Tsunami or Waikiki:

The impact of tax gap on future tax reforms

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Abstract:

The demands on governments to find increased revenue sources is relentless. Tax evasion is one obvious source but is by definition, non-observed. Increasing attention is being given to better measuring the non-observed economy (NOE) and the resulting tax gap as a precursor to identifying taxes better capable of taxing this economic activity and approaches to tax administration which ensure integrity is maintained in the tax system.

This paper reviews the growing attention given to tax gap generally, its importance to tax design and administration and the difficulties with its measurement. It is argued that tax gap is not only the quantum of diminishing tax revenues but analysis of it is critical to determining the appropriate policies to reduce it.

Strategies designed to address tax evasion arising from NOE in Australia are discussed, particularly the introduction of a goods and services tax in 2000. The potential weaknesses in these reforms, as experienced in other countries is also presented, highlighting the shortfalls of piecemeal tax system reforms. It is argued, that the next wave of tax reform needs to address the underlying causes of tax gap in a holistic manner using tax gap analysis, not simply the symptoms that surface.

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1 INTRODUCTION

Tax reform is driven by many factors such as a desire for tax system equity, robustness and integrity; and economic efficiency. When a tax system lacks these qualities, governments (at least those with a significant portion of their revenue derived from taxes) face potentially devastating diminishing revenues. Tax systems may also be reviewed and redesigned as a result of increasing revenue demands by governments due to changing and increasing demand for public goods and services.

In more recent years, governments worldwide have experienced diminishing income tax bases in particular. The causes have mainly been associated with technological advances and the resulting mobility of labour, capital and goods and services. The Australian government is no exception, indeed it is also faced with increasing demands to support an ageing population. Consequently at least maintaining tax revenue is crucial in Australia.

The trend in tax reform globally has been to address the diminishing income tax bases by adjusting the tax mix towards indirect taxes, usually through the introduction of a multi-staged consumption value added tax (also referred to as a goods and services tax). This is of course an oversimplification. There have been many attempts to redress the income tax leakage and increase revenue overall. In Australia for example, a huge wave of reform in the mid eighties saw the introduction of tax on capital gains, a fringe benefits tax, and a number of modifications to corporate taxation. These rather significant reforms were then followed by expansion of tax on investments outside Australia, for example through controlled foreign company rules (CFC) and foreign investment fund rules (FIF). More recent income tax reforms (on the back of business tax reviews) have seen the introduction of restricted loss utilisation rules, consolidation and grouping mechanisms, and rules focussing on employees attempting to characterise themselves as independent contractors.

The explosion of new legislation (largely with a specific anti-avoidance focus) is characteristic of Australia's historical approach of 'chasing every rabbit (*sic* tax dollar) down a hole'. If anything, the Australian tax system has given greatest weight to 'taxing every last dollar'. The concern however is that these reforms and this approach to tax have been reactive and focussed on the symptoms. Consequently, the revenue leakage has not subsided but manifested in other forms. It is suggested that the next wave of tax reform attempts to address the underlying problems in a systematic and more comprehensive way.

This is not to say that past reforms were entirely futile. It is acknowledged that the introduction of a goods and services tax (GST) in Australia was expected to finally wash away the income tax gap with a robust growth tax. But the GST was just a small wave, like a Waikiki, it has crashed onto our shores with quite a splash but – life goes on – and cracks begin to show in the indirect tax base already. In fact, the real wash out is yet to come, it needs to be more like a tsunami in that it will be substantial and long lasting in eradicating tax non-compliance and consequently the tax gap. Without this comprehensive approach to reform, the underlying problems will remain unrecognised and unchecked and tax non-compliance will be pervasive and devastating to tax system integrity.

The challenges for those designing tax policies and administering the tax system are that:

- identifying the precise source of the cause can be difficult;
- predicting its effects is difficult;
- its source can be far away from its impact;
- the waves can be low in size but devastating in their impact; and

- finding solutions can be difficult.

The sources of diminishing tax revenue are varied and complex. Collectively they are represented in what is referred to as the tax gap. This is the difference between the revenue that should be collected according to the law and actual revenue collections. The first task for any tax system review or reform should be to place this tax gap in context. This requires analysis of the economy as a whole, such that both the observed and the non-observed economy (NOE) are well understood. With this knowledge, we will be better able to review the tax policy implications and the effectiveness of their administration. This analysis can be undertaken using tax gap studies and this paper puts forward the argument as to why the next wave of tax reform should be designed on the back of tax gap analysis.

We begin by outlining what is meant by tax gap and the non-observed economy (Section 2) and why it is important for tax design (Section 3). Attention is then given to recent tax policy responses designed to address tax gap in Australia (Section 4), followed by the potential impact tax gap analysis could have on tax reform, focussing on the positive results in the US to date (Section 5). The final section (Section 6) provides a brief overview of the supporting strategies that are likely to compliment the next wave of tax reform, as directed by tax gap analysis.

2 WHAT IS TAX GAP AND THE NON-OBSERVED ECONOMY?

Tax gap is the difference between the theoretical tax liability (TTL) due in accordance with the tax legislation and the actual revenue collected (McManus and Warren, 2006, p. 61). There are essentially three components of tax gap: non-lodgement, underreporting, and underpayment.

First, the non-lodgement component is made up of taxpayers who do not lodge a tax return even though they are required to do so. In the vast majority of cases, the taxpayers who do not lodge do not pay their tax liability – in fact many will not have formally registered with the tax authority. Second, the underreporting component is made up of taxpayers who lodge their tax returns but understate their tax liability. Underreporting includes understated income or overstated deductions, exemptions, and credits. The third component, underpayment, is made up of taxpayers who file their tax return but do not pay their tax liability.

The causes of these components of tax gap are complex and unpredictable. They include a number of contributing and often a combination of factors, many of which are based on psychological factors which may or may not directly relate to the tax system. These factors for example include: unintentional error; complexity of the tax legislation; dissatisfaction with governments and their spending, apathy and/or corruption; greed; economic factors (particularly for business taxpayers); and bad management. Some of these reasons for non-compliance which lead to tax gap can be driving forces for the development and persistence of the ‘underground’ economy and illegal activities. In fact a significant portion of a country’s tax gap could be completely outside of the observed economy.

This cocktail of causes for non-compliance leading to tax gap highlights the fact that calculating tax gap estimates can be complex. Actual tax revenue is readily determined from official tax receipts published by the revenue authorities, but estimating the theoretical tax liability is more problematic. The problem is that TTL results from multitude of factors including a range of economic concepts which are not able to be readily measured (refer Figure 1), referred to in this paper as the ‘non-observed economy’. Before considering the importance of tax gap to tax design and reform, the concept of NOE requires clarification.

2.1 Tax gap and the NOE

Considerable debate exists over what constitutes the 'non-observed economy'. This has not been aided by a plethora of names for such economic activity including: 'cash', 'hidden', 'subterranean, 'black', 'underground', 'informal', 'shadow', 'grey' (and 'gray'), 'clandestine', 'illegal' 'parallel', 'non-observed', 'concealed', 'unmeasured', 'unrecorded', and 'untaxed', economy (Fleming et al, 2000, p. 387).

Compounding this lack of a common definition is a lack of any common understanding as to the meaning of these terms, how they relate to each other, which concept is appropriate in which case and the extent of any overlap. For example, most activities which are 'illegal' are still taxable since the tax collector is not engaged in policing the criminal code, only collecting taxes on economic activity deemed taxable under the law. If the tax collector only focuses on the 'cash' economy, then they most likely are not capturing activities which are in the non-observed economy (NOE).

Why then is there not general acceptance of a single broad definition of the non-observed economy? The reason lies in the focus of different studies on particular aspects of the non-observed economy. For example, the interest in the cash economy stems largely from its implications for tax revenue collecting agencies in terms of lost potential tax revenue, particularly from income taxation. For others, the focus on the non-observed economy might relate to an interest in illegal activities (such as narcotics and crime), workplace practices (non-compliance with labour laws), backyard businesses (which do not comply with regulations and legal standards) or wages paid (and hence payment of a minimum regulated wage). The fact that considerable overlap exists between these definitions therefore seems not to be a major issue since no one definition fits all purposes.

In an attempt to resolve this confusion of terminology, the United Nations System of National Accounts SNA93 (United Nations, 1993) has sought to define economic activity which is to be included in a country's system of national accounts and by this approach, enable a differentiation between this measure and that which under tax law should be reported to tax collection agencies. The SNA93 standard has been supplemented with an OECD *Handbook* (OECD, 2002), to give practical guidance on the measurement of the NOE. Figure 1 provides a diagrammatic representation of the recommended coverage of the SNA93 (incorporated the OECD guidance) when measuring a country's economic activity. A clear distinction is drawn between economic activity which is observed and that which is non-observed.

