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The Case for Measuring Tax Gap

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Abstract
More recently an increasing number of revenue authorities have attempted to estