Blending economic deterrence and fiscal psychology models in the design of responses to tax evasion: The New Zealand experience

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This article reviews recent research into tax evasion and outlines a framework of responses available to governments and/or revenue authorities in the context of economic deterrence and fiscal psychology models. The wide-ranging tax reforms set in place in New Zealand between 1984 and 1990 are described and evaluated within this framework. A brief discussion is given to the role of professional tax advisers in encouraging compliance and specifically to the issue of tax preparer penalties. The conclusion of this article is that tax policy makers must necessarily consider a blend of response options from economic and psychological models, thereby implicitly embracing both short- and long-term viewpoints of this international social problem.

1. Introduction

In practice, virtually all taxation systems face the problem of taxpayers who are not fully complying with their legal requirements with respect to how much tax should be paid. A distinction exists

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between noncompliance arising from unintentional errors and noncompliance due to deliberate evasion behaviour (Robben et al. 1990: 342). Lewis (1982a: 123) notes the latter can result from specific courses of action undertaken by the taxpayer (evasion by commission) or from non-action (evasion by omission).

Measurement of the magnitude of evasion is difficult as it involves searching for incidents that are not necessarily detected by revenue authorities. Two main approaches have been used. The microeconomic approach involves measuring and analysing the extent of evasion from tax-audit procedures. There is no guarantee that in using this method all instances of evasion will be detected. The macroeconomic approach involves a comparison between statistics furnished by taxpayers with corresponding National Accounts data. This method is only valid if macroeconomic National Accounts data is derived from sources other than tax statistics (Bayar and Frank 1987). Despite measurement difficulties, estimates indicate that substantial figures are involved. For example, it is estimated that the United States Government has lost over $US100 billion annually since 1983, through nonreported and underreported income (LaRue and Reekers 1989). The problem is obviously not unique and Geeroms and Wilmots (1985) estimated that 20% of total Belgium income taxes due were being evaded, with Bayar and Frank (1987) estimating the equivalent French statistic at 14%. These authors also concede that the estimated amount of tax evaded is more likely to be underestimated rather than overestimated and by their nature, estimates are bound to be subject to error.

Internationally, there is a relative scarcity of rigorous research in estimating gross levels of evasion or even self-admitted tax evasion via the use of survey studies (McCrohan 1982: 239), with more attention being given to theoretical work (Hessing et al. 1988: 534). For instance, although no comparable figures are publicly available, there is no a priori reason to believe that in tax reporting decisions, New Zealanders behave very differently from their overseas counterparts.

The quantum of and reasons for tax evasion raise important policy issues for any government, as evasion has significant fiscal, social and economic ramifications. These include the ability to meet revenue needs and the significant audit and collection costs incurred by revenue authorities to detect and recover tax evaded. The wider social consequences of evasion will include a redistribution of the taxation burden on to those who don’t evade, reducing the level of horizontal equity in
An important consequence of evasion is economic deadweight, caused by a diversion from otherwise economically productive work into other areas with greater opportunity for evasion. From an individual viewpoint, there is a gain to individual evaders of the amount of taxation that is successfully evaded, but in order to realise this benefit, certain costs may be incurred. These may include professional fees, information search costs in determining if evasion is possible, and the costs of setting up the structures and processes which allow successful evasion. Associated with these are costs incurred by taxpayers facing an audit. So evasion is not a two-person zero-sum game. In fact, the costs may be psychological, as it is possible that evasion may damage self-image and self-respect depending on individual attitudes about the propriety of the behaviour (Weigel et al. 1987).

This article is structured in the following manner. Section two discusses previous research on tax evasion. Section three examines the role of governments and revenue authorities and identifies potential responses to the evasion problem. In section four, using New Zealand as a case example, due to its massive tax system restructuring, recent tax reforms are examined in the context of existing evasion models and response options. In section five, the role of tax advisers and the issue of preparer penalties are discussed.

2. Previous research

There are several good reviews of the state of tax compliance research (see Jackson and Milliron 1986; Weigel et al., 1987; Milliron and Toy 1988). Accordingly, to prevent redundancy, this section is illustrative rather than exhaustive and concentrates on recent research. Extant literature can be predominantly categorised into survey, experimental, analytical and regression modelling research (although there may be some overlap), with all four types of studies making their own positive contribution. At a broader level in economic psychology, there are two underlying categories of models that attempt to explain why

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1 Horizontal equity is achieved when people in the same economic circumstances pay the same amount of tax. Evasion may also reduce vertical equity (when people who have a greater capacity to pay tax bear relatively higher tax burdens) if evasion is undertaken primarily by above average income earners.
individuals evade taxation. These are the economic deterrence and fiscal psychology models. In terms of stochastic choice, the former could be aligned with an expected utility viewpoint and the latter with a non-expected utility approach.

2.1. Economic deterrence models

These models incorporate the concept of an economically rational taxpayer who will evade taxation as long as the pay-off from evading is greater than the expected cost of being caught. Allingham and Sandmo (1972) proposed a seminal economic deterrence model based on the expected utility function of the taxpayer who evades. This model incorporates several aspects. Firstly, the taxpayer has some level of risk aversion, the more risk averse the taxpayer is, the less likely (s)he is to evade taxes. Secondly, the taxpayer needs to have knowledge regarding the taxation system in order to assess the probability of being detected, and the extent of the penalties that may be incurred upon detection. These last aspects may in reality be uncertain for the taxpayer. Jackson and Milliron (1986) and Beck and Jung (1989b) both find that under conditions of uncertainty the taxpayer is likely to be more conservative and more averse to evasion.

There are a number of recent extensions to the early economic deterrence models which serve to demonstrate the large theoretical literature that has evolved. Falkinger (1988) models the taxpayer/government exchange relationship within an evasion setting. This was in response to perceived equity being cited as of importance in earlier models. 

\[ E(U) = (1 - p)U(W - QX) + pU[W - QX - a(W - X)] \]

where:
- \( U \) = cardinal utility,
- \( p \) = probability of investigation,
- \( W \) = actual income (known only to the taxpayer),
- \( Q \) = tax rate,
- \( X \) = declared income,
- \( a \) = penalty rate (\( a \) is assumed > 0).

Early extensions include Cowell (1985) and Crane and Nourzad (1985). Virmani (1989) even extends the analysis to indirect tax evasion and concludes that this is associated with production distortions. He suggests that optimal commodity taxation will require lower commodity tax rates if large scale evasion exists.

\(^2\) This expected utility function is expressed as:

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empirical work (e.g. Kaplan and Reekers 1985). He examines how a rational tax evader is affected by the benefits from public expenditures, finding that evasion decreases when a taxpayer is aware of the benefits received in return for tax payments. However, the proportion by which evasion reduces when public benefits received increase could not be unambiguously confirmed as demand for public goods varies between individuals. On the question of whether inequity is an antecedent of tax evasion or an ex poste rationalisation of past behaviour, Falkinger maintains there is some theoretical support for the latter, stating (p. 393) this is especially likely in a large anonymous society with rich public good provision. He believes that inequity as a rational causal factor of evasion becomes more credible at a local taxes level, where mutual imitation of evasion behaviour is more likely in the face of unsatisfied public needs. 4

Alm (1988) analyses the joint choice of evasion and tax avoidance and concludes that the existence of another avenue of tax minimisation alters the conclusions of some simple evasion models. 5 This is of course true to the extent that evasion and avoidance are substitutes. Government policies to reduce evasion may not always increase the taxbase if avoidance behaviour is possible and its cost is not prohibitive. The speed and spread of responsive avoidance behaviour and the search for new avoidance techniques may be another factor affecting the taxbase. Alm concludes that an increase in tax compliance costs will also increase reported income if the marginal cost of avoidance is increasing and absolute risk aversion is nonincreasing. Of course in practice, this may not hold and substantial avoidance techniques may not always be available (e.g. New Zealand).

Beck and Jung (1989a) extend previous economic models by incorporating uncertainty about taxable income and the associated tax liability. In unison with earlier research they find that increases in audit probability, penal tax rates and risk aversion all encourage taxpayer compliance. Their modelling is noteworthy as it incorporates the purchase of tax advisory services. Taxpayers’ incentives to purchase these services as a means of reducing tax liability uncertainty are shown

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4 Cowell and Gordon (1988) also analyse evasion in the context of the level of public good provision and size of the economy.

5 Tax avoidance refers to arrangements, which although legal, are entered into for the purpose of reducing or deferring tax. An example might be an investment producing tax losses, which can be offset against other reported income, resulting in a tax-shelter effect.
to depend upon the audit probability and penal and ordinary tax rates, with purchases generally more beneficial as these parameters increase.

2.2. Fiscal psychology models

Whereas economic deterrence models have been formulated deductively, fiscal psychology models inductively examine the attitudes and beliefs of taxpayers in order to predict actual behaviour. The basis of this reasoning is proposed by Ajzen and Fishbein (1980) who state that attitudes are unbiased indicators of real behaviour. Hessing et al. (1988) review ten theoretical models, grouping them into two broad categories; those incorporating aspects of tax policy and administration and those focussing primarily on the perceptions, attitudes and beliefs of individuals, although Lewis (1982a) and Weigel et al. (1987) bridge this gap. Lewis' model for tax evasion contemplates a profile of taxpayers with high propensities to evade which can potentially be developed from an examination of taxpayer attitudes and beliefs. This profile might include background factors like age, sex, social-economic background, education, and occupation. Hopefully, from the examination of attitudes and beliefs, some of the reasons why taxpayers evade tax can be identified and appropriate measures taken in an attempt to change those attitudes and beliefs.

Lewis (1982a: 132) in contrasting the fiscal psychology and early economic deterrence models states that the central frame of references should be what taxpayer perceptions actually are, rather than what they are assumed to be on the basis of rational and self-interest assumptions. He does however maintain that theoretical analyses are important as these provide an underpinning of relationships to be tested in behavioural research. Lewis comprehensively reviews tax evasion social surveys completed in the 1970's, hence this section discusses a sample of empirical studies which are considered illustrative of current behavioural work.