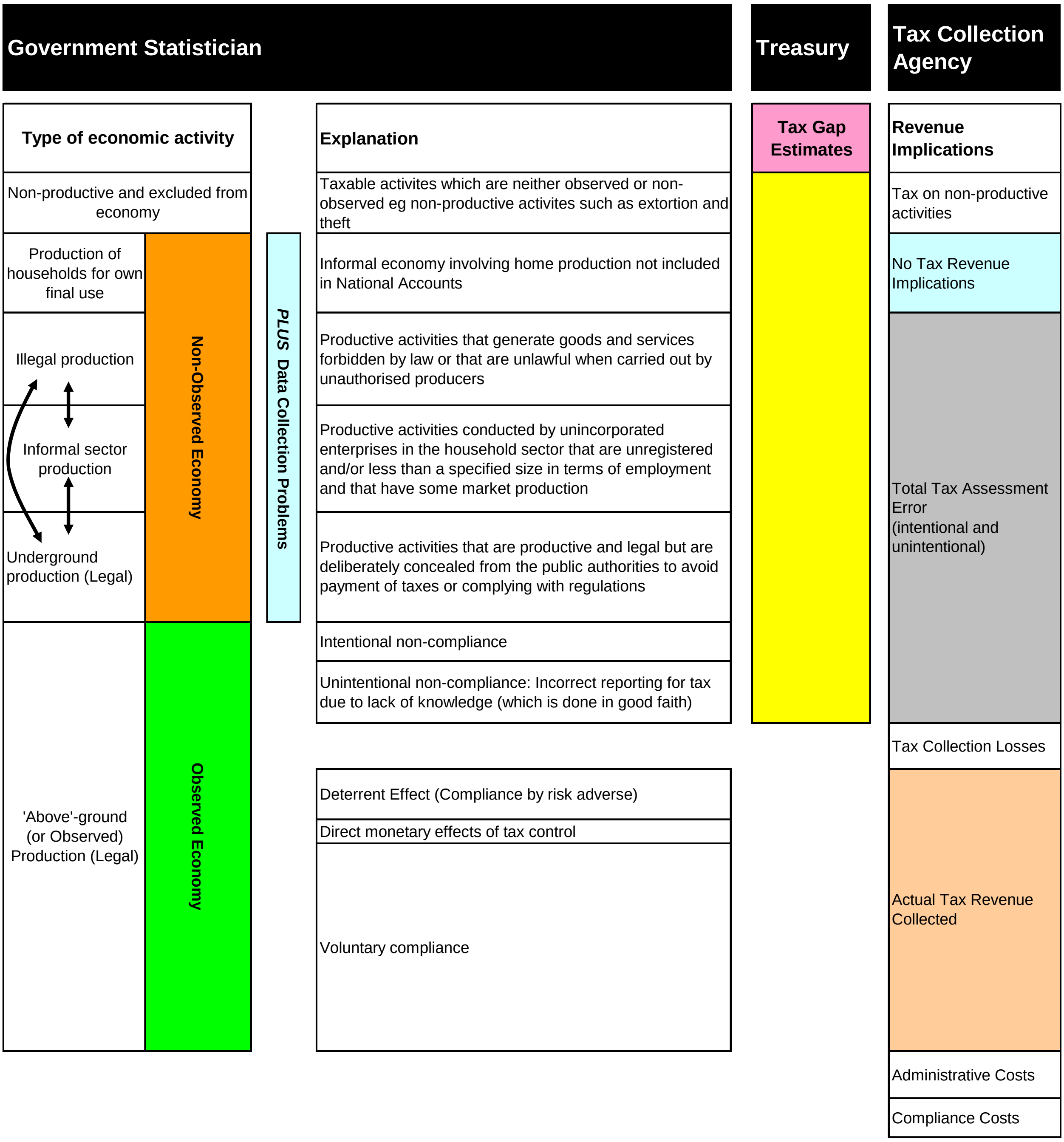
The United Nations (1993) describes production in general terms in SNA93 as "an activity in which an enterprise uses inputs to produce output...production is mainly concerned with activities that produce outputs of a kind that can be delivered or provided to other institutional units".

SNA93 includes four aspects of the non-observed economy as covered by a country's national accounts including (Australia (ABS), 2004, p. 1):

- **underground production**, defined as those activities that are productive and legal but are deliberately concealed from the public authorities to avoid payment of taxes or complying with regulations;
- **illegal production**, defined as those productive activities that generate goods and services forbidden by law or that are unlawful when carried out by unauthorised producers;
- **informal sector production**, defined as those productive activities conducted by unincorporated enterprises in the household sector that are unregistered and/or less than a specified size in terms of employment and that have some market production; and

- **production of households for own final use**, defined as those productive activities that result in goods or services consumed or capitalised by the households that produced them.

Figure 1 Tax Gap and NOE



By definition, measures of GDP based on SNA93 concepts should be broad and inclusive of all productive activities regardless of their legality. This requires government statisticians to estimate the ‘unmeasurable’. This has not eventuated generally, as statistician typically have a predisposition to work only with the facts - that which can be observed. However, the ability of each country (ie official statisticians) to measure these non-observed economy concepts is the key issue for tax gap estimates and analysis. With the growing pressure on governments to fund increased expenditure programs, the “hunt” has now turned towards how best to collect tax gap – especially NOE activity - in several countries[1].

2.2 The NOE in Australia

Australia has not escaped the pressure governments are facing worldwide to fund increasing expenditure programs, especially with its ageing population. In light of the work of the OECD, the Australia Bureau of Statistics (ABS) has been working on estimating the NOE. A report with limited circulation was released in March 2004 (Australia (ABS), 2004) which examined alternative upper bound estimates of the ‘underground economy’. The results are outlined in Tables 1 and 2. The ABS focussed its attention on estimating what it considered to be the upper bound estimates of the underground economy and concluded that at worst it would be 4.8% of GDP which contrasts with the 1.3% assumed in the current Australian National Accounts.

Table 1 NOE and Gross Domestic Product Account, Income estimates: Australia 2000-01

	ABS National Accounts (Standard NOE Assumption)					**ABS Upper Bound NOE**		
	Income prior to adjustment	Income as a proportion of GDP	Adjustment for underground activity	Adjustment to initial income estimate	Published income	Adjusted income	Adjustment for underground activity	Adjusted income
	$m	%	$m	%	$m	%	$m	$m
Compensation of employees	321,024	48.4			321,024	2.0	6,382	327,406
GOS								
Non-financial corporations								
Private	100,112	15.1	3,205	3.2	103,317	5.5	5,543	105,655
Public	19,031	2.9			19,031			19,031
Total	119,143	18.0	3,205	2.7	122,348	4.7	5,543	124,686
Financial corporations	19,015	2.9			19,015			19,015
General government	12,984	2.0			12,984			12,984
Dwellings owned by persons	55,932	8.4			55,932			55,932
Total GOS	207,074	31.2	**3,205**	1.5	210,279	2.7	**5,543**	212,617
Gross mixed income	52,245	7.9	**5,277**	10.1	57,522	37.9	**19,797**	72,042
Total factor income	580,343	87.6	8,482	1.5	588,825	5.5	31,722	612,065
Taxes less subsidies on produc	82,295			-	82,295	-		82,295
Gross domestic product	662,638	12.4	**8,482**	1.3	671,120	4.8	**31,722**	694,360

Source:
ABS 5204, Australian National Accounts: Nationla Income and Expenditure 2002-03
ABS 5257, The Underground Economy and Australia's GDP

[1] See discussion in McManus and Warren(2006) on which countries and taxes have been examined the impact of NOE on their tax gap.

Table 2 NOE and Household Final Consumption Expenditure: Australia 2000-01 (Current prices)

	Base Data and Adjustment				Upper Bound Adjustment for NOE			
	HFCE prior to adjustment	Total Basic adjustment	Total Basic adjustment	HFCE with Basic adjustment	Skimming	Cash settlements and tips	Total adjustment	Total adjustment
	$m	%	$m		$m	$m	$m	%
Food	41,548	0.4	159	41,707	3,364	791	4,155	10.0
Alcoholic beverages and tobacco			-					
Cigarettes & tobacco	8,855	0.4	34	8,889	177		177	2.0
Alcoholic beverages	8,038	0.4	31	8,069	80		80	1.0
Clothing & footwear	15,354	0.4	59	15,413	1,225	310	1,535	10.0
Housing, electricity, gas and other fuels			-					
Actual & imputed rent for housing plus other dwelling services	75,213	0.0	-	75,213				0.0
Electricity, gas and other fuel	8,270	0.0	-	8,270				0.0
Furnishings and household equipment	21,430	0.5	98	21,528	1,715	428	2,143	10.0
Health	18,312	0.0	-	18,312	292	74	366	2.0
Transport			-					
Purchase of vehicles	14,588	0.0	-	14,588	146		146	1.0
Operation of vehicles	23,540	0.6	130	23,670	823	354	1,177	5.0
Transport services	10,495	0.1	13	10,508	146	64	210	2.0
Communication	10,830	0.0	-	10,830				0.0
Recreation and culture			-					
Goods & services for recreation and culture	43,048	0.4	164	43,212	1,592	560	2,152	5.0
Books, papers, stationery and artists goods	6,320	0.0	1	6,321	252	64	316	5.0
Education services	9,415	0.0	-	9,415				0.0
Hotels, cafes and restaurants			-					
Catering	25,466	0.4	97	25,563	3,566	1,527	5,093	20.0
Accommodation services	5,500	0.4	22	5,522	244	31	275	5.0
Miscellaneous goods and services			-					
Personal care & effects	10,542	0.4	43	10,585	743	311	1,054	10.0
Insurance and other financial services	27,970	0.0	-	27,970				0.0
Other goods & services	18,000	3.8	685	18,685	2,520	1,080	3,600	20.0
Total	***402,734***		***1,536***	***404,270***	***16,885***	***5,594***	***22,479***	***5.6***
% unadjusted HFCE		0.4			4.2	1.4	5.6	
% unadjusted GDP	60.1	0.2			2.5	0.8	3.4	

Source:
ABS 5204, Australian National Accounts: Nationla Income and Expenditure 2002-03
ABS 5257, The Underground Economy and Australia's GDP

The figure of 4.8% underreporting of GDP due to NOE is show in Table 1 to arise mainly from small unincorporated businesses with cash-in-hand to employees being the next largest component. Table 2 outlines where NOE expenditure by households takes place, the most significant occurring in expenditure on hotels, cafes and restaurants.

This revision of the underreporting of GDP by the ABS however only measured legal production due to data reliability concerns over *illegal production*. In the case of *informal production*, it is considered small in developed countries such as Australia and as a result, the ABS does attempt to distinguish between the formal and informal sectors in its sub-sectoring of the household sector. Consequently, particular attention has been given to the ‘cash economy’. Clearly, this is a limited definition of the non-observed economy since it excludes criminal activity such as drug dealing and prostitution which have been estimated at 40-50% of the non-observed economy in Australia (Coleman, 2000, p. 70).

The ABS (2004) study also examined the implications of estimates by Schneider and Klinglmair (2004) and Bajada (2001) which claimed that the NOE in Australian was between 13% to 15%. The ABS sought to evaluate whether such estimates were reasonable, concluding that they were not. However the ABS conclusion is only based on its examination of the underground economy since it has not included consideration of illegal production, informal sector production or production of households for own final use. These omissions could go some way to explaining the difference between the ABS estimates 4.8% and other estimates of around 15%.

Clearly in Australia, and in fact generally, the measurement of NOE has attracted great attention and debate. However, this paper side steps the difficult and controversial issue of how to measure NOE (for more detail, refer McManus and Warren, 2006). Instead, this paper focuses on why tax gap is a major issue of concern to tax policy makers and why tax gap analysis should be used to determine the next wave of tax reform.

3 WHY IS TAX GAP IMPORTANT FOR TAX DESIGN?

The importance of a sound understanding of tax gap is crucial to governments and to the development of appropriate government policy. If the tax gap is growing, tax revenue will potentially fall and the ability to meet welfare demands will diminish. A natural response for government might be to increase all tax rates to raise additional needed revenue. While indirect tax rate increases might result in increased revenue, a vicious circle of income tax rates, welfare and growing tax gap may result. A more comprehensive analysis of taxable activity and the tax gap is suggested as a superior alternative approach.

In considering tax gap and how it is defined and identified with respect to the whole economy, it is becoming clearer just how tightly bound tax gap, tax design and therefore tax reform are. Identifying, estimating and analysing tax gap is a most informative approach to tax reform because it provides a comprehensive picture of the transactions and sectors of the economy that escape tax.

Identifying and estimating the tax gap assist governments in making decisions about when and to what extent tax systems should be reformed. Tax gap studies might be undertaken to differing degrees, but ideally they would estimate the quantity of the tax gap on a range of different dimensions such as by sector, by tax, by type of taxpayer, and by type of non-compliance (components of tax gap).

Analysing the tax gap in a holistic manner informs governments in determining how best to address the tax system design deficiencies. In particular, the comprehensive approach afforded by tax gap analysis provides a stronger means for developing a robust system with integrity. Tax gap enables:

- verification of the level of risk assessed in relation to risk areas identified;
- a comprehensive analysis of all areas of compliance and non-compliance;
- identification of areas of risk not previously identified or ranked;
- monitoring of the quantification of risk areas over a period of time using a comparable estimate;
- assessment of the effectiveness of attempts to reduce the non-compliance in a risk area;
- assessment of the effectiveness of attempts to reduce the non-compliance in aggregate (as pressure on one form of non-compliance often merely manifests in another form rather than actually reducing non-compliance); and
- comparison of relative risks across all areas.

The ability to monitor and compare the risk associated with all areas and/or a type of non-compliance associated with a theoretical tax liability ensures that the eradication or reduction of one type of risk does not manifest itself in another form (which is most likely to go undetected for some period of time). Furthermore, the quantification of the tax gap in all types of transactions and/or required forms of compliance allows for the prioritisation or ranking of risk on a more reliable and comparable basis than some other arbitrary ranking processes that might only be used in relation to suspected risk areas or international trends.

Consideration of the whole tax gap and structured, concerted efforts are considered to be the only viable ways of tackling tax design due to the relentless motivation taxpayers have for minimising, avoiding and evading taxes. Governments worldwide have experienced first hand the fact that closing off one avenue of evasion or avoidance typically causes perpetrators to devise alternative schemes which manifest in evasion and avoidance in other areas or forms. This has been the reason for the almost continuous tax reforms Australia has experienced over the past few decades. This persistence in tax gap, albeit in different forms, has also been explained through research into non-compliance based on taxpayer behaviour and related areas highlighting the need for a comprehensive approach to tax reform, such as that advocated with tax gap analysis.

3.1 Persistence of tax gap

Many surveys and other empirical and theoretical research into consumer and business behaviour focused on understanding why different groups participate in the NOE. Much has been learned as to what causes (and motivates) taxpayers not to comply with the tax law. However, this is a complex issue and there is still no clear agreement on the fundamental constructs that underlie the NOE (Fleming et al, 2000, p 388).

Originally is was perceived that NOE was the result of circumstances and opportunity as well as being a safety net for those who fall on hard times in an economic downturn (Ybarra, 1999, p 1013). In more recent times attention has focussed on the increasing size, impact and role of government through its tax and welfare system and its regulatory framework (see for example Schneider et al, 2001). Perhaps the most informative literature however has been the applied qualitative research which has sought to focus on the actual behaviour of individuals and the reasons underpinning their action.

In the case of the motivation of small business owners and their attitude to voluntary compliance, the issue has proven complicated because recent research indicates that there is considerable movement in and out of the cash economy as their individual's circumstances change (Braithwaite, 2003, Ch 5). Factors affecting small business compliance (or non-compliance) can generally be grouped as:

- opportunity;
- cash flow;
- entrepreneurial attitude;
- compliance costs;
- attitude to the tax system;
- government spending policies; and
- risk of detection.

They also concluded that the drivers of non-compliance by businesses in some circumstances was the purchasers (not suppliers) behaviour in seeking discounting for cash payment.

Researchers have considered what motivates the individual as a labour supplier and/or consumer, who condones, engages in and sometimes encourages small businesses to make and accept cash payment (Braithwaite, 2001). While such surveys can only provide a broad indicator of NOE[2], it can nonetheless be used as a guide as to the extent of the NOE. The

[2] Such surveys are fraught with difficulties. For example, one could reasonably assume that those in the NOE will be reluctant to respond to such a survey for fear of the survey results resulting in them being the subject of a tax audit. It is not surprising therefore that the response rate was 29%. Some 6% of those surveyed admitted to working in the NOE, 14.4% sought and received work in the NOE and , 1.4% admitted to both working and hiring NOE workers.

survey found that the primary motivation for the survey respondents becoming engaged in the NOE was the:

- low chance of getting caught, especially as a result of the fungible nature of cash which leaves no audit trails;
- high personal income tax rates;
- high social security contributions;
- the complexity of the tax system;
- generosity of the social welfare system;
- perception of public sector services;
- moral obligations and perceptions of social and personal norms ;[3] and
- burden of regulations (in relation to labour and goods supplied).

Other studies reinforce these observations, see for example McKerchar (2003) and Coleman and Freeman (1994). The real problem for policy makers is that while an increase of tax burden might increase NOE, a decrease will not necessary reduce it to any substantial decrease. The problem is that once individuals undertake legal NOE activities and go undetected, the benefits of a zero tax rate (as distinct from a reduced rate) will always remain attractive. It is therefore not just the progressive tax rate schedule which encourages the taxpayer to participate in NOE, it is that their participation is not taxed (or does not result in lost welfare benefits) where as a job in the observed economy would be taxed at their marginal tax rate (and potentially result in a reduction of welfare benefits).

The employer will benefit through non-payment of an social security contribution imposed on them, together with other employment relates taxes and compulsory charges such pay-roll tax, fringe benefits tax and workers' compensation insurance premiums.

Substituting a GST for part of the personal income tax is also not likely to significantly change income tax compliance once it is recognised that income tax evaders will not be caught evading tax. When the average taxpayer realises that tax is essentially 'voluntary' for some and that the risk/reward trade-off is small the integrity of the system comes into question as does its equity and economic efficiency credentials.

Medium and large business taxpayers face some of the same issues but are more sophisticated. Less research has focussed on these taxpayers as a group, although publicity on schemes developed to circumvent tax laws is common and a range of specific anti-avoidance provision in legislation is designed to quash these activities. As indicated above, however the persistence of these taxpayers is commendable. The use of phoenix companies and missing trader fraud in the case of VAT in Europe are just a few examples of the recurring nature of tax evasion and avoidance in medium and large business (Table 4).

Other more general reasons have also been proposed for the existence and persistence of the NOE and the resulting tax gap. Brooks (2001, p. 15), listed many of these, including:

- stagnating real incomes and increasing unemployment;
- increase in self-employment;
- market shift to services;
- changing demographics in relation to the age of the population;
- globalisation; and

[3] Personal norms are an individual's understanding of what to do in a particular situation, such as to declare all taxable income) whereas social norm are what an individual understands that others should do in a particular situation.

- decline in morality often due to perceptions of wasteful and inefficient governments.

Not only is understanding the reasons why taxpayers engage in the NOE invaluable in developing appropriate methods for measuring the tax gap, it is also critical when understanding what tax policies are capable of addressing the increasing tax gap. In fact, many of the issues raised above have been driving much of the tax reform which has occurred over recent decades. The piecemeal approach however has allowed the problem to re-emerge in other forms and as a result, tax gap has persisted and grown. In the next section we outline the benefits of using tax gap studies to drive tax design and reform from the perspective of the stakeholders.

3.2 Breadth of benefits of tax gap analysis

Growth of the tax gap due to increased NOE activity has a potentially pervasive influence over the actions of all those concerned with the design and operation of tax (and welfare) systems. Knowledge of tax gap has important implications for all groups interested in the tax system, its design and its operation. Consequently this comprehensive and fundamental approach offers benefits to all relevant stakeholders. These benefits are briefly summarised below:

1. *Taxpayers*
   - removes the inequities between those complying with tax laws and those not, and any resultant reluctance for those complying to continue to comply;
   - improves the perception of tax system integrity; and
   - removes the envy for those in the tax gap

2. *Politicians*
   - addresses the concern from citizen that not all are contributing their share; and
   - reduces the threat that tax evasion will become widespread.

3. *Government Treasury*
   - allows the evaluation of the impact of the NOE on the budget (and therefore on tax and expenditure);
   - enables the development of tax policies focussed on minimizing NOE (and hence the tax gap); and
   - provides the ability to remove the distortion of the allocation of resources and consequential reduction in productivity and efficiency of an economy that occurs with a large NOE according to Brooks (2001, p. 17).

4. *Government statistician*
   - helps identify missing (or underestimated) NOE production in a country’s National Accounts; and
   - and to determine necessary adjustments for missing production

5. *Tax administrators*
   - tax administrators have crucial data required to estimate the taxed elements of the NOE, ie the tax gap;
   - the tax gap estimates will assist tax administrators identify the significant risk areas to revenue;
   - measurement of the NOE provide “top down” estimates to contrast against the “bottom up” estimates usually calculated by tax administrators. This comparison is an important validation of the estimation process;
   - administrative procedures that improve taxpayers’ ability to comply can also be developed using information gleaned from NOE studies; and

- information on the NOE will also improved information sharing and collaboration between agencies concerned with tax issues.

6. *International bodies and other tax administrations*
   - knowledge of the NOE (as defined) in one country allows meaningful international comparisons to living standards and economic activity in other countries to take place.

This expansive list of benefits of tax gap to all the relevant stakeholders suggests the case for measuring and responding to tax gap is indisputable. Many tax administrators have embraced tax gap analysis for these reasons (for examples refer McManus and Warren, 2006). What is less widespread at this stage is the use of tax gap analysis for tax system design and reform in developed or OECD countries (which is less so the case when designing developing countries tax systems).

It is suggested that tax gap studies, those incorporating the whole non-observed economy, should be at the centre of the next wave of tax reform. The attention here is not just on finding additional tax revenue but also ensuring tax policies and a tax administration are in place which are capable of maintaining the integrity of the tax system in an environment where the pressure for increased tax revenue will continue to grow. This proposal is bolstered by the inadequacy of closing tax gap through past reforms.

The next Section presents a discussion of the most recent major reform in Australia, the introduction of a GST, and outlines why (as for other countries) this approach has not adequately addressed tax gap.

4 HAS TAX REFORM ADEQUATELY ADDRESSED TAX GAP?

In this section, we examine one of the more significant tax reforms recently in Australia, the introduction of a GST, with a view to appreciating the limitations of a piecemeal approach to tax reform and reduction of tax gap.

The debate about problems with Australia's diminishing tax revenue, represented by the tax gap, has been underway for a long time. In particular, this debate revolved around Australia's reliance on income tax and the indirect tax system (particularly the Wholesale Sales Tax (WST)). The growing tax gap in these two areas is a problem underpinned by questions of tax system integrity and robustness.

The focus of the debate was on changing the tax mix, shifting more reliance on indirect taxes. However, Australia's main indirect tax base, the WST, was considered problematic for a number of reasons. It only applied to goods, therefore limiting its revenue raising capacity as services become a larger part of the economy. The politically motivated, arbitrary range of WST rates and exemptions applying to various goods arguably caused distortions in production and consumption decisions in favour of low or untaxed goods. WST was regressive because it applies at the same rate regardless of the taxpayer's ability to pay and the exclusion of services from the tax base was argued to exacerbate the regressivity. This is because the wealthy generally spend more on services and therefore they miss out on taxation of services. The WST was also said to penalise exports because it became embedded in the price of exported goods in such a way as not to be able to be excluded from the price of exported goods. And WST, which applies to businesses, increased business costs - often unfairly and capriciously.

Table 3 VAT Rates and Base in OECD Countries: 2006

	Implemented	1976	1984	1990	1994	2000	2006	Reduced rate	Domestic zero rate (2)	Specific rate applied within specific region
Australia	2000	-	-	-	-	10.0	10.0	-	yes	-
Austria	1973	18.0	20.0	20.0	20.0	20.0	20.0	10.0 and 12.0	no	16 (a)
Belgium	1971	18.0	19.0	19.0	20.5	21.0	21.0	6 and 12.0	yes	-
Canada	1991	-	-	-	7.0	7.0	7.0	-	yes	15 (b)
Czech Republic	1993	-	-	-	22.0	22.0	19.0	5	no	-
Denmark	1967	15.0	22.0	22.0	25.0	25.0	25.0	-	yes	-
Finland	1994	-	-	-	22.0	22.0	22.0	8.0 and 17.0	yes	-
France	1968	20.0	18.6	18.6	18.6	20.6	19.6	2.0 and 5.5	no	0.9, 2.1, 8.0, 13.0, 19.6 (c)
										1.05, 1.75, 2.1 and 8.5 (d)
Germany	1968	11.0	14.0	14.0	15.0	16.0	16.0	7	no	-
Greece	1987	-	-	18.0	18.0	18.0	19.0	4.5 and 9.0	no	3.0, 6.0, 13.0 (e)
Hungary	1988	-	-	25.0	25.0	25.0	20.0	5 and 15	no	-
Iceland	1989	-	-	22.0	24.5	24.5	24.5	14	yes	-
Ireland	1972	20.0	23.0	23.0	21.0	21.0	21.0	4.8 and 13.5	yes	-
Italy	1973	12.0	18.0	19.0	19.0	20.0	20.0	4.0 and 10.0	yes	-
Japan	1989	-	-	3.0	3.0	5.0	5.0	-	no	-
Korea	1977	-	10.0	10.0	10.0	10.0	10.0	-	yes	-
Luxembourg	1970	10.0	12.0	12.0	15.0	15.0	15.0	3.0, 6.0 and 12.0	no	-
Mexico	1980	-	15.0	15.0	10.0	15.0	15.0		yes	10 (f)
Netherlands	1969	18.0	19.0	18.5	17.5	17.5	19.0	6	no	-
New Zealand	1986	-	-	12.5	12.5	12.5	12.5	-	yes	-
Norway	1970	20.0	20.0	20.0	22.0	23.0	25.0	8.0 and 13.0	yes	-
Poland	1993	-	-	-	22.0	22.0	22.0	7	yes	-
Portugal	1986	-	-	17.0	16.0	17.0	21.0	5.0 and 12.0	no	4.0, 8.0 and 15.0 (g)
Slovak Republic	1993	-	-	-	25.0	23.0	19.0		no	-
Spain	1986	-	-	12.0	16.0	16.0	16.0	4.0 and 7.0	no	2.0, 5.0, 9.0 and 13.0 (h)
										0.5 and 4.0 (i)
Sweden	1969	17.7	23.46	23.46	25.0	25.0	25.0	6.0 and 12.0	yes	-
Switzerland	1995	-	-	-	6.5	7.5	7.6	2.4 and 3.6	yes	-
Turkey	1985	-	-	10.0	15.0	17.0	18.0	1.0 and 8.0	no	-
United Kingdom	1973	8.0	15.0	15.0	17.5	17.5	17.5	5	yes	-
Unweighted average		15.6	17.8	16.8	17.5	17.8	17.6			

Source: http://www.oecd.org/dataoecd/12/13/34674429.xls
Key to abbreviations:
- : Not applicable
n.a.: Data not provided
Explanatory notes:
1. Rules as of 1. day of the tax year (1. January in all countries except Australia, New Zealand and the United Kingdom).
2. "Domestic zero rate" means tax is applied at a rate of zero to certain domestic sales. It does not include zero rated exports.
Country-specific footnotes:
(a) Applies in Jungholz and Mittelberg.
(b) The provinces of Newfoundland and Labrador, New Brunswick, and Nova Scotia have harmonized their provincial sales taxes with the federal Goods and Services Tax and levy a rate of 15% . Other Canadian provinces, with the exception of Alberta, apply a provincial tax to certain goods and services. These provincial taxes apply in addition to GST.
(c) Applies in Corsica.
(d) Applies to overseas departments (DOM) excluding French Guyana.
(e) Applies in the regions Lesbos, Chios, Samos, Dodecanese, Cycladen, Thassos, Northern Sporades, Samothrace and Skiros.
(f) Applies in the border regions.
(g) Applies in Azores and Madeira.
(h) Applies in the Canary Islands.
(i) Applies in Ceuta and Melilla.

The alternative, a GST was floated for over two decades. In that time the value added tax (VAT) had spread around the globe more quickly than any other new tax in modern history – acknowledged as a significant and robust source of growing revenue. Eventually, Australia joined the majority.

A GST was introduced into Australia on 1 July 2000. It is a broad-based consumption tax, calculated and collected on the value added by each participant in the production and distribution chain. Economic theory says that the tax is borne only by the ultimate consumer of the good or service. This is achieved through the credit mechanism (input tax credits). It is simply yet another version of the VAT imposed in New Zealand, Canada, Europe and many other parts of the world.

As for those countries, GST was to finally be the wave of reform that would wash away the problems associated with narrower based single sales stage taxes and so increase revenue and in fact, address a significant part of the growing income tax gap (Australia (Treasury), 1998). The revenue raising powers of a VAT/GST are illustrated by the clear trend towards a greater role for consumption taxes in the OECD countries as demonstrated by the trend towards high and increasing VAT rates over the past 25 years (Table 3).

Figure 2 Case Study of GST Theoretical Tax Liability (GTTL) and NOE

		Explanation	Range of estimates	Type of economic activity
Extreme addition to GTTL	Total GST Assessment Error - Not included in National Accounts	Informal economy or home production not included in National Accounts	unknown	Informal
		Illegal Economy not included in National Accounts via laundering through legitimate productive activities	unknown	Illegal
	Potential Addition to GTTL (with less conservation legal economy definition)	Gap between actual National Accounts and upper bound estimate of legal (underground) economy	5%-10%	Legal
Theoretical GST Revenue (100%)	Total GST Assessment Error - (using National Accounts to estimate GST Theoretical Tax Liability (GTTL))	Due to underground economy; incomplete coverage of those not in underground economy	5%-20%	Legal
	GST Collection Losses		1%-2%	Legal
	Actual GST Revenue	Deterrent Effect	25%--30%	Legal
		Direct monetary effects of tax control	1% - 2%	Legal
(0%)		Voluntary compliance	60%-70%	Legal
Costs	Administrative Costs			
	Compliance Costs			

Source:
Taxes in Sweden 2003, Swedish Tax Agency, p30

Centre for Tax Policy and Administration, Tax guidance series, General Administrative Principles – GAP005 Performance Measurement in Tax Administrations, Performance Measurement in Tax Administrations – Practice Note, Prepared by the OECD Committee of Fiscal Affairs Forum on Strategic Management, GAP005, Issued: 4 May, 2001

But the real question is whether the greater emphasis on an indirect tax has proved to be the success it was hailed. Is the GST in Australia likely to wash away the tax gap it targeted?

It may be too soon to definitively answer that question with regard to Australia but there is mounting evidence to the contrary. Firstly, let us begin with the experience of other OECD member countries. Table 3 also highlights the increase in GST rates amongst OECD countries over the past 30 years. The rates have increased since the introduction of VAT in these countries, with the average standard rate now nearly 18%. This trend could be interpreted as an indication of the deficiencies in the broad based, growth tax argument. Australia's 10% rate is extremely low and it is early days, but the modest contribution to total tax revenue from GST (with Australia ranking 27th amongst OECD member countries in Table 3) shows it is realistic to expect a tax rate increase to compensate for the less than robust tax it was hoped to be.

Far more of a concern however is the VAT fraud experience world wide which as Figure 2 shows can have multiple sources. Two particular sources of VAT fraud which are of serious concern in the European Union are the burgeoning cash economy and increasing cross border e-commerce (UK HMCE, 2001a). This fraud includes for example, missing trader intra-community (MTIC) fraud, or Carousel fraud as it is also known, which is costing the UK Government between £1.2 and £1.9 billion per year (Table 4). These are but a few of the examples of how tax gap re-emerges persistently in different forms.

It is also noted that some of the points of leakage in the Australian GST are based on the same principles that are problematic in income taxes in light of the high mobility of capital, such as the concept of ‘permanent establishment’. Taxing financial supplies and property have also proved problematic under a GST. These are universal issues and continue to attracted the attention of VAT policymakers, administrators and advisors internationally (refer for example, *International Tax Dialogue*, 2005).

Additionally, an aspect of indirect taxes perhaps not adequately factored into tax reform packages is the potential to drive taxpayers who might underreport from time to time to completely opt out of all taxation. It might seem as though the Australian government addressed this issue with the introduction of a unique identifier number, the Australian Business Number, however there is no conclusive evidence that this has been successful. Anecdotally, it has been claimed that in other jurisdictions such as New Zealand, the non-observed economy actually grew as a result of the introduction of a GST.

The UK HMRC (formerlyHMCE) in dealing with the increasing VAT non-compliance discovered that tax gap analysis can be particularly helpful in identifying pressure points in a transaction based tax (UK HMCE, 2001b, 2003, 2004 and 2005). Most importantly, this analysis has assisted in identifying the quantum and potential sources of VAT gap associated with the non-observed economy – which would not otherwise be detected. This approach has been effective with respect to VAT (UK HMCE, 2004) however, tax gap on other taxes has not been integrated at this stage (although corporate tax gap estimates are currently being developed by the UK HMRC).[4]

Table 4 UK VAT GAP

VTTL, VAT receipts and revenue losses

Financial Year	2000-01	2001-02	2002-03	2003-04[3]	2004-05[3]
Net VTTL (£bn)[1]	68.5	72.4	76.5	79.9	84.0
Net VAT receipts (£bn)[2]	58.5	61.0	63.6	69.1	72.7
Revenue Loss (£bn)	10.0	11.3	12.8	10.8	11.3
Tax Gap (Per Cent)	14.6	15.7	16.8	13.5	13.5

[1] VTTL is based on estimates of liability incurred in previous calendar year.
[2] VAT receipts are expressed net of payments and re-payments.
[3] A proportion the VTTL estimate for the final two years is based on a forecast.

Estimated MTIC Fraud (£ billion)

Financial Year	Upper Estimate	Lower Estimate
2000-01	2.47	1.31
2001-02	2.53	1.72
2002-03	2.34	1.54
2003-04	1.73	1.06
2004-05	1.90	1.12

Source:http://www.hmrc.gov.uk/pbr2005/mitl2005.pdf

[4] Although the UK HMRC corporate tax estimates are not yet publicly available, preliminary studies by an independent body are documented in ‘Mind the Gap’,< http://www.thetaxgap.com/> and ‘Do they Add Up?’ http://www.taxjustice.net/cms/upload/pdf/Dotheyaddup.pdf.

A more comprehensive use of tax gap analysis is however being used in the US. Although the US does not have a VAT, tax gap analysis has been used with respect to the federal income tax. This is discussed further in the following section. Before considering how tax gap can be used by policymakers, we return to the question of how effective GST has been addressing Australia's tax gap.

Australia does not measure (or at least does not publish) tax gap or GST gap and so it is difficult to say to what extent it quantifies the effectiveness of the GST. However, it has been shown that the GST is not in fact the robust growth tax it was claimed to be. Not only will GST show the same signs of diminishing base as the income tax, both: as a result of the same issues with respect to technology and inability to identify place of establishment; as well as the fact that fraudulent behaviour resulting in tax non-compliance is persistent and often occurs in the non-observed economy which is resilient to a GST.

