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Binh Tran-Nam

*University of New South Wales*

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# Comments on "Recognising the Pitfalls in Tax Compliance Costs Research"

## **Abstract**

This is a critical comment on a review of the research methodology in tax compliance costs by Turner, Smith and Gurd in the *Revenue Law Journal*" volume 8, 1998. It argues that there are inaccurate assertions in their review. Many of their recommendations, while correct, are well known in the literature and difficult to implement in practice. In evaluating previous Australian studies, Turner, Smith and Gurd did not take account of resource constraints facing early researchers. They failed also to highlight in a systematic fashion the conceptual advancement and improvements in data collection in the more recent studies.

## **Keywords**

tax compliance, tax, law

## **Cover Page Footnote**

This article is supported by a small ARC grant from the Faculty of Law at the UNSW. I wish to thank Abe Greenbaum and Colin Fong for their valuable input. Any remaining errors are my sole responsibility.

## COMMENT

### COMMENTS ON "RECOGNISING THE PITFALLS IN TAX COMPLIANCE COSTS RESEARCH"\*

**Binh Tran-Nam**  
Australian Taxation Studies Program (ATAX)  
University of NSW, Sydney

**This is a critical comment on a review of the research methodology in tax compliance costs by Turner, Smith and Gurd in the *Revenue Law Journal* volume 8, 1998. It argues that there are inaccurate assertions in their review. Many of their recommendations, while correct, are well known in the literature and difficult to implement in practice. In evaluating previous Australian studies, Turner, Smith and Gurd did not take account of resource constraints facing early researchers. They failed also to highlight in a systematic fashion the conceptual advancement and improvements in data collection in the more recent studies.**

## 1 INTRODUCTION

In the 1998 issue of the *Revenue Law Journal*, Turner, Smith and Gurd (henceforth "TSG") published a review of the research methodology in tax compliance costs with special reference to Australian studies.<sup>1</sup> Their article raised the level of awareness of tax compliance costs research in Australia, especially amongst legal and tax professionals. This is desirable because, despite important policy implications, the area of tax compliance costs has largely been neglected in Australia, at least until the early 1990s. Second, as tax is an interdisciplinary subject, it was good to see some contributions from Australian academic accountants. Academic accountants have indeed made

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\* This article is supported by a small ARC grant from the Faculty of Law at the UNSW. I wish to thank Abe Greenbaum and Colin Fong for their valuable input. Any remaining errors are my sole responsibility.

<sup>1</sup> Turner JL, Smith M and Gurd B, "Recognising the Pitfalls in Tax Compliance Costs Research" (1998) 8 *Revenue LJ* 62-87.

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fundamental contributions to the field of tax compliance costs.<sup>2</sup> Third and finally, their article makes some useful recommendations for future tax compliance costs studies.

On the negative side, their article contains many inaccurate assertions as well as misunderstanding and unfair comments on previous studies, which include a recent publication by a research team from the Australian Taxation Studies Program (ATAX).<sup>3</sup> Many of their recommendations, while correct, are well known in the literature and difficult to implement in practice. As a member of the ATAX team, I feel that their article should not go unchallenged. My comments represent my own personal view, which may not necessarily be the collective view of the ATAX team. Further, as an academic economist, my comments come from an economic perspective.

In Section 2, some inaccurate assertions by TSG are briefly examined. The literature on tax compliance costs is vast and far more established than described by TSG. Section 3 assesses the contributions of TSG to the tax compliance costs literature in terms of the conceptual framework and data collection. It is argued that the pitfalls of data collection discussed in their article are already well known to researchers working with survey data. In evaluating previous studies TSG did not take account of resource constraints facing early researchers. More seriously, they failed to appreciate or highlight advancement in recent studies and chose instead to focus on minor points of trivial consequence. Section 4 examines their discussion on future research. With qualifications, this article supports their call for a more theoretical approach to tax compliance costs studies. Some future directions of research are also sketched out.

