to the tax authority. This attention includes both the administration and enforcement of the tax rules, as well as the design of the tax rules with the administrative and enforcement issues in mind. The combination of a set of rules that determine what actions or states of the world trigger tax liability and a set of rules and practices by the tax authority that implement the remittance of the tax liabilities constitutes a **tax system**.

Most economic analysis of taxation presumes that tax liability can be ascertained and collected costlessly.[1] As a description of reality, this is patently untrue. There are

---

[1] The importance of implementation issues has not, though, been lost on scholars of the historical evolution of tax structure, notably Hinrichs (1966) and Musgrave (1969), who stressed the importance of tax administration issues. They argued that modern tax structure development has generally been characterized by a shift from excise, customs, and property taxes to progressive individual income and corporate income taxes. This shift was made possible by the expansion of the market sector and the relative decline of the rural sector, the concentration of employment in larger establishments, and the growing literacy of the population. Alt's (1983) treatment of the evolution of tax structure stressed the role of the real cost of collecting taxes, arguing that it has become increasingly easy to collect taxes from organized business rather than from households, and that one explanation for the widespread adoption of the VAT is that it imposes compliance costs without raising administrative costs, through incentives for self-policing. Kau and Rubin (1981) focused on changes in the cost of collecting taxes, and empirically related the growth of the U.S. federal government to reasonable correlates of collection cost, such as the literacy rate, the extent of female labour force participation, and the extent of the agricultural sector. Balke and Gardner (1991) contended that declining marginal collection costs can explain the stepwise growth in the size of government and the changes of taxation observed in the U.S. and U.K., and argued that major wars coincide with permanent improvements in tax instruments and tax collection technology, which facilitated permanent expansions in government size thereafter. This could be part of the story behind the "displacement effect" introduced by Peacock and Wiseman (1961), who noted that that, after large scale social disturbances that require more government expenditures, the level of spending and taxation does not fall back to its old level.

administrative costs incurred by the tax authority, which must establish and operate systems to manage all aspects of the taxes, and **compliance costs** incurred by the taxpayers who must comply with their obligations and by third parties to the tax remittance process, such as employers required to remit tax on behalf of their employees.[2]

Why administrative and compliance costs exist may be obvious, but is worth making explicit. Even if all taxpayers were scrupulously honest (and omniscient), an administrative system is required to provide information about tax liabilities and to record payments. But, of course, not all taxpayers are honest. Nor can all taxpayers, even those with advisers, always manage to find their way through the increasingly complex maze of tax laws to arrive at their exact and correct bill. Because of that, no government can announce a tax system and then rely on taxpayers' sense of duty and innate abilities to remit what is owed. Many dutiful people will undoubtedly remit what they owe, but many others (deliberately or not) will not. Over time the ranks of the dutiful will shrink, as they see how they are being taken advantage of by the others. Thus, paying taxes must be made a legal responsibility of citizens, with penalties attendant on non-compliance. But even in the face of those penalties, substantial tax evasion exists and society may judge that it is worthwhile to expend resources to minimize its deleterious effects.

Implementation concerns are critical to the three pervasive issues of tax design in modern economies: how personalized tax liability ought to be; how progressive the distribution of tax burden ought to be, and whether the tax base ought to be primarily income or consumption. The extent to which tax burden should be personalized to fine-tune equity concerns, and to what extent rough justice is acceptable, largely revolves around the administrative and compliance cost of implementing the personalization, coupled with a reflection of the political will of those bringing in the new laws. For example, a proportional (as opposed to progressive), non-personalized distribution of the tax burden can be achieved without a comprehensive income tax and with a business-based tax system like the value-added tax. Although the continuing debate about the relative merits of income versus consumption taxes has many dimensions, one of the most influential consumption tax advocates, David Bradford, argued primarily on implementation grounds: that consumption is inherently easier to measure than income, and for

[2] Of course, these are not the only resource costs that tax systems incur. Indeed, most of modern economic analysis is concerned with a third category, sometimes called "distortion" costs, that arise because tax systems alter relative prices and induce individuals and companies to make decisions based on tax-distorted relative prices that do not reflect social costs and benefits.

that reason consumption taxes provide a less capricious distribution of the tax burden and can be operated with less resources devoted to verifying and manipulating the tax base.[3]

1.2. Definitions of key terms

Because one of our objectives is to clarify the distinction between what triggers tax liability and how these rules are implemented, we will try to be very careful about the usage of some key terms. The linchpin of our quest for semantic clarity is the careful use of the term **remit** and its various forms. We will here use the term "remit" tax to mean to write a cheque or otherwise transmit funds to the tax authority.[4] For example, under a value added tax all VAT-registered businesses may be required to remit tax, while under a retail sales tax only registered retail businesses are required to do so. Under an exact withholding system for labour income, all the tax is remitted by employer-firms. We will employ the standard usage of **withholding** to refer to situations where some or all of tax liability must be remitted by someone other than the person whose liability it is. There may be penalties applied to the withholding agent for failure to remit the tax in a timely way.

What matters for the impact of a tax system is what actions trigger tax liability, who must remit that liability, and the expected penalties for the failure to remit. Aside from framing issues, what a tax is *called* is not relevant; for example, other things equal whether a tax is labelled an employer tax or an employee tax will not matter.

We will say that an individual **bears the burden** of a tax system to the extent it causes a loss of utility. The loss of utility can occur either because a tax reduces the return an individual receives from his labour or capital income, and/or because a tax increases the prices of the good and services a taxpayer wishes to purchase with his income. To the extent that taxes reduce the rate of return to investing in or running a corporate business--in which case the burden falls upon the owners or suppliers of capital to the business--this burden must be traced beyond the impact on the profitability of a legal entity to its impact on the well-being (i.e., utility) of these individuals. Who bears the ultimate burden of taxes is generally different than either who or what legal entity remits tax and the identity of the statutory bearer of the tax. This is because a

[3] See, for example, Bradford (1986).

[4] Our use of the term should be distinguished from the UK tax system offering the "remittance basis" for the non-domiciled that allows an individual – usually someone resident in the UK but not domiciled in the U.K.--to be taxed on non-UK income only if it is brought into the UK.

tax system causes changes in pre-tax prices, and thereby the burden may be shifted away from the statutory bearer. For example, a tax triggered by labour earnings will in general increase the pre-tax wage, so that the after-tax wage does not fall by as much as the tax rate. Thus the burden of the tax is shared between the employer, who faces a higher cost of labour than otherwise, and the employee, who receives a lower after-tax wage rate than in the absence of the tax. Exactly how this burden is shared (i.e., how much the pre-tax wage rate increases and how much the after-tax wage declines) depends critically on the relative elasticity of the demand for labour and supply of labour: a more (less) inelastic labour supply and more (less) elastic labour demand makes it more (less) likely that employees will bear the burden of the tax. The response of prices and wages to taxation that causes the shifting may not happen in the short run, especially in the presence of inflexible prices due to such things as long-term contracts. However, because prices are ultimately set by the interaction of supply and demand, in the long run the tax system will affect prices and these effects will determine ultimate incidence.

There are two commonly-used terms that, because of the imprecision of their meaning, we will avoid. The first is that an individual or a legal entity "pays" taxes. In common parlance, to "pay" taxes sometimes refers to the remittance of money to the tax authority, and sometimes refers to bearing the burden of a tax. Rather than having to specify which meaning applies in a given context, we will avoid it altogether. Second, we will not say that businesses "collect" taxes. Businesses often remit tax, but it is not meaningful to assert, for example, that a business collects--but does not remit--a given amount of tax. There may be a lag between the event that triggers a tax liability and when the tax must be remitted. In such a two-stage process there is obviously a point at which the business is holding what the tax authority considers as its money. We will regard this "cash-flow" benefit to the firm as essentially reducing the effective tax rate; for example, with a 12 percent annual interest rate (one percent per month), a 6 percent tax due one month after the tax-triggering event is essentially equivalent to a 5.94 percent tax due remitted immediately.[5] We will, though, use the word "collect" in the sense that the tax authority "collects" tax from those in the private sector that remit taxes; they are on the receiving end of remittances from individuals and legal entities.

---

[5] Especially in a hyper-inflationary environment, the cash-flow benefit may appear to exceed the explicit tax liability, so that it appears that the remitter "makes a profit" from its role. However, as long as this is fully anticipated by all parties, the impact of this will depend on the same supply-and-demand considerations that would matter for the analysis of an equivalent (much lower) tax that had no cash-flow benefit.

1.3. Road map

Part I of this chapter addresses the key implementation issues that arise in any developed country's tax system, while Part II applies this framework to current policy issues in the U.K. Part III offers some recommendations regarding the UK tax system and some speculations about the future of taxation. Although this chapter ranges broadly over these issues, it will touch only peripherally on some relevant issues, such as the bureaucratic organization of the tax authority. It also assumes that the net revenue required is fixed, and that the policy issue is how best to raise this given amount.

2. Analysis of tax system design

2.1. Normative framework

We adopt the standard economics approach to the objectives of tax policy. In particular, we suppose that the best tax system is one that is best for the citizens' well-being, or welfare, as they judge their well-being. This approach has a number of important implications. How well a tax system stacks up against abstract criteria, such as "fairness" is not relevant, although we will allow that the distribution of welfare among the population matters in addition to its "sum" as expressed, for example, by measures of gross domestic product per capita. Our approach also presumes that the process or system that generates welfare levels is irrelevant except insofar as it affects those welfare levels. So, for example, when we assess whether a tax system or an aspect of it is "fair" or "equitable," we will be referring to its effect on the distribution of well-being, not to the process that generates this distribution. Two processes that lead to identical distributions of welfare will be considered equivalent.

By emphasizing citizens' well-being as they judge it, our assumptions about the rationality of citizens' decisions become crucial. For the most part, we will adopt the standard economics perspective that people make decisions that provide the highest level of well-being, as they judge it, given their resources and the price system. We recognize that there are situations in which human behaviour appears to violate the axioms of rational behaviour; for example, choices may depend on the semantic "framing" of the choices, and address the issues this "behavioural" perspective raises where appropriate.

This approach also requires that there be some way to aggregate citizens' welfares that determines how the society makes tradeoffs among the welfare levels of different citizens. The shorthand framework for this is a social welfare function that implicitly assigns weights (at least at the margin) to individuals' (or families') welfare, weights that might differ according to their level of well-being: the higher the relative weight on low-welfare individuals relative to high-welfare individuals, the more egalitarian is the social welfare function, and the more the society is willing to trade off aggregate welfare for a more equal distribution of welfares. We will presume that the degree of egalitarianism is determined by the political system.

2.2. Efficiency and resource costs

In building an analytical framework, it is helpful to ignore distributional issues initially, and to introduce them later. By putting distributional issues aside, one can focus on the efficiency issues that arise in tax implementation. Simply put, the efficiency issue is this: other things equal, we would like to raise revenue in a way that minimizes the resource costs to society. One aspect of this is the cost of distorting decisions, called **excess burden** by economists. These resource costs may be categorized as those born directly by the tax authority, known as administrative costs, and those born directly by either taxpayers or third parties to facilitate tax collection, known as compliance costs. Both administrative and compliance costs reduce the resources available for producing goods and services that people value, and thus ceteris paribus reduce individuals' potential utility.

The modern theory of optimal taxation, begun by Mirrlees (1971) and Diamond and Mirrlees (1971), can be extended in a straightforward way to address not only the traditional focus of analytical inquiry, the choice of rates and bases, but also to address all details of tax system implementation, such as penalties for non-compliance, enquiry rates, what information reports must be made, and so on. One far-reaching implication of this framework is that an optimal policy will equalise the marginal efficiency cost of funds (henceforth MECF) of any and all tax instruments that are employed, where the MECF equals the marginal cost to society of raising an extra dollar of revenue.[6] This principle holds because, if the MECF is not equalised,

[6] At an optimum it will also be true that the common value of the MECF for all tax instruments will equal the social marginal benefit of what the government provides to residents with the funds raised.

the same revenue can be raised at less social cost by reducing reliance on the high-MECF tax instruments and increasing reliance on the low-MECF instruments.

The MECF of any particular tax instrument is equal to the ratio of the change in revenue assuming no behavioural response to the change in revenue allowing behavioural response.[7] In general the behavioural response will reduce the revenue raised, so the numerator exceeds the denominator, and the MECF is greater than one. This implies that the larger is the revenue-losing behavioural response, the higher is the MECF, and the less efficient is the tax instrument. For tax policy instruments that can be defined continuously, such as a tax rate, this ratio equals $1/(1 + \varepsilon)$, where ε is the elasticity of the tax base with respect to the particular tax instrument; the higher the absolute value of the behavioural response elasticity (defined as a negative number), the higher is the MECF.[8]

A rational taxpayer will be ready to sacrifice up to, but no more than, one pound in order to save a pound of taxes. Hence, on the margin the private cost is equal to "leaked" pounds and the collection of a pound results in a loss to the taxpayer over and above the taxes paid of an amount equal to the leaked revenue. If we assume that the utility loss to the individual (private cost) of the leaked tax revenue should be accorded the same social cost as the utility loss due to the taxes paid, then the cost to society of transferring a pound to the government is the ratio of the revenue leakage to the revenue collected. The total marginal cost to the individual taxpayer, including the taxes paid, is one plus that ratio.

Consider now a taxpayer who also has the option to evade part of the additional tax. On the margin, he would be ready to sacrifice utility valued at one pound (in additional risk bearing due to evasion and/or due to substitution to cheaper but less rewarding activities) in order to save a pound of taxes. Hence, we do not have to know whether the "leak" is due to evasion or due to real substitution in order to evaluate the costs to society. The same rule applies to avoidance activity and, in fact, to any activity under taxpayer control. All one needs to know is the potential tax (i.e., assuming an inelastic tax base) that will be collected from a change of a

[7] In principle, the MECF measure should address spillovers from one tax to another. For example, if better enforcement of VAT helps to collect income tax revenues, that should be accounted for.
[8] The elasticity is defined as the percentage change in the tax base with respect to a percentage change in the tax instrument.

parameter of the tax system, and the actual change (taking into account all behavioural responses) in order to evaluate the marginal efficiency cost of raising revenue.[9]

Fines for tax evasion present another example of the potential divergence between the private and social costs of tax-reducing activities. The possibility of a fine for detected tax evasion is certainly viewed as a cost by the taxpayer, but from society's point of view it is a transfer between the taxpayer and the government—not a resource cost—and serves to reduces the amount of revenue that would otherwise have to be collected. (This is in contrast to imprisonment, unless the prisoner is forced to produce socially valuable products while imprisoned.) Note that this argument implies that the MECF of fines as a tax policy instrument could be close to zero, and almost certainly less than one, making an increase in fines look like an attractive policy option indeed. As discussed later, there are reasons unrelated to efficiency cost minimization that render undesirable increasing fines for tax evasion without limit.

Applying the MECF rule to administrative and compliance issues clarifies the common thread tying together the tradeoffs that arise in tax policy. In the generic problem, there are two ways to raise revenue: to increase a set of tax rates, and by so doing to increase excess burden (and possibly some administrative cost as a by-product), or via an alternative that directly involves increasing administrative costs (such as increasing the probability of a tax audit). An optimal policy would equalize the marginal costs of raising revenue under the two alternatives.

In calculating the MECF of administrative improvements, it is important to account for the fact that these expenses come out of funds that were presumably raised with tax instruments that have an MECF in excess of one. In other words, administrative improvements that raise net revenue decrease the excess burden; hence, on the margin and for given revenue, the saving in excess burden should be equal to the increase in administrative costs. In this way, the MECF criterion can be applied to tax administration, too.[10] Because compliance costs are additional costs imposed on the taxpayer, they should also be added to the burden imposed on the taxpayer.

[9] A central assumption of this analysis is that the cost borne by taxpayers in the process of reducing tax liability is equivalent to the social cost. In some cases, though, the private cost is not identical to the social cost, for example when the behaviour of the taxpayer causes some externality. Consider the situation where being caught evading imposes a stigma on the taxpayer, as in Benjamini and Maital (1985) or Gordon (1989), and assume that the larger the number of evaders the lower the stigma attached to each act. In this case the social cost of evading taxes diverges from the private cost because the potential evader does not take into account the impact of his action on other members of the society.

[10] In their article on the efficient operation of a tax authority, Yitzhaki and Vakneen (1989) use the term "the shadow price of a tax inspector," which is the revenue collected by adding another tax inspector. Note that the MECF of this tax policy instrument is actually the reciprocal of the shadow price of a tax inspector.

They serve as a substitute to administrative costs, but the expenses are borne directly by the taxpayer rather than through the government budget.

All of these considerations are summarized by simple expression for the marginal efficiency cost of funds that applies to any tax policy instrument as follows:

$$MECF = \frac{1+x+c}{1-a}.$$

In this expression, c and a are the marginal compliance and administrative costs per pound raised, respectively. The variable x equals the revenue leakage per pound raised which, as discussed above, is the marginal distortion cost per pound due to behavioural response. Thus, the MECF is the burden on society divided by what is collected net of the administrative cost of collecting that revenue. Because, in the expression for MECF, c is added in the numerator and a is subtracted in the denominator, the key conceptual difference between compliance costs and administrative costs is explicit -- only the latter uses revenue raised from taxpayers. As an example of this difference, note that a change in a tax policy instrument for which the marginal compliance cost equals the marginal revenue might conceivably be part of an optimal tax regime, but it would never be optimal to pursue a policy for which the marginal administrative cost equalled or exceeded the marginal revenue collected (i.e., $a \geq 1$), because at the margin this policy instrument has social cost but raises no revenue.[11]

One highly relevant application of this framework concerns the appropriate amount of resources to devote to increasing the probability that evasion is detected, resulting in collection of the appropriate tax remittance, plus any penalty. One superficially intuitive rule—increase the probability of detection until the marginal increase of revenue thus generated equals the marginal resource cost of so doing—is incorrect.[12] It is incorrect because, although the cost of hiring more auditors, buying better computers and the like is a true resource cost to the society, the revenue brought in does not represent a net gain to the economy, but rather is a transfer from private (noncompliant) citizens to the government. The correct rule equates the marginal social benefit of reduced evasion, which is not well measured by the increased revenue, to the marginal

[11] The distinction is also illustrated by comparing two initiatives that each raise three pounds of revenue per pound of cost, administrative cost under one initiative and compliance cost under, with no leakage (x=0). The MECF for the initiative that increases administrative cost is 1.50, higher than the 1.33 for the initiative that increases compliance cost. If the marginal benefit of funds was indeed 1.40, the latter would be recommended, but not the former.

[12] This is formally demonstrated in Slemrod and Yitzhaki (1987).

resource cost. (The fact that it is not easily measured at all will be important in our discussion of HMRC policy in Section II).[13] One subtle aspect of the cost of tax evasion is the uncertainty that attends the required tax revenue—those that evade may, if successful, pay a low tax, but may a higher tax if unsuccessful and penalized; given the odds of detection and attendant penalties, a risk-averse taxpayers may choose to expose themselves to risk, but would prefer an environment where they could pay the required tax without it.[14]

This reasoning also makes clear that in general it is not optimal to expend resources to eradicate tax evasion, just as it is generally not optimal to station a police officer on every corner in an attempt to eliminate street crime. This is relevant for our later discussion of "tax gap" measures, because the actual tax gap may be greater than or less than the optimal tax gap.[15]

Another lesson is that, from any one country's perspective, expending resources to crack down on cross-country income shifting is particularly attractive, because any revenue collected does not generate an offsetting utility loss to the taxpayer, as they would have paid the tax in any event to another tax authority. By ignoring the fiscal spillovers, this policy is very attractive from one country's point of view, but not necessarily from a global welfare perspective.

It is important to note well that what matters for the evaluation of potential policy changes are marginal administrative and compliance costs, not total or average costs. This is relevant because much of the empirical evidence about these costs, discussed later, concerns total costs, and compelling evidence on marginal costs is scarce. The most important lesson, though, is that the same analytical framework that is used to analyse tax rates and tax bases can be consistently applied to the myriad dimensions of implementing those rates and bases.

2.3. Vertical equity

Implementation is not only a question of how to raise funds with minimal resource cost, because it affects the distribution of well-being as well as its total. Analyses of the distributional impact of taxation, especially those based on tax return data, ought to account for the distribution of both the net private gain from evasion and of compliance costs, appropriately adjusted for any

[13] The distinction suggests that unregulated privatization of tax enforcement, in which profit-maximizing firms would maximize revenue collection net of costs, would lead to socially inefficient overspending on enforcement.
[14] On the excess burden of tax evasion, see Yitzhaki (1987).
[15] This is similar to the terminology that oil geologists use when they distinguish between estimated oil reserves and "economically recoverable" oil reserves.

shifting that might occur.[16] However, any systematic distributional impact of evasion or compliance costs can presumably be approximately offset by changing the rate structure, so that there need not be any implications for progressivity. However, even if the rate structure has been adjusted to take account of the vertical pattern of non-compliance and compliance costs, this will only adjust on average for the distributional impact across income groups: within any income group, the successful evaders will still be better off, an issue of horizontal equity discussed below.[17] In contrast, administrative costs have no distributional implications, as they can naturally be spread across the whole population as desired.

Recognizing that taxation might trigger not only real responses such as labour supply, but also avoidance and evasion responses, has an important implication for the question of optimal progressivity. According to standard theory, the optimal progressivity of the tax system depends inversely on the (compensated) elasticity of the tax base with respect to the marginal tax rate: other things equal, the larger is the responsiveness of the base (i.e., the elasticity), the less progressive the optimal tax system is.. But there is an important difference between the real response component and the avoidance/evasion component: the latter can be manipulated by policy. One can construct a simple example that shows that ignoring the fact that avoidance can be controlled can lead to misleading implications about the optimal degree of tax rate progressivity.[18] For example, the optimal amount of progressivity given a sub-optimal level of tax enforcement may be below the globally optimal degree of progressivity. The standard model of the optimal linear income tax can be generalized to include taxpayer avoidance behaviour and the ability of government to control the avoidance, but not the labour supply, response to higher marginal tax rates.[19] Indeed, if the elasticity of the tax base is not immutable and is instead subject to manipulation (e.g., via changed intensity of enforcement), then determining the

[16] For example, the return to informal activities might be lower than otherwise because the facility of tax evasion is facilitated. Similarly, if a particular sector has higher-than-average compliance costs, this deterrent to entry might cause a higher-than-average pre-tax return, which to some extent offsets the higher compliance costs.

[17] The MECF framework can be adjusted to account for the distributional impact of a marginal change in any given tax instrument, as shown by Mayshar and Yitzhaki (1995).

[18] See Slemrod (1996).