More effective changes to Australia's GST base could be identified using a tax gap analysis by sector, highlighting the issues that may have escaped attention to date, much like that undertaken in the UK. However, this would only be a starting point as it is only small part of the tax system. What is required for effective tax reform is a complete shake up of the underpinning causes of the tax gap across the whole tax system in a concerted, structured manner – this will create the tsunami required to truly wipe out the tax gap in all shapes and forms and consequential weaknesses it creates in the tax system.

5 TAX GAP: A NEW DRIVER OF CHANGE

Tax gap analysis has been used by many governments to target non-compliance in specific taxes. This has been illustrated above with respect to the UK. Other examples include:

- VAT gap estimates – in France (Barthelemy, 1998) and Sweden (Sweden, 2004).
- Sales tax gap estimates – undertaken by Minnesota, US (Minnesota Revenue, 2004).
- State Income Tax Gap – calculated in Idaho (Idaho Office of Performance Management, 2006) California (California Legislative Analysist's Office, 2005) and New York State (New York State Department of Taxation and Finances, 2005).
- Corporate tax gap estimates – currently being developed by the UK HMRC(2005).
- Federal Income tax gap estimates – calculated in the US (US Treasury, 2005) for example.

To date however, these tax gap studies have been undertaken by tax revenue authorities. While measuring the magnitude of the tax gap is an important performance indicator and planing tool. It is argued that from an economic standpoint, identifying the source of the tax gap is also a necessary precursor to developing a structured plan to reduce the gap. To guide and support enforcement efforts, policymakers must identify who is cheating as well as how they are cheating.

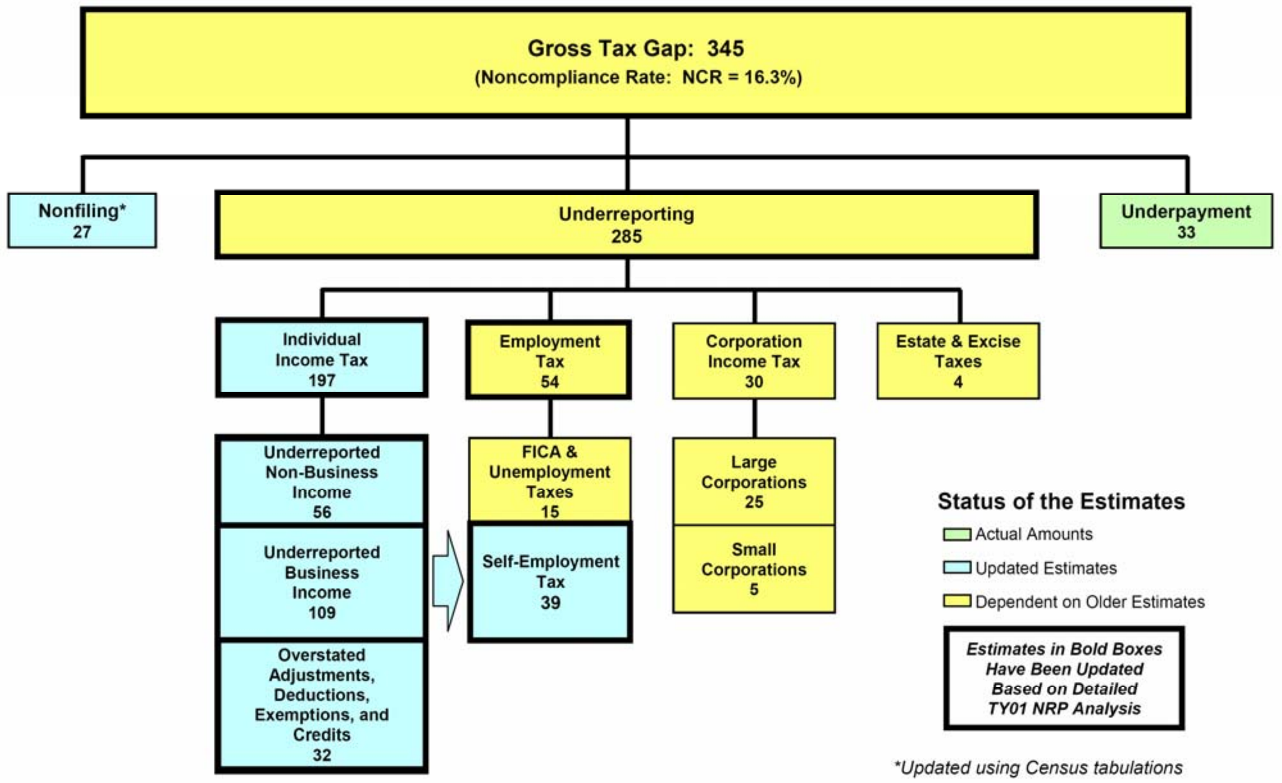
Table 5 US IRS: Individual Income Tax Underreporting Gap Estimates, Tax Year 2001

Type of Income or Offset	*Tax Gap ($B)*	*NMP †*
Total Underreporting Gap	**197**	**18%**
Underreported Income	**166**	**11%**
Non-Business Income	**56**	**4%**
Wages, salaries, tips	10	1%
Interest income	2	4%
Dividend income	1	4%
State income tax refunds	1	12%
Alimony income	*	7%
Pensions & annuities	4	4%
Unemployment Compensation	*	11%
Social Security benefits	1	6%
Capital gains	11	12%
Form 4797 income	3	64%
Other income	23	64%
Business Income	**109**	**43%**
Nonfarm proprietor income	68	57%
Farm income	6	72%
Rents & royalties	13	51%
Partnership, S-Corp, Estate & Trust, etc.	22	18%
Overreported Offsets to Income	**15**	**4%**
Adjustments	-3	-21%
SE Tax deduction	-4	-51%
All other adjustments	1	6%
Deductions	14	5%
Exemptions	4	5%
Credits	**17**	**26%**
Net Math Errors (non-EITC)	*	

† NMP = Net Misreporting Percentage * Less than $0.5 billion.

Source: http://www.irs.gov/newsroom/article/0,,id=154496,00.html

Figure 3 US Federal Tax Gap: Tax Year 2001 ($billions)



Source: http://www.irs.gov/newsroom/article/0,,id=154496,00.html

The US federal income tax gap analysis gets the closest to enabling policymakers to take this additional step. It is the most comprehensive of the tax gap studies published. Table 5 and Figure 3 provide a summary of the US federal income tax gap by components as identified by the US Internal Revenue Service (IRS).

This cross analysis of the possible sources of tax gap and the causes of it based on tax gap estimates has proved very powerful in practice. For example, the IRS, as a result of measuring tax gap was able to conclude that the largest components of the tax gap are non-compliance with the reporting requirements (Brown and Mazure, 20003, p. 2) and individual taxpayers (US Treasury, 2005, Section 9, p. 2).

The IRS have used this analysis to redirect resources to the most non-compliant areas. However it has now been recognised that efforts by the IRS should be supported by policy reforms (US Treasury, 2006, p. 3) as tax complexity has been cited as an underlying cause of the non-compliance amongst individual taxpayers in particular. Complexity is just one of the interrelated factors and propositions influencing tax compliance. However it has been singled out as a factor affecting taxpayer compliance as noted above (Krever, 2003; McKercher, 2003; and Milliron, 1985) as well as practitioner's (McKercher, 2005) and clearly the US experience supports this research.

Tax complexity is also a reality in the Australian tax system and the degree of complexity is increasing almost every year. The term tax complexity can be defined in various ways, according to different perspectives, individual taxpayer see complexity in term of the tax system and tax rules which are difficult to understand and to follow when preparing their tax return. Whereas tax adviser and tax practitioner see it as opportunities to exploit loopholes and minimise tax liability (Krever, 2003, p. 481-482).

Tax complexity and other causes of non-compliance leading to tax gap are likely to be largely addressed through new or modified taxes and tax laws by policymakers. However other issues are also relevant.

Identification of tax-gap sources also matters from a psychological standpoint, because as noted above, tax evasion has been linked to the perceived fairness of taxpayer burden. That is, taxpayers are more likely to cheat if they perceive others in similar situations (occupation, education, income) are cheating. Consequently, the tax gap analysis assists tax system design and reform by contributing to a more sustainable solution through determining which taxes are problematic, which taxpayers are non-compliant and what support mechanism is required to address this non-compliance – which has been the approach in the US.

In the remainder of this paper we shall examine two areas where tax gap will stimulate a potential tsunami of tax reforms – firstly through structural changes to the tax system and secondly, through changes to the support mechanisms which accompany the implementation and administration of taxes.

6 TAX REFORM RESPONSE TO TAX GAP?

Tax reform is driven by many factors and concern over the tax gap is increasing in importance. Just what it will mean for tax reform is becoming clear as countries move to adopt a series of reforms specifically targeted at reducing overall tax gap and it will be to these reforms that this section will provide a brief overview[5].