2.3. Empirical tests of evasion behaviour

Wallschutzky (1984) provides one of the few studies using Australian data, his subjects comprising two groups – taxpayers who had been convicted of evading tax (and whose names were published as a consequence) and a random sample from electoral rolls. Three main
Determinants of evasion were tested—an exchange relationship hypothesis, a social orientation hypothesis (influence of peers and general disposition towards the law) and an administrative control hypothesis (tax administration being oppressive or ineffectual). Significant differences between the two samples were found for the last two hypotheses, with both groups placing emphasis on the exchange relationship hypothesis as a possible cause of evasion, which proposes that when taxpayers perceive the exchange of tax payments for social services received is unequal and in the government's favour, they will evade tax in an attempt to balance the perceived inequity. Perceived inequity is different between high and low income groups, with high income groups being more likely to view the exchange as being unfair as compared with low income groups. Closely related to the exchange relationship hypothesis is the finding that evasion may be precipitated by taxpayers' perceptions that a government uses taxes for inappropriate purposes or in an inefficient manner (Vogel 1974). In a follow-up study, Wallschutzky (1988) again tests his three hypotheses finding that the exchange relationship hypothesis is most likely to embody the reasons for tax evasion. This study is particularly useful as it documents the differences between two parallel studies completed in 1982 and 1987, a period involving substantial tax reform in Australia.

Several compounding factors hamper the analysis of reasons for evasion. For instance, both Vogel (1974) and Wallschutzky (1988: 31) find that those taxpayers who had greater opportunity for evasion, were more likely to evade tax, e.g. the self-employed. Group identification may also play a role in the propensity to evade. If an individual knows others who evade tax, that person is more likely to evade. This effect may be exaggerated by the possibility that individuals tend to know others in the same form of employment, therefore the increased propensity to evade is more a function of opportunity rather than social identification factors. There is also a moral aspect to evasion. Under the economic deterrence models, it is inferred that a taxpayer is always amoral when it comes to the question of evasion, the decision being based solely on rational economic grounds. This proposition is borne out by research that indicates that when evasion is ranked by taxpayers along with other crimes it is not considered to be a serious crime, or at least it is seen as a victimless crime. Song and Yarbrough (1978) is

See footnote 1.
frequently cited for its finding that 295 North Carolina taxpayers ranked tax evasion as being slightly more serious than stealing a bicycle. Baldry (1987) specifically tests whether the economic theory of tax evasion is empirically valid and finds that individual tax evasion behaviour is not determined solely by the monetary value of expected gains, but 'moral' factors influence this decision. This is contrasted by Klepper and Nagin's (1989a) empirical results which lend more support to the notion that evaders are rational informed decision-makers who structure their evasion decisions to maintain the risks of detection and criminal prosecution at acceptable levels.

Kaplan et al. (1988a) use attribution theory to test evasion related judgements. A significant relationship was found between the association between subjects' causal attributions for the evasion behaviour of others and their own intentions to evade. They state (p. 377):

-One's behavioural intentions to evade are; (1) directly related to (a) one's perception of the morality of evasion, and to (b) one's causal explanations (attributions) for others' behaviour, and (2) indirectly related (a) to the environmental factors of need and the pervasiveness of evasion among others, and (b) to the dispositional aspect of distinctiveness. 7

Porcano (1988), like the preceding study, also used case scenarios to measure hypothetical tax evasion, although extending this to consider admitted tax evasion as well. Using United States survey data and multiple discriminant analysis, Porcano found three independent variables (out of 17) were significant over all three discriminant functions tested, being honesty, opportunity to evade (this is closely allied to the actual source of income), and perceptions of existing evasion. He then used the discriminant functions to classify evaders and compliers, achieving overall classification rates of approx. 70%.

Prospect Theory, developed by Kahneman and Tversky (1979), and suggested by Jackson and Milliron (1986) as an avenue for future research is currently receiving wide research attention, although preliminary studies have yielded contradictory findings. This theory implies that income is not the only argument in a taxpayer's utility function and that how a tax payment is perceived may affect compliance. For instance if the outcome is framed in terms of a reduced gain, taxpayers are assumed risk averse and if it is framed as a loss, then they

7 Highly distinctive behaviour would result if a person engaged in tax evasion behaviour, while not engaging in other illegal or unethical activities.
are assumed risk seeking. This can be illustrated by the year end payment status, i.e. a refund due or tax owing. Chang et al. (1987) using a tax-audit lottery field experiment, similar to Spicer and Thomas (1982) and Spicer and Hero (1985), reported that the perception their sample had of tax payments (either as a reduced gain or as a loss) did affect their attitude to risk in tax evasion. Other external factors, manipulated in the experiment, also affected compliance and overall the study did not refute the assertion that taxpayers are generally risk averse.

Schadewald (1989) reached an opposite conclusion finding that although the relationship between risk preferences and the framing of outcomes as gains or losses may be widespread, these may not be automatic with respect to tax reporting decisions. Alm et al. (1990a) also conducted a laboratory experiment using different terminology in the instructions for two groups (neutral terminology with no reference to the game being a tax evasion game and the usual tax terminology), in an attempt to frame the context of the experiment. The decision parameters were identical and interestingly compliance rates between the two groups were also virtually identical.

Recent support for prospect theory is provided by Robben et al. (1990) who conducted an experimental investigation using subjects from six countries. Interestingly, subjects facing an additional tax payment exhibited more noncompliance and tax cheating behaviour than did those expecting a refund, although only a minority of subjects revealed in a debriefing questionnaire that they correctly recognised their withholding status. Although these studies reveal conflicting findings, prospect theory elicits a richer analysis than standard economic deterrence models of evasion behaviour by allowing for the incorporation of social-psychological factors into evasion models through their effect on reference points.

3. Potential responses and the role of the government and revenue authority

The collective results of empirical studies of tax evasion suggest that neither model fully explains the occurrence of evasion, the practice being attributable to both economic and social-psychological factors. The two models can be seen as complementary rather than diametri-
cally opposed. Policies covering both economic and psychological responses, may be implemented by a government, tax administration or other educational body to combat evasion.

3.1. Economic orientated responses

Economic deterrence models predict that economically rational taxpayers (or evaders) will evade taxes as long as the pay-off from evading is greater than the expected value of the penalties incurred if caught. Manipulation of the pay-offs obtained through evasion is possible as a response option. According to economic models the most direct means is to reduce the taxation rate, thereby reducing the amount of money to be saved by evasion. Secondly, it is possible to increase the expected cost of being caught by increasing the penalties for evasion, or by increasing the probability that the evasion will be detected (see section 3.3). An associated measure, not widespread internationally, might be for the imposition of tax-preparer penalties where an anti-revenue tax position is held that is not substantiated by the underlying facts of the case. These are aimed at curbing any trend by tax advisers to continually opt for aggressive stances.

Where taxpayers' motivation for evading is due to personal financial stress, (e.g. Kaplan et al. 1988a), mechanisms are needed in either the tax or welfare systems to prevent, or at least diminish the importance of this cause of evasion. This can be effected by taxation preferences such as low income rebates, or by direct governmental assistance. The central problem with this issue is for the state to identify relative financial circumstances, with the difficulty being the greater the tax concession/welfare eligibility as a result of being poor, the greater the incentive to qualify or appear to qualify. So in attempting to reduce pressure on the poor (and therefore their need to evade), at the same time the incentive for the non-poor to evade is increased, in order to 'appear' poor.

3.2. Psychological responses

If attitudes and beliefs are the basis for behaviour, in order to curtail evasion, existing attitudes and beliefs of taxpayers need to be altered or modified. The importance of paying taxes and the consequences of not doing so (e.g. emphasising the resultant cost that the user of govern-
ment services has to pay because of the taxation shortfall), should be conveyed to taxpayers (Lewis 1982a: 180).

Taxpayers may be ignorant about the disposition of tax revenue. If taxpayers know what they are funding, their attitudes to paying tax may be altered. This raises two important considerations. Firstly, education must enhance taxpayers' perception of the fairness of the exchange between taxpayer and government. A possible drawback is that advertising may only serve to increase the perception of unfair exchange. Secondly, a government must be seen to be efficient in its use of tax revenue. If this is not the case, unintended consequences may again result.

Taxpayers sometimes believe that other taxpayers obtain superior tax advantages over them. Evasion may stem from this perception of inequity. In order to correct this perception it may be appropriate to advertise that the apparent concessions are in fact social or economic incentives. In this way, taxpayers' knowledge and understanding of the rationale, scope and application of taxation laws is enhanced. Education may be achieved through media advertising and/or the use of information booklets. On a higher conceptual level taxpayers need to be educated about their role as citizens. Part of this role is the payment of taxes. This type of education may be better targeted at younger people in an attempt to produce a society with better tax morals (Lewis 1982a: 187). One danger here may be that cynicism may be bred if the younger generation believes its elders have double standards.

The most important aspect of this 'positive advertising' is that it must be believed by those taxpayers who are exposed to its message. If it is not believed then it may indeed increase noncompliance and be seen as a waste of taxpayers' money. If the extent of tax evasion and its detrimental impact is advertised, one view is that taxpayers would accept the necessity for them to pay the correct amount of tax. This is essentially an appeal to taxpayers' consciences. A contrary viewpoint is that this may be unproductive if knowledge of the extent of evasion were to encourage otherwise honest citizens to evade because they perceive everyone else is (Grasmick and Scott 1982).

Existing penalties for evasion could be advertised. These normally include fines and occasionally prison terms as well as social penalties e.g. publication of the names of evaders. The effectiveness of publication of evaders' names in a high profile manner will depend on the attitudes of taxpayers in general to evasion. If it is not seen as being a
serious crime, high profile publication of evaders' names may be ineffective. Violette (1989) examines the impact of sanction communications on compliance using a hypothetical case scenario. He finds that communication of existing legal sanctions increases compliance, but the communication of informal sanctions does not, possibly because the informal communication was not worded strongly enough or not internalised by the subjects. Freiberg (1990) observes that social sanctions have not been widely used in the past to combat evasion activity.

3.3. Other governmental and revenue authority response options

Given the relative ease with which some income taxes can be evaded, it may be viable to alter the fundamental structure of the taxation system to alleviate the problem (Jackson and Milliron 1986: 156). For instance it may be useful to develop stand alone expenditure taxes, e.g. a tax on goods and services such as Value Added Tax (VAT). These are taxes which do not rely on the entity being taxed, being within the current personal tax database. If taxation is being evaded in one area, the taxpayer is not removed from the taxbase altogether. Another alternative is to widen the taxbase to tax previously untaxed income (income from capital gains may be a possibility) and to halt current tax avoidance schemes through the closing of loopholes and removal of tax preferences, e.g. incentives to encourage certain activities such as tourism, exporting etc. In this way, reliance on income tax can be reduced and from a psychological point of view the entire tax system may be perceived more favourably. A contrary result would arise if the loopholes/preferences were generally seen as fair, or the taxation of previously untaxed income was seen as unfair.

An effective means of reducing evasion is by extending the use of withholding taxes deducted at the source of the income. This is most effective if it is performed by a third party. A possible disadvantage is the placement of compliance costs on a third party who may receive little or no net benefit from the withholding function. To some extent, the reforms listed under this sub-heading overlap with the economic responses previously discussed, as they attempt to reduce the ease with which evasion can occur.

8 Consumption taxes are currently receiving the attention of policy makers and academics in both Canada and the United States (e.g. Weidenbaum 1989; and Pechman 1990).
Recently many tax administrations have reviewed their tax-audit procedures covering areas like case selection and the use of improved information systems \(^9\) (e.g. Beighton 1987). Better case selection, e.g. by examining a person’s propensity to evade due to personal characteristics or income type received, engenders a greater ability to identify the population of taxpayers, tax the ‘underground economy’ and generally to increase voluntary compliance. \(^10\) Additionally, the Revenue’s effectiveness, in terms of speed and outcomes, in investigating taxpayers’ returns should be addressed. If this checking function is operating efficiently and effectively then undetected evasion should decline. A ‘ripple effect’ may occur when taxpayers are audited (e.g. they inform their acquaintances/peers etc). If the tax authority can manipulate this through favourable publicity, compliance may increase.

3.4. Tax enforcement studies

Empirical studies into tax law enforcement in the United States have greatly benefitted from the Taxpayer Compliance Measurement Programme (TCMP) and Exact Match File described by McCrohan (1982). Witte and Woodbury (1985) and Beron et al. (1988) both find that tax-audits can be important stimulants to compliance but these must be carefully designed for specific taxpayer groups. Beron et al. (1988) find that audits are more effective at inducing accurate reporting of deductions rather than income reporting and suggest that significant compliance effects also stem from other policing activities such as matching procedures, checking for errors, the provision of information and educational programmes, pursuing tax in arrears and taking penal action, e.g. civil and criminal prosecutions. Klepper and Nagin (1989b) also use TCMP data to find marked variations in compliance levels according to the line item in the tax return and the difficulty of establishing noncompliance and penalty imposition for those line items. It is now widely recognised that research into attitudinal variables on

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\(^9\) Both the Australian and New Zealand Governments have recently approved substantial expenditure on sophisticated computer equipment to be used within their respective tax collecting offices, although proposals to introduce national identification cards were not treated as favourably in either country.

\(^10\) It is conceivable that issues of privacy and personal liberty could well arise under some hypothetical case selection procedures.
compliance must explicitly consider and control the 'opportunity to evade' factor which may vary for different line items in tax returns.

Several recent interactive theoretical models, specifically related to tax enforcement, significantly extend the economic deterrence models discussed earlier. Graetz et al. (1986) and Beck and Jung (1989b) develop models which explicitly integrate the relationship between the taxpayer and the revenue authority (assumed to have a revenue maximising function) over time and consider the normal parameters found in the general economic deterrence models. Scotchmer and Slemrod (1988) show that optimal enforcement policy requires some randomness in the assessment of taxable income whenever reducing randomness is costly. An interesting result of their paper, which contrasts with Graetz et al. (1986: 6), is that tax collection agencies should not necessarily maximise revenue, but should maximise taxpayers' expected utility which will require a different view of randomness. Although these models have had little empirical testing, they have direct policy implications in the areas of tax penalty formation, tax-audit case selection and efforts to simplify the tax structure.

4. New Zealand as a case example

Frequent tax reforms are a pervasive phenomenon throughout the world, but during the six-year term of the Labour Government (1984–1990) this was particularly true for New Zealand, as evidenced by this section. Recent reforms are now classified as utilising principles from the economic deterrence or from the fiscal psychology models. Some reforms clearly incorporate elements of each, while others fall outside these models altogether (section 4.3).

4.1. Economic responses

The following reforms all attempt to manipulate parameters within the standard economic deterrence models, by altering the costs of evading or of compliance.

Increased penalties. The penalties for late payment of tax were increased in 1986. Further, there are now substantially increased penalties associated with identified tax evasion and other offences under the
Income Tax Act 1976. The maximum penalty on conviction of a tax offence is a fine not exceeding $NZ50000 and/or two years imprisonment. In line with the economic paradigm of evasion these increased penalties should reduce the level of tax evasion as the expected benefit from evasion is reduced.