## 2 SOME INACCURATE ASSERTIONS

There are unfortunately many incorrect or half correct assertions in TSG's article. For illustration, these are some obvious ones. Other erroneous statements will be considered in the next section. For ease of cross referencing, their assertions will be indented and footnoted.

Since the first study of tax compliance costs in 1973 ...<sup>4</sup>

As TSG did not give a reference to this "first" study, I assume that they referred to Sandford's book entitled *Hidden Costs of Taxation*, published in

<sup>2</sup> See eg, Johnston KS, *Corporations' Federal Income Tax Compliance Costs: A Study of Small, Medium-size, and Large Corporations* (1963 Ohio State University).

<sup>3</sup> Evans C et al, *A Report into Taxpayer Costs of Compliance* (1997 AGPS).

<sup>4</sup> See above n 1 at 62.

1973.<sup>5</sup> This is not accurate. While Professor Sandford is an undisputed world authority in this area, it is well known in the literature that the first empirical study of tax compliance costs dated back to the work of Haig almost 65 years ago.<sup>6</sup> Going back further, the qualitative recognition of tax compliance costs, albeit in different terminology, was made at the birth of modern economics over two centuries ago.<sup>7</sup>

...no tax is perfectly efficient ...<sup>8</sup>

This statement is too strong to be correct. It is well known that in the presence of negative externalities (for example, pollution), the forces of demand and supply in an unregulated market may result in an equilibrium output which exceeds the socially optimal level. In such a case, a well designed tax of an appropriate magnitude can improve economic efficiency.

...Twenty-five years ago, the term "taxation compliance costs", in its presently accepted meaning, was virtually unknown.<sup>9</sup>

TSG's reckoning seems to be based again on the publication of *Hidden Costs of Taxation*. This is not strictly correct as demonstrated by quoting two sentences from the 1963 work by Johnston:

*What purposes would be served by determining the cost of complying with the federal tax on corporate income? (italics added)*<sup>10</sup>  
*The cost of compliance, as above delimited, is the reduction in the corporation's operating costs, exclusive of the tax itself, which would result if the federal income tax were eliminated (italics added).*<sup>11</sup>

Clearly, the above sentences by Johnston, an American academic accountant, capture the modern meaning of tax compliance costs.

Four categories of compliance cost can be specified: taxpayer's time; unpaid helper's time; tax agent fees; and, incidental expenses.<sup>12</sup>

Since the above list is supposed to cover both personal and business taxpayers, it is obviously incomplete. In the case of business taxpayers, what about the costs of hiring employees to look after the business tax affairs? If the list is intended to cover personal taxpayers only, then the authors should

<sup>5</sup> Sandford CT, *Hidden Costs of Taxation* (1973 Institute of Fiscal Studies).

<sup>6</sup> Haig RM, "The Cost to Business Concerns of Compliance with Tax Laws" (1935) 24 *Management Review* 323-333.

<sup>7</sup> See Book Five, Chapter II of Smith A, *An Inquiry into the Nature and Causes of the Wealth of Nations* (1947 Dent).

<sup>8</sup> See above n 1 at 62.

<sup>9</sup> Ibid at 63.

<sup>10</sup> See above n 2 at 2.

<sup>11</sup> Ibid at 5.

<sup>12</sup> See above n 1 at 64.

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not quote the ATAX estimated tax compliance costs of \$10.417 billion as this figure covers both personal and business taxpayers.

In the past the field research has been undertaken first and then an attempt made to find statistical correlation between the various items of data gathered. This has confused correlation and causation.<sup>13</sup>

This is not an accurate description of previous studies in compliance costs. All of the empirical studies quoted in TSG's article are **only** concerned with numerical estimation of compliance costs. These studies typically start with a definition of compliance costs and then find some data to estimate the various cost components in the definition. They are basically accounting studies that do not attempt to explain the causal relationship between tax compliance costs and other explanatory variables. It is thus incorrect to describe these studies as confusing correlation with causation.