[19] In terms of the MECF model, this has a straightforward interpretation. Imagine there are two tax instruments: the rate of a flat-rate income tax, and an enforcement parameter. The MECF of the two instruments are interdependent, because the MECF of the income tax rate is lower, the higher the setting of the enforcement parameter; this occurs because the behavioral response to the higher rate is lower, the higher is the enforcement parameter. More enforcement lowers the MECF of raising the income tax rate, and therefore makes it more attractive than otherwise.

optimal amount of enforcement is tantamount to determining the *optimal* elasticity of taxable income.[20]

2.4. Horizontal equity

For the most part, the central issues of tax implementation-- avoidance and evasion, administration, and enforcement—enter naturally into a consequentialist, welfarist framework But there are two issues that fit uneasily into this framework. One issue, raised by Cowell (1990, p. 136), is that our approach does not allow for the possibility that there should be a specific social welfare discount applied to the utility of those who are found to be guilty of tax evasion and thus "are known to be anti-social," as opposed to the welfare weight applied to the innocent or uninvestigated (who may or may not be anti-social). By applying no such discount, noncompliant taxpayers do not per se receive a lower welfare weight than compliant taxpayers.

Another difficult issue is horizontal equity, which concerns the extent to which a tax system causes the same tax burden among individuals or families at the same level of well-being. Variations in tax liability (due to the opportunity or inclination to evade, or due to the fact of having been randomly chosen for a tax audit) within an income class cannot easily be offset by adjustments in the schedule of rates applied to income. This raises a classic tradeoff among objectives, because achieving (perfect) horizontal equity is likely to require "excessive" spending on anti-avoidance by the authorities. Moreover, there is another tradeoff between the potential efficiency benefits of differentiating individuals by using "tags"—relatively immutable characteristics of individuals that are correlated with well-being—and the horizontal inequity of using them.[21]

Kaplow (1989, 1995) argues compellingly that concern for horizontal equity serves as a proxy indicator for other possible sources of welfare reduction. After all, in important instances corruption and various other abuses of power involve unequal treatment such as racial discrimination and favours to political allies. This kind of abuse of power is, however, not well captured by standard indices of horizontal inequity and would be better handled by searching for, and resolving, discrimination across such classifications. Problematic issues arise when the

[20] See Slemrod and Kopczuk (2002).

[21] Akerlof (1978) is the seminal article on the use of tags in tax, and other, policy. To see the potential efficiency benefits of tagging, imagine if having blue eyes were (positively) correlated with ability, and therefore well-being. Levying a tax on blue-eyed individuals would help to achieve a progressive distribution of the tax burden and require less reliance on more distorting tax instruments such as graduated income tax rates.

discrimination is based on individuals' tastes or predilections, such as their taste for cigarettes (when cigarette excise taxes are at issue) or honesty (when tax enforcement policy is at issue). In addition, the legitimacy of government may depend on a perception that the assignment of tax burdens is not capricious and not dependent on any irrelevant characteristics of citizens. If perceive capriciousness undermines legitimacy, and undermined legitimacy has negative consequences for welfare (perhaps due to a reduced incentive to comply with tax rules), then it needs to be considered. Kaplow also suggests that the intuitive appeal of horizontal equity as a distinct desideratum may derive from the fact that, ordinarily, unequal treatment of individuals signifies that policy has failed to optimize. Even that intuitive rule has exceptions, such as the desirability of random audits, which lead to ex post unequal treatment but may nevertheless maximize social welfare by curtailing undesirable non-compliance, and the use of tags to reduce the efficiency cost of redistribution.

2.5. Compromises to implementability and measurability

We are concerned not only with how well or poorly a given set of tax rules (i.e., bases and rates) are implemented, but also how issues regarding the ability to implement particular rules affect an evaluation of the tax rules themselves. All tax systems make compromises from what they would be in the absence of administration and enforcement concerns. Using the MECF language, a tax instrument is less attractive than otherwise to the extent that the marginal administrative and compliance costs per pound raised are high and, unless ways are found to reduce these costs, these instruments appropriately have, other things equal, a less prominent place in a tax system.

One good example concerns the taxation of imputed rent from consumer durables including owner-occupied housing. Although most economists agree that imputed rent is a component of a comprehensive income tax base, it is not so included in most countries, in part because of the administrative difficulty of accurately measuring the imputed rent. As the Meade Committee report says: "To do this under a PAYE system would be a great administrative burden." (p. 481) Other income tax examples include the use of fixed depreciation schedules in place of asset-specific measures of the decline in asset value (economic depreciation), taxation of capital gains on a realization rather than an accrual basis, and floors on deductible expenses.[22] Also in this category are special regimes for financial institutions and simplified forms and procedures for small businesses.

In many developing countries where the otherwise desirable tax base is difficult for the tax authorities to measure, verify, and monitor, the compromise to implementability of an income tax is to replace it by a class of taxes known as presumptive taxes. As a substitute for the desired base is the "presumed" tax base, which is derived from a formula, which itself may be simple or complex, based on more readily monitored items. For example, at one time in Israel a taxi driver had a choice of a tax based on book income or a levy on the accumulated mileage of the taxicab; for shopkeepers, the alternative to a tax on book income was a tax based on the square footage of the shop and other observable characteristics of the business.[23] Tax liability is based on an easily monitorable base which is presumably correlated with the ideal tax base; in many cases, such as the taxicab example, the monitorable base is a specific input, and the presumptive tax is actually a tax on an input. Another notable example is the Dutch presumptive tax on personal capital income introduced in 2001, which levies a 30 percent tax on a presumptive four percent rate of return on the value of assets net of liabilities, regardless of the actual return.[24]

The problem that presumptive taxes address – the difficulty of monitoring certain potential tax bases – is not confined to developing countries, and use of presumptive taxes, albeit with different names, is also widespread in developed countries. In some sense *all* taxes are presumptive, to some degree. The conceptually pure tax base – be it the flow of income, wealth, sales revenue, or something else – cannot be perfectly measured, and the tax authority is constrained to rely on some correlate of the concept. We label particular taxes as presumptive when the calculation of the tax base deviates in a substantial and explicit way from the ideal concept. But there is a pervasive tradeoff between accuracy and the costs of complexity.[25]

---

[22] Slemrod and Yitzhaki (1994) and Kaplow (1994) analyze the U.S. standard deduction in this framework; a higher value reduces the administrative and compliance cost of monitoring itemized deductions, but it increases horizontal inequity by increasing the range of taxpayers for which the "proper" amount of deduction is replaced by a single number. See also Sadka and Tanzi (1993), who argue in some situations for a presumptive tax on assets as a substitute for an income tax.
[23] The wide variety of presumptive taxes used in the developing world is nicely surveyed in Tanzi and Casanegra de Jantscher (1989) and in Rajaraman (1995).
[24] See Bovenberg and Cnossen (2001).
[25] Kaplow (1994, 1996) addresses the equity and efficiency issues involved in making this tradeoff.

2.6. *Privacy and taxpayer rights*

Because the collection and evaluation of information is a critical aspect of implementing all taxes, the question arises of whether the government – and other third parties to the tax system – can be trusted with this information. Can it be trusted to make appropriate use of it in policy, and forego using it inappropriately to punish particular individuals? Can it be trusted to use all that information in a coordinated manner, for example calculating benefits that are due based on income in a joined-up manner? Limiting the amount of information collected may limit the effectiveness of the tax system, but does reduce the chance of the information being used to best advantage in some circumstances. Concern over access to private information leads to the fact that tax data are fiercely protected in many countries.[26]

Following Lessig (1999), it is helpful to distinguish three separate conceptions of privacy. In the first, the concern is the *burden* of intrusion—what he calls the utility conception: a police search of one's home or one's car is, to be sure, a hassle. This hassle is, in principle, captured as compliance costs. The second conception is privacy as dignity -- even if a "search" is not bothersome or costly, it is an offence to one's dignity. Again, in principle, the value of offences to citizens' dignity would be captured in a utility-based measure of compliance costs, although practically speaking this is much more difficult to quantify than the time and money taxpayers expend on tax matters. The third aspect is that the invocation of privacy concerns may constrain the power of the state to regulate by restricting the scope of regulation that is practically possible.[27] If the means of enforcement are limited, so too is the effectiveness of laws that require the enforcement.

Most tax systems will recognise the potential conflict and put in provisions that, whilst allowing invasions of privacy, do so in defined circumstances rather than allowing the tax authority to wade in wherever they wish.[28] The UK system tries to have sensible checks and

[26] It is important to distinguish the collection of information to implement the intended policy, for statistical purposes in order to inform policy, and to monitor and perhaps prosecute taxpayers. We note that, in many countries, any data collected for statistical purposes cannot be used to prosecute an individual for tax non-compliance.

[27] Stuntz (1995) illustrates the third aspect of privacy nicely with an example far from taxation -- the use of contraception: "Just as a law banning the use of contraceptives would tend to encourage bedroom searches, so also would a ban on bedroom searches tend to discourage laws prohibiting contraceptives."

[28] The European Convention on Human Rights recognizes the conflict by first giving citizens a right to peaceful enjoyment of their property, then giving a specific exclusion from this in respect of the state's right to levy taxation.

balances, which are under current review consequent on the merger of the Inland Revenue and HM Customs & Excise. Historically, HMC&E had more extensive powers, stemming from their origins as controllers of import/export and the sense that offences against what they controlled were criminal acts. The civil powers primarily available to the Inland Revenue could lead to search of premises, but with the control that the authority had to convince an appeal Commissioner of their case. Preservation of privacy is probably not foremost in the mind of the Commissioner when asked to decide on a case. The fact that the hearing is normally *ex parte* is something of a signal that privacy is not seen as a serious factor if the authority needs to pursue something. Indeed, anyone in receipt of the relatively innocuous enquiry letter from HMRC, with the Inspector's announcement that they are opening an enquiry into the taxpayer's affairs, probably feels their privacy has been – or is about to be – violated. Possibly the UK authority does have some sensitivity to the issue with its recent 'new interventions project' which, despite its less-than-ideal manner of launching, did at least start out with the aim making an approach from the taxman less intrusive.

Of course, providing information could be made voluntary. After all, in the UK income tax system the extra information one provides, such as the amount of charitable contributions, can serve to reduce tax liability. But this does not dispose of the issue at all, because with a balanced-budget constraint, those who do not provide the information are penalized. We are, after all, taxing ourselves.

Relying on taxes, such as business-based taxes like the VAT, that do not make use of information about individuals, might serve as a constraint against personalization in the sense of Lessig's third conception of privacy: as a way to constrain the power of the state to regulate by restricting the scope of regulation that is practically possible. It is, the argument goes, difficult if not impossible to favour charitable contributions, or big families, with a VAT. With individuals not filing returns, the natural process for providing information about a family's charitable contribution amount or the number of dependent children is absent. In other words, there is a case that the aim of fairness – often a key stated aim of politicians who propound tax ideas – is in direct conflict with privacy. Only by disclosing information can the system become fairer: to take a simple case, only by admitting that one is aged 65+[29] can one receive a higher tax

[29] For example, box 22.6 of the current self assessment tax return asks for date of birth 'if born before 6 April 1941, you may get a higher age-related personal allowance'.

allowance in the UK.. There are undoubtedly some people who do not claim that allowance – some through error or inertia, but one wonders whether some do so through concern over privacy. This issue is particularly relevant to an evaluation of the British tax system, where the system of exact, cumulative withholding economizes on compliance costs but works well only with a fairly simple tax base. Whether that has been a beneficial restraint on tax complexity or a detrimental constraint on a personalized system capable of delivering necessary incentive programs is an issue to which we will return in Part II of this chapter.

One additional layer that the US and UK systems in particular have recently imposed in conflict to the privacy right is the idea of early disclosure to the tax authority of planning under certain circumstances. The UK's Tax Avoidance Disclosure (TAD) regime can require disclosure of a scheme's details within five days of its being made available, or the start of implementation. The normal period of privacy of what the taxpayer has done until they are required to submit their tax return – some time after the year end – is overridden. The reason for this is essentially to improve the tax authority's ability to combat what is seen as unacceptable planning: the authority has the chance to take early legislative action and (importantly, though this aspect receives less emphasis) gets to understand who is promulgating such schemes and, in due course, using them. That can inform their wider control efforts. All this shows another tension between an essential right to privacy and the authority's need to have proper information to be able to police the actions of taxpayers. This, in many ways, is all about the need for transparency.

Tax systems inevitably impose obligations on taxpayers. They devise penalties that will hover, ready to land upon those who default. But is there a balance: does the taxpayer have rights against the tax authority?

If there is a dispute generally with the tax authority, the taxpayer needs a way to resolve it. That presupposes an independent appeal route. A useful preliminary can be some form of internal review – where the tax authority undertakes to have someone not connected with the case look at the issues. That lacks the essential independence of the real appeal, and so would not be sufficient on its own to appear fair to the taxpayer[30]. Thus there needs to be recourse to the courts to argue a case, with the prospect of a fair and unbiased hearing.

[30] It is, though, interesting to note that the current consultation on the HMRC penalties regime floats the idea of an internal review facility for taxpayers who are dissatisfied with a penalty to use as a means of getting a confirmation

The problem with a court process is expense and, often, the time it takes. It may not seem appropriate – or it may simply not be possible – to take a case where administrative issues are at the heart of the dispute. That suggests that a route such as the Adjudicator – an Ombudsman for the UK's tax system – is a necessary feature for a tax system, giving as it does another appeal route for those who feel they have been badly served by the tax authority's administration.

The next issue that may be faced is that of the taxpayer's knowledge of what routes are available. This is where the idea of a taxpayer's charter – or a taxpayer's bill of rights – comes into play. The UK Inland Revenue had for some years a (quite short) taxpayers' charter, setting out in essence the service standard taxpayers could expect, but making the point that taxpayers had obligations (e.g., to be open in their dealings) as well. That charter has been dropped and in any event was more of a mission statement than a usable tool. Australia has gone much further with an extensive Taxpayers' Bill of Rights: part of the reason it is much longer is that it sets out both rights *and* responsibilities.

2.7. Transparency

The implementation aspects of a tax system can affect the transparency of the fiscal relationship between individuals and the government. For example, consider the proliferation of software-prepared returns. A taxpayer using software can deal with any and all the complications of tax liability calculation without having any sense of why and how the inputted information affects tax liability; in this way the system becomes less transparent, and opaqueness is not good for democracy. It brings the problem that they probably have to accept the result that the software churns out. That the software has an error in it is unlikely: where errors do creep in is usually with input errors ('garbage in, garbage out'). If the taxpayer does not understand what is going on – if the workings of the system are not transparent – they are not in a position to correct, or at least query, apparent errors.

This issue has been at the root of a lot of the controversy over the UK's tax credits system. A large proportion of beneficiaries are not used to dealing with the tax authority; they are asked to complete extensive forms (on line if they wish); the calculator whirrs and makes an award. Payments start. Some time later, perhaps circumstances change and the taxpayer notifies

---

that the penalty proposed is fair. It would not preclude a formal appeal, of course, and it is not yet clear whether the concept will be taken forward.

HMRC. The payments alter. Later still, they tell HMRC what their actual income for a tax year was. Suddenly someone works out that they have been overpaid because of errors in the claim or the calculation. The excess is to be clawed back…but the taxpayer now faces hardship as they, understandably, used the money they were given and were anticipating it would continue. Could they have anticipated this – spotted that they were being overpaid? Was it obvious? The original plan to claw back most overpayments has been much modified, resulting in many fewer being taken back.

Thus, an argument against some reforms that reduce compliance costs is that the majority of the population will become less well informed about the tax and benefit system (because someone else does their tax calculations for them), so that they are less in a position to criticize the government in the face of poor tax and benefit policy. The counter to this is that if the tax system is easier, more will comply (in every sense of the word) and trust (and faith) in the tax system will increase. Undoubtedly the complexity of a tax system itself contributes to the attractiveness of tax software, and the ubiquity of software reduces the marginal cost of complicating the tax system further.

The same issue applies to the use of business-based taxes, including both the VAT and exact withholding systems. Many conservatives in the U.S. maintain that not involving individuals in the tax remittance process by having them literally write cheques to the government reduces the perceived cost of government activity below its true cost, and thus leads to bigger government than what citizens would choose if confronted with its true cost.[31] Indeed, this reason was cited by the report of the 2005 President's Advisory Panel on Federal Tax Reform as a reason why they did not recommend a VAT.[32]

3. Implementation aspects of tax system design in the presence of wilful non-compliance

Tax implementation issues would arise even if all citizens were honest or dutiful, because taxpayers, withholding agents, and other third parties are required to submit information reports and will have to assemble, process, and transmit information about tax liabilities and because there needs to be an administrative machinery to record, check and monitor that remittances are

[31] Some conservative legislators in the U.S. have introduced into Congress a bill entitled the "Cost of Government Awareness Act," (HR 4855 IH) which would eliminate withholding and instead require individuals to pay income taxes in monthly installments.
[32] President's Advisory Panel on Federal Tax Reform (2005, p. 203).

received and credited properly. The issues get much more complex in the real world where some, if not all, citizens will evade their tax liabilities if the "odds" are favourable. Because of the importance of this, we must examine in more detail what determines non-compliance.

3.1. Deterrence

The canonical economic model of tax evasion presumes that the (potential) taxpayer's actions are motivated neither by morality nor duty, but are restrained only by the possibility of a punishment; we will refer to this as the deterrence model of tax evasion. The seminal formulation is due to Allingham and Sandmo (1972), who in the context of an income tax modelled the deterring factor as a fixed probability that any taxable income understatement would be detected and subjected to a proportional penalty over and above payment of the true tax liability (plus interest) itself.[33] The risk-averse taxpayer chooses a report in order to maximize expected utility, so that the choice of whether and how much to evade is akin to a choice of whether and how much to gamble. If and only if the expected payoff to this gamble is positive, a risk-averse (amoral, as discussed below) taxpayer will chance some evasion, with the amount depending on the expected payoff and the taxpayer's risk preferences.[34] A key assumption is that tax evasion is a cost-benefit calculation under uncertainty much like a portfolio decision; the fact that evasion it happens to be *illegal* is irrelevant other than how penalties change the cost-benefit comparison. Of course, what affects actual taxpayer decisions is not the objective probability of detection and attendant penalties, but the perception of same. Some survey evidence suggests that taxpayers systematically overstate the chances of getting caught, perhaps related to the well-known tendency of people to overestimate the likelihood of low probability events.[35] In this framework, more risk-averse individuals will, *ceteris paribus*, evade less. The

[33] The penalty may include injury to one's reputation, with or without a tangible penalty. Some countries have experimented with publishing names of tax defaulters but, certainly for many public companies, the concern is over their reputation with the tax authority. Will the chances of extensive investigations be increased by a poor compliance record? Probably, in these risk-based days, yes.
[34] Like all economics models that are highly stylized, it is not meant literally in the sense that each taxpayer sits at his or her desk and solves a constrained maximization problem. It does suggest that individuals (and firms, in a slightly different way—see below) weigh the potential gains and costs of evasion, considering the chance of being caught. The relevance of the model is ultimately an empirical question, resting on what patterns of behavior are explained best by elements of the deterrence model such as the chance of a given act of evasion being detected and penalized.
[35] Cite needed..

key result for policy is that increases in either the probability of punishment or the penalty rate will decrease evasion.

Perhaps the most compelling empirical support for the deterrence model in an income tax setting is the clear negative correlation between the non-compliance rate and the presence of enforcement mechanisms such as information reports and employer withholding.[36] In contrast, the effect on non-compliance of the penalty for detected evasion, as distinct from the probability that a given act of non-compliance will be subject to punishment, has not been compellingly established empirically.

The deterrence model and most subsequent theoretical extensions and empirical analyses have focused almost entirely on evasion by individuals, not businesses. However, for a number of reasons, understanding tax non-compliance of large, particularly publicly-held, companies may require a different conceptual framework. For one thing, in particular, the reputational risk is potentially a much more important factor: does the company want to become known as one that tries to avoid its taxes?[37] Another issue is that how tax-aggressive the shareholders want the corporation to be has to be conveyed to the managers who make such decisions. What should happen is that a policy is set by the Board and reviewed at intervals; that policy is communicated and ideally published to stakeholders.[38] How this gets conveyed is ignored in nearly all of the small existing literature on business tax non-compliance, which assumes that the firm owner makes the tax reporting decision without delegating decision-making responsibility.[39] Although this assumption makes sense for small, closely-held businesses, in a large, publicly-held corporation decisions about taxes (and, *inter alia*, accounting) are not made by the shareholders directly but rather by their agents, whether that is the chief financial officer or the vice president for taxation. In order to align the incentives of the decision-makers with the interests of the shareholders, the shareholders can tie the decision-makers' compensation, explicitly or implicitly, to observable outcomes such as the average effective tax rate or after-tax corporation

[36] Klepper and Nagin (1989) show that, across line items of the U.S. income tax form, noncompliance rates are related to proxies for the traceability, deniability, and ambiguity of items, which are in turn related to the probability that evasion will be detected and punished.

[37] See Hanlon and Slemrod (2006), who investigate the stock price reaction to news about corporate involvement in tax shelters, and try to isolate the mediating effect of reputational injury.

[38] See PricewaterhouseCoopers publications on managing tax risk, which recommend greater attention to and transparency over the risk factors in tax policies for public companies. Cite needed..

[39] One exception is Chen and Chu (2005), who investigate corporate tax evasion with a standard principal-agent model in which a risk-neutral owner of a firm hires a risk-averse manager.

profitability that affect the share price, or else tie compensation directly to the share price, as through the granting of stock options or restricted stock. There is also an interesting question as to whether the slowly increasing interest of analysts in the tax positions of companies is beginning to be a factor.[40] Most of the attention is on avoidance rather than any suggestion of evasion, another signal that as far as a public company is concerned, it is a reputational issue more than a monetary one.

In this setting the insights generated by the standard deterrence model of the demand for evasion may not apply. For example, if penalties for evasion apply to the agent, the company can alter the compensation contract with the tax director, to offset the intended consequences of the tax authority's policy. Enforcement strategies directed at the tax director and at the corporation itself may have different impacts on corporate behaviour. Because each of these policies is available to the government, it is valuable to know whether there is an *a priori* reason to prefer one to the other.[41]

The focus on deterrence raises the issue on what basis to allocate scarce resources to enquiries. Obviously random enquiries, as assumed by the original Allingham-Sandmo model, can be improved upon by making use of the statistical relationship between what is revealed on tax returns and ex post non-compliance; sophisticated "risk-management" techniques for this are used in many countries. A large theoretical literature has addressed this issue.

With respect to penalties, it has been well known since Becker (1968) that a government concerned with maximizing the expected utility of a representative citizen will want to set the penalty for detected crimes as high as possible, so that even with a low resource cost of enforcement, the overall expected deterrent effect will be large. But this argument ignores, inter alia, the possibility of a corrupt tax administrator who abuses the system or, alternatively, punishes someone who makes an honest mistake. The larger the penalty, the more damage that can be inflicted by a corrupt administrator or, in the case of an honest mistake, the more

[40] See the reports by Henderson Global Investors, authored by Rob Lake, and by Citigroup, authored by Kenneth Lee. Cites needed.

[41] Crocker and Slemrod (2005) investigate whether enforcement directed at the company or at the tax director is more effective in a costly state falsification model, in which the tax manager is assumed to possess private information regarding the extent of legally permissible reductions in taxable income, and may also lower tax liability through illegal evasion. In this model penalties imposed on the manager directly are more effective in reducing evasion than are those imposed on shareholders, because the latter are diluted when they are conveyed to the tax decision-makers via changes in the compensation contract that adjusts partially to the incentives generated by increased sanctions against illegal evasion.

capricious the system is. Hence the harsher the penalty, the more detailed and cautious the prosecution process must be. In addition, with bigger penalties courts may be more reluctant to find the taxpayer guilty of evasion, so that one consequence may be fewer penalties imposed. This argument also flies in the face of the common notion that the level of punishment should in some sense "fit" the crime. In the absence of explicitly modelling the interaction between the penalty rate and administrative costs, analytical models in the optimal tax framework usually assume a ceiling on the penalty rate.

3.2 Enforcement Systems: Information Reporting and Withholding

Although the deterrence framework helps to clarify thinking, it does not directly provide insight into the aspects of the information-gathering role of a tax authority that determine what probability of detection can be achieved for a given act of non-compliance with a given amount of resource the marginal administrative and compliance costs per pound raised through enforcement. This is particularly difficult to model formally because information varies in quality. For example, there is a qualitative difference between an auditor "knowing" that a given taxpayer is evading and having sufficient evidence to sustain a court finding to that extent. To an extent some tax systems (including the UK system) have dealt with the issue that only the taxpayer knows all his affairs by putting the burden of proof on the taxpayer, i.e. to displace an assessment. Also, the cost of gathering information depends on how accessible the information is, and whether it can be easily hidden.

There are several advantages to taxing a market transaction relative to taxing an activity of the individual such as self-consumption. First, in any market transaction there are two parties with conflicting interests. Hence, any transaction has the potential of being reported to the authorities by one unsatisfied party. A second property is that, the more documented the transaction, the lower is the cost of gathering information on it. For this reason it is easier to tax a transaction that involves a large company, which may well need the documentation for its own purposes, than to tax a small business, which may not require the same level of documentation. The large company will probably have systems in place which can more easily generate necessary tax information; for example, the payroll department will not usually see generating end-of-year tax returns as a major burden. For the small business, it can mean another evening on the kitchen table. Finally, market transactions establish arm's-length prices, which greatly facilitate valuing the transaction.

One problem in practice is that in some situations where market transactions do not exist, such as dealings among subsidiaries in different countries of a multinational corporation where the subsidiaries would not deal or do not deal with outsiders, a tax authority may have no option but to base its taxation on a comparable market, or 'arms-length" price. Calculating such a price in this situation can be enormously complicated and costly, while at the same time often affords multinational corporations considerable flexibility in shifting taxable income to relatively low-tax jurisdictions.

Administrative cost may also be a function of the physical size and the mobility of the tax base (e.g., it is harder to tax diamonds than installed windows), whether there is a registration of the tax base (e.g., owners of cars, holders of drivers' licences), the number of taxpayer units, and information sharing with other agencies.[42] It is also an increasing function of the complexity and lack of clarity of the tax law. Administrative cost may also be a function of the combination of the taxes employed and their rates, because the collection of information concerning one tax may facilitate the collection of another tax (e.g., inspection of VAT records may aid the collection of income tax).

Now consider compliance costs. Some of that cost is an unavoidable[43] cost of complying with the law, and some of it is voluntarily undertaken in an effort to reduce one's tax bill, but in either case it approximately represents resource costs to society. Integrating compliance costs into formal models in a meaningful way is challenging. As an example of the modelling difficulties this topic poses, consider the following problem: when is it optimal to delegate to employers the authority to collect taxes and convey information about employees, thus requiring the administration to audit both the taxpayer agent and the taxpayer himself, and when is it optimal to deal only with the employee? Clearly, given that the employer already has the necessary information, it would save administrative costs to require the employer to pass it along to the tax administrator. There is also the argument that the employer is geared to process information (or will be if they are of any size) and so can turn out 100 pieces of information of a

[42] A good description of the properties of administrative cost can be found in Shoup, Blough, and Newcomer (1937, pp. 337-51).
[43] This cost is unavoidable to the taxpayer, not to society, unless it is excessive, when the taxpayer may give up and the system generally – and hence society – will have the burden of sorting out the recalcitrant taxpayer's compliance

similar kind far more quickly than the 100 individuals each having to generate their own version. In many ways this is part of the justification for employer-based withholding systems such as the UK's PAYE system. In other words, this might also reduce total social costs if the cost of gathering information by the administration is higher than the increase in cost caused by imposing a two-stage gathering system.[44]

Information reporting is a central element of modern tax systems' implementation because it can provide the tax authority with transaction-based information from an arms-length party with little or no incentive to falsify the data. Thus, a working system of information reporting discourages non-compliance by increasing the risk of detection for a given amount of tax authority resources; in terms of the MECF, it reduces the term a.

According to OECD (2006), all OECD countries require information reporting on wages and salaries. In all the OECD countries (except Greece) that do not have withholding for dividends, they have information reporting. Every country (except Luxembourg) that does not have withholding on interest has information reporting.[45]

Under an invoice-credit VAT, the business seller must provide an invoice to the buyer in order for the seller to credit the taxes that were remitted by the seller. This is a mechanism that is designed to take advantage of the information flows between arm's-length parties. It is also a means to give both sides an interest in ensuring proper documentation is created and processed, thus, in principle, reducing the chances of fraud.[46]

Withholding facilitates administration by allowing the tax authority to concentrate its collection resources on a smaller number of remitters that for other reasons have in place relatively sophisticated financial systems. In order to withhold the appropriate amount of tax from a single payment, a payer either must know the recipient's total taxable income for the year and how much of the payment is net income or the withholding must be at a simple, set rate. In

---

[44] Note that a withholding system requires two information gathering systems and might generate incentives for the withholding agent to evade the taxes it collects, or to collaborate with withholdees in withholding less than required (Yaniv, 1988, 1992).

[45] In an effort to ensure that individuals resident in an EU member state who receive interest income from another member state are taxed where they are resident, an EU Savings issued in June, 2003 requires that payments of interest made on or after July 1, 2005 are either (1) reportable by paying agents in the EU to the tax authorities in the paying agents home territory or (2) subject to withholding tax in those territories which have opted to apply withholding tax rather than report the payment.

[46] Note that in principle a somewhat similar arrangement could be applied under an income tax. A business could be allowed to deduct business expense (perhaps only of specified types) only if it has reported to the tax authority the total value of all related payments for each person or other business it paid in these transactions.

an employment situation, there is a continuing relationship between the employer and employee, and the employer usually knows the annual remuneration of the employees. A common source of tension is the conditions under which an employer is required to withhold (and perform other duties) for someone who works for the company-- the distinction between an employee and an independent contractor.[47][48]

Withholding agents directly bear compliance costs, which are generally deductible in computing taxable income as being part of the costs of running the payroll department (for employers) or banking function (when tax is withheld from interest).[49] Who ultimately bears these costs is subject to the same supply-and-demand forces as the incidence of explicit taxes. Some countries provide explicit compensation to withholding agents or allow a time lag between what triggers tax liability and when the remittance is due; this reduces the effective tax rate.

Withholding for income tax is widespread among developed countries. Employer withholding for wages and salaries is required in 28 of 30 OECD countries, all except France and Switzerland.[50] The use of withholding on other sources of income varies across the OECD. 22 of 30 countries have withholding on dividends; the UK has no withholding tax on dividends.[51]

Twenty-one of 30 OECD countries have withholding on interest, including the UK but not the US, which has it only if the taxpayer does not provide an identification number to the payer. Twelve of 30 OECD countries have withholding on at least some independent personal services;[52] the UK does, for the construction industry and certain rents, but the US does not.

[47] Because small business is particularly hard to tax, in some countries there is withholding on business income, under which tax is deducted from a payment that is presumed to be taxable income to the recipient. In a few cases, there is "reverse" withholding, tax is added to an expenditure made by the taxpayer, rather than withheld from the taxpayer's income. There may be an indirect relation, however, if the transaction is expected to result in taxable profits, as when importers, wholesalers, or retailers, purchase goods for resale. Tax systems that withhold on business income usually exclude as withholding agents individuals in their capacity as consumers--they are too numerous and not sufficiently capable as a class to be suitable withholding agents. One important result of excluding individual consumers is that most retail establishments remain unaffected by withholding. Withholding for business income tax is discussed in Soos (1990).

[48] See, for example, the UK's 'IR35' rules and the current Managed Service Company proposals

[49] Although see the case of *Meredith v Roberts,* ChD 1968 44TC559. Mr. Meredith, an Oldham solicitor, made an error, according to the Inland Revenue, in his PAYE calculations. He disputed the taxman's claim but lost. Subsequently he claimed the cost of the litigation as a business expense, arguing that it was all about the cost of running the PAYE system on the Government's behalf. He lost as the Court held the amounts were not 'wholly and exclusively' for his profession.

[50] In France, there is withholding for social contributions but not for personal income tax. In Switzerland aliens in possession of a work permit are subject to withholding.

[51] In Austria, France, and Portugal, the tax withheld is the final tax.

[52] Two more countries have it when the taxpayer does not provide a taxpayer identification number to the payer.

Eleven of 30 OECD countries, including the UK, have withholding on royalties and patents, although 13 more countries do so when paid to non-residents.

Some countries have withholding on fees for services; the analogy is to wages for employees because they are for the supply of labour. Because withholding on fees for services is on gross payment, countries often compensate by establishing low rates or by providing for a reduced tax base. Withholding is often restricted to individuals in the course of their business, corporations, and government agencies.

Of the 30 OECD countries, exactly half have a system of cumulative withholding that is mainly return-free. Nine have a system of non-cumulative withholding where a return is required. Four others use a reconciliation approach with pre-populated returns sent to taxpayers for validation.

It has been suggested that "overwithholding" may be essential for the successful administration of a self-assessment system because the prospect of a tax refund induces many taxpayers to file returns. This model is followed in many countries, for example in Australia and New Zealand, and leads to taxpayers generally submitting their tax returns quickly. Withholding also assures that some tax is remitted in regard to the employees' income, even if they fail to file returns or otherwise disregard their tax obligations.

Tax systems often contain an indirect incentive to proper withholding and proper documentation. Usually a business will wish to claim a deduction itself for wage payments; so if their payment records are not in order, the deduction will be at risk of challenge. In a credit-invoice VAT, in order for purchasers to credit tax the supplier must remit tax and provide a proper tax invoice.

The importance of information reporting and withholding is well illustrated by some findings from the US tax gap studies arising from the IRS's National Research Program (NRP).[53] According to latest study for tax year 2001, income tax non-compliance is estimated to be 16.3 percent of true tax liability, or 13.7 percent after subtracting what the IRS expects to recover through its enforcement activities and other late payments. Perhaps the most striking and important aspect of the NRP results is the huge variation in the rate of misreporting as a

[53] Under this program, the IRS conducts a program of intensive audits on a large stratified random sample of tax returns, using the results to develop a formula that informs the selection of returns for regular audits. The NRP data consist of line-by-line information about what the taxpayer reported, and what the examiner concluded was correct.

percentage of actual income across types of income (or offset). Only 1 percent of wages and salaries are underreported and 4 percent of taxable interest and dividends are misreported.[54] Of course, wages and salaries, interest, and dividends must also all be reported to the IRS by those who pay them; in addition, wages and salaries are subject to employer withholding. Self-employment business income is not subject to information reports, and its estimated non-compliance rate is sharply higher. An estimated 57 percent of non-farm proprietor income is not reported, which by itself accounts for more than a third of the total estimated underreporting for the individual income tax. As with prior estimates of the individual income tax underreporting gap, over half is attributable to the underreporting of business income, of which non-farm proprietor income is the largest component.

All in all, there is substantial evidence that the extent of evasion for sole proprietor income is high compared to such income sources as wages, salaries, interest, and dividends, and may be more than half of true income. Other components of taxable income for which information reports are nonexistent or of limited value, such as other non-wage income and tax credits, also have relatively high estimated misreporting rates. The IRS (2006) reports that the net misreporting percentage is 53.9, 8.6, and 4.5 percent for income types subject to "little or no," "some," and "substantial" information reporting, respectively, and is just 1.2 percent for those amounts subject to both withholding and substantial information reporting. These percentages clearly correlate strongly with the likelihood of income understatement being detected.

The discussion of information reports and withholding highlights the critical role of business in the operation of modern tax systems. The Meade Committee report (1978, p. 20) noted this, and remarked that in many cases the cheapest method of tax collection makes use of private individuals or businesses as "agents for the collection of tax." It argued that this might lead to an insistence that the process be simple, and that "to leave to competing firms the task of tax collection may induce a healthy search for the most efficient methods of carrying out the operation." The impetus behind the central role of business in tax remittance has been elegantly stated by Richard Bird, who wrote: "The key to effective taxation is information, and the key to information in the modern economy is the corporation. The corporation is thus the modern fiscal

[54] These percentages exclude underreporting associated with nonfiling.

state's equivalent of the customs barrier at the border."[55] Collecting taxes from businesses makes use of the economy of scale of the tax authority dealing with a smaller number of larger units, many of which for other purposes have already developed sophisticated systems of recordkeeping and accounting.

The central role of businesses in the tax remittance process is blurred by the loose language used to categorize what taxes are "business taxes." The public positions of business associations reveal that they are often adamant about cutting—or, certainly, not increasing—"business taxes." Clarifying the precise meaning of a "business tax," and distinguishing among remitting taxes to the government, having a statutory liability to pay tax, and bearing the burden of a tax is especially important. Indeed, according to tax incidence theory these distinctions are largely irrelevant because, as discussed earlier, which party writes a cheque to the tax authority does not indicate anything about bearing the burden of a tax, because the tax burden can be shifted through the adjustment of market prices.

Where work is undoubtedly needed is to encourage better, more transparent reporting of taxes that businesses are involved in. After all, given that business will typically play a part in the great majority of the taxes collected in a country; surely that should be recognised in the information disseminated by businesses?

With this in mind, PricewaterhouseCoopers (2006, 2007) has developed a reporting framework – the Total Tax Contribution (TTC) methodology. This encourages companies to collate information about all their tax payments, distinguishing between:

- taxes borne, which hit the profit and loss account (possibly after first being capitalised), which would include corporate income taxes, employer's social security contributions and irrecoverable VAT
- taxes collected, which do not, apart from compliance costs, affect the company's profitability; these include most of the VAT/GST amounts, most excise duties and taxes such as PAYE deducted from employees' pay.

The company should then report such data, ideally by country; they might also wish to report tax administration costs.

The reporting can extend – and perhaps should – to other significant payments to government, such as licence fees, but they will in the main not rank as a tax, especially if they

[55] Bird (2002).

are in fact user fees for services priced at appropriate cost. In any event, exactly what is a tax under the TTC principle is an interesting subject in itself.

The Total Tax Contribution methodology is especially welcome because it sheds slight on the critical and multiple roles of business in all modern tax systems. Its terminology also highlights the disjunction between how business representatives and economists view the impact of taxes.[56] The TTC makes a sharp distinction – based on the labelling of the tax, not on what triggers the tax – between what taxes are "borne" by businesses and which are not. Economists generally see this as a false distinction, because all taxes have the potential to be shifted via their influence on pre-tax market prices; what determines the extent of this shifting is what triggers the tax and the supply and demand conditions that influence the response to the tax so triggered. From this perspective, the distinction between business taxes and nonbusiness taxes is not germane to the consequences of the tax, if the triggering events are the same. The distinction between the employer's "share" and employee's "share" of social security contributions is, according to this view, especially misleading—the consequences of the tax do not depend on this labelling distinction. In all of these cases, as long as prices (including wage rates and the returns to capital) are ultimately set by the interaction of supply and demand, in the long run the after-tax returns to the relevant parties will not be affected, administrative and compliance issues aside, by these distinctions. Thus, employee taxes *can* affect profitability through changes in pre-tax prices, and so employee taxes are not necessarily borne entirely by employers – they may be shifted in part to employees. But there may be an important distinction to make in the short run where prices may not be perfectly flexible.

3.3. Duty and obligation

The deterrence model of tax evasion presumes that individuals (and firms) are entirely amoral, and remit taxes only when a cost-benefit calculation (or an expected utility maximization, to be precise) so indicates. Arguably, though, a non-trivial segment of individuals (and maybe even firms) would remit the taxes they owe even in the absence of any enforcement due to a sense of obligation or duty. Indeed, some have argued, that duty and obligation are

[56] Slemrod (2007b) discusses the views of the major business associations in the U.S. on taxation, and contrasts them with the economic analysis of the consequences of taxation. Neubig (2006) argues that the way that taxes appear in public financial statements also influences business views on tax policy, in part because two policies that are equivalent in standard economic models may have very different implications for a public corporation's earnings.

central to understanding taxpaying behaviour. The argument is sometimes loosely based on the observation that, given the probability of audit and the penalties typically assessed, evasion seems to be a winning proposition for many more people than actually do evade. For example, Feld and Frey (2000, p. 5) assert that it is "impossible to account for tax compliance in terms of expected punishment." From this perspective, the puzzle is not to explain why people evade, but rather why people pay (so much) taxes. Though, as has already been noted, this work does not put a value on the possible reputational damage for the taxpayer; that may help explain the unexpectedly compliant behaviour.

Although the usual argument dismissing the deterrence model is not persuasive,[57] there are certainly reasons to doubt that it is the end of the story. Some experimental evidence finds that subjects respond not only to the probabilities and stakes of a tax evasion game, but also to context provided to them. Tax evasion free riding may be suppressed, as has been found to be true in other settings. There is mixed evidence about whether dissatisfaction with the tax system is related to non-compliance: it should not in a deterrence framework. [58]

Frey (1997) argues that punitive enforcement policies may crowds out "intrinsic" motivation of dutiful citizens by making them feel that they pay taxes because they have to, rather than because they want to. Feld and Frey (1999) argue that where the relationship between the individual and the tax authority is seen as involving an implicit contract sustained by trust, individuals will comply due to high "tax morale." To sustain citizens' commitment to the contract and therefore their morale, the tax authority must act respectfully toward citizens while at the same time protecting the honest from the free rider. (From this perspective, maintaining high "tax morale" might be a reason for spending more on enforcement than would be optimal in a model populated solely by nondutiful taxpayers.) It does this by giving taxpayers the benefit of

[57] The usual argument dismissing the deterrence model is not correct because it relies on the observation that, given the average audit rate in the US of less than 2 percent, the penalty rates in effect, and what we know about the degree of risk aversion from other contexts, compliance should be much lower than it apparently is. The flaw in this argument is that the 2 percent probability of detection is certainly a vast understatement for the bulk of income subject to tax. A wage or salary earner whose employer submits this information electronically to the tax authority, but who does not report that income on his own personal return, will be flagged for further scrutiny with a probability much closer to 100 percent than to 2 percent. In addition, to the extent that past years' returns may be audited, the relevant probability is the probability of audit over a number of years rather than in a single year.

[58] Scholz and Lubell (1998) found that, controlling for attitudes about tax fairness and equity, civic duty, political efficacy, tax duty, opportunity for evasion, and being in a high non-compliance occupation, high scores on two trust measures ("You can generally trust the government to do what is right," and "Dishonesty in government is pretty rare") significantly decrease the likelihood of non-compliance.

the doubt when it finds a mistake, by sanctioning small violations more mildly, and by sanctioning large and basic violations (e.g., the failure to file a return) more heavily.[59]

If perceptions matter for tax compliance, a natural question is to what extent tax compliance behaviour can be manipulated by the government to lower the cost of raising resources. Appeals to patriotism to induce citizens to pay their taxes (and, often, buy war bonds) are common in recent times.[60] That such campaigns are successful during ordinary (non-war) times in swaying taxpayers from their otherwise optimal compliance strategy has not, though, been compellingly demonstrated.[61]

The importance of honesty and dutifulness takes on a different perspective once one recognizes the central role of businesses in tax remittance, and the implications of the separation between ownership and control in public corporations become particularly intriguing. Do the arguments that suggest that taxpayers are influenced by more than the cost-benefit calculation apply to public corporations' tax compliance behaviour? It is plausible that this is affected by whether the managers view paying taxes as a civic virtue or duty, and so abusive corporate avoidance has an ethical dimension just as evasion does, and may be responsive to non-deterrence aspects of the tax system. But a manager acting in the interest of the shareholders arguably should repress his or her own civic virtues, and not be distracted from profit maximizing.

II. IMPLEMENTATION ISSUES IN THE UK TAX SYSTEM

Having provided an analytical framework for addressing implementation issues and having discussed what procedures are of practical use in implementing a tax system, we can now proceed to address and evaluate the UK tax system, and in particular its implementation procedures. How good is the implementation, and in what ways can it be improved?

---

[59] Some survey evidence also provides support for this view. Torgler (2003) and Slemrod (2003) show there is a positive relationship across countries between survey-based attitudes toward tax evasion on the one hand and professed trust in government, and Slemrod (2003) finds that the same relationship holds across individuals within the United States and Germany.

[60] The U.S. Secretary of Treasury during World War I, William Gibbs McAdoo, referred to these campaigns as "capitalizing patriotism." Kang and Rockoff (2006) discuss the World War I experience, while Jones (1996) discusses U.S. fiscal propaganda during World War II.

[61] In a randomized field experiment with Minnesota taxpayers in a peacetime setting, Blumenthal, Christian, and Slemrod (2001) find no evidence that either of two written appeals to taxpayers' consciences had a significant effect on compliance. One letter stressed the beneficial effects of tax-funded projects, while the other conveyed the message that most taxpayers were compliant. Torgler (2004), using a controlled field experiment in Switzerland, also found that moral suasion has hardly any effect on taxpayers' compliance behaviour.

The big picture is that the UK tax system makes broad use of the key administration of enforcement mechanisms. It has a wide-range of information reporting requirements. Prime among these are the obligations on employers, with requirements to notify the tax authority of annual pay, benefits, etc. of individuals and details of joiners and leavers. Companies need to advise dividends; returns have to be made of share schemes; returns have to be made of deceased's estates, including past transfers; and there is a significant infrastructure built around the construction industry with a range of reporting requirements.

Moreover, the UK tax system is largely based on remittances by businesses. How much is suggested by Table 1, which provides the details of a calculation of the proportion of taxes that are remitted by businesses. It shows that for all taxes, 84 percent are remitted by businesses.[62] For those taxes administered by the HMRC, 91 percent are remitted by businesses.

Taxpayers are served by a community of about 100,000 tax agents and payroll intermediaries. 56% of self-assessment taxpayers have agents, as do 80% of companies, 29% of VAT traders, and 38% of employers.[63]

We can get some sense of the administrative costs generated by the tax system. According to OECD (2006), in 2004, the ratio of costs to revenue was 0.97 in the UK. The US figure of 0.56 was much lower, although the UK figure is close to the OECD median.[64] [65]

Getting reliable estimates of compliance costs is difficult, and getting estimates that are comparable across countries is even more difficult. To be sure, there have been a large number of studies that have tried to measure the compliance costs of UK taxes.[66] Our sense is that the overall compliance costs are lower in the UK compared to the US, but it is impossible to place these costs into a comparative OECD context. Because, unlike in the US, there has been no

---

[62] Strikingly, this is almost exactly the same proportion found for the U.S. by Christensen, Cline and Neubig (2001), who calculate that in 1999 businesses "paid, collected, and remitted" 83.8 percent of total taxes to all levels of government. Of the 83.8 percent, they label 31.3 percent as "tax liability of business," 8.1 percent as the "business as tax collector," and 44.4 percent as "business as withholding agent."

[63] Lord Carter of Coles (2006, p. 9)

[64] The UK numerator includes all staff of national contributions agency, and the US revenue base includes social contributions. The US ratios differ from IRS-published ratio of 0.45 because of the use of "net" and not "gross" collections. The UK also includes those who manage tax credits and various other payments or benefits that might not immediately seem to be taxes, such as student loan repayments and the operation of the national minimum wage.

[65] The Meade Committee noted that the ratio of administrative costs to revenue raised was much higher in the UK compared to the US as of the 1970s.

[66] The studies of the compliance cost of the UK tax system are summarized in an appendix available from the authors.

comprehensive evaluation of the extent and nature of tax non-compliance, it is impossible to present a broad picture of this in the U.K.

4. Individual income tax and National Insurance Contributions

After an age-related personal allowance, taxable income is subject to different rates depending on the tax bracket, known as the "tax band", within which the income falls. As of 2005-6, the starting-rate band is subject to a rate of 10 percent, the basic-rate band is subject to a rate of 22 percent, and the higher-rate band is subject to a rate of 40 percent. Interest and dividend income are subject to slightly different rates of tax, and taxes on dividends may be offset with a dividend tax credit. Of the estimated 29.2 million taxpayers in 2005-6, 4.1 million (14.2 percent) are subject to the starting rate, 21.9 million (75.0 percent) to the basic rate, and 3.2 million (10.8 percent) to the higher rate. Only one percent of revenue, however, is accounted for by taxpayers subject to the starting rate; 46.4 percent is accounted for by taxpayers subject to the basic rate, and 52.6 percent is accounted for by taxpayers subject to the higher rate.

There are two important implementation regimes for the individual income tax—PAYE and self-assessment. We discuss each in turn.

4.1 Pay As You Earn

4.1.1. How it works

Most UK income tax is deducted at source and remitted by employers (or pension providers) through the Pay As You Earn (PAYE) system, or by banks and building societies for any interest payments.[67] As NAO (2002-3, p. 45) describes it, PAYE "is not in itself a set of tax rules to calculate tax liability. It is a convenient and efficient method of collection…which compels employers to operate the scheme and pay over the tax so collected each month and reduces the risk of non-compliance."

When calculating tax due each week or month, the employer considers income not simply for the period in question but for the whole of the tax year to date. Tax due on total cumulative income is calculated (taking into account allowances for the tax year to date) and tax paid thus far is deducted, giving a figure for tax due this week or month. The 'trick' of the PAYE system is the use of the tax code. Each employee (and most pensioners) will be issued a tax code: this is

[67] The description of PAYE is taken from Adam and Browne (2006, p. 7-8).

a composite figure of the tax allowances due for the year, translated by the HMRC into a code number. Having calculated the code, the HMRC then notify the taxpayer to check and to the employer to action. In theory, the taxpayer should check that the code is accurate and must notify the HMRC immediately of any change in personal circumstances that may subsequently affect the code. However, due to a combination of i) taxpayer inertia; ii) taxpayers' lack of understanding of what is going on; iii) HMRC errors; and iv) taxpayers' general belief that what is on an official form must be correct; errors in codes are too often missed. This would matter less if there was an automatic mechanism for picking up errors and checking the resulting annual deductions from pay. This does not happen, as in the UK only a minority – under 10 million – of taxpayers complete an annual tax return. The majority – some 20 million – presume that PAYE will get their tax bills right.

As noted, the code is then sent to the individual's employer, who is then able to use it to calculate the amount of tax to be deducted each pay period. The coding system has had many innovations over the years and has proved surprisingly resilient. One 'breakthrough' was the 'K' code – a negative allowance. This caters for someone whose benefits from the employer or underpaid tax from earlier years outweighed the allowances due. Thus a code of K120 would signal to the employer that £1,200 would have to be added to annual pay (or £100 a month) to calculate tax due. Codes can be split across two jobs, although there is evidence, discussed below, that the PAYE system does not cope well with what might be termed non-standard situations.

At the end of the tax year the employer notifies each employee about how much tax has been withheld, and sends the same information to the HMRC. If individual circumstances change (e.g., starting to receive a pension), HMRC issues a new tax code for that individual. For those with relatively simple affairs, the cumulative system means that no end-of-year adjustment is necessary.

Cumulative withholding has been compared to a "vintage Rolls Royce, which the [Inland] Revenue laboriously…maintains which the employer is required to drive…and in which the taxpayer rides in reasonable comfort and for free."[68] Indeed, taxpayers covered by the PAYE system incur no direct compliance costs and are largely (and blissfully?) unaware of the tax system other than to grumble about how much of their pay is consumed by PAYE and NICs.

---

[68] Inland Revenue Commissioners, Report for the year ended 31st March 1977, 1978, Cmmd,. No. 7092, at 28.

This mindset does contribute to the lack of attention to coding notices and general lack of understanding of tax, something not replicated in systems, such as in Australia and the U.S., with their systems of over-withholding and universal tax returns.

Taxes are also withheld for certain forms of non-wage income. For example, banks and other financial institutions remit tax on interest income at a rate of 20 percent. Individuals who not expect to have a tax liability can file a form with the financial institution to stop withholding. However, this 20 percent withholding causes overpayment of tax among those who just creep into the tax payment bracket (and are thus paying at 10 percent and are due a small repayment). Dividends, in effect, have a similar withholding although in actuality there is no withholding on UK dividends. Instead the dividend comes with a tax credit that satisfies the basic rate tax liability whilst leaving the higher rate payer with more to pay.

Operating in parallel to the PAYE system is the National Insurance Contribution (NIC) system. National Insurance Contributions (NICs) are traceable back to Lloyd George and the 'People's Budget' of 1909 in which the idea of contributions from pay to secure benefits was launched. That has evolved significantly over time, notably in 1948, as a system of compulsory social insurance. Workers paid compulsory contributions into a national insurance fund, thereby earning the right to receive certain ("contributory") social security benefits (unemployment and incapacity benefits, retirement pension, etc). Since then, however, substantial reform has eroded the link between NICs paid and social security benefits received, and moved the structure of NICs much closer to that of income tax. NICs are payable on labor earnings (unlike income tax, which is paid on both labor and capital income). Income tax treats earnings from employment and self-employment identically, while NICs do not.[69]

In principle the employer's responsibilities are the same for NICs as PAYE: to calculate an amount deducted from the employee's pay and send that on to HMRC (who now also control NICs). However, there are some major differences. For one thing, the definition of pay for PAYE and NICs differs. The cumulative approach for PAYE is not replicated for NICs, which runs on a weekly basis with all pay over a base level attracting NICs.

Over time the PAYE/NIC system has become more complex, as it has been tweaked to cope with issues way beyond the basic design that contemplated payment in cash (or cheque).

---

[69] There is both an employer and employee liability for NICs, but this labelling difference is unlikely to affect the long-term consequences of the tax.

In-kind benefits are the obvious example of this. The 'pay' definition has been stretched to cope (or not) with such things as share schemes.

The economic environment has also changed in ways that present challenges to PAYE. For example, there are a growing amount of individuals with multiple employment or multiple income sources, including pensioners.[70] Job changes have become more frequent. Twenty percent of jobs last less than one year, five percent for less than three months.[71] There is more part-time and temporary work. Employers also have to manage student loan deductions, sick pay and maternity pay.

The second source is the expanding scope of the PAYE system itself. The proportion of individuals captured by income tax net has increased, as has the complexity of income taxation. NIC and PAYE operate under different rules, driven further apart by growth of benefits-in-kind (Whiting 2003, p. 43)--complexity of taxing benefits in kind.

4.1.2. Accuracy

One important issue with the PAYE system is its accuracy. The Comptroller and Auditor General's report (Bourn, 2005) notes that the Department's Internal Audit Office estimated that around £575 million per annum of tax due had not been pursued by the Department, and that taxpayers were not being advised of around £295 million per annum potentially repayable. All in all, about 3.8 million taxpayers had paid too much or too little. The main cause of this problem was the Department's failure to finalize and correctly calculate tax liabilities where people had more than one source of employment income: there is no single PAYE account for individual taxpayers who have more than one job. This is an issue that particularly affects pensioners: it is far from unusual for a pensioner to have three pensions – one from the state, an employer's pension and a personal, private pension. The state pension is paid gross of any tax due on it, which usually leads to a severe (and confusing) restriction of the tax code which gets applied to one of the pensions. Meanwhile the other can have tax at basic rate applied, but that may all add up to the wrong answer. The pensioner – often someone who has gone through working life paying tax via PAYE and never having to worry about tax responsibilities – can suddenly find that PAYE isn't really coping with their situation and they are drawn into the

[70] Pensions in payment are essentially treated as pay as far as PAYE is concerned, and thus the pension scheme acts as employer, deducting PAYE from the pension in accordance with the pensioner's tax code.
[71] Bourn (2005).

world of tax returns. There is an irony in that now they have retired, the state expects them to take a greater involvement in their tax affairs…or is it that the state is trying to keep them active in retirement by giving them a mental challenge rivalled only by a super-fiendish-grade Sudoku puzzle? Because most taxpayers are not actively monitoring the withholding done on their behalf by employers, mistakes made in withholding are likely to carry over to be mistakes in total tax liability.

4.1.3. Flexibility—The Case of Credits

Another key issue is how flexible the PAYE system is to social programs delivered through the tax system. One excellent example is tax credits. From October 1999, the UK has had tax credits that took the place of two means-tested benefits. Although, at first, these credits were payable through the wage packet, in part to emphasise the link to work, changes made in April 2006 abandoned payment via employers, replacing it with direct payment into recipients' bank accounts. The Government's stated reason for abandoning payment via employers was a desire to reduce compliance costs imposed on employers.[72] The component of compliance costs probably responsible for breaking the camel's back was employer amendment notices. Amendment notices were letters sent to employers asking them to alter their tax credit payments whenever awards needed to be adjusted within-year, a consequence of the move to a responsive system of awards. Amendment notices, however, imposed substantial new compliance burdens on employers. The volume of amendment notices was much higher than expected, both because of administrative difficulties that led to large numbers of errors and delays in calculating awards, and to the fact that the number of families reporting changes in circumstances within-year seems to have been much higher than predicted.[73] The Government apparently concluded that the ongoing costs imposed in the first instance on employers by a responsive system of awards were too high to continue with payment in wages.[74] The cost to the Government of administering payment via employers probably also contributed to its abandonment.

---

[72] HMRC (2005b, paragraph 14).

[73] There also seems to have been administrative problems issuing amendment notices, with some employers receiving multiple (sometime conflicting) or confusing requests to change their tax credit payments, all of which would have added to the burden placed on employers. This account is based on http://www.hmrc.gov.uk/employers/amendment-notices.htm.

[74] In fact, some changes made to the system of awards would have *increased* the number of amendment notices that had to be sent out.

Usually one might expect a trade off between administrative and compliance costs – less work done by Government means more left for employers (or individuals). But since payment via employers was primarily symbolic (intended to demonstrate that tax credits are a reward for work), we shouldn't be surprised to discover that it was also more expensive to administer (we have already seen that compliance costs were higher). The regulatory impact assessment for the abolition of payment via employers suggested that reverting to direct payment would save the Government between £3 million and £4 million per year, with one-off transition costs of between £1 million and £2 million.[75]

Administrative costs were probably higher under payment via employers because it effectively added an additional link in the payment chain without simplifying administration. The Government still had to do all the entitlement calculations itself (just like a benefit claim) because tax credit awards depended on factors not held by employers (such as partner's income, number of children, childcare use, etc).[76,77] Instead of using this information to pay recipients directly, the Government passed it onto employers who were asked to do it through wages. At the same time, the employer, whilst they had a payment system, couldn't automate everything – each notice had to be handled individually rather than there being a simple bulk processing efficiency gain.

When introducing payment via employers, the Government suggested it would "reduce wasteful overlap between the tax and benefit systems." This argument seems largely spurious: administration (and compliance) costs arise mostly from the need to make tax and tax credit calculations, and are largely independent of the size of transfers made. So, not only would compliance costs be reduced by abandonment of payment via employers, administrative costs would fall, too. Had the system been a true integration – implying a negative income tax system – then the overlap might have been smoothed. But even then there would have been major issues to be addressed about the mismatch between pay (essentially on an annual cycle) and benefits (essentially on a variable, changing basis).

---

[75] HMRC (2005b).

[76] A fundamental difficulty with trying to use the tax system to provide in-work support is that the tax system is based around *individuals*, but support is paid for (and to) low income *families*. That also causes great difficulty in identifying the family unit to aggregate in many cases and is another contributor to the regular varying of claim amounts.

[77] This is in contrast to the way that student loan repayments work: HMRC notifies employers when to start making deductions, but employers are responsible for calculating the amount that should be taken off. This is possible because student loan repayments depend only on individual income and are fixed unless income varies.

Undoubtedly the perceived complexity of the tax credit system – the paper claim forms are extensive and daunting – contributed to lower-than-expected take up of tax credits. At least most claimants who do receive money perceive it is worth claiming, though the bad publicity attendant on the reclaim problems has again contributed to lesser take up – people being frightened into not wanting to get themselves into the position of being threatened with reclaims.[78] [79]

4.1.4. Compliance costs

The Inland Revenue (1998) investigated the compliance costs of PAYE for 1995-6, based on mail surveys completed by 1300 employers and follow-up in reviews with 310 employers. The estimated total cost was £1.32 billion, or 1.3 percent of the PAYE and NIC revenue collected.[80] Notably, the compliance costs were highly regressive, in the sense that the per-employee cost was much higher for small compared to large firms. The compliance costs for employers with 1-4 employees were £288 per employee, compared to less than £5 for employers with more than 5000 employees. Tellingly, the study concluded that the high fixed compliance costs in some cases deterred small business owners from taking on an employee.

Demands placed on employers by PAYE have increased since 1995-6: the PAYE and NIC systems have become more complex and additional factors have come along ranging from student loan repayments through tax credits to statutory maternity and sick pay. On the regressivity, Sandford concluded that when small firms compete with large firms they are placed under a "state-created competitive disadvantage" that stems from the inability of small firms to pass on compliance costs as "easily: as large firms; indeed, the increase in the equilibrium price of the product will depend on the compliance cost as a share of total costs averaged over all firms, and this will offset more of the actual compliance cost of large firms compared to small firms.. Whether this disadvantage for small businesses is socially inefficient, though, is not clear

[78] The Low Incomes Tax Reform Group has examined this issue. Cite needed.

[79] There is perhaps a comparison with R&D tax credits, which have been under-claimed by business partly because of companies perceiving them to be 'not worth the hassle'. See PricewaterhouseCoopers (2006), which examines the incentives available to SMEs.

[80] Although the employer directly bears most of the compliance cost of operating the PAYE system, the costs may to some degree be shifted according to the same supply-and-demand logic that applies to the shifting of explicit tax liabilities, so it cannot presume that the compliance costs reduce after-tax profits pound for pound from what they would have been in the absence compliance costs.

because it might to some extent reflect the higher equal cost of raising money from small businesses.[81]

Based on the same data, Godwin (2001) estimated the "cash-flow benefit" of the PAYE/NIC system, and concluded that for large employers (those with more than 1,000 employees) it exceeded their compliance costs. The cash-flow benefit arises because PAYE and NIC remittances are due about three and a half weeks after companies pay their employees, allowing the business that amount of time "to use the cash-flow generated from the PAYE system."[82] That is, it refers to the interest the businesses receive in the period between when the taxes are "collected" from employees because they need not remit tax to the HMRC immediately. However, just as the administrative burdens have increased, so have interest rates come down, reducing the cash-flow benefit.[83]

To a business both compliance costs and tax remittances are outlays, and therefore a reduction in the present value of tax remittances (the cash-flow benefit) offsets to some degree the compliance costs. From a society's point of view, however, they are not the same. Any cash-flow benefit to the business entails a mirror-image reduction in the present value of tax collections; in contrast, a decrease in compliance costs does not have an automatically offsetting impact on collections. In other words, the cash-flow benefit is a transfer, while the compliance costs are a social resource cost.

4.1.5. The self-employed

Self-employed individuals comprise one category of taxpayer that is outside of the standard collection and enforcement mechanisms of information reporting and withholding. One implication of this is that there is tension between who is an employee and who is not. In the UK, those who are self-employed can be paid gross, while those who are employees are subject to withholding of income taxes through PAYE and NICs (and indeed cause their employers to remit substantial "employer" NICs). The dividing line between the two has been the cause of many disputes and remains an area for attention by the tax authorities, who see withholding as an

[81] Sandford (xxxx, p. 9, 200-1)
[82] Farrell (2006, p. 12).
[83] The same issue arises with regard to "vendor discounts" in many U.S. states' retail sales taxes. These discounts are offered by some states for the prompt remittance of sales tax by retail establishments. These discounts are sometimes justified as compensation for the compliance costs incurred by the retailers. But if the discounts were just equal to a fraction of the tax liability, their effect would be identical to a statutory reduction in the tax rate.

effective collection instrument and anti-evasion technique, and also by employers, fearful of being caught out wrongly applying the rules and opening themselves up for penalties. One defence mechanism here is for those using sub-contractors to require them to operate through their own service company, giving therefore a measure of insulation for the user of the services in that they can certainly treat the company as a contractor and thus pay it gross. The response of the UK tax authorities was to try and police this arrangement by introducing the 'IR35' rules in 1999. These became some of the most controversial provisions, not least because it threatened to cost many small businesses considerable amounts of tax remittances but also because of the additional administrative burdens that were being imposed. In turn, attempts to circumvent the IR35 rules by way of 'managed service companies' or 'composite companies' is leading to another tranche of anti-avoidance legislation in 2007. In all of this, the main motivator is in effect the avoidance of NICs rather than income tax.

As far as the UK is concerned, this "responsibility to the withholding agent" is very true in the employment arena. The obligation to withhold falls on the employer; if, for example, rules are wrongly applied so that an individual worker is mis-categorised as self-employed when they should have been employed, even though they have paid their own tax as self-employed, that is still the situation where the putative employer is at fault. HMRC will proceed against the employer and extract the tax and possibly penalties – indeed a recent case (Demibourne[84]) has, slightly controversially, emphasized that they have a perfect right to do this. Indeed, the tax authority takes the line, supported by Demibourne, that it is their job to collect the tax due from the employer; what they will then do is remit to the individual any tax that they have potentially overpaid (in that the employer has now been found to be paying tax on their behalf). The employer is now of course out of pocket, having originally paid the now employee gross; they are in strictness entitled to recover the tax being repaid to the employee (or at least some of it) but achieving this may be practically rather difficult, given that no doubt the individual concerned has moved on to other activities. What ought to happen in a practical, efficient situation is that credit is given by the tax authority for the tax paid by the individual when assessing the employers liability for such situations; whilst that at one stage happened, a change of practice, bolstered by Demibourne, has stopped that and, whilst potentially reducing HMRC's administrative costs, has undoubtedly added to the employer's compliance costs. The current

[84] *Demibourne Ltd v HMRC* SpC 486

position is clearly unsatisfactory, and discussions with HMRC to find a way of resolving the issue are ongoing.

A key example in the UK is the various efforts made by the Revenue authorities in relation to the construction industry. This has in the past been seen as a prime area of non-compliance, with considerable risks for tax revenues. Thus, starting initially in 1974, procedures were brought in requiring those involved in the construction industry who were using the services of sub-contractors to withhold tax from them on making payments to them. The fact that payments were likely to be made under deduction of tax was unattractive to many, and so a considerable industry grew up to provide for gross payment to many sub-contractors. The Inland Revenue began to think that the system was being abused, or was simply not as tight as it should be, leading in 2000 to the launch of the Construction Industry Scheme. Whilst this tightened the system and made it more difficult for those in the scheme to be paid gross, it also added considerably to the bureaucracy involved, requiring, for example, the exemption certificate granted to a company to be presented to the payer to achieve a gross payment. Whilst that might be easy for a one-man-band, it was not particularly helpful for a business of considerable size that might accordingly need a director to spend a considerable proportion of his time shuttling round the country waving a certificate around. Accordingly the system has been recast again, new procedures coming in from April 2007 which seek to streamline the system and make it more efficient.

The advantages of PAYE are well known. For the majority of taxpayers for whom the correct amount of tax is withheld, the correct tax liability is remitted without the taxpayer having to file an annual return. In addition, for these taxpayers there is neither the need to meet a large tax bill after the end of the year nor the need to provide the government an interest-free loan. Note, though, that about 30 percent of cases require a year-end adjustment (Bourn 2005) due to errors in coding notices and the operation of PAYE. To the extent that there are year-end adjustments, some of the arguments for PAYE become immaterial. In particular, the argument that it prevents large tax due and refunds does not apply to the end of the tax year, when the year-end adjustments are made.

However, it is difficult to ensure accurate cumulation in all cases. Particularly problematic are individuals with more than one job or pension. Typically the tax free allowance would go to one job, leaving the other to be taxed in full. This can end up with the wrong amount of tax being paid for both the low and high paid.

The accuracy of the PAYE system relies on the provision of timely and accurate information by employers.[85] HMRC needs to track movements in employment (via P45/P46 forms) to maintain a complete picture of an individual's tax affairs. But 70 per cent of employees starting a new job do not immediately provide their new employer with a P45. Furthermore, employees often do not respond to HMRC's requests for information (only 30 per cent of P91s are returned). PAYE codes need to be correct for the right amount of tax to be deducted. Errors were made in 7.9 per cent of cases in 2005/06, one cause of which was incomplete or inaccurate information from individuals or employers, but also was partly due to HMRC staff; HMRC has recently introduced a computer tool to help staff calculate tax codes.

Part of the problem has been heavy reliance by the HMRC on paper records (e.g., for error reports) and manual intervention. Around 30 per cent of PAYE cases need intervention by HMRC staff. When tax paid during the year does not tie up with year-end pay and tax information (or is inconclusive), checks have to be made by hand. When tax paid on benefits in kind does not tie up with what should have been paid, manual intervention is required. From April 2007, however, HMRC plans to introduce an automated process for managing changes to tax codes.

To be sure, there are plans in the works to remedy these problems. By September 2006, HMRC aimed to provide PAYE staff full access to the NI computer system structured around employees in order to allow a more complete view of incomes. HMRC hopes to move to the NI computer system as the basis for administering PAYE, but this is unlikely to happen before 2008/09. Online filing of employers' end of year returns (P35) has been introduced (still voluntary for small firms), and online filing of in-year returns (P45, P46) will be introduced from April 2008. In April 2007, HMRC plans to introduce an automated process for managing changes to tax codes, and has recently improved a computer tool to help staff calculate tax codes.

The accuracy of PAYE withholding is obviously more of an issue in a system like the UK's where taxpayers do not routinely reconcile their tax liability with withholding: the inaccuracies of withholding are much more likely to result in inaccuracies in final tax liabilities, and therefore capriciousness of the distribution of tax burdens.

[85] The account in the next few paragraphs is based on Bourn (2005).

4.1.6. Political Economy of PAYE

Although PAYE has been adaptable, coping with variations in codes and even being able to claw back amounts, for decades some have complained that it lacks flexibility and therefore constrains tax policy. For example, a 1972 Green Paper on tax credits (quoted in Barr, James, and Prest 1977, p. 47) said that PAYE "has been found to lack flexibility and governments of both political parties have found it difficult to adapt it to accommodate changes that they have felt desirable." It is impossible to know how binding the administrability constraint has been, as we do not observe what the U.K. tax system would be had a remittance system other than PAYE been in place. We note that Barr, James, and Prest (p. 145) also argued that PAYE required a single basic rate, but since that was written a 10 per cent starting rate below the basic rate has been introduced. PAYE is necessarily an individual, rather than family-based, system, and so it certainly constrains family-based credits or deductions. As our earlier discussion of benefits alludes to, it does not accommodate easily benefit schemes.

Even if we agree that PAYE has kept the U.K. tax-and-transfer system *simpler* than otherwise, we cannot say whether it has thereby made the U.K. tax system *better*. Indeed, it is disputed (by one of the co-authors of this chapter!) that PAYE has kept the tax code simpler: Whiting (2003, p. 44) argues that the fact that the government does not have to directly bear the major cost of operating PAYE (employers do) means the government has little incentive for keeping the rules simple. In a similar vein, Barr, James, and Prest (1977, p. 131) argued that, because comprehensibility is important if individuals are to self-assess successfully, relying on it rather than PAYE may lead to a less complex tax system. It may be that the lack of taxpayer understanding of the tax system due to PAYE leads to less informed, or disciplined, policy-making, although the use of tax software and professional tax help can still insulate a self-assessing taxpayer from the details of the tax code.

There is the factor of PAYE's link to NICs to consider. Although the system is usually just described as 'PAYE', the NIC collection largely follows the same routines, so employers write one cheque rather than two each month. But the two calculations are very different, both in theory (cumulation vs. weekly basis) and detail (exactly what income the charge is applied to). There have always been calls for the two systems to be integrated and most employers would put such a move at the top of their priorities when asked what would help reduce their burdens. But the very effectiveness of PAYE for ordinary taxpayers may be putting off considerations of major surgery.

4.2. Self Assessment

4.2.1 How it works

Before 1996, for taxpayers outside of the PAYE system, assessment of the tax due was made by a tax inspector. All tax returns were scrutinized by the Inland Revenue (the forerunner of the HMRC) because they had to be: no assessment could be made without the tax authority scrutinizing the information provided by the taxpayer, adding in what they knew and then coming out with a suitable tax assessment.

A new self-assessment system was instituted with the 1996/97 tax returns.[86] This covered Income Tax and Capital Gains Tax, with the first returns being issued to taxpayers in April 1997 (for the tax year 1996/97). Self Assessment (SA) raises revenue chiefly from the self employed, business partners, company directors, landlords, those with foreign income and any others with 'complex tax affairs', which might, for example, mean someone who realizes a capital gain. When HMRC issues a tax return or a notice to file, the taxpayer must, by law, complete and return the form. Taxpayers who have untaxed income or capital gains are responsible for notifying the Department if they have not received a SA form to allow the Department to determine whether they should be issued with one. The core section of the main SA tax return consists of 10 pages; the great majority of tax return filers will have further pages to complete, exactly which depending on what their income pattern is. There is also an extensive Tax Return Guide and a Tax Calculation Guide.

The number of individuals, partnerships and trusts having to file SA returns increased from 8.5 million in 1996-97 to 10 million in 2003-04. HMRC collected £16 billion net of repayments through SA in 03/04 compared with over £100 billion collected in Income Tax through other processes such as Pay As You Earn in 2003-04. For tax year 2004/05 onwards, some individuals were removed from the SA requirement, and a short return was introduced for those with simple financial affairs, so that by 2005/06 this reduced the number of taxpayers needing to complete a return to 9.2 million in 2005-6 (8.3 million individuals, and 0.9 million partnerships, trusts, and estates which also require tax returns). The easing out of some from

[86] The account in the next few paragraphs is based on NAO (2005).

completing a tax return has been matched by more people being drawn in – due to the increasing numbers of self employed, for example.

HMRC spent £220 million in processing returns and supporting the filing process for the 2003-04 filing year or approximately £22 per return issued. Around £70 in SA Income Tax is collected for every £1 spent on operating Self Assessment, for an average administrative cost ratio of about 1.4 percent.[87]

In 2003-04, over one million taxpayers filed online or by an electronic service used by their agents; this grew to 2.5 million for the 2005/06 returns. Taxpayers and agents can use HMRC's internet service, completing their tax return on line (which also includes tax calculation as an integral part of the programme) or submit using approved tax calculation software. The relatively low take-up rate of e-filing compared with many other countries is likely due to a combination of factors, including the relatively recent introduction of the system and its teething problems, which attracted adverse publicity; the initial concentration of e-filing on individuals, rather than agents, who complete about half of the self assessment returns; and the lack of any real incentive comparable with that offered by, for example, New Zealand where a refund due is remitted within 14 days in response to an e-filing. However, the take up rate is increasing significantly, reflecting the method's establishment and growing reputation for ease.[88]

Thus, in the UK only the (less than one-third of) taxpayers that have to complete a self-assessment income tax return directly incur compliance costs to any degree. The drive towards self-assessment in the UK has been motivated, at least in part, by a wish on the part of central Government to reduce the administrative costs of taxation. This factor can also be seen in the current debate on e-filing, where the possibility of imposing compulsory e-filing is justified at least in part by the value to the whole taxpayer population of achieving reduced administrative costs for the tax authority. Against this, in countries such as America, Australia and New Zealand where all taxpayers have to file a return, there seems to be a greater effort put into simplifying procedures and achieving simpler compliance so as to benefit all taxpayers more directly. The conclusion is surely that there should be more effort to monitor both halves of the cost of running the tax system – achieving a reduction in the cost of administration by pushing

[87] See NAO (2005, paragraph 20).

[88] According to OECD (2006, Table 33), the electronic filing take-up rate in 2004 was 17 percent and 1 percent in the UK, for personal and corporate income tax, respectively. This puts the UK at the 16th highest out of 24 countries listed for personal income tax, and at the bottom of countries for the corporate income tax.

those costs into the cost of compliance (where economies of scale may be lost) is at best a dubious justification. Employers, with some justification, grumble that their contribution to running the UK's tax system (and maintaining the government's cash flow) is undervalued if not completely overlooked. The MECF framework suggests that both are relevant elements in tax policy, although administrative costs should receive a slightly higher weight.

4.2.2 Enquiries

Full enquiries cover all parts of the return, while aspect enquiries focus on specific elements of the return.[89] Targeted enquiry cases fall into two categories: some are mandatory (returns with certain features – capital gains arising from the sale of unquoted shares for example – must be reviewed), while others are chosen following a risk assessment. Each local office has centrally-set targets for their targeted enquiries, such as the number conducted, the strike rate, average yield per case, duration and resource use. These targets depend in part on the resources available to local offices, resulting in significant geographical variation of coverage (despite efforts to redistribute some cases across offices). One striking statistic is that there has been a sharp fall in the number of enquiries from a peak of almost 400,000 in 1999/2000 to 160,000 in 2005/06. According to the deterrence theory, this fall in coverage could, once it is perceived by taxpayers, induce more non-compliance.

4.2.3. Non-compliance

HMRC has conducted an annual random enquiry programme to improve understanding and assessment of risk, inform the development of resources and deepen understanding about the level of unreported income. The latest results from the random enquiry programme are for the tax year 2000-01 in which 5,000 cases were examined. Based on these cases, HMRC estimates that 68 per cent of returns are filed accurately. However, it estimates that £2.8 billion was 'at risk' (i.e., covered by returns on which there were errors, after allowing for amounts in those returns where the tax position is clear such as PAYE) due to inaccurate returns, equivalent to 18 per cent of the £15 billion net receipts from Income Tax Self Assessment in 2000-01, or around four per cent of the taxes of the Self Assessment population (both deducted at source and Self Assessed). Around three-quarters of the tax at risk is accounted for by 5 per cent of returns.

[89] This section draws from NAO (2001) and NAO (2005).

As the random enquiry programme over Self Assessment returns covers only registered taxpayers, it does not provide any estimate of under-declared income from people working in the informal economy or those taxpayers who are engaged in other employment for which they are not declaring their income (though PAYE does, of course, in principle deliver the correct amount of tax to the authorities on behalf of these people, at least for those with only employment income). The random enquiry programme suggested that roughly 30 percent of returns contained errors, with the percentage varying widely by taxpayer type. At the high end were sole traders and partnerships, for which 49 and 47 percent of taxpayers were deemed non-compliant, respectively. For employees the percentage was 20, and it was 12 percent for pensioners.[90]

Of the risk-based enquiries in 2003-04, 78 per cent of such enquiries detected taxpayer non-compliance. These risk-based enquiries do of course cover the taxpaying population beyond those who receive tax returns. In addition, HMRC do send tax returns to people who do not normally receive them: typically this might mean someone who has dropped out of self assessment (perhaps they were self-employed but are now employed), and might be sent a return after 3 to 5 years by way of test checking their position.

Local area research and intelligence teams are responsible for selecting around 90 per cent of cases for targeted enquiry, based on analysis of the local population and associated risks of non-compliance. A number of techniques are used to select cases, including econometric modelling to isolate characteristics that are predictors of high non-compliance and comparison with external data sources to identify trades with the greatest risk of non-compliance. This involves comparing employment patterns in the Labour Force Survey with those from tax returns, and studying cases in the Family Expenditure Survey where food expenditure seems high given reported income. The classic example is the construction industry.[91]

HMRC does not reveal much detail about their targeting strategies, but they have confirmed some factors that lead to a higher probability of being targeted. These include[92]

- Being a (particular type of) sole trader or a partnership
- Working in a high risk trade – the construction industry and occupations involving high volumes of cash (retail, entertainment, licensed premises, etc.)
- Filing late or having previously filed late

[90] These figures are from NAO (2003).
[91] NAO (2003).
[92] NAO (2003), Committee of Public Accounts (2002, 2006).

- Having previously submitted an inaccurate return
- Living in a particular area of the country – areas of London have been mentioned in the past.
- Age – younger taxpayers, presumably seen as less likely to have developed a good habit of making proper tax returns.

Employer reviews--audits to ensure employers are dealing correctly with income tax and National Insurance deductions and student loan repayments, and reporting correctly expenses and benefits provided to employees—are also conducted. In 2005-6, about 30,000 were carried out.

4.2.4. Penalties

For income tax there is a penalty of £100[93] for late filing, and additional penalty of £100 if not filed within 6 months of due date. If delays still occur, penalties can be levied at £60 per day and in extreme cases, can be tax geared. As to failure to pay tax on time, interest is due on all tax paid late. A surcharge of 5 percent is payable on any unpaid tax after 28 days from due date; a further 5 percent surcharge is payable if still unpaid after six months.

If an enquiry has uncovered evidence of non-compliance, HMRC's next step is to determine appropriate sanctions and recover the amounts owed (including any charges and penalties imposed). How this works depends on whether a criminal or a civil investigation is undertaken. Investigations likely to be serious enough for criminal prosecution are handled by Special Civil Investigations (SCI, formerly the Special Compliance Office), who are responsible for implementing HMRC's prosecution policy. Only a relatively small fraction of SCI cases are selected for criminal prosecution, generally cases that have a "defined heinous feature" such as frauds involving collusion or false documentation and those committed by professional advisers.

There is also a factor of whether the penalty is actually seen to be imposed. The threat of a penalty is one thing; if it is never used, its deterrence falls away. There is a current case study with the UK's disclosure regime. The penalty for transgressing is a £5,000 penalty; no one has yet been charged in this way, despite HMRC saying that they are concerned about non-compliance with the regime. Their response has been to draft increased information powers – essentially powers to enable them to get information to show that there should have been a

[93] Or the amount of tax outstanding at 31 January, if lower.

disclosure. There is still, so far, no sign of penalties being imposed and those who have commented on the proposals have raised the question of whether the powers would, realistically, ever be used or would they just be another administrative burden on the already compliant.

More positively, the extensive review of HMRC's powers is producing some constructive and forward-looking ideas when it comes to penalties. In particular, the new regime proposes no penalties for mistakes. That is a breakthrough, given that tax systems often assume an error, however caused, deserves to be punished with a penalty. If, though, the mistake stems from 'failure to take reasonable care', then a penalty will apply. Provided there was voluntary disclosure, the penalty can be mitigated to nil. But then comes another innovation: if the penalty is still 'positive' it can be suspended against the taxpayer's future conduct. The argument is that the tax authority's main interest in getting the taxpayer back on the straight and narrow and complying properly, not in levying penalties. Thus there are signs of carrot, not just stick, to enforcement in the UK's tax system. This kind of modification is in line with the suggestion made in Section I that treating taxpayers with "respect," in addition to being the right thing to do, may change attitudes toward taxpaying, and behaviour, in a favourable way.

One interesting feature of the enforcement process has been the 'Hansard' procedure. Its origins can be traced back to the latter part of the First World War and is known as Hansard because the Chancellor of the day from time to time restates it by reading out the procedure in the Commons, thus having it recorded in Hansard[94]. The point of Hansard is that a taxpayer who makes a full confession and who co-operates fully with the HMRC during their investigations can expect that the matter will be dealt with on a civil basis, rather than criminal proceedings being taken against them. But the statement is not explicit on the matter, and the taxpayer is left with no absolute assurance that the Board of the HMRC will not institute criminal proceedings even in these circumstances.

Over the years there have only been minor changes and the Hansard practice has survived a number of challenges in the Courts. However, following some recent challenges it has evolved into a more formal HMRC Code of Practice number 9, which provides further information about these types of investigations.[95] One of the key changes is to make clear that it is for the taxpayer to decide whether to co-operate with the investigation and that in making this decision the

[94] It first appears in Hansard by way of a lengthy written answer by Sir W. Johnson Hicks, in the House of Commons 19 July 1923. It was updated by the then Chancellor, the Rt Hon John Major M.P., on 18th October 1990.
[95] See Tax Bulletin 62 at http://www.hmrc.gov.uk/bulletins/tb62.htm

taxpayer may seek the help of a professional adviser. The Code of Practice also makes clear that any information that the taxpayer does provide may be used in any subsequent proceedings to determine tax, interest and penalties. The level of co-operation remains one of the factors taken into account in deciding the amount of any penalties. If a taxpayer who has been 'Hansarded' is subsequently found not to have been completely honest and open in his disclosure, prosecution will invariably follow.

All remaining cases where non-compliance has been uncovered (those not chosen by the SCI for criminal prosecution, and all local office investigations) result in a civil settlement, which requires the taxpayer to hand over the unpaid tax plus any interest, surcharges and penalties. These charges and penalties work in a very similar way to those for taxpayers who fail to submit a tax return: interest is charged to cover the period since the tax was originally due, surcharges if the taxpayer is more than six months late making payment, and penalties of up to 100 per cent of the tax originally due. HMRC can only impose penalties if the error was due to negligence or fraud. For negotiated settlements, the level of penalty is generally reduced – by up to 30 per cent for disclosure, 40 per cent for cooperation and 40 per cent for seriousness. When a negotiated settlement can't be reached, the onus is on HMRC to demonstrate that negligence or fraud has occurred.[96]

4.2.5. Accuracy

In 2003-04, HM Revenue and Customs accurately processed 94 per cent of Self Assessment returns. The gross value of errors in tax assessments resulting from internal inaccuracies in processing is estimated at £120 million (£70 million undercharges to taxpayers and nearly £50 million overcharges on taxpayers).

4.2.6. Taxpayer rights

HMRC's powers under S20 TMA to obtain documents were outlined earlier in this paper.[97] The powers are extensive; firstly to call for documents from the taxpayer and others (s20) and then into powers of entry to obtain documents (s20C). The main safeguard for the

[96] NAO (2003).
[97] According to a simplistic characterization of the powers provided for enforced payment of taxes and filing of tax returns, the UK does not grant the tax authority relatively strong power. Of 13 distinct powers listed in OECD (2006, Table 19), the UK has 6; only two OECD countries, Italy and Japan, have less.

taxpayer is that the powers can only be exercised with authority from a Commissioner (s20) or Judge (s20C). The potential flaw in the 'safeguards' is that the hearing before the order is given is ex-parte: whilst one can appreciate that HMRC should not have to signal their intention to raid a taxpayer (who might then take the opportunity to destroy documents or abscond), there is a balance to be struck under the European Human Rights legislation.

The general safeguards available to taxpayers in the UK are evolving. The changes to the Hansard procedure referred to above followed challenges in cases taken under Human Rights legislation, which are clearly an increasing consideration.[98] The major review of HMRC powers is officially a review of 'deterrents, powers and safeguards', though the current review of penalties acknowledges that the safeguards end of things still has to be tackled. Hopefully it will be – and hopefully that work will include consideration of a taxpayers' Bill of Rights (and responsibilities).

4.2.7 Assessing self-assessment

Self-assessment – at least the income tax variety – has now been in place for some 10 years. It is probably fair to say that its introduction has indeed been a success: it was, fundamentally, a necessary modernisation of the UK's tax system. Looking back at how self-assessment has gone, some observations can be made.

1. The complexity of the tax return – the new style self-assessment tax return was and remains complex, reflecting the underlying complexity of the UK's tax system. Most people will get 12 and often as many as 20 pages; the 'short return' (of four pages) really took too long to introduce.
2. Support materials – in many ways admirable, there being extensive and helpful notes and a complex tax calculation guide, but appear overpowering and are underused.
3. Image – it is seen as complex and to be feared, not least because some taxpayers can be selected for enquiry on a random basis.
4. Online system – this is beginning to get real momentum behind it with over two million returns filed using online methods this last year. However, it had a very rocky start, probably due to its being launched at least a year too early. The focus initially was very much on

[98] It is notable that the Chancellor of the Exchequer has to certify that in his opinion the provisions of the annual Finance Bill are compatible with the ECHR.

trying to get individual taxpayers to e-file, rather than agents, who still have additional routines necessary[99]

5. Taxpayer statements – in principle, a useful and welcome part of self-assessment, but designed in a somewhat obtuse way, reflecting HMRC's systems, rather than what taxpayers would readily understand. Recommendations were repeatedly made that statements should be redesigned along the lines that taxpayers would be familiar with from credit card statements but only relatively recently been put into effect.
6. Pressure around 31 January – it is probably inevitable that there will be a last minute rush whenever the deadline. Suggestions that the deadline be extended for all or some types of return have been rejected, as taxpayers already have 10 months in which to file. Indeed, shortening the period probably has to be considered—of all OECD countries, only Finland allows a longer period between the end of the tax year and when final tax is payable for personal tax[100]—though any changes in this area would have to be accompanied by simplification. However, one suggestion that has been regularly made is to adjust the 'enquiry window' from 12 months of the normal filing date (adjusted if the return is filed late) to 12 months from the actual filing date. This seems to be on the cards with the Carter report proposals.
7. Late returns – about 10% of returns are filed late every year. HMRC's initial approach was the blanket exhortation to file on time; in more recent years they have become more scientific, researching those at most risk of being late filers.[101] This does seem to be an area for more attention with more targeted actions such as more education of certain sectors, simplifying procedures where delivery of particular types of information causes bottlenecks, or better emphasis on using estimated figures.
8. Penalties – paradoxically, although the £100 penalty is well-known, it may be part of the problem: there is anecdotal evidence that it has lost its impact. The penalty is also the lower of £100 and the amount of tax actually due, leading many penalty notices to be eventually vacated because of all tax being paid on time. This is not to say that the penalty should be

[99] For example, the taxpayer needs to sign the tax return before it is submitted (even if there is no requirement to retain that signed version), so a lot of agents are simply going to print a paper copy of the completed return and send it to the client with a suitable envelope to send it on to HMRC. Allowing agents to file on behalf of taxpayers, as proposed in the current HMRC powers review, would be an obvious way forward.
[100] Despite the best efforts of HMRC, this has led to many taxpayers and their agents to maintain that filing before the deadline increases the time HMRC have to raise an enquiry – thus they are adversely impacted if they file early.
[101] See, for example, NAO (2005).

increased but perhaps HMRC should be readier to impose the £60 a day penalty for long outstanding returns.[102]

9. Process now/check later – this has been the 'mantra' of the self-assessment system from the outset, meaning that HMRC process returns immediately, only rejecting if processing is impossible. Only later are checks made of the meaning behind the figures, prompting enquiries. The problem, certainly in the early days, was too many 'processing errors'. There now seems to at least be a process now/confirm believable before doing anything dramatic/check later methodology afoot, even if officially that middle step does not exist.

At the end of the day, the initial conclusion about self-assessment still stands – that it was a necessary modification to the tax system. Perhaps too much was expected of it too soon, with insufficient expectation of the need for continuous improvement. Now more effort is putting into that improvement process, it is delivering more.