*Resident withholding tax.* The resident withholding tax regime was introduced in October 1989 and extends the principle of withholding tax at source by requiring payers of interest and dividends to account to the Inland Revenue Department for the tax before the net investment income is paid to the investor. Fleming and Hasseldine (1989) note that although the regime’s introduction was controversial, it should be effective at reducing evasion on investment income as the third party, who deducts the tax has no incentive to evade. Besides this regime, both fringe benefit tax and dividend imputation (see infra) can also be looked upon as variants of withholding tax systems.

*Compliance costs.* The level of compliance costs falling on a taxpayer may be such that the taxpayer will choose to evade tax in order to compensate for what is seen as excessive compliance costs (Sandford 1981: 171). Thus this factor draws upon both models. In New Zealand these have reached such a level where taxpayers could well opt to take the risk of being detected evading rather than expend the amounts required to determine their correct liability. The Government initiated a tax simplification project in an attempt to address this problem and enlisted the help of the accounting profession, although it is already apparent that simplification is a complex exercise in itself.

*Audit strategy.* The current Inland Revenue Department corporate plan lists the detection of evaders as an important principle of encouraging voluntary compliance. In its audit programme the following goals are also listed:

1. Taxpayer compliance with the law is improved.
2. Taxpayers who have the greatest potential for noncompliance are identified and investigated.
3. The reasons for noncompliance are identified and measured.

Case selection techniques are mentioned specifically as is the identification of areas of noncompliance by various taxpayer groups. A major shift in emphasis has been the adoption of a ‘balanced pro-
gramme' of tax-auditing – i.e. a programme which ensures all classes of taxpayer are given some attention each year balanced against the need for cost effectiveness. These objectives are well buttressed by economic models. If the probability of detection is increased, noncompliance should decrease.

4.2. Psychological responses

Other tax reforms undertaken have been directed at taxpayer attitudes and beliefs. Some reforms in this area are focussed on providing taxpayers with information to persuade them that they should pay tax and that their taxes are being put to good use. Others can be seen as improving taxpayer perceptions by the closing of loopholes, and removal of distortions and preferences from the tax system – in short increasing the system's neutrality.

Advertising. The Government has heavily advertised tax reforms, including the use of television commercials and greater attention to spending and efficiency (e.g. in government departments, privatisation of state assets and a 'user pays' philosophy). The Inland Revenue Department has also increased the visibility of their taxpayer advisory function through advertising. This public relations exercise is designed to improve taxpayers perception of the Department. Compliance should increase as people are informed about their proper tax liability. This helps to eliminate evasion by omission (Lewis 1982a: 123). Further, under the psychological models, an improved perception of the tax authority should improve compliance.

Tax amnesty. New Zealand (in common with Australia), conducted a tax amnesty in 1988. It was designed to protect existing voluntary compliance and the net return of $20 million represented 0.37% of annual income tax revenue. Hasseldine (1989a) notes that the claimed advantages of tax amnesties are that they encourage future compliance, collect outstanding taxes, allow taxpayers who have evaded tax for one

\[11\] Without the 'balanced programme', audits could be performed at random, which while likely to have some deterrent effect on the sample of auditees, does not cover the entire taxable population and is unlikely to be as cost effective as possible. This 'balanced programme' can be (but is not necessarily so) consistent with the analysis of Scotchmer and Slemrod (1988).
reason or another back into the system, improve revenue records and allow for a transition to a strengthened enforcement regime. However, a tax amnesty is not necessarily the most effective way to identify hardcore evaders and turn them into tax compliant individuals.

Removal of tax preferences. The Government has also removed many of the deductions available to individuals that are not self-employed, e.g. expenses incurred in relation to employment, deductions for contributions to life insurance and pension funds. These have been made for reasons of 'equity' although possibly they are not seen as equitable. Remaining tax preferences are targeted at the poor, although this may merely be a convenient method of social welfare delivery rather than an active attempt to discourage evasion by this group.

Fringe benefit tax. Fringe benefit tax was introduced in 1985 and levies a tax on employers on fringe benefits received by employees. Originally it applied to company cars, low interest loans and subsidised goods and services. Coverage has since been expanded to include other benefits, most notably employer contributions to superannuation funds. This regime evolved as PAYE tax was being avoided by providing employees with nonmonetary benefits in lieu of salary/wages and now aims to ensure that total employee remuneration is taxed regardless of the form it takes.