There are, of course, a few studies of compliance costs, which go beyond the basic accounting framework.<sup>14</sup> In this vein of the literature, researchers attempt to regress compliance costs of individual income tax on some explanatory demographic and economic variables. However, all of these econometric models are based, either implicitly or explicitly, on an optimising model of taxpaying household behaviour. Since these works are not quoted in their article, it is not clear whether or not TSG are familiar with this line of research.

Most past research has attempted to measure tax compliance costs as if they were a static, non-varying characteristic of the economy.<sup>15</sup>

This is untrue. No compliance costs study has made this kind of absurd assumption. How could compliance costs be static when the economy and the tax system both evolve continuously, sometimes significantly? For example, who would seriously argue that tax compliance costs in Australia would remain unchanged as a result of the Australian Federal Government's tax reform proposals? It is, however, correct to state that, due to limited resources in data collection, most empirical studies focus on estimating compliance costs of some specific taxes within a particular year. This does not mean that researchers consider tax compliance costs, either in absolute dollar terms or relative to tax revenue, as static or non-varying.

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<sup>13</sup> Ibid at 86.

<sup>14</sup> See eg, Slemrod J and Sorum N, "The Compliance Costs of the US Individual Income Tax System" (1984) 37 *National Tax Journal* 461-474, and Slemrod, "The Return to Tax Simplification: An Econometric Analysis" (1989) 17 *Public Finance Quarterly* 3-28.

<sup>15</sup> See above n 1 at 87.

### 3 ASSESSING THE CONTRIBUTIONS OF TSG

Like any other economic or accounting measures, accurate and dependable numerical estimates of tax compliance costs must be based upon:

- a sound and consistent conceptual basis; and
- availability of appropriate and reliable data.

#### Conceptual issues

##### *The accounting/taxation overlap*

In Section 2-1 of their article, TSG raised the issue of the overlap of accounting and tax activities. This is a well known problem in the literature and has been discussed at length elsewhere.<sup>16</sup> In the area of business compliance costs, the lists of costs that one might attribute to accounting and those which one might attribute to taxation is not free from debate. There is a spectrum of views regarding the accounting/taxation overlap. At one end, there are taxpayers (especially small businesses) who regard all the costs involved in the preparation of accounting records as compliance costs, because taxation is the only reason that they have, or at least recognise, for performing those activities. The other extreme might describe tax as no more than a by-product of accounting, such that the information relevant to taxation is a final step in an ordinary accounting function.

Having raised the issue of accounting/taxation overlap, TSG did not offer any practical solution to the problem. The ATAX team used an innovative approach. In adopting an intermediate position concerning the accounting/taxation overlap, the ATAX team attempted to design appropriate questions that helped taxpayers to separate non-taxation accounting costs from the taxation compliance costs. More specifically, business taxpayers were requested to identify separately those activities that were required solely for tax purposes and those accounting activities which were beneficial to their business in some other ways (for example, stock control). In this way, the impact of purely accounting compliance costs on the survey results (as opposed to tax compliance costs) was minimised.

##### *Social compliance costs versus private sector compliance costs*

Another worthwhile contribution of the ATAX study is to distinguish between social compliance costs (ie, costs to the economy) and private sector

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<sup>16</sup> See eg, Evans C et al, *A Report into The Incremental Costs of Taxpayer Compliance* (1996 AGPS) at 15.

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compliance costs (ie, costs legally and initially borne by personal and business taxpayers).<sup>17</sup> These two concepts of tax compliance costs may be defined as:

- Social Compliance Costs = Direct monetary outgoings incurred by taxpayers + Imputed costs of time and resources spent by taxpayers – Managerial benefits to taxpayers
- Private Sector Compliance Costs = Social Compliance Costs – Cash flow and tax deductibility benefits to taxpayers

Before proceeding further, it may be useful to discuss briefly the meaning of managerial, cash flow and tax deductibility benefits. Managerial benefits arise from stringent record keeping requirements imposed by the tax laws, and provide a basis for improved business or individual decision making. These benefits are difficult to quantify, and are usually omitted in empirical studies.