6.1 Trend away from Comprehensive Personal Income Tax

Personal income tax reforms in OECD countries in the last 25 years can be characterised as focussing on rate reductions and base broadening, with a regime move from semi-comprehensive (or global) income tax to semi-dual tax systems. More recently, the possibility of a flat tax regime, with few tax reliefs has been considered.[6]

A particular driving force behind these reforms has been the protection of the long-term tax base in the face of increasing demands on government for expenditure, exacerbated by an aging population and threats to the tax base through the globalisation of commodity and factor markets. Concern about tax gap is therefore centre stage in much of this deliberation. Not helping has been a push by all governments to promote there own domestic 'competitive fiscal environment' which encourages investment, risk taking and entrepreneurship and provides increased work incentives.

From a comprehensive personal income tax policy perspective, this has resulted in reforms focused on:

- lowering the tax rates;
- flattening of the traditionally progressive tax rate schedule;
- broadening of the base (eg including capital gains and fringe benefits);
- eliminating deductions (eg work related expenses)
- greater use of withholding taxes; and
- adopting the individual as a tax unit (as distinct from the family or married couple).

6.2 Introduction of semi-dual personal income tax systems

A logical extension of the reforms outlined above is to move to a semi-dual tax regime which taxes labour income progressively and most capital income at relatively low or proportional rates. This 'dual' (or binary) income tax is in effect a form of schedular income tax where different income streams are taxed under different tax rate schedules and the tax paid is the final tax. This tax design has found favour because of growing concern about the mobility of capital across international frontiers, particularly in Europe.

Scandinavian countries have for some time operated a dual income tax with proportional taxes on capital income and progressive taxes on other income sources. Norway[7] operates under a dual tax system. It taxes all personal and corporate tax at 28% with an additional progressive surtax on labour and pension income above a certain threshold.[8] The highest surtax in 2005 was 15.5%.[9]

Up to 2006, to ensure an equal tax treatment of wage earners and the self-employed, Norway split the income of self-employed into a labour and capital component. This so-called split-model categorised a return to the capital invested as capital income. The remaining profits

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[5] For a more lengthy discussion of these developments, see Warren(2006c).

[6] This paragraph generally borrows from OECD 2006, p7.

[7] OECD 2006, pp 74-80

[8] OECD, Policy Brief, p 6.

[9] OECD, 2006,p 75.

were taxed as labour income.[10] As of 2006, the split-model for self-employed has been replaced by a more general regulation that taxes all business profits exceeding the risk-free interest on the capital invested as labour income at progressive rates.[11]

The Netherlands'[12] 'Box System' introduced in 2001 taxes labour income progressively, income from shares (dividends, realised capital gains) at a flat rate of 25% and capital income (deposits, stocks, bonds, real estate) at 30% of a notional return of 4% of net value. That is, capital income is taxed presumptively and is equivalent to a net tax on wealth of 1.2% (30% of 4%). There is also a basic tax-free allowance on capital income to ensure the tax is progressive.[13]

Clearly, the risk of a growing tax gap is a key driver in this trend towards the dual income tax and to the increasing use of withholding taxes.

6.3 Company income taxation

Tax gap concerns are also a driving consideration in company income tax reforms. Just as the mobility of personal capital across international frontiers is of concern to governments, so is the free movement of corporate capital and the push by individual countries for domestic 'competitive fiscal environment'. The potential for a widening of the company tax gap is very real and here, the focus has and will continue to be on the base and rate.

In terms of the base, although it is typically broad, widening tax gap has the potential to encourage governments to respond by narrowing the base – taxing what they can 'catch', and excluding what is 'lost' anyway. This might manifest itself through explicit exclusions (such as some forms of capital income) or greater use of concessions such as the introduction of accelerated depreciation regimes.

In relation to the company tax rate, there will be growing international pressure for rate reductions and for the adoption of the classical system, over the imputation system, of administering this tax. In the case of rate reductions, this will be driven by tax competition and with the move towards the classical system, by its advantages in terms of its operation across international frontiers and scope to reduce company tax gap which results from cross border activities.

6.4 GST, MTIC and tax mix

If there is one fact which has been consistently acknowledged over the last two decades by all countries it is that a GST is not only an essential way of administering a broad base consumption tax, but also a potentially significant source of revenue. However, as noted earlier (Section 4), VAT gap is an issue of growing concern in Europe where the average standard rate of GST is around 18% to 20%.

This concern over EU VAT gap arises not just from the high rates imposed but on the fact that there are effectively no customs frontiers between EU member states. With exports being zero-rated (or GST free) there is no customs inspection to monitor cross-border flows. What has arisen in the case of high value and highly mobile goods (such as mobile phones and computer chips) is carousel fraud as outlined in Figure 4. Table 4 highlight just how

[10] OECD 2006, p76

[11] OECD 2006, p 80.

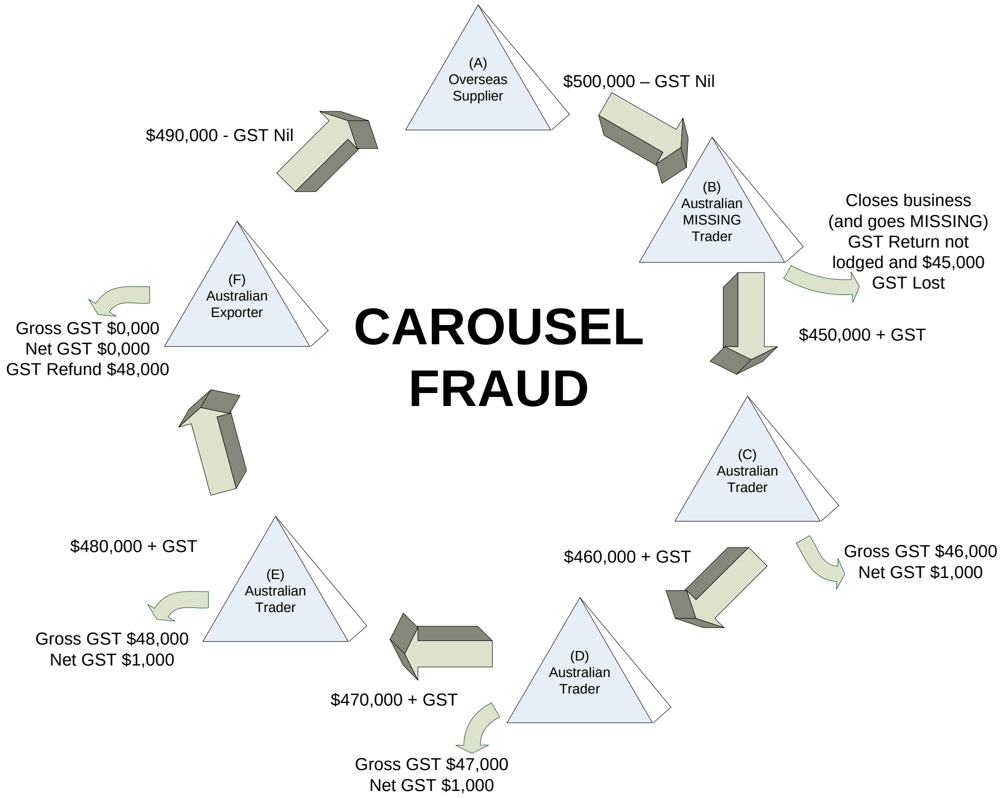
[12] OECD 2006, 81-82.

[13] OECD 2006, p81-82.

significant this is to the UK Government. The problem is that the UK HMRC has pursued an aggressive strategy in combating this fraud which has impacted on many as a result of the actions of a few – particularly alienating many businesses and tax professionals who have had to confront increased compliance burdens.

The important question now being asked in the EU is that if the limits of VAT taxation are being approached as demonstrated by increasing VAT gap with rising VAT rates – much like the concern with personal income tax gap rising with tax rates – what is the next 'great tax hope' of governments?

Figure 4 Missing Trader Intra-community Fraud (or Carousel Fraud)



6.5 What tax gap inspired tax reforms next?

Tax gap fundamentally threatens tax system integrity. As noted in the brief overview above, the problem in relation to income taxes and the GST is that it arises in large part from a combination of the rates applied and the method of administering the tax. Solving these two problem areas is not straightforward with potential solutions worsening equity, sometimes improving simplicity (eg using schedular taxes), at other times worsening simplicity (eg complicating administrative procedures) – all at a time designed to gain efficiency improvements from reduced tax gap. No easy solution exist and no particular new tax design stands out as a panacea to all ills. However, there are some real non-tax reform options available for reducing tax gap and it will be to these strategies that we turn in the remainder of this paper.