Accruals legislation. In 1987 an accruals regime for financial instruments was introduced. This regime assesses income and allows deductions for expenditures as they accrue, in line with generally accepted accounting practice. The reason for its introduction, was that under previous law, taxpayers were able to gain a timing advantage from delaying the recognition of income until some time after it was earned and/or by claiming deductions before expenses were actually paid. Prior to its introduction, a whole raft of new financial instruments had been developed (or borrowed from other countries) as the well known 'securitisation' industry flourished. In some situations, the regime has widened the taxbase by taxing income previously untaxed. The accruals regime has certainly removed many opportunities for delaying the payment of tax, arguably making the tax system fairer and more efficient.
International tax reform. This regime operates to tax the income of nonresident entities that are controlled by resident taxpayers. It attributes income earned by controlled foreign companies to the controlling New Zealand residents with credits available for foreign taxes paid. If a foreign company does not fall within the definition of a controlled foreign company, it may be termed a foreign investment fund whereby increases in fund value are attributed to investors and taxed on what is effectively an accrued capital gains tax system. Previously taxpayers had the ability to accumulate income earned offshore in nonresident companies, usually in low tax jurisdictions and to repatriate this income on a taxfree basis - resulting in erosion of the taxbase. This regime tackles the problem which has been widely regarded as an avoidance rather than an evasion technique.

Dividend imputation. An imputation system was introduced in 1988. This allows a credit for tax paid by a company to attach to dividends subsequently paid from company profits. In the past, New Zealand operated a 'classical' system of company taxation, whereby company profits were taxed once at the company level and secondly at the shareholder level when dividends were paid (effectively a double tax on the one income flow). The perceived equity of a tax system should improve on the elimination of double taxation measures. Under imputation, compliance is continuing to be monitored, as information about who has received dividends and imputation credits is still available to the Inland Revenue Department.

4.3. Other reforms

The principal reform that fell outside both models was the Government's move to broaden the taxbase by introducing a comprehensive indirect tax on consumption - Goods and Services Tax (GST). This was introduced in 1986, its current rate being 12.5%. GST is levied on a comprehensive range of goods and services and, in contrast with taxes of the same nature in some other countries, there are very few exceptions to its application. A system of credits for GST paid on inputs and the requirement for a GST invoice to claim that credit operate to ensure that compliance is high. This makes GST a most effective provider of revenue. Despite the impact of GST, there is still a heavy reliance on income taxes as a source of taxation revenue. During the
Table 1
New Zealand responses to tax evasion and avoidance.

<table>
<thead>
<tr>
<th>Response</th>
<th>Primary response type</th>
<th>Secondary response type</th>
<th>Tax base restructuring</th>
<th>Initiated by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased penalties</td>
<td>Economic</td>
<td>-</td>
<td>-</td>
<td>Government</td>
</tr>
<tr>
<td>Resident Withholding Tax</td>
<td>Economic</td>
<td>-</td>
<td>-</td>
<td>Inland Revenue</td>
</tr>
<tr>
<td>Compliance costs</td>
<td>Economic</td>
<td>-</td>
<td>-</td>
<td>Government Revenue</td>
</tr>
<tr>
<td>Tax-audit selection</td>
<td>Economic</td>
<td>Psychological</td>
<td>-</td>
<td>Inland Revenue</td>
</tr>
<tr>
<td>Advertising</td>
<td>Psychological</td>
<td>-</td>
<td>-</td>
<td>Government Revenue</td>
</tr>
<tr>
<td>Tax amnesty</td>
<td>Psychological</td>
<td>-</td>
<td>-</td>
<td>Inland Revenue</td>
</tr>
<tr>
<td>Imputation</td>
<td>Psychological</td>
<td>Economic</td>
<td>-</td>
<td>Government Revenue</td>
</tr>
<tr>
<td>Removal of preferences</td>
<td>-</td>
<td>-</td>
<td>Yes</td>
<td>Government</td>
</tr>
<tr>
<td>Fringe Benefit Tax</td>
<td>-</td>
<td>-</td>
<td>Yes</td>
<td>Government</td>
</tr>
<tr>
<td>Accruals regime</td>
<td>Psychological</td>
<td>-</td>
<td>Yes</td>
<td>Government</td>
</tr>
<tr>
<td>International Tax</td>
<td>Psychological</td>
<td>-</td>
<td>Yes</td>
<td>Government</td>
</tr>
<tr>
<td>Goods and Services Tax</td>
<td>-</td>
<td>-</td>
<td>Yes</td>
<td>Government</td>
</tr>
</tbody>
</table>

1989 fiscal year, income tax constituted 65.5% of total tax receipts. Although this proportion is considerably lower than several years ago, it must be remembered that indirect consumption related taxes such as GST (or a VAT type system) are more difficult to evade than direct taxes.

4.4. Summary

The reforms discussed in this section are summarised in table 1. They are clearly wideranging and intensive. They might almost be described as a crash programme. It is self-evident that the reforms have been designed to reduce tax evasion and avoidance and associated redistributive effects. From the discussion in sections three and four, it is clear that responses to evasion can incorporate elements of both economic deterrence and fiscal psychology models as has been the case.

in New Zealand. Some reforms can be implemented on a ‘kneejerk’ basis, e.g. increased penalties. However from a strategic viewpoint little attention has been paid to the education of taxpayers, which is perceived as more onerous and problematic in implementation. Similar comments apply to the use of social (rather than economic) sanctions to discourage evasion. Unfortunately no attempt has been made yet to measure the effectiveness of these reforms in terms of tax compliance measurement, so it is difficult to conclude which model’s reforms have been the most effective.