Cash flow benefits arise:

- (i) when income is not taxed (either at all or in sufficient amount) and remitted at the point at which it is received, and taxpayers (both individuals and firms) have the use of the tax revenue for a period before the tax is paid to the tax authority; or
- (ii) from the lawful delay in the remittance of tax revenues collected by businesses on behalf of the government (for example, PAYE or sales tax).

The idea of cash flow benefits as offsetting benefits of tax compliance was first popularised by Sandford and others in the early 1980s.<sup>18</sup>

The income tax systems in most developed countries recognise many tax compliance activities as a source of legitimate tax deductible expenses. The tax deductibility benefits of tax compliance to taxpayers were considered in some detail in a pioneering study by Johnston.<sup>19</sup> However, his distinction between before and after tax compliance costs has been virtually neglected until the 1990s. Allers appeared to be the first to take account of both tax deductibility and cash flow benefits in his estimation of the compliance costs for Dutch business taxpayers in 1989.<sup>20</sup> However, he did not provide a general treatment of the legal incidence of tax compliance costs and did not

<sup>17</sup> In the ATAX study, the term “taxpayer compliance costs” was used. Since some of the compliance costs are borne by third parties, not the taxpayers directly (eg, PAYE or sales) the term “private sector compliance costs” is used in this article.

<sup>18</sup> Sandford CT et al, *Costs and Benefits of VAT* (1981 Heinemann).

<sup>19</sup> See n 2 at 10.

<sup>20</sup> Allers MA, *Administrative and Compliance Costs of Taxation and Public Transfers in the Netherlands* (1994 Wolters-Noordhoff).



apply the same idea to compliance costs of Dutch individual taxpayers in 1990. The ATAX research seems to be the first study to provide a clear and comprehensive framework for estimating private sector compliance costs of both personal and business taxpayers.

Tax deductibility and cash flow benefits to taxpayers reduce government tax revenue. This loss in tax revenue reduces government expenditure or results in higher taxes or borrowing and will thus affect taxpayers and non-taxpayers alike. The difference between social and private sector compliance costs can thus be viewed as public sector compliance costs.

The distinction between social and private sector compliance costs has several implications. In measuring compliance costs of personal income tax, it is now necessary to spell out the assumption on the valuation of the time spent by individual taxpayers on their tax affairs. If taxpayers' time is assumed to be a substitute for work, then the before and after tax wage rates should be used in estimating social and private sector compliance costs, respectively. Alternatively, if taxpayers' time is assumed to be a substitute for leisure, then the after tax wage rate should be used in measuring both social and private sector compliance costs. This reflects the fact that leisure time cannot be taxed. Since time costs constitute the largest component of compliance costs, it is clear that numerical differences between social and private sector compliance costs are very sensitive to the assumption regarding personal taxpayers' time evaluation.

When tax activities are carried out by employees of a business, the labour costs of business tax compliance from a social perspective should always be valued at the before tax wage rate. Taking tax deductibility benefits into account, the unit labour cost of tax compliance from the business' perspective is equal to the before tax wage rate multiplied by  $(1-t)$  where  $t$  is the marginal tax rate facing the business. TSG did not seem to appreciate this point when proposing the use of average weekly earnings after tax as a basis for quantifying business tax compliance costs.<sup>21</sup> First, after tax earnings provide an invalid basis for estimating social costs of business tax compliance. Second, the relevant tax rate in estimating private sector costs of business tax compliance is the business' marginal tax rate, not the employees' marginal tax rate. Thus, TSG's proposal is conceptually erroneous.

More importantly, at a policy level, the distinction between social and private sector compliance costs raises the issue of the valid concept of compliance costs to be used in evaluating tax policy. Suppose that a tax researcher is interested in studying the impact of the government's tax proposals on compliance costs primarily from a business perspective. In this case, the researcher should, by all means, estimate tax deductibility and cash flow

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<sup>21</sup> See above n 1 at 71.

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benefits to business taxpayers, and report on how the tax proposals will increase or decrease the private sector compliance costs.