5. Corporation tax

The income of businesses is generally subject neither to information reporting nor to withholding and, in part for that reason, evidence suggests it is subject to significantly higher non-compliance rates than wages and salaries. For public corporations, the availability of financial statements provides information that can be checked against tax statements. For non-public businesses, even this kind of corroborating information is not available.

In the UK, most small businesses operate as sole traders or partnerships, and all income is subject to the individual income tax. Since 2001 businesses can operate as limited liability partnerships, giving the owners limited liability but being taxed as partnerships in a "tax-transparent" way, one requirement being to publish accounts in a comparable way to companies. Corporate income is subject to a graduated rate structure, with a 19% rate for mid-sized companies (profits up to £300,000), and a 30% rate for taxable corporate profits over £1.5 million. The benefit of the lower rate is clawed back as profits rise from £300,000 to £1.5m, leading to an effective tax rate on that slice of profits of 32.75%. Only 0.5% of all corporations owe 75% of all corporation income tax revenues.

[102] The NAO study referred to above shows that there is serious money involved in those who are late with their filing – their estimate was that £470m was at stake although later work suggested that that might be an over estimate.

There was a short lived experiment with a nil rate of corporation tax for companies with profits under £10,000. That led to predictions of a massive increase in the numbers of small incorporated businesses as they took advantage of the tax break on offer. That duly happened; the government was seemingly taken by surprise and accused small businesses of ‘tax motivated incorporations’. A complex anti-avoidance measure (the ‘non-corporate distribution rate’) was introduced, but in 2006 the 0% starting rate was abolished as an anti-avoidance and simplification measure.

The Large Business Office (LBO) was created within Inland Revenue in 1997 to “facilitate centralized leadership, ensure greater consistency of approach, and increase industry awareness and specialization.”[103] When the two revenue departments merged, the LBO and the HM Customs and Excise equivalent became the Large Business Service; it handles the tax affairs of some 900 large entities, which provides about two-thirds of corporation tax revenues.

Administrative cost for corporations amounts to 0.96 percent of revenues. Year-to-year variations in this ratio are largely driven by exogenous changes in the denominator (revenue) that are probably largely unrelated to changes in the efficiency of HMRC operations. As in individual tax, there has been a downward trend since 2000 in the number of enquiries, although the total yield (not including deterrence) is up by 41 percent, and the yield per enquiry is up by 150 percent.

5.1. Tax shelters, transfer pricing, and tax havens

Companies, in common with all taxpayers, will try and minimize their taxes. There is an acknowledged tension in this between their understandable perception of taxes as a cost to be controlled and minimized and the authorities seeing companies as needing to act responsibly and constrain their planning actions carefully. There has been some demonizing of companies’ activities by lobby groups such as the Tax Justice Network, who focus particularly on transfer pricing, claiming that it is an easy method for multinationals to shift profits to low-tax jurisdictions. We note, though, that tax authorities have very significant powers to control transfer pricing and investigate companies who do not conform to arm’s length pricing. The UK’s rules in this area were recast by FA 2004, partly in the light of ECJ challenges, but also to incorporate thin capitalization rules into the framework.

[103] Cite needed.

Another source of control/power for the authorities is the Controlled Foreign Companies (CFC) rules. Aimed at ensuring profits accruing in ‘tax havens’ do not stay there but are remitted back to the UK, they have had some success. Both transfer pricing and CFCs are now part of self assessment, with companies declaring their compliance with the rules in their tax returns. They are also a major source of enquiries on multinational companies’ tax returns.

Even armed with public financial statements, in other countries it has proven to be exceedingly difficult for tax authorities to identify tax avoidance schemes. Pressure was also mounted by politicians and those running HMRC who increasingly sought to portray tax avoidance as unacceptable.[104] In doing so, there was a degree of irony lost in the welter of argument: evasion, which was definitely illegal, seemed to be being regarded as less reprehensible than avoidance.[105]

In recent years the volume of anti-avoidance legislation has increased. This may be due to the ingenuity of tax planners, a determination by the tax authorities to tackle avoidance or (most likely) both, plus other factors. The assault on avoidance has taken place in four ways:

(i) Specific anti-avoidance measures – latterly including mini GAARs (e.g. VAT option to tax and various share schemes provisions) and TAARs (notably on capital losses).

(ii) The threat of retrospective action[106], targeted at employment schemes that sought to eliminate tax and/or NICs. Specific measures were used but in a clear signal that the authorities were fed up with the situation, the PMG's statement threatened retrospective action against further schemes. There is anecdotal evidence that this threat, coupled with the fact that it has been turned into action once (see S92FA 2006), has been successful in stopping the annual bonus scheme round, where each year a series of devices targeted at eliminating tax/NICs on ‘city’ bonuses appeared.

(iii) Publicity – not quite 'naming and shaming', but there was clearly a campaign in 2005 to demonise avoidance and portray tax avoiders, both corporate and individual, in a very poor

[104] See, for example, a press release by the Economic Secretary to the Treasury, John Healey, in May 2004 which announced the creation of the 4-country Joint International Tax Shelter Information Committee, which brought together UK, US , Canada and Australia. In it he appeared to equate tax avoidance as comparable to terrorism, money laundering and fraud. Cite needed.

[105] The social responsibilities of corporations with respect to taxpaying are discussed in Slemrod (2004b).

[106] See the statement by the Paymaster General accompanying the December 2004 Pre-Budget Report

light. Ironically, evaders were less demonised. This demonising of avoidance does seem to have calmed down during the latter part of 2006.

(iv) Tax Avoidance Disclosure (TAD) – the disclosure regime brought in by FA 2004.

The TAD regime was brought in initially for direct tax (income tax, corporation tax and CGT) and VAT; it has since extended to SDLT. The direct tax provisions were recast in 2006 and a further extension of them is pending now into greater information powers. The TAD regime has two distinct objectives, both under the transparency heading: to identify new schemes, so that it is possible to take early anti-avoidance action; and to show who is using the schemes so as to help HMRC adjust their risk assessments.

The hub of TAD is the requirement to notify new schemes within five days of making them available or when implementation has started. Whilst the target might be marketed schemes, bespoke advice can also be caught and one of the practical problems (on both sides) has been identifying what else has to be disclosed. Various provisions in the two FAs of 2005 and FA 2006 can be traced to disclosures made under the TAD (though, curiously, no VAT changes to date). To that extent, it is clearly working. Statistics of disclosures to the end of September 2006 (683 for direct tax, 560 for stamp duty land tax, and 806 for VAT) suggest that the system is certainly delivering substantial data to HMRC.[107]

Whatever the volume of disclosures, HRMC clearly feel that they are missing out in some way. Their consultation paper[108] concedes that whilst many firms of advisers and others (banks for example) have worked very hard to comply, many putting in very considerable systems to ensure compliance, some advisers have clearly decided to flout the rules or at least stretch them as far as possible. As yet no penalties have been levied for non-compliance (the basic penalty is a modest £5,000) but all have agreed from the start that reputable firms cannot afford the potential damage to their reputation if they are found not to be complying.

Thus HMRC have proposed new powers to obtain information where they have grounds to suspect non-compliance with the rules. These have interesting 'catch 22' elements about them: if something has not been disclosed, how do you prove to HMRC that you were right not to disclose it without disclosing? Overall, the concern from practitioners' point of view is that these

[107] Cite needed.
[108] HMRC (2006b).

new powers could be used to police ever more closely those who are fundamentally complying with the rules, imposing new burdens on them, whilst the deliberate non-complier still skips away. One suspects that HMRC will need to levy a few penalties to really prove their intent at some stage.

Does TAD show that specific anti-avoidance legislation has in some way failed? Probably the answer is that it is a natural evolution: after all, reputable taxpayers and advisers have always operated on the basis of full disclosure so requiring earlier disclosure breaks no new ground. It does, though, arguably tip a balance further in favour of the authorities and raise interesting questions of fairness and privacy: could it be said that the TAD powers are too intrusive, for example? Does it create an unlevel playing field between lawyers and other tax advisers, or between those who work very hard to comply and those who flout the rules?

There is a project to be done in assessing the cost/benefit equation for TAD.[109] There is also a 'stand back' exercise needed. The volume of anti-avoidance legislation is a major cause of the feeling that the UK's tax system has become too complex. Is it really becoming unbalanced? Could a properly-staffed GAAR (i.e. fully prepared to give clearances as needed by commercial considerations) be preferable to the worst-of-all-worlds represented by mini-GAARs, TAARs and over-complex anti-avoidance generally? That is a question requiring its own study but the fact that people are willing to contemplate it[110] shows that the position is serious.

5.2. Enforcement aspects

Corporation tax is handled by two separate parts of HMRC: the Large Business Service (LBS) and local area offices, which deal with all remaining companies. For the vast majority of entities liable for corporation tax which are limited companies, HMRC automatically has a record of all of these, since forming a limited company involves registering with Companies House (who then notify HMRC). Full enquiries, which involve a detailed review of all aspects of the return, are more common for small companies, while aspect enquiries that focus on one or more specific areas are often reserved for larger companies. The vast majority (90 percent) of enquiries are targeted – chosen because of significant risk of non-compliance (around 40,000 returns). The remainder of cases are small equal probability random sample of returns that make

[109] To be fair to HMRC, they have regularly asked for estimates for the cost to the profession, but these have proved notoriously difficult to capture.
[110] The Institute of Chartered Accountants of Scotland supported the idea for one.

up the corporation tax self assessment random enquiry programme (400 completed in the three years from 2001).[111] Data from the corporation tax random enquiry programme suggest that around 40 percent of returns contain errors.

In the UK, much discussion is taking place over risk-based enquiries. HMRC's Large Business Service is framing its compliance activities increasingly in terms of the risks that they assign to the taxpayer company. The process of risk-assessing returns for targeting enquiries includes

- Scoring each company on the basis of its size and financial complexity using HMRC data and data from Companies House
- A central list of high risk cases identified using risk profiling techniques. In 2004/05, 40 per cent of full enquiries selected by Areas had to be from this list (NAO 20)
- Linking data about company accounts from commercial sources with HMRC's data to help identify non-compliant returns
- Business type and the basis of its business (for example, companies in the telecommunications sector are now closely examined in MTIC investigations).

However, exactly what factors make up the full picture is not yet disclosed. One of the arguments in favour of disclosing how HMRC assesses high/low risk companies is that the company can then take a rational decision over its policies and practices, and plan to be low risk. The argument against disclosure is of course that it facilitates management around the criteria.[112]

The Large Business Service recently published a document that provides some indication of the way in which they target their resources. Assessments are conducted for each company to assess the risk they pose to tax revenue. The factors taken into consideration include the size, structure and complexity of the business; the adequacy of systems and tax governance; the use of avoidance arrangements; the legal complexity and legal challenges; and cooperation.

The LBS has also listed particular behaviours likely to lead to action including the presence of structures unrelated to economic activity designed to lower tax liability, international transactions used to reduce taxable profits, financial products designed to fall outside the schedular system, effective tax rates that differ substantially from similar companies, the absence of effective governance processes, and repeated errors and lack of resources in tax department.[113]

[111] NAO (2006a).

[112] How much the tax authority should disclose about the criteria it uses to allocate enquiry resources is a fascinating and understudied question in the theory of optimal tax systems.

[113] HMRC (2006d, p.15, 20).

HMRC is working to develop wider coordination across different tax enquiries. The number of enquiries by local offices has more than halved from its 1998/99 peak, and for 2005/06 stood at 44,000. Just over 10 per cent of these were full enquiries (the remainder were aspect enquiries). There is significant variation in the probability of enquiry across Areas. Roughly 4 per cent of returns were subject to an enquiry in 2004/05, but by region, the enquiry coverage varied between 2 and 9 per cent. This was partly a consequence of staffing across offices.[114]

Despite fewer enquiries being conducted, the overall yield has increased, suggesting substantially improved risk assessment procedures. Thus, although since 1999-2000 there has been a significant drop (about half) in the number of enquiries, there has also been and a significant increase in the average yield per enquiry, while the additional yield per enquiry increased by 42%. To the extent that returns are selected for enquiry based on a good estimate of the risk of non-compliance, one would expect a declining marginal (and average) yield per enquiry as the number of enquiries increases even if the risk assessment procedures had not improved.

Risk assessments involve preparing a description of the company's activities together with detailed scrutiny of the return and company accounts. The vast majority is done manually and is very time consuming. The LBS has moved towards organising along sector lines (financial, pharmaceutical, utilities, etc) to try to improve their ability to identify non-compliance, and has been looking to develop a single risk assessment process covering all taxes paid by each company. The LBS are also in the process of developing a new compliance procedure where companies are able to get clearance for the tax treatment of certain items in advance of the return being filed.[115] This was one of the main recommendations of Sir David Varney's 2006 Review of Links with Large Business. However, whether this advance clearance procedure – something long sought by business and advisers – meets their wishes is a moot point, as indications are that HMRC are thinking of a very limited availability, involving only an annual handful of major inward investment and restructuring projects.

---

[114] NAO (2006a).
[115] Bourn (2005).

6. Value added tax

The Value Added Tax (VAT) is a form of consumption tax that is remitted by businesses in relation to business transactions where monetary or non-monetary consideration is deemed to be received. Most business transactions involve supplies of goods or services. VAT is payable if they are supplies made in the United Kingdom (UK) or the Isle of Man, and by a taxable person, made in the course of a business, or goods imported, and are not specifically deemed to be exempt or zero rated supplies.

In the United Kingdom the VAT system is based upon the UK legislation 'Value Added Tax Act 1994' along with some additional statutory instruments which have the force of law. The UK legislation is in turn governed by the EC Sixth Directive (consolidated as of 1 January 2007), to which all EU Members States must comply. In addition, VAT is subject to case law, both decided within the UK and ultimately at the European Court of Justice. Consequently, there are many influencing factors upon the current UK VAT legislation.

Approximately 55 percent of households' expenditure is taxable at the standard rate of 17.5 percent, 13 percent is zero-rated, 3 percent is taxable at the reduced rate of 5 percent for domestic fuel and power, women's sanitary products, children's car seats, certain residential conversions and renovations, and certain energy-saving materials), and 29 percent on exempt items.[116] Exempt goods have no VAT levied on the final good sold to the consumer, but firms cannot reclaim VAT paid on inputs; thus, exempt goods are effectively liable to lower rates of VAT (between 4 percent and 7 percent, depending on the firm's cost structure and suppliers.)

According to HMRC (2005), there are approximately 1.8 million businesses registered for VAT; in 2004-5 they paid approximately £73 billion net VAT, £128 billion gross receipts minus £54 billion in refunds (with rounding error).

6.1. Registration thresholds

Only businesses whose sales of non-exempt and non-zero rated goods and services exceed the VAT registration threshold (£61,000 in 2005-6) need to register and account for VAT. Having a threshold eliminates the need for the HMRC to have to deal with a plethora of small businesses, for whom the ratio of both administrative and compliance costs to revenue is likely to be low. The invoice-credit structure of the tax adds a self-enforcing nature to the tax, as

[116] Adam and Browne (2006, p. 12).

VAT on business purchases is effectively deductible only if purchased from a business in the tax net. Thus, some businesses may voluntarily register even if their sales fall below the threshold, and one would expect that "chains" form, where unregistered firms sell to other unregistered firms or to consumers, and registered firms sell to registered firms. The choice of the threshold should be subject to the MECF logic, as it is a classic tradeoff between administrative and compliance only on the one hand and revenue and efficiency costs on the other hand.[117]

6.2. Exempt and zero-rated goods and services

Once registered for VAT purposes, there are two types of businesses, those that are fully taxable and those that are partly exempt. A fully taxable business makes sale of only standard, lower or zero rated goods and/or services. This ensures that VAT must be accounted for on all sales (unless zero rated) but VAT may be recovered in relation to the majority of costs incurred.[118]

Where a business is partly exempt, it makes both taxable sales and those that are exempt. These types of businesses are more complex for a VAT perspective and generally the administrative burden in relation to these sales is more complex and time consuming. A partly exempt business is required to monitor the use of any purchases, as only those which are directly attributable to a taxable sale may be fully recovered. Those purchases that are attributable to both taxable and exempt supplies are subject to an apportionment calculation, hence the additional complexity associated with these types of businesses.

6.3. Simplified schemes for small businesses

Since April, 2002, small firms (defined as those with total sales below £187,500 and non-exempt sales below £150,000 in 2005-6, excluding VAT) have had the option of using a simplified flat-rate VAT scheme. Under the flat-rate scheme, firms are only required to account for VAT at a single rate on their total sales and give up the right to reclaim VAT on inputs. The flat rate, which varies between 2 percent and 13.5 percent depending on the industry, is intended to reflect the average VAT rate in each industry, taking account of VAT on inputs, zero-rating,

[117] Keen and Mintz (2004) address this issue.
[118] There are certain purchases where recovery of VAT is never allowed, for example where business entertainment is incurred.

and so on. This has been introduced in order to simplify the administrative burden for smaller firms.

For businesses which have a turnover between £660,000 and £1,350,000 (2005-06 rates) then an application can be made to HMRC in order to account for VAT annually. The annual accounting scheme enables a business to complete and submit just one VAT return a year (in comparison with the normal quarterly VAT return. However, VAT is paid throughout the year in instalments to prevent cash-flow difficulties at the time of submission. The annual accounting scheme can be used in conjunction with the flat rate scheme detailed above.

6.4. Enforcement aspects

6.4.1. Extent of non-compliance

According to an official estimate, the tax gap for the UK VAT in both 2003-4 and 2004-5 was 13.5 percent, down from an average of 15.7 percent in 2000-2003 and 16.8 percent in 2002-3 (HMRC, 2005, p. 44). It is a stated goal of HMRC to reduce this to no more than 11 percent by 2007-8. HMRC claim to have validated these top-down estimates with "bottom-up" estimates, but the details of this procedure are not published. According to a confidential study made in 2005 by the Forum on Tax Administration, a subsidiary body of the OECD's Committee on Fiscal Affairs, only a few countries were prepared to make public their estimates of overall non-compliance, which ranged from 4.0 to 17.5 percent. These estimates are generally based on "top-down" exercises, which compare actual revenues from the value added tax to a theoretical tax base and tax amount derived by examining consumption expenditure adjusted to account for factors that impact the base for the value added tax (for example, tax policy choices concerning goods that are exempt from the value added tax, or which pay different rates).

One growing type of non-compliance is known as "missing trader intra-community" fraud (MTIC), or carousel fraud. The fraud involves goods imported VAT-free from other EU Member States that are sold through contrived business-to-business transaction chains in the UK, and subsequently exported. The tax loss occurs when the VAT charged on the initial sale of the goods in the UK is not paid to HMRC because the seller disappears. The purchaser can still reclaim the VAT, so the loss crystallises when the trader who exports the goods from the UK makes a repayment claim. Some estimates have put the total loss of VAT from MTIC fraud within the EU at EUR50 billion annually.[119] According to the UK's Office for National Statistics (ONS), almost ₤10 billion of the country's exports in the second quarter of 2006 were associated with MTIC fraud, up 50 percent compared to the first quarter.[120] Carousel fraud has now reached such proportions that it is apparently distorting the UK's trade data. Raw trade data suggested the UK's exports rose by 39 percent year-on-year in the second quarter of 2006, but when the ONS factored out possible MTIC fraud, the increase was just 12 percent.[121]

7. HMRC

The start of the 21st century saw the UK as one of a very few countries (Israel and Malawi were mentioned as others) to have the joys of two tax authorities. The efficiency gains in the longer term of combining the two departments into a single body were clear; the stumbling block was the inevitable short-term disruption and the need to overcome the very real sense of tradition and different ethos within the two departments. Following a review by Gus O'Donnell, then Permanent Secretary to the Treasury, proposals were brought in to combine the two bodies into one and in April 2005, the Inland Revenue and Customs & Excise were combined to form a single tax authority, Her Majesty's Revenue and Customs (HMRC), which came into being on 18 April 2005. The official mission for HMRC is to "administer the tax and customs control systems fairly and efficiently and make it as easy as possible for individuals and businesses to understand and comply with their obligations and receive their tax credit and other entitlements."

7.1. Performance indicators

For 2005-8 HMRC has a new Public Service Agreement that includes three objectives that each have some quantitative "performance targets" associated with it, of which the first two are directly relevant to the topic of this chapter.[122] The first objective is to improve the extent to which individuals and businesses pay the amount of tax due and receive the credits and payments

[119] Cite needed.
[120] Cite needed.
[121] Proposals are in hand to block the fraud – partly administrative, such as more checks on registrations and repayment claims, and partly legislative, primarily the move to a 'reverse charge' regime foreshadowed in s19 FA 2006. However, the reverse charge route requires agreement at a European level and some countries (primarily France) have temporarily blocked the plan, preferring a comprehensive change to the system and fearing without it the fraud will just migrate to other sectors or countries.
[122] The third objective concerns strengthening frontier protection against threats to the security, social and economic integrity and environment.

to which they are entitled. Associated with this objective are several targets to be reached by 2007-8, featuring reducing measures of non-compliance—reducing VAT losses to no more than 11 percent of the theoretical liability, reducing underpayment of direct tax and National Insurance contributions due by at least £3.5 billion a year, three targets concerning excise tax non-compliance and, finally, increasing the percentage of Self Assessment returns filed on time to at least 93 percent. The second objective is to improve customer experience, support business and reduce the compliance burden. The detailed 2007-8 targets associated with this objective relate to accuracy and satisfaction regarding taxpayer interaction with HRMC, and increasing the percentage of tax returns received online, to 35% for SA returns and 50% for VAT returns.

HMRC also sets performance indicators and targets for its areas. Until 2001-2, the main performance indicators and targets were the number of enquiries begun compared with the number planned. In 2002-3 the range of indicators was extended to include also the median additional yield generated by enquiries, the quality standards achieved, and the time taken to complete enquiries; this was done in order to reduce the incentive to open up new enquiries at the year-end to meet the target, and to encourage Areas to select cases that might be more complex but offer the potential to higher yield.[123]

At first blush it looks like the targets in the Public Service Agreement are a list of "good" things that the HMRC is required to get a bit better at. For example, consider the two goals of reducing the scale of VAT losses to no more than 11% of the theoretical liability and reduce underpayment of direct tax and National Insurance contributions due by at least £3.5 billion a year. What is not transparent is the reasoning behind this objective compared to a reallocation of resources so that VAT losses go to 12%, but direct tax and NI contributions underpayment is reduced by £3.75 billion. Do, for example, the compliance-cost-reducing initiatives reflect the same tradeoffs as the enforcement-increasing policies?

The main drawback of performance indicators or targets based solely on additional yield is that they could prompt Areas to concentrate on enquiries with firmer prospects of an immediate payback at the expense of preventative work which might lead to more significant additional yield in the long term, but may be difficult to quantify."[124]

---

[123] NAO (2006a, p. 14).
[124] NAO (2006a, p. 14).

Some of the potential problems with concrete performance indicators and targets are common to their use in all organizations, some are common to their use in all government organisations, and some are particular to a tax authority such as the HMRC. Of course, in a private business the ultimate objective is relatively unambiguous—to maximize the present value of profits or, equivalently, the value of the going concern. Nevertheless, performance indicators and targets can be helpful in this environment because the marginal contribution of an employee or department to the bottom line is often not easily measurable.

In a government department the overall objective is less tangible. In principle, it should make decisions to enhance the well-being of the citizens, that is, using economics jargon, to maximize social welfare, but that is not plausibly measurable. Nevertheless, there are subsidiary objectives that are well-defined. For example, if a given number of cheques can be processed with the same degree of accuracy using less employee-hours, that is a desirable outcome. In other words, cost minimisation for a well-defined output should be pursued regardless of whether the ultimate objective is profits or social welfare.

What's different for the tax authority compared to most other government agencies is the availability of something that has the superficial appearance of a quantitative output measure—revenue collected. In Part I of this chapter we discussed why the apparent availability of a measure of output denominated in pounds can lead to serious inefficiency (i.e., misallocation of resources) when applied to the question of how many resources the tax authority should be appropriated for enforcement. There we showed that maximization of revenue net of resource expenditures is an incorrect objective, because revenue collected is a transfer rather than a resource gain, while the resources used to increase revenue—the personnel, computers, and other inputs to the process—are in fact real resource costs.

Performance targets ask that many indicators improve, but don't give a good sense of tradeoffs/priorities. It is not uncommon for government to resist acknowledging tradeoffs, although it is explicitly recognized in the following statement in a recent HMRC Annual Report: "There is always a delicate balance to be struck between keeping systems as straightforward as possible to reduce compliance costs for honest businesses and ensuring that sufficient safeguards are in place to catch those who abuse the system."[125]

[125] (HMRC, 2005, p. 31).

One potential pitfall of this is that the targets are not internally consistent. To illustrate this concern, consider a stylized example that focuses on efficiency. Recall from earlier that, ignoring distribution, it is optimal to increase reliance on tax instruments that have a low marginal efficiency cost of funds (MECF), where that is defined as:

$$MECF = \frac{1 + x + c}{1 - a}.$$

Now compare two policies that each use £1 of real resources. Policy A increases revenue by £20, while Policy B increases revenue by only £5. Then the value of *a* (marginal administrative cost per dollar raised) is .05 for Policy A, and is .20 for Policy B. If both *x* (marginal excess burden per dollar) and *c* (marginal compliance cost per dollar) were equal to zero, then the MECF is 1.05 and 1.25, respectively. If these were the two enforcement policy levers, A should be expanded, and B contracted.

There are several problems, though, with using this reasoning that we should always choose the policy with the lowest marginal administrative cost ratio. First of all, the calculation of the marginal administrative cost should include not only the direct revenue obtained from extra revenue and penalties, but also any additional revenue that comes in because the policy deters non-compliance. If the ratio of the marginal deterrence revenue to the marginal direct enforcement revenue is the same for all policies, then the ranking of policies will be unchanged (ignoring x and c, that is). But there is no reason to expect that this will be true.

The HMRC Annual Report (2006) lists cost of collection per pound collected for each of seven separate taxes, and overall. The overall ratio is listed as 0.97 pence per pound.[126] For each of several operations, it also lists the additional tax and penalties for many different operations, and estimated cost/yield ratios, which use the former as the numerator and the denominator is the cost of salaries, accommodation, and other direct operating overheads. These ratios range from 1.6:1 to 449:1. Critically, they are average, rather than marginal, figures. In accompanying text, it is said that these ratios "are used as one of a number of factors to help management make considered judgment on the allocation of resources. It is useful in providing retrospective comparison of the cost-effectiveness of individual types of enforcement work…It is also important to maintain an effective presence in all areas where there may be non-compliance."

[126] How overhead costs are allocated is critical to this assessment.

(106) “No account is taken of the corrective or deterrent effects; although largely unquantifiable, they are almost certainly substantial.”

The second problem with evaluating policies on the basis of their marginal administrative cost ratios is that this ignores the compliance costs induced. But if the ratio of compliance to administrative costs varies across policies, then the ranking by their administrative cost will lead to misallocation. This is simply because assuming that the tax authority’s resources (i.e., its budget) are fixed does not mean that the policy’s use of society’s real resources is fixed, as the compliance costs may vary. Thus we can use the MECF framework to evaluate policies that substitute administrative for compliance costs, without changing revenue collected.

Third, different policies may differ in the ratio of excess burden to administrative cost (x/a). We would certainly expect that x is non-zero in most cases of enforcement policies that raise revenue. After all, a crackdown on non-compliance in, for example, the construction sector, raises the effective tax rate on construction income in a similar way as an explicit increase in the tax rate, and will cause the same kind of behavioural responses such as reduced labour supply, investment, and so on. If the excess burden per pound collected (x) is proportional to a, then the ranking of policies is unchanged, but there is no reason why this should be true.[127]

The theory of optimal tax systems is not of much use in clarifying how to consistently make choices between accuracy-related goals and other goals such as cost minimization, because the social welfare function has trouble incorporating the objective of those policies that attempt to reduce errors. This is related to the difficulty of incorporating horizontal equity concerns into the standard normative framework that embodies social objectives. Somehow, though, the tax authority must establish a tradeoff between accuracy, or justice, and its other goals, and make decisions that consistently reflect that tradeoff.

7.2. Measuring the tax gap

HMRC does not consider it realistic to establish an accurate estimate of the size of tax gap or to estimate the size of the informal economy.[128] In apparent contrast, NAO (2002-3, p.8) concluded that “there are benefits in terms of overall risk management in having an aggregate

[127] Because the MECF analysis is intrinsically a marginal one, it will not address questions of economies of scale where a major change in policy may be beneficial. It would not, for example, have helped to address whether IR and HMC&E should have merged to form HMRC.
[128] CITE (p. 17).

estimate of the shadow economy if a reliable practical technique can be found." Although we are sympathetic with the latter view because a tax gap study can inform resource allocation decisions in key ways, it is important to realize that measures of the total tax gap and it components do not *directly* inform policy. This is because policy choices are generally marginal and depend on the relative effectiveness of alternative policies in raising revenue relative to the resource cost of doing so. For example, learning that the non-compliance rate for self-employed individuals is higher than that for multinational corporations does not necessarily imply that it is optimal to beef up enforcement policies at the expense of the former. Rather, an MECF-type calculation should, in principle, be relied on.

7.3. *Measuring compliance costs*

With regard to compliance costs, the same issue of the usefulness of total versus marginal measures arises. An alternative approach to measuring total compliance costs, known as the Standard Cost Model (SCM), developed in the Netherlands and used extensively in Denmark, seeks not to calculate estimates that are statistically representative, intending instead to provide indicative figures that allow areas of high compliance cost to be identified and targets set for their reduction. Recently the HMRC commissioned KPMG to undertake a large-scale study of business compliance costs, the results of which are discussed in KPMG (2006). Based on interviews with 1,000 businesses of all sizes and a number of agents, it calculated the total compliance costs, called "administrative burden" in this report, for 28 areas of taxation, concluding that the burden of the VAT was £1020 million, for income tax for businesses was £857 million, £759 million for employer taxes, £608 million for corporation tax, and £793 million for customs. These costs are equal to 0.41 per cent of GDP, or 1.1 per cent of tax revenue.

Following publication of the KPMG report, the government committed in Budget 2006 (p. 55) to a 10 per cent reduction over five years in the burden on business of dealing with HMRC forms and returns, and a 10 per cent reduction over three years and 15 per cent over five years in the burden on business of dealing with HMRC's audits and inspections

It is not clear whether these targets likely to achieve anything. In response to early attempts by the Netherlands and US to target compliance costs, Sandford (1995, p. 410) suggested that measures of total compliance costs are "simply too imprecise to become meaningful targets for changes of a few per cent." Allers (1995) reports that the 95 per cent confidence interval surrounding his estimate of Dutch compliance costs ranges from 15 per cent below the point estimate to 15 per cent above (based on a sample of just over 1,000). Unless the UK's compliance costs estimates are considerably more precise than this, it will be impossible to determine with any certainty whether the 10 and 15 per cent targets have been met. Recent Dutch efforts to target compliance costs (based on the SCM) don't seem to have been unduly hindered by the volatility of estimates. Even so, the fact that the SCM abandons any attempt to calculate figures that are statistically reliable totals implies there will be no way to quantify the degree of confidence we have in any changes that are observed. One must also worry about potential manipulation of the figures given the informal sampling procedures used by the SCM and the fact that HMRC will (presumably) be responsible for updating the estimates in coming years (the KPMG model has been handed over to HMRC). Finally, the appropriateness of any policy change that reduces compliance costs must consider its implications for revenue, administrative cost, and distribution.

The UK was one of the first countries to introduce mandatory cost benefit analyses for legislative changes when it did so in 1985. By 1997, such assessments were used extensively by five OECD members (Australia, EU, New Zealand, UK and US) and partially by nine others (Walpole 2001). The current UK system requires government departments and agencies to prepare a Regulatory Impact Assessment (RIA) whenever primary or secondary legislation is considered that could impact on businesses, charities or voluntary organisations (not on individuals or government). An RIA sets out the costs, benefits and risks of the proposed change, comparing alternative options, with the aim of improving policy making. Since 2000, explicit consideration has been required for the compliance costs of tax policy changes. HMRC has also introduced a system of Compliance Cost Reviews (CCRs) in which the RIA is revisited two years after the legislation has been implemented to check whether the forecast costs and benefits were reasonable.

Although RIAs are presented as an essential part of the policy-making process, doubts have been expressed over both their quality and the extent to which they have any meaningful impact on legislation. Chittenden, Ambler and Obodovski (2005) find that a substantial minority of RIAs published between July 2002 and June 2003 "contain little factual data about the additional costs arising as a result of the proposed legislation." This criticism may be less applicable to taxation-related RIAs, but even when cost and benefit calculations have been made, there is concern that they are little more than guesswork.[129] They also suggest that, "Ministers are prepared to sign RIAs stating that 'benefits justify the costs' even when no clear evidence is being published to support this statement."

III. SPECULATIONS, CONCLUSIONS, AND RECOMMENDATIONS

8. Looking to the future

8.1. Growth in difficult-to-tax services and intangible capital

One key challenge facing the tax authority is how to evolve to tax the changing methods of commerce. The UK's tax system has struggled to keep up technically with such issues as financial instruments and the general way business financing is carried out. At the other end of the spectrum, the growth of e-business – exemplified by eBay – brings particular challenges to the tax collector. In principle there is nothing new taxwise: it is still an issue of whether a taxable trade is being carried on or disposals subject to CGT made. In days gone by the taxman tried to control cash sales at market stalls; more recently activities on both sides moved to car boot sales; now the business takes place in cyberspace. How does HMRC police this? They cannot post a tax inspector on eBay's site. They have difficulty getting information (after all, where is the business located?).

Another dimension is the position of intellectual capital which is increasingly replacing physical assets as the basis of wealth creation. If a company owns a trademark, patent or similar, that can in principle be located anywhere, leading to a profit stream heading in that direction. How to police that? Transfer pricing has a role, but what is an arm's length price for something that would never be sold outside the owning group?

Both of these issues quickly come up against the international dimension. The UK will not be the only country having such thoughts. The risk is both that potentially taxable monies slip through the net completely, and that those monies have two (or more) countries after them.

There is no simple answer to these issues. The way forward has to involve discussion and cooperation internationally, both in terms of finding solutions and in working out ways of policing tax systems efficiently. There is also a need for HMRC to be take a more pro-active

---

[129] See, for example, the memorandum on the Administrative Costs of Tax Compliance submitted to the Treasury Committee by the Institute of Chartered Accountants in England and Wales (http://www.publications.parliament.uk/pa/cm200304/cmselect/cmtreasy/269/269.pdf).

stance in its attitude to its international 'customers': it has a real role to play in helping smooth out problems of interaction of tax systems which can cause real problems in practice to multinational corporations. The classic issue is transfer pricing where a dispute with one territory is often paralleled with similar disputes with other territories, over the same transactions. Surely the tax authorities could coordinate their work better, not just in terms of targeting the taxpayer but then in terms of sharing the tax cake?

There is a considerable risk to traditional tax revenues and both their technical bases and collection methods will have to evolve to avoid major holes in tax revenues appearing. After all, income tax is only with us because of then-traditional taxes failing to deliver as life changed, coupled with the growth of potentially taxable activities (i.e., trade). The challenge in the late 18th century was how to tap these new sources; the solution at the time (income tax) was controversial and took a number of years before its implementation ran smoothly and effectively.

8.2. Globalization

EU constraints already are important to the UK, which in tax terms is not an island. Even if direct taxes are not harmonized and are still set by individual states, these tax systems have to operate within the framework of the EU Freedoms. Breaching these has led to a succession of cases before the European Court of Justice that affect all member states. The EU has responded with proposals for common systems in various areas, and the idea of a Common Consolidated Corporate Tax Base (CCCTB) is being promoted by the EU. This has interesting efficiency consequences that are addressed in other chapters of this Committee's report, including how the single corporation tax computation for European operations would be calculated, and whether the resultant profit allocated (if so, how?) around the states to tax at their rates, or taxed at one composite EU rate and then shared among members (with the resultant loss of sovereignty).

Another dimension is that of collection of taxes from business and individuals that are increasingly international and mobile. PAYE tries to lay down rules to cover international movements and as long ago as 1982 a case showed how little presence was needed in the UK before PAYE had to be operated.[130]

8.3. Information technology growth

[130] Clark v Oceanic Contractors Incorporated, 1982 HL 56 TC 183

Online filing was introduced for VAT in 2001, and for company tax returns in 2003. As of 2005-6, over 60% of employers returns were filed online, as were nearly 25% of income tax self assessment returns. HMRC are aiming for half of all individual returns to be delivered electronically and the Carter report in 2006 envisaged all corporate returns being delivered electronically.[131] Whilst many would support that, large parts of the Carter ideas – accepted by the government – were controversial, not least the prospect of penalties for those who failed to move to e-filing. Is that really fair or appropriate for small businesses and individuals? In any event, an alternative to compulsion is the prospect of ease and efficiency. Although a majority of incoming contact with taxpayers are done electronically or by telephone, about 93% of output to taxpayers or third parties is done on paper.[132]

This chapter has emphasized the significant benefit available from the use of IT in tax collection. HMRC is putting a lot of investment into TIDO (Tax Information Data Organiser) – essentially a system that connects up and exchanges all the information that comes into HMRC. That will link information from employers, banks and dividends to allow easier cross check to declared returns. Individual offices will have access to all the information on their 'customers'. That allows better services – readier answers to questions – as well as more efficient chasing. In mentioning banks, it is also telling that HMRC are pursuing banks for details of offshore bank accounts held by UK individuals. Following their success in various test cases they have a considerable body of further information, much of it electronic, to deal with. Needless to say, the image of their being able to access such data is as meaningful as what they find in the data itself – the message to fraudsters that there is less opportunity to hide their money.

9. Conclusions and Recommendations

For the most part, the UK personal income tax and VAT regimes are implemented with systems of information reporting and remittance that rely on firms and arm's-length transactions among firms and also between firm and employees. However, the efficiency of these systems depends on the efficiency and integration of the information technology systems used by HMRC. Attending to the modernization of the IT systems should be a high priority.

[131] Lord Carter of Coles (2006)...
[132] Cite needed..

Although the use of withholding and information reporting by employers is not at issue, one key issue is the appropriate extent of the exact, cumulative withholding system known as PAYE. The PAYE system has probably influenced the complexity of the personal income tax system. Its use probably precludes some changes; its interaction with NICs in particular seems to be an excuse for neither system to be radically reviewed. But there is a crying need for some fundamental studies: is it tenable, for example, for the NIC contributory principle to remain? If that went, a change to the weekly basis of NIC would be facilitated (it could probably be achieved without this, in truth), so NIC could go to a cumulative basis, so simplifying the employer's task. A determined move to harmonise definitions would also pay dividends, even if that might have to leave one or two defined exceptions, for example pension contributions, on ground of costs. And arguments that the fact that NICs generally stop at age 65 should not deter action – with increasing numbers of people working past retirement date, how tenable is that? The conclusion has to be that there is a need for some determined strategic thinking on the PAYE/NIC system.

However, because the individual taxpayers have no easy way to check that the withholding is correct, administrative errors become errors in final tax liability. Reducing these errors should be a priority. The system also isolates the individual taxpayer from the tax system, by making the tax burden less "visible" and by making it less hassling.

In simple terms, the PAYE system is creaking. It remains an ideal system for those it was designed for: employees with a single, full-time job, paid solely in cash rather than benefits, who change jobs only rarely. There is an irony in that the main source of such people is nowadays the public sector. What can be done to still offer the efficiencies to such people (and their employers) whilst modernizing the system to cope with the wide range of employment situations that are now met? One obvious step is to smooth out all the differences between PAYE and NICs as far as possible. That may require changing the weekly basis of NICs to annual cumulation and potentially abandoning the contributory principle. The first of these may be possible; the second would be a huge issue politically but it really needs to be considered properly.

The self assessment system has been a good step forward in the UK, both personal and corporate. It is not yet as efficient as it should be and has perhaps suffered from a lack of resources to improve the initial system, particularly on the personal side. But there have been a lot of good moves – the short tax return and the much-improved e filing system to name two.

Changes to the enquiry window to a '12 months after filing', as envisaged in the Carter report, would be a good way forward – but not if it has to be at the price of further reductions in the filing period.

One factor that has come into play in recent years is the tax credit system. That means a huge number of people who previously had no interaction with the tax authority now have to complete (extensive) forms and have period dealings with the taxman. (Bear in mind that it is the taxman – in that HMRC now deals not only with taxes and NICs, but tax credits and sundry areas ranging from student loan repayments to minimum wage enforcement.)[133] With 10 million people doing tax returns, 6 million people doing tax credit forms (there will of course be some overlap), and many others really in a position where they should take some action over their coding notice…is it really so unthinkable that these should all be combined into a 'citizenship return'? Why shouldn't everyone have to complete a return a year – which would emphasise the need to comply, help HMRC, encourage a better engagement with tax and other responsibilities and perhaps drive simplification, given the need to keep such things as simple as possible for the majority? Indeed, by marshalling information technology taxpayers need not "complete" these returns at all--TIDO could feed data via national insurance numbers into pre-populated returns which could then be sent out (electronically, for many taxpayers) for checking, confirmation, and—if necessary—correction. That may all be some way off in the UK, but we note that six countries in the OECD now have some kind of pre-populated return system, and four more are now piloting or plan on introducing such a system in 2008.[134] After all, if the HMRC computer system is able to collect a lot of the necessary information automatically, this may reduce the need for either employers or individuals to make returns to the tax authorities, thereby reducing any distinction between PAYE and self-assessment. A pre-populated return sent by HMRC to the taxpayer for verification soon after the tax year could be created electronically by employers from P60, P11D, etc: payroll is doing most of the work already so why not flow it through into a part-completed tax return? [135] [136] If all taxpayers were involved more actively in their tax affairs, there would probably be more pressure for simplification of the system.[137]

---

[133] According to the OECD (2006, Table 2), the UK has the responsibility for more non-tax functions than any other OECD country save Denmark.
[134] OECD (2006, Table 10).
[135] See Whiting (2003, p. 52).
[136] Currently, HMRC is unable to carry out pre-population because it cannot update taxpayer records in time for the issue of returns in April as it does not receive the information for pre-population, for example, PAYE details, until

There are two areas in which the key implementation mechanisms – information reports and withholding -- cannot be relied on. One is the corporation tax. For public corporations, the availability of the financial statements substitutes for the availability of information about arms-length transactions. However, the apparent proliferation of tax avoidance has called into question the ability of HMRC and the judicial system to monitor these appropriately. The fact that many of these shelters have a cross-border dimension raises two issues: that these are especially appropriate targets for HMRC resources, and multilateral coordination would be especially helpful. This is one area where aggregate estimates of the extent of non-compliance may be helpful in informing tax policy, including its implementation aspects. This also applies to the recent headline-grabbing intimations of widespread tax evasion involving the use of offshore accounts and structures and evasion done by sophisticated, presumably largely high-income, taxpayers.[138] This kind of activity may erode the intended progressivity of the overall British tax system.

The other is small business and self-employed. Although firms are the backbone of the implementation of the British tax system, the empirical evidence (in part from other countries) is unanimous in noting that both compliance cost and the non-compliance rate are highly regressive (i.e., costs as a fraction of a measure of firm size decline with firm size, and non-compliance as a fraction of actual liability declines with firm size). In recognition of the first fact, special tax forms and regimes have been implemented for small businesses, including exemption from registering for VAT for firms with taxable turnover under £61,000. Flat rate schemes and Annual Accounting are also available to try and reduce the burden on the smaller business.

What seems to be lacking is comparable help to the smaller employer. Reference has been made to evidence that taking on a first employee is a major hurdle and administrative burden (not just taxwise, of course). Why isn't there a scheme whereby HMRC carry out payroll work and compliance for businesses with under (say) five employees, being paid at a set rate which is attractive on the marketplace? This can be thought of as a natural extension of HMRC's current practice of offering free software for preparation of tax returns for individuals subject to

---

May to July. The extent to which HMRC can pre-populate electronic returns with information held on PAYE, tax credits, bank/building society interest and dividends is restricted by the lack of read across between the databases holding this information.

[137] Calls for simplification are often met by Ministers by reference to the Tax Law Rewrite project. However, that exercise, whilst admirable in itself, is solely concerned with rewriting the rules into clearer English. It does not, apart from some very minor points, 'do' simplification as such.

[138] Colman (2007).

self-assessment. Is there any scope for smaller employers to be relieved from some of the wider burden of employee rights whilst balancing the need to protect employees from exploitation?

The recent reorganisation that created the HMRC promises administrative efficiencies to be realised. Their recent initiatives make clear that they are concerned with both administrative and compliance costs, as is entirely appropriate. Moreover, they are clearly concerned with both raising revenue as well as raising it equitably and accurately. The focus on setting and attaining a long list of quantitative targets, though, runs the risk of obscuring the tradeoffs that are implicit in HMRC resource allocation decisions, and potentially making these decisions internally inconsistent. The HMRC use of random enquiry programs is to be applauded. We note the HMRC's apparent resistance to making use of a comprehensive program of random enquiries to construct an estimate of the tax gap. Separately from random enquiries, randomized policies (or "pilot" programs that have a clear and appropriate control policy) can be very useful in learning about the efficacy of potential policy before it is fully implemented. The current review of HMRC's powers is proceeding well – like Self Assessment was once described, such changes are a 'necessary modernisation' and moves to a system that encourages and rewards compliance, and has as its objectives making it worth while taxpayers getting back on the 'straight and narrow,' is surely the right way. There will be a need to look at the overall balance of the reforms and consideration of a Taxpayer's Bill of Rights is indicated.