5. The role of professional tax advisers

Approximately 60% of all United States returns are filed by tax advisers (38% in New Zealand), and there is a considerable body of empirical research now emerging on the unique influence of tax professionals in compliance decisions (for example, see Madeo et al. 1987; Helleloid 1988; Milliron and Toy 1988; Kaplan et al. 1988b; and Duncan et al. 1989). One reason is that tax professionals have specialised expertise in the application of both ambiguous and unambiguous tax laws to verified facts in order to minimise their clients (or their own) tax. Recent work has concentrated on the causal factors and processes that determine the recommendations advisers make to their clients, e.g. recent successes with tax audits, age, experience, probability of audit etc.

Tax advice may originate from specialists (e.g. international accounting firms) or from generalists in these and smaller firms. Tax advisers seek workable legislation, but there may be a self-interest justification in tax law complexity, especially from the viewpoint of tax specialists. White (1990) puts it simply that tax advisers prefer complex law as this raises their income and in New Zealand, specialists from large accounting firms have had a major consultative input into the reforms described in section four. Due to the complexity and pace of these reforms, a tax education office was established to clarify issues of tax law and practice causing concern to practitioners and to highlight areas of uncertainty. This response suggests that tax advisers may reach a saturation point and seek relief from overly complex tax laws and the office’s establishment can be viewed as an educational response to a compliance problem.
Traditionally, accountants were expected to adopt the most advantageous legal position for their clients, and this raises some interesting issues. For instance Jackson (1985) questions whether taxpayers and governments are natural adversaries, by saying that despite their differences they both have a common goal in maintaining the integrity of a fair taxation system. On combating evasion she comments (p. 80):

'If the tax community and the IRS are viewed as adversaries, then initiatives on the part of accountants and lawyers in support of the IRS should send a strong signal to the public that the problem is serious'.

Until recently little attention has been paid to tax practice pronouncements issued by professional societies. Frequently, pronouncements have been of a guiding nature, rather than a mandatory standard of conduct to be observed by all members. If Jackson's view is adopted then constructive efforts must be demonstrated by preparers who could play an important role in increasing compliance.

As detected tax evaders frequently incur heavy pecuniary penalties, it is common, especially for large entities, to consult with tax advisers before any potentially risky tax planning scheme is undertaken. It is possible that tax professionals will be less willing to recommend borderline tax planning if there were associated tax preparers penalties in cases of clients being caught evading tax (as in the United States). Collins et al. (1990) conducted a survey of tax practitioners and found results suggesting that the threat of preparer penalties changed office procedures to minimise the possibility of penalty imposition, but the effect of these sanctions on professional reputation was of much greater concern than the monetary consequences of the fines themselves. Not surprisingly these preparer penalties are not favoured by tax professionals who argue that such measures would jeopardise the client/adviser relationship. Further the burden of proof of professional responsibility will not easily be discharged. It would be a brave government which introduced such a measure in New Zealand (and possibly in other countries), as accounting professions are often 'unified' with large memberships and close links to the legal profession.

13 For example the 1982 United States Tax Equity and Fiscal Responsibility Act imposes penalties for preparers who are involved with or promote abusive tax shelters and those who aid or abet understatements of tax liabilities.
6. Conclusion

Current research now includes several positive models of tax compliance, which predict taxpayer behaviour under a wide variety of conditions. Many options available to governments and revenue collection agencies, to combat the incidence of tax evasion have been described. These options are essentially normative in that they are trying to determine the optimal response(s) that should be used to encourage compliance.

It can be argued that just as there are no cures for many serious medical diseases likewise there are no solutions for the social disease of tax evasion. All that can be hoped for is a measure of control so that the problem can be confined within acceptable limits. What those limits are, is itself difficult to define, since governments would presumably not wish to state publicly how much evasion they would regard as 'tolerable'.

With respect to the extent of compliance enforcement that should be adopted, it is useful to keep in mind that evasion levels may be high where the tax system is lax, and when the tax system is too oppressive. Schmolders' (1970) comment that '...tax enforcement is a behavioural problem, and any success depends upon cooperation' remains true. In order to maintain that necessary co-operation, a balance between the degree of strictness and realism needs to be achieved.

The type of response, economic or psychological, will depend on the time frame that is adopted. Buttressed by a growing empirical literature, a blend of the two approaches seems most appropriate as no one measure is likely to be totally effective, and a mixture of options needs to be attempted. For each, the cost and associated benefits need to be assessed. Economic orientated responses are short-term solutions only, and it is necessary to look to psychological aspects to ameliorate long-term problems. If evasion persists over a long time and continues to account for a large percentage of the total tax take then structural solutions may be appropriate.

In an introduction to a special issue of the Journal of Economic Psychology in 1982, Lewis (1982b) commented on the role that fiscal psychology may have in the area of tax evasion. This has proved to be a prophetic statement. The literature cited here and elsewhere indicates that it has elicited many responses from researchers. It seems likely to continue as a productive, useful and challenging area of research for
those involved in the economic psychology arena. There is still a great
deal to learn about the complex web of beliefs and attitudes that
underlie tax evasion before it can be managed effectively by public
policy makers.

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