7 STRATEGIES TO SUPPORT LEGISLATIVE REFORMS TO REDUCE TAX GAP

Tax gap is becoming a major concern to all governments and is manifested in increasing attention to improving tax compliance and international collaboration on the sharing of information on taxpayers and their behaviour. The growth of the internet and the increasing mobility of not only capital but also labour and commodities (especially digital commodities) has been the focus of greater attention by tax systems designers and administrators. This task has not been helped by higher tax rates (whether on income or commodities) which encourage arbitrage opportunities.

However tax reform in the shape of new taxes and new laws is not sufficient. Other strategies are required to support compliance with these tax laws. There is no one solution that will address non-compliance to the extent that the NOE is eliminated or even reduced. Listed below is a summary of some of the main strategies that have been cited as valuable and effective in sustaining tax reform by providing support mechanisms for encouraging tax compliance. The mix of strategies ultimately implemented and degree to which they may need to be adopted will depend on the particular circumstances.

7.1 Improve tax administration

Tax administration should also be reviewed and reformed to ensure compliance costs are minimised, compliance is easy, education programs are in place and taxpayers are assisted. This might best be achieved by formally following a compliance framework, such as that developed in Australia (referred to as the Compliance Model, refer OECD, 2004a, p. 47).

Improving tax administration may also require assistance from law makers in improving or creating tax administration laws for example to ensure the administrator has the power and legal backing to improve. Laws increasing the number and type of taxes withheld at source, introducing a single taxpayer identifying number, using single reporting instruments for all taxes administered and requiring taxpayers to register with the tax administration by law etc. are some of the ways laws regarding tax administration can help improve compliance. Administrators also require sufficient legal powers to investigate reluctant taxpayers and impose penalties.

A large part of a tax administrator’s role is about ensuring taxpayers can comply and encouraging them to comply which involves significant education. Particularly in a self-assessment environment, taxpayers need to be provided with sufficient information about tax laws and procedures for complying with them. Tax administrators are also responsible for assisting tax advisors and or tax agents. A far reaching education program is crucial to a strategy to improve compliance through tax administration (LeBaube and Vehorn, 1992, p 315).

Tax administrators may also attack non-compliance through audit (ie checking or verifying compliance). An individual’s decision to pay tax or evade payment depends on his/her attitude towards risk taking, the morality of the tax imposed and the probability of detection (Boyd, 1986, 596). Increasing the probability and more importantly the perception of an audit being more probable are powerful strategies.

There are many options available for revising audit programs including: improving the way significant audit risks are identified for example by using information about the NOE; implementing a random audit sample program (OECD, 2004b); increasing resources; structuring resources to best cover the more significant risks areas eg by industry; and improving audit skills through training and education.

There is also opportunity for improving the reputation of a tax administrator with an effective education program. For example, as suggested by Coleman and Freeman (1994), personal contact and written and oral information which may assist the taxpayer better understand their tax obligations can create enormous goodwill (Coleman and Freeman, 1994, p. 264).

Reputation might also be improved through greater accountability and performance reporting. For example, administrators could be more accountable by quantifying non-compliance (tax gap) and reporting on its progress in reducing it. This strategy has been employed more recently in the United Kingdom, with respect to value added tax, VAT (UK HMCE, 2001a). Significant media attention is given to the estimated size of the VAT gap in the UK. HMCE's staff pay agreements are also tied to the success of meeting targets regarding the size of the VAT gap.

7.2 Appeal to taxpayers sense of duty

A compliance support strategy more recently attracting attention is an appeal to taxpayers. Administrators can and should appeal to taxpayers' sense of morality, logic and values in promoting tax compliance (Coleman and Freeman, 1994, p 25). Taxpayers should be made aware of the fact that they are obliged to comply with the law and in fact the government relies on them doing so in order to provide the highest standard of public goods and services. The argument can be logically presented to remind taxpayers that if taxpayers are not fully complying with the law and/or engage in the cash economy (ie encourage or condone others not complying) then the tax burden on those complying is increased and/or public welfare services will be reduced. Apparently, taxpayers often do not make this link, believing payment of taxes is 'dead money' (Ireland, Revenue, 2001, p 31).

Results of a US study, using an experiment to examine the effect of moral reasoning and educational communication on tax evasion intentions, indicated that tax evasion intentions are significantly lower for those taxpayers who utilise high moral reasoning in their decision making (Kaplan et al, 1997). Consequently, it could be argued that public awareness of the moral issues associated with tax compliance may help improve compliance. The results of the US study also suggest that "moral reasoning moderates the effectiveness of certain educational communications". and that information on legal sanctions only significantly lowers tax evasion intentions for taxpayers who utilize low moral reasoning (Kaplan et al, 1997).

7.3 Improve government expenditure and accountability

One of the main reasons for non-compliance with tax laws consistently cited relates to the increased burden and general fairness of taxes, increasing government regulation and the perceived inefficiencies of governments. As a result it is a widely held view that compliance is greater when individuals receive something for their taxes (Jackson, 1992, p. 108). Therefore it is the responsibility of governments to explain their policies and be accountable for them. As Brooks suggests, there is (2001, p. 24),

> …no compelling empirical evidence that people are more likely to comply with the tax laws if they perceive the tax collecting agency to be fair and efficient, such a perception undoubtedly makes it possible for the department to gain political support for direct measures necessary to increase compliance.

7.4 International co-operation

Globalisation and the growth of the internet and e-commerce have fundamentally changed the way domestic tax systems are designed. Tax systems are now important factors determining the location of trade, investment and employment.

What has resulted is greater attention to the design of consumption taxes, with a GST/VAT being deemed essential, company tax regimes which are capital export and capital import neutral, and personal income taxes which do not discourage labour supply or its location - especially by skilled, mobile labour.

Tax policy design has therefore been given over to base broadening and tax rate reductions, thereby minimising tax-induced distortions. Globalisation - especially through the internet - has also had the negative effects of opening up new ways by which companies and individuals can minimise and avoid their tax obligations and through which countries can exploit these new tax arbitrage opportunities. The later is particularly a problem where tax policies have been developed primarily to divert financial and other geographically mobile capital.

This new mobility of labour, goods and capital serves to increase the limits to which the traditionally unilateral or bilateral approaches (such as double tax treaties) were able to reduce domestic NOE. Now NOE is a global problem because it is potentially highly mobile between jurisdictions.

In part response, international attention has focussed on the issue of ‘harmful tax practices’ - especially the OECD (OECD, 1998). The concern here is that the tax authority has clear jurisdictional limits to its powers, despite having made unilateral and bilateral agreements with other nations. The problem centres on the existence of so call tax haven countries and the competitive disadvantage such action can impose on the majority of countries who are not engaging in such activities. Monitoring such practices and enforcing counter-measures is costly to administrations and it is possible that uncoordinated unilateral actions by tax authorities may increase compliance costs on taxpayers and discourage economic activity.

The globalisation of markets has consequently also increased the importance of communicating with other jurisdictions. Since tax administrations around the world, regardless of their environment share the same challenge, combating non-compliance. Sharing intelligence, experiences, procedures and working together can also make for a successful strategy in reducing the NOE.

The OECD’s campaign against harmful tax practices is a good example of international co-operation on attempting to reduce non-compliance and tax gap resulting from this source. The OECD implemented the initiative as a result of the increasing development and use of “tax havens” and “harmful preferential tax regimes”[74].The majority of those countries identified as tax haven have signed agreements to eliminate these harmful practices. This and similar measures will assist in countering the non-observed economy on an international basis and therefore tax gap.

8 CONCLUSION

The most important debate in coming years about tax system design will be about minimising the tax gap (the difference between tax which should and that which is paid). In Australia, most government attention so far has been focussed on isolated accounts of evasion and avoidance, patched over with specific anti-avoidance type provisions. Serious erosion of income tax base has also now been addressed with broadening the base and now adding an indirect base to the mix. The reality is that these measures are insufficient. The cause of the diminishing revenue is a far deeper rooted issue, which in the end requires a tsunami of destruction on tax non-compliance if revenue collections are to be maintained.

The problem is that tax evasion is by its very nature, an illusive concept, going unreported to the tax collection agency and possibly also not identified by the official government statistician when measuring productive economic activity. The sources of tax gap are varied

[74] See OECD website at <www.oecd.org/topic/0,2686,en_2649_33745_1_1_1_1_37427,00.html>.

and complex and will differ for each type of tax and in every jurisdiction. Sources of tax gap might include for example, uncollected taxes, unintentional error, the underground economy and illegal activities. Dissatisfaction with governments and their spending, apathy and corruption are some of the reasons for non-compliance leading to tax gap. Complexity of the tax legislation may also be a contributing factor.

Understanding the sources of and reasons for tax gap is important for the purposes of developing tax policies to capture the economic activity targeted under a tax system more effectively. Tax gap estimates have been an increasing popular method for analysing non-compliance by revenue authorities, and this paper suggests this can be broadened to encompass the non-observed economy and used by policymakers in Australia for more comprehensive and sustainable tax reform that targets the elimination of these threats to our tax system's integrity.

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