The overriding conclusion has to be that the UK's tax system is in reasonable shape. But as business, work and life itself changes rapidly, there is increasing pressure on the tax system to adapt. The PAYE system is a solid basis to go forward from. It is apparent to the writers, however, that resting on the status quo and just tinkering is not an option. There is a growing need to contemplate significant change to the way that system runs, whilst continuing to adapt and modernise the rest of the tax system. The risk that demographic and economic change has an adverse impact on the way the tax system runs is increasing.

Table 1: Remittance Responsibility in the U.K. Tax System: 2005-6

	Receipts (£m)	Remitted by business (£m)	Proportion
HMRC-administered taxes			
Income tax:			
PAYE	113,897	113,897	1
Self Assessment, net of repayments	18,158	0	0
Other receipts[1]	8,424	4,369	0.52
Tax credits[2,3]	-4,653	-4,185	0.90
Other repayments[2,4]	-4,984	-4,762	0.96
National Insurance[5]	85,656	82,743	0.97
Corporation tax	41,977	41,977	1
Petroleum revenue tax	2,021	2,021	1
Capital gains tax	2,879	0	0
Inheritance tax	3,259	0	0
Stamp duties[6]	10,892	4,357	0.4
VAT	72,882	72,882	1
Other C&E taxes/duties/levies[7]	47,965	47,965	1
Subtotal	**398,373**	**361,263**	**0.91**
Non-HMRC-administered taxes			
VED	5,000	1,000	0.2
Business rates	20,300	20,300	1
Council tax	21,000	0	0
Other taxes and royalties[8]	12,800	3,840	0.3
Subtotal	**59,100**	**25,140**	**0.43**
Total	**457,473**	**386,403**	**0.84**

Notes (B means all remitted by business, 0.3B means 30 per cent remitted by business, I means all remitted by individuals):

1. The other receipts category comprises the tax deduction scheme for interest (TDSI) (B), other tax deducted at source (B) and others (I).
2. Repayments (tax credits and other repayments) were classified the same way as the tax they were repayments for, not according to how the repayment was made.
3. Tax credits comprise the negative tax part of WTC/CTC expenditure (0.9B), MIRAS (0.85B), LAPRAS (0.85B) and other (0.85B). The 0.9B for WTC/CTC was based on a guess of the number of self-employed recipients. The 0.85B for all other tax credits was derived from the proportion of gross income tax receipts remitted by business.
4. Other repayments comprises individuals (I), personal pension contributions (I), pension fund and insurance companies (I), charities (0.85B), overseas (I), PEPs and ISAs (0.85B) and other (0.85B). Again, all the 0.85Bs come from the proportion of gross income tax receipts remitted by business.
5. Class 1 National Insurance contributions (B), Class 2-4 contributions (I).
6. 0.3B comes from assuming duty on residential land and property is remitted by individuals, while duty on everything else (non-residential land and property, stocks, shares, debentures, etc) is remitted by business.
7. Other C&E taxes/duties/levies comprises (all B): fuel duties, tobacco duties, spirit duty, beer duties, wine duties, cider & perry duties, betting and gaming duties, air passenger duty, insurance premium tax, landfill tax, climate change levy, aggregates levy, and customs duties and levies.
8. 0.3B for other taxes and royalties is a guess based on thinking the congestion charge and TV licence fee may be included.

Sources: http://www.hmrc.gov.uk/stats/, http://www.hm-treasury.gov.uk/budget/budget_06/bud_bud06_index.cfm, authors' calculations.

References

Adam, Stuart and James Browne. 2006. *A Survey of the UK Tax System.* London: The Institute for Fiscal Studies, Briefing Note No. 9, March.

Akerlof, George. 1978. "The Economics of 'Tagging' as Applied to the Optimal Income Tax, Welfare Programs, and Manpower Planning." *American Economic Review* 68: 8-19.

Allers, M. (1995), "Tax Compliance Costs in the Netherlands", in Sandford, C. (ed.), *Tax Compliance Costs: Measurement and Policy*.

Allingham, Michael G. and Agnar Sandmo. 1972. "Income Tax Evasion: A Theoretical Analysis." *Journal of Public Economics*, Vol. 1, No. 3-4, pp. 323-338.

Alt, James. 1983. "The Evolution of Tax Structures." *Public Choice*, Vol. 41, No. 1 (1983), pp. 181-222.

Andreoni, James, Brian Erard, and Jonathan Feinstein. 1998. "Tax Compliance." *Journal of Economic Literature,* Vol. 36, No. 2 (June, 1998), pp. 818-860.

Balke, Nathan S. and Grant W. Gardner. 1991. "Tax Collection Costs and the Size of Government." Mimeo. Southern Methodist University.

Barr, N.A., S.R. James, and A.R. Prest. 1977. *Self-Assessment for Income Tax*. London: Heinemann Educational Books.

Becker, Gary. 1968. "Crime and Punishment: An Economic Approach." *Journal of Political Economy*, Vol. 76, No. 2 (January/February), pp. 169-217.

Benjamini, Yael and Shlomo Maital. 1985. "Optimal Tax Evasion and Optimal Tax Policy." In *The Economics of the Shadow Economy*, edited by W. Gartner and A. Wenig. Berlin: Springer Verlag.

Bird, Richard. 2002. "Why Tax Corporations?" *Bulletin for International Fiscal Documentation* 52: 194-203.

Blumenthal, Marsha, Charles Christian and Joel Slemrod. 2001. "Do Normative Appeals Affect Tax Compliance? Evidence from a Controlled Experiment in Minnesota." *National Tax Journal*, 54(1), pp. 125-138.

Bourn, John. 2005. *Comptroller and Auditor General's Standard Report on the Accounts of the Inland Revenue 2004-05.* October 7.

Bovenberg, Lans and Sijbren Cnossen. 2001. "Fundamental Tax Reform in the Netherlands." *International Tax and Public Finance*, 8(4) August, pp. 471-484.

Bradford, David. 1986. *Untangling the Income Tax*. Cambridge, MA and London: Harvard University Press.

Chen, Kong-Pin and C.Y. Cyrus Chu. 2005. "Internal Control vs. External Manipulation: A Model of Corporate Income Tax Evasion." *RAND Journal of Economics.* Spring, 36:1, pp. 151-164.

Chittenden, F., Ambler, T. and Obodovski, M. (2005), "Regulatory Impact Assessments 2002/2003: Real Costs, Notional Benefits", in *Government Regulation and the Small Firm*, Institute for Small Business and Entrepreneurship (ISBE) Policy Report 2005/1 (eds. G. Bannock and C. Gray)

Chittenden, F, S. Kauser and P. Poiutziuoris. 2005. "PAYE-NIC Compliance Costs: Empirical Evidence from the UK SME Economy." *International Small Business Journal* 23, pp. 635-654.

Christensen, Kevin, Robert Cline, and Tom Neubig. 2001. "Total Corporate Taxation: 'Hidden,' Above-the-Line, Non-Income Taxes." *National Tax Journal* 54 (September), pp. 495-506.

Colman, Elizabeth. 2007. "Taxman Has His Eye on £1800bn in Offshore Accounts." *The Times*, March 5.

Committee of Public Accounts. 2002. "Income Tax Self Assessment." Thirty-third report of session 2001-02, HC296, House of Commons, 24 April

Committee of Public Accounts. 2006. "Filing of Income Tax Self Assessment Returns." Twenty-third report of session 2005-06, HC681, House of Commons, 18 January

Cowell, Frank. 1990. *Cheating the Government: The Economics of Evasion*. Cambridge: The MIT Press.

Crocker, Keith and Joel Slemrod. 2005. "Corporate Tax Evasion with Agency Costs." *Journal of Public Economics*, 89(9-10), pp. 1593-1610.

Diamond, Peter and James Mirrlees. 1971. "Optimal Taxation and Public Production. I—Production Efficiency." *American Economic Review,* 61(1), March, pp. 8-27.

Farrell, Jennifer E. 2006. "Tax Compliance Costs for Companies in an Enlarged European Community." Mimeo. July.

Feld, Lars and Bruno Frey. 2002. "Trust Breeds Trust: How Taxpayers Are Treated." *Economics of Governance.* July, 3:2, pp. 87-99.

Frey, Bruno. 1997. "A Constitution for Knaves Crowds Out Civic Virtues." *Economic Journal* 107: 1043-53.

Gale, William. 1997. “What Can America Learn from the British Tax System?” *National Tax Journal* 50 (December), pp. 753-77.

Gordon, James. 1989. "Individual Morality and Reputation Costs as Deterrents to Tax Evasion." *European Economic Review*, Vol. 33, No. 4 (April), pp. 797-805.

Godwin, M. 2001. “Compliance Costs to UK Employees of Operating Pay as You Earn Income Tax., National Insurance Contributions, Statutory Sick Pay and Statutory Maternity Pay in 1995/6.” In C. Evans, J, Pope, and J. Hasseldine (eds.), *Tax Compliance Costs: a Festschrift for Cedric Sandford* (Prospect, Australia), pp. 179-201.

Hanlon, Michelle and Joel Slemrod. 2006. “What Does Tax Aggressiveness Signal? Evidence from Stock Price Reactions to News about Tax Aggressiveness. Mimeo, Stephen M. Ross School of Business, University of Michigan.

Hansford, A. et al. 2005. “Filing Self-Assessment Tax Returns by Internet: The Impact on Tax Compliance in the UK.” In Rodney Fisher and Michael Walpole (eds.), *Global Challenges in Tax Administration*. London: Fiscal Publications.

Hansford, A., J. Hasseldine, and C. Howorth. 2003. “Factors Affecting Costs of UK VAT Compliance Costs for Small and Medium Sized Enterprises.” *Environment and Planning C: Governemnt and Policy* 21, pp. 479-492.

HM Revenue & Customs. 2005. *Annual Report 2004-05 and Autumn Performance Report 2005*. December 19.

HM Revenue & Customs. 2005b. *Regulatory Impact Assessment: The Abolition of Payment of Working Tax Credit via Employers*. (http://www.hmrc.gov.uk/ria/20052200ria.pdf).

HM Revenue & Customs. 2006a. *Annual Report 2005-06 and Autumn Performance Report 2005*. December.

HM Revenue & Customs. 2006b. “Ensuring Compliance with the Tax Avoidance Disclosure Regime.” Technical note and draft clauses, 18 December.

HM Revenue & Customs. 2006c. *Measuring Indirect Tax Losses—2006.* December.

HM Revenue & Customs. 2006d. *Working with Large Business*. Large Business Service, April 2006.

HM Treasury. 2004. Small Companies, the Self-Employed, and the Tax System: A Discussion Paper. December. <www.hm-treasury.gov.uk>

Hinrichs, Harley H. 1966. *A General Theory of Tax Structure Change During Economic Development*. Cambridge, MA: The Law School of Harvard University, 1966.

Inland Revenue. 1998. "The Tax Compliance Costs for Employers of PAYE and National Insurance in 1995-9." The Center for Fiscal Studies, University of Bath.

Kang, Sun Won and Hugh Rockoff. 2006. "Capitalizing Patriotism: The Liberty Loans of World War I." NBER Working Paper No. 11919, January.

Kaplow, Louis. 1989. "Horizontal Equity: Measures in Search of a Principle." *National Tax Journal*. 42: 139-54.

Kaplow, Louis. 1994. "The Standard Deduction and Floors in the Income Tax." *Tax Law Review*, Vol. 50 (Fall), pp. 1-31.

Kaplow, Louis. 1995. "A Fundamental Objection to Tax Equity Norms: A Call for Utilitarianism." *National Tax Journal* 48: 497-514.

Kaplow, Louis. 1996. "How Tax Complexity and Enforcement Affect the Equity and Efficiency of the Income Tax." *National Tax Journal*, Vol. 45, No. 1 (March), pp. 135-150.

Kau, James B. and Paul H. Rubin. 1981. "The Size of Government." *Public Choice*, Vol. 37, No. 2, pp. 261-274.

Keen, Michael. 1997. "Peculiar Institutions: A British Perspective on Tax Policy in the United States." *National Tax Journal* 50 (December), pp. 779-802.

Keen, Michael and Jack Mintz. 2004. "The Optimal Threshold for a Value-Added Tax." *Journal of Public Economics* 88(3) (March): 559-576.

Klepper, Steven and Daniel Nagin. 1989. "The Anatomy of Tax Evasion." *Journal of Law, Economics, and Organization*, Vol. 5, No. 1 (Spring), pp. 1-24.

KPMG LLP. 2006. *Administrative Burdens: HMRC Measurement Project.* March 20.

Lessig, Lawrence. 1999. *Code and Other Laws of Cyberspace.* New York: Basic Books.

Lord Carter of Coles. 2006. *Review of HMRC Online Services*. March.

Mayshar, Joram and Shlomo Yitzhaki. 1995. "Dalton-Improving Tax Reform." *American Economic Review*, Vol. 85, No. 4 (September), pp. 793-807.

Meade, James E. 1978. *The Structure and Reform of Direct Taxation.* Report of a Committee chaired by Professor J.E. Meade. London: Institute for Fiscal Studies and George Allen & Unwin.

Mirrlees, James. 1971. "An Exploration in the Theory of Optimum Taxation." *Review of Economic Studies* 38: 175-208.

Musgrave, Richard A. 1969. *Fiscal Systems*. New Haven and London: Yale University Press, 1969.

National Audit Office. 1994. *HM Customs and Excise: Cost to Business of Complying with VAT Requirements*.

National Audit Office. 2001. *Income Tax Self Assessment.* Report by the Comptroller and Auditor General, July 5.

National Audit Office. 2003. *Tackling Fraud against the Inland Revenue.* Report by the Comptroller and Auditor General, February 28.

National Audit Office. 2004. *HM Revenue and Customs: Tackling VAT Fraud.* Report by the Comptroller and Auditor General, March 3.

National Audit Office. 2005. *HM Revenue and Customs: Filing of Income Tax Self Assessment Returns.* Report by the Comptroller and Auditor General, June 22.

National Audit Office. 2006a. *Corporation Tax: Companies Managed by HM Revenue and Customs' Area Offices.* Report by the Comptroller and Auditor General, January 13.

National Audit Office. 2006b. *HM Revenue and Customs: Helping Newly Registered Businesses Meet Their Obligations.* Report by the Comptroller and Auditor General, December 6.

National Audit Office. 2006c. *HM Revenue and Customs: Filing VAT and Company Tax Returns.* Report by the Comptroller and Auditor General, December 13.

Neubig, Tom. 2006. "Where's the Applause? Why Most Corporations Prefer a Lower Rate." *Tax Notes*, April 24.

OECD. 2004. *Tax Administration in OECD Countries: Comparative Information Series (2004).* Centre for Tax Policy and Administration.

OECD. 2006. *Tax Administration in OECD Countries and Selected Non-OECD Countries: Comparative Information Series (2006).* Centre for Tax Policy and Administration.

Peacock, Alan T. and Jack Wiseman. 1961. *The Growth of Public Expenditures in the United Kingdom.* Princeton: Princeton University Press.

President's Advisory Panel on Federal Tax Reform. 2005. *Simple, Fair, and Pro-Growth: Proposals to Fix America's Tax System.* Washington, D.C.: U.S. Government Printing Office.

PricewaterhouseCoopers LLP. 2005. "Total Tax Contribution Framework – What Is Your Company's Overall Tax Contribution?" April.

PricewaterhouseCoopers LLP. 2006 and 2007. “Total Tax Contribution – A Survey for the Hundred Group” February 2006 & January 2007.

PricewaterhouseCoopers LLP and The World Bank. 2006. “Paying Taxes – The Global Picture” November.

Rajaraman, Indira. 1995. "Presumptive Direct Taxation: Lessons from Experience in Developing Countries." *Economic and Political Weekly* (Mombai, India), May 6-13.

Sabine, B.E.V. 1966. *A History of Income Tax.* London: George Allen & Unwin Ltd.

Sadka, Efraim and Vito Tanzi. 1993. "A Tax on Gross Assets of Enterprises as a Form of Presumptive Taxation." *Bulletin for International Fiscal Documentation*. Vol. 47, No. 2 (February), pp. 66-73.

Sandford, Cedric.A. 1973. *Hidden Costs of Taxation*. London: Institute for Fiscal Studies.

Sandford, Cedric A. ed. 1995. *Tax Compliance Costs: Measurement and Policy*. Bath: Fiscal Publications.

Sandford, Cedric A., M. Godwin, and P. Hardwick. 1989. *Administrative and Compliance Costs of Taxation*. Bath: Fiscal Publications.

Sandford, Cedric A., M. Godwin, P. Hardwick and I. Butterworth. 1981. *Costs and Benefits of VAT*. London; Educational Books.

Scholz, J. T., and M. Lubell. 1998. "Trust and Taxpayers: Testing the Heuristic Approach to Collective Action." *American Journal of Political Science* Vol. 42, No. 2 (April): 398-417.

Shoup, Carl, Roy Blough, and Mabel Newcomer, eds. 1937. *Facing the Tax Problem*. New York: Twentieth Century Fund.

Slemrod, Joel. 1990. “Optimal Taxation and Optimal Tax Systems.” *Journal of Economic Perspectives* 4(1), (Winter), pp. 157-178.

Slemrod, Joel. 1996. “Fixing the Leak in Okun’s Bucket: Optimal Tax Progressivity When Avoidance Can Be Controlled,” *Journal of Public Economics*, September 1994, 55(1), pp. 41-51.

Slemrod, Joel. 2003. “Trust in Public Finance,” in *Public Finance and Public Policy in the New Century.* Sijbren Cnossen and Hans-Werner Sinn, eds., Cambridge, MA: MIT Press, pp. 49-88.

Slemrod, Joel. 2004a. “Small Business and the Tax System.” In *The Crisis in Tax Administration*. Henry Aaron and Joel Slemrod, eds. Washington, DC: The Brookings Institution Press.

Slemrod, Joel. 2004b. "The Economics of Corporate Tax Selfishness." *National Tax Journal*. December, 57:4, pp. 877-899.

Slemrod, Joel. 2006. "Taxation and Big Brother: Information, Personalization, and Privacy in 21st Century Tax Policy." *Fiscal Studies*. March, 27:1, pp. 1-15.

Slemrod, Joel. 2007a. "Cheating Ourselves: The Economics of Tax Evasion." *Journal of Economic Perspectives*, forthcoming.

Slemrod, Joel. 2007b. "Is Tax Reform Good for Business? Is a Pro-Business Tax System Good for America?" In *Fundamental Tax Reform: Issues, Choices, and Implications*. John Diamond and George Zodrow, eds. Cambridge, MA: MIT Press, forthcoming.

Slemrod, Joel. 2007c. "Show Me the Money: The Economics of Tax Remittance." Mimeo, University of Michigan.

Slemrod, Joel and Wojciech Kopczuk. 2002. "The Optimal Elasticity of Taxable Income." *Journal of Public Economics*, 84(1) (April), pp. 91-112.

Slemrod, Joel and Shlomo Yitzhaki. 1987. "The Optimal Size of a Tax Collection Agency." *Scandinavian Journal of Economics*, Vol. 89, No. 2, pp. 183-192.

Slemrod, Joel and Shlomo Yitzhaki. 1994. "Analyzing the Standard Deduction as a Presumptive Tax." *International Tax and Public Finance*, Vol. 1, No. 1 (May), pp. 25-34.

Slemrod, Joel and Shlomo Yitzhaki. 1996. "The Cost of Taxation and the Marginal Efficiency Cost of Funds," *International Monetary Fund Staff Papers*, March 1996, (43)1, pp. 172-198.

Slemrod, Joel and Shlomo Yitzhaki. 2002. "Tax Avoidance, Evasion, and Administration," in *Handbook of Public Economics.* Alan J. Auerbach and Martin S. Feldstein, eds., Volume 3. Amsterdam: Elsevier B.V.

Soos, Piroska. 1990. "Self-Employed Evasion and Tax Withholding: A Comparative Study and Analysis of the Issues." *University of California Davis Law Review* 24: pp. 107-193.

Steuerle, C. Eugene. 1986. *Who Should Pay for Collecting Taxes? Financing the IRS.* Washington, D.C.: American Enterprise Institute.

Stuntz, William. 1995. "Privacy's Problem and the Law of Criminal Procedure." *Michigan Law Review.* 93.

Tanzi, Vito and Milka Casanegra de Jantscher. 1989. "The Use of Presumptive Income in Modern Tax Systems." In *Changes in Revenue Structures*, Proceedings of the 42nd Congress of the International Institute of Public Finance, Aldo Chiancone and Ken Messere (eds.). Detroit: Wayne University Press, pp. 37-51.

Torgler, Benno. 2003. “Tax Morale, Rule-Governed Behaviour, and Trust.” *Constitutional Political Economy.* June, 14:2, pp. 119-140.

Torgler, Benno. 2004. “Moral Suasion: An Alternative Tax Policy Strategy? Evidence from a Controlled Field Experiment.” *Economics of Governance.* November, 5:3, pp. 235-253.

U.S. Department of the Treasury. Internal Revenue Service. Research, Analysis, and Statistics. 2006. *Updated Estimates of the TY 2001 Individual Income Tax Underreporting Gap. Overview.* February 22. Washington, D.C.

Walpole, M. 2001. “Compliance Cost Control by Revenue Authorities in the OECD”, in C. Evans, J. Pope, & J. Hasseldine (eds.), *Tax Compliance Costs: A Festschrift for Cedric Sandford.*

Whiting, John. 2003. “Employment Taxes: Where Are We Going? *British Tax Review 2002 No 1* pp. 42-55.

Yaniv, Gideon. 1988. "Withholding and Non-withheld Tax Evasion." *Journal of Public Economics*, Vol. 35, No. 2 (March), pp. 183-204.

Yaniv, Gideon. 1992. "Collaborated Employee-Employer Tax Evasion." *Public Finance*, Vol. 47, No. 2, pp. 312-321.

Yitzhaki, Shlomo. 1987. “On the Excess Burden of Tax Evasion.” *Public Finance Review*, 15(2), pp. 123-137.

Yitzhaki, Shlomo and Yitzhak Vakneen. 1989. "On the Shadow Price of a Tax Inspector." *Public Finance*, Vol. 44, No. 3, pp. 492-505.

Zee, Howell. 2006. “Simple Analytics of Setting the Optimal VAT Exemption Threshold.” *De Economist* 153(4) (December), pp. 461-71.