However, the simplification impact of the government's tax proposals must be considered on the basis of a social perspective. It is easy to see that private sector compliance costs represent an invalid basis for evaluating tax policy from a public finance standpoint. For example, the government can make the compliance costs to the private sector as small as it wishes by providing businesses with an ongoing cash subsidy of appropriate magnitude. A small magnitude of private sector compliance costs (relative to tax revenue raised) in this situation does not necessarily mean the tax system is simple.

In 1998 the Federal Government released a Regulation Impact Statement (RIS) to accompany its main GST Bill.<sup>22</sup> The RIS provided an assessment of the impact of the government's tax proposals on tax compliance and administration costs. While the government should be congratulated on its openness, it is not too difficult to see that the government has focused on private sector compliance costs for evaluating the simplification impact of its (original) tax proposals. Unfortunately this conceptual error has since been repeated by other tax researchers.<sup>23</sup>

Instead of highlighting these important measurement and policy implications of the distinction between social and private sector compliance costs, TSG chose to criticise the ATAX assumption that, on average, tax refunds are made to personal taxpayers three months after the end of the tax year. They suggested that, on average, tax refunds are made two months after the end of the tax year. The difference is a trivial point, which can only be settled by a more careful study of the time distribution of personal taxpayers' tax refunds. Even if their assumption is more correct than ours, it has no impact on social compliance costs of Australian personal taxpayers, and only reduces estimated private sector compliance costs of personal taxpayers in 1994-95 from \$1,534 to \$1,498 million. This represents a reduction of just over 2%, which is numerically negligible.

### Data collection

The bulk of TSG's article is devoted to discussing "pitfalls" in collecting data for tax compliance costs research. While some of their comments are pertinent, they are well known in the literature. For example, researchers working with survey data are familiar with such problems as sample

<sup>22</sup> Australian Treasury, "Regulation Impact Statement for the Introduction of a Goods and Services Tax", *A New Tax System Bill 1998* (Cth).

<sup>23</sup> See eg, Pope J, "The Compliance Costs of the Goods and Services Tax: Major Issues" (1999) 18 *Economic Papers* 61-77.

selection, representativeness of data and non-response bias. As will be shown later, these problems are more than adequately addressed in the ATAX study.

The results obtained in empirical studies should be evaluated in light of the resources available or expended. TSG failed to acknowledge that early researchers faced severe resource constraints. In various parts of their article, TSG strongly criticised the work of Pope and his research associates. Yet the path-breaking work on Australian compliance costs was undertaken by Pope and his research team in the late 1980s with little funding and virtually no support from the ATO. In the face of these insurmountable difficulties, Pope and his team were able to generate quite plausible initial estimates of compliance costs for various kinds of Australian taxes and tax collection mechanisms. The problems of data limitations were also fully and openly acknowledged by Pope and his team.

The following section examines in greater detail a number of pitfalls discussed in TSG's article.

### *Timing of survey*

TSG made a suggestion that compliance costs surveys should be conducted in accordance with the timing of the tax (ie, when income tax returns are prepared or when the tax is remitted) under consideration. This is a good proposal. The ATAX surveys were carried out in September and October 1995 to collect data concerning the 1994-95 tax year. Given the very broad scope of the ATAX study, this timing was considered optimal. However, to be fair to early researchers, it must be pointed out that the timing of their surveys was often dictated by rigid funding requirements.

### *Sample selection*

The problem of sample selection was considered in TSG's article under two different headings, "targeting research" and "sampling bias". Naturally, any compliance costs must start with the recognition of the relevant population under study. How the population should be stratified for sample selection is another question. Based on a priori reasoning as well as previous empirical studies, the ATAX team stratified the population of personal taxpayers by gross income level, use of tax adviser and location of taxpayers, and the population of business taxpayers by annual turnover, legal form and industrial sector. These criteria are more detailed and regarded as better than those proposed by TSG in their article.<sup>24</sup>

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<sup>24</sup> See above n 1 at 67.

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Without official support from the ATO, it is impossible to obtain a random sample of taxpayers from the stratified population. In this sense, TSG seemed to be too harsh in criticising Pope et al as they did not receive the backing of the ATO.

*Response rate and representativeness of sample data*

TSG seemed to use the term “response bias” to embrace two separate issues in survey data: response rate and representativeness of sample. Given the demanding nature of data to be collected for compliance costs studies, it is unrealistic for TSG to support the suggestion that any response rate below 50% should be treated with caution.<sup>25</sup> It is, of course, important to maximise the response rate. Nevertheless, as far as empirical studies of compliance costs in Australia are concerned, a minimum response rate of about 35% is regarded as realistic and achievable.

Another well-recognised problem in using survey data for estimating population statistics is the representativeness of sample. Formal statistical tests show that the sample of personal taxpayers obtained in the ATAX study is representative of the corresponding population not only in terms of the stratification criteria but also in other relevant demographic variables such as gender and age group. Similarly, the sample of business taxpayers obtained in the ATAX research is also broadly representative in terms of the three selection criteria.

*Non-response bias*

One problem of using survey data in compliance costs studies is the non-response bias. This arises from the possibility that people who choose to respond may distort the survey outcomes because they have a particular perception of compliance costs compared to those who do not respond. This problem is by no means peculiar to compliance costs research. Virtually all studies relying on sample survey data are potentially subject to this kind of bias.

Although the problem of non-response bias is well known in the literature, very little has been done by compliance cost researchers. A feature of the ATAX study, not reported in TSG’s article, is the inclusion of a non-response bias testing. Non-response bias was tested by giving surveyed taxpayers the option of answering a single question instead of the full questionnaire. A comparison of full questionnaire and single question respondents showed that there was an acceptable aggregated correspondence of views.<sup>26</sup> Combining

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<sup>25</sup> Ibid at 80.

<sup>26</sup> See above n 16 at 65 and 105-6.

this with the reasonably high response rates obtained, it can be concluded that non-response bias was not a problem in the ATAX study.

### *Double counting*

TSG raised the important issue of double counting. There are two possible types of double counting: taxpayers and tax types. TSG only focused on double counting of taxpayers.<sup>27</sup> Of course, many businesses for reasons such as limitation of legal liability, security, financial planning and tax planning choose to use several business vehicles in a single business entity. As TSG pointed out, there were just less than one million separate businesses giving rise to about two and a half million business taxpayers in Australia in 1994-95.<sup>28</sup>

Both double counting problems were addressed in the ATAX study. In the business surveys, the instructions given to respondents were to include the expenditure (time, money etc) only of the taxpayer to which/whom the survey had been mailed. The post-survey telephone interview, the helpline queries and the written responses in the qualitative section of the survey forms all suggested that in many cases the taxpayer surveyed was only peripherally involved in the business. As a result, the data in the response did not reflect all of the costs and activities of the business, only of the taxpayer surveyed.

Double counting of taxes was avoided because, in the case of business taxpayers, a full list of federal taxes and tax collection or reporting mechanisms was given to survey participants as a part of the questionnaire. Respondents were required to allocate the time spent by varying classes of personnel on compliance activities by reference to that list.

### *Expenditure on professional tax advisers*

TSG alleged that the ATAX team grossly overestimated expenditures on professional tax advisers by Australian taxpayers. Unfortunately, the reference cited at Footnote 21 of their article does not contain the information required to substantiate their claim. In the absence of the correct reference to the source of data, it is not possible to verify the accuracy of their allegation.

In addition, two things deserve mention. First, the definition of professional tax advisers in the ATAX study was very comprehensive, including tax

<sup>27</sup> See above n 1 at 72.

<sup>28</sup> According to the ATO's SuperCross database there were over 2.4 million business taxpayers (including 0.95 million sole traders) in 1994-95. The 1999 *Year Book of Australia* stated that there were 1,046,900 businesses for 1996-97.

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agents/accountants, tax lawyers and financial consultants. Thus, expenditures on tax advisers must necessarily be greater than the fees received by tax agents and accountants. Second, in extrapolating from sample to population, there is always a risk of overestimation and this statistical overestimation may have nothing to do with double counting of taxpayers. Nevertheless, it is a good idea to use aggregate data published by the ABS to check estimates extrapolated from sample data.

#### *Valuing employees' time spent on tax activities*

At the business level, especially in large firms, tax activities are carried out by different levels of personnel, ranging from owner/partner/director and managers to accountants/computer programmers and account clerks. In estimating the internal labour costs of business tax compliance, it is more precise to disaggregate the total time spent on tax activities by different levels of personnel and then apply the before tax market wage rates corresponding to those levels. The ATAX team adopted this disaggregative approach in its study. Information on relevant occupations and corresponding salaries/wages was obtained from the *Quarterly Salary Review* published by Cullen Egan Dell, a leading remuneration and human resource consulting firm.

TSG's proposal of using the after tax average weekly earnings by non-managerial employees represents a step backward for several reasons.<sup>29</sup> First, the use of after tax wage rate is conceptually erroneous as argued in Section 2. Second, the overall wage rate (for all occupations and for all categories of employee) published by the ABS is too aggregative. Using an aggregative wage rate does not seem to be sensible in view of the relatively small costs associated with obtaining more precise salary/wage data from private sector firms. Third, as tax activities are carried out by both non-managerial and managerial staff, using average hourly earnings of non-managerial employees (\$16.30 before tax in 1996) will underestimate the labour costs of business tax compliance.

#### **4 COMMENTS ON TSG'S DISCUSSION ON FUTURE RESEARCH**

In the final section of their article, TSG made a number of general remarks concerning past and future research. Some were discussed in Section 2 of this article. Some others are noteworthy, too.

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<sup>29</sup> See n 1 at 71.

In spite of its history, the study of taxation compliance costs should not be viewed as a branch of economics. ... A multi-disciplinary approach would appear to offer the greatest potential for real insight.<sup>30</sup>

Despite its qualitative recognition at the birth of modern economics, the subject matter of tax compliance costs has been largely ignored by mainstream economists. This lack of interest is most apparent by reference to standard public finance textbooks which contain next to nothing on tax compliance costs.<sup>31</sup> Important contributions to the empirical measurement of tax compliance costs have been made by researchers from the fields of accountancy, economics, management science, tax law and tax administration. The ATAX research team was a good example of the multi-disciplinary approach as it consisted of an accountant, an economist, a tax lawyer and a tax specialist (who was the team leader).

Tax compliance costs can only become a truly multi-disciplinary area of research if experts from various disciplines feel attracted to the subject and decide to work together. Economists will continue to play a major role in such endeavour, for three reasons. First, economists are familiar with formulating theoretical models of tax behaviour. This is especially relevant given TSG's later argument for a theoretical approach to tax compliance costs. Second, economists have developed considerable skills in collecting data, estimating statistical relations and testing hypotheses. Thirdly, and perhaps most importantly, the estimates of tax compliance costs are ultimately used to provide a measure of simplicity (complexity) of the tax system. This is an important criterion for evaluating tax policy, which is in turn an established aspect of public finance, a traditional area in economics.

Too much of the research work in tax compliance has been atheoretical. Researchers need to discard exploratory research and take the time to formulate some specific theoretical models of the factors that actually cause compliance costs ...<sup>32</sup>

There is a considerable body of economic literature on tax compliance-evasion behaviour dating to the pioneering work of Allingham and Sandmo.<sup>33</sup> However, this vein of theoretical literature typically assumes that it is costless to comply with the tax laws. There are also, as discussed previously, some theoretical models of tax compliance costs, but these are not widely applied in empirical studies.

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<sup>30</sup> Ibid at 86.

<sup>31</sup> See eg, Boadway RB and Wildasin DE, *Public Sector Economics* (1984 Little and Brown), Stiglitz JE, *Economics of the Public Sector* (1988 Norton) and Rosen HS, *Public Finance* (1998 Irwin/McGraw-Hill). Only Stiglitz provided a short section on operating costs of the US tax system. In this section he referred to compliance costs as administrative costs!

<sup>32</sup> See above n 1 at 86.

<sup>33</sup> Allingham MG and Sandmo A, "Income Tax Evasion: A Theoretical Analysis" (1972) 1 *Journal of Public Economics* 323-338.

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TSG's call for less exploratory (ie, accounting relationship) and more theoretical (ie, causal relationship) research is a timely one. Much of the literature on tax compliance costs in the last 25 years has been preoccupied with the methodology of estimating tax compliance costs from survey data. To raise the research profile of tax compliance costs it will be necessary to go beyond this accounting framework and to adopt a theoretically more rigorous approach. From an economics perspective, future research on tax compliance costs may proceed along two different directions. The first is to further develop the existing causal models of tax compliance costs, as suggested by TSG. The second is to study the effective incidence of tax compliance costs.

There are basically two approaches to modelling tax compliance costs. The first is based on the optimising approach frequently employed by microeconomists. Under this approach, taxpaying individuals (or households) choose how much of their own time to spend on tax matters and how much, if any, professional tax advice to purchase. It is assumed that these activities uncover legal means to reduce taxable income, and thereby tax liability. Individuals (or households) select these two choice variables to maximise a utility function which is assumed to depend on taxable income and leisure.

The optimising behaviour described above will result in a theoretical model relating taxpayers' time spent on tax affairs and professional tax adviser costs to some relevant demographic and economic attributes. This kind of micro based model can then be estimated and tested using cross-section data, which is already available in a limited form. A similar, but slightly more complicated model, can also be developed for profit maximising business taxpayers.

The second approach relies on an aggregative relationship, which is not derived from optimising behaviour. Based on a priori reasoning, it seems reasonable to postulate that the compliance costs of the tax system depend, at the aggregate level, on the legal simplicity of the tax system, size of the economy (including the number of taxpayers), general macroeconomic conditions, level of technology and tax culture.<sup>34</sup> The simplest aggregative functional form is one in which compliance costs depend linearly and statically on the above list of independent variables. As the values of the independent variables change from year to year (for example, the replacement of the WST and some State taxes by the GST will increase the number of taxpayers) such a macro relation is useful in explaining why and how aggregate compliance costs change over time.

The second worthwhile direction for future research is the effective incidence of compliance costs, ie, who bears the burden of tax compliance costs? Empirical studies here and overseas have consistently suggested that tax

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<sup>34</sup> Tax culture refers basically to the extent to which taxpayers engage in tax planning and tax minimisation. This may vary from countries to countries or from time to time.



compliance costs are regressive in personal taxpayers' income level and in business taxpayers' turnover. But the incidence of business tax compliance costs must ultimately fall on individuals. The ATAX study indicates that, at the social level, business compliance costs are almost six times as large as personal compliance costs in Australia.<sup>35</sup> Exactly which individuals end up bearing the burden of business compliance costs is unknown from the ATAX study. One conceivable possibility is that business compliance costs result in lower capital income generally. Since capital income is mostly received by high income taxpayers, this may mitigate or even reverse the regressivity of tax compliance costs. The effective incidence of tax compliance costs thus represents an important area which deserves further investigation.

## 5 CONCLUDING REMARKS

In summary, TSG did not seem to achieve the objectives set out in their article. They did not provide a comprehensive and accurate review of the growing body of tax compliance costs literature. This hampered their ability to conduct an appraisal of previous studies. In addition, they did not provide any further insight into the conceptual framework of tax compliance costs. They failed to appreciate or highlight the measurement and policy implications of the conceptual advancement made in recent research studies. Their useful comments on data gathering are already well known to researchers in the area. Finally, they did not highlight in a systematic fashion the significant improvements in data collection in the more recent studies, especially the improved data collecting methodology employed by the ATAX team.

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<sup>35</sup> See above n 3 at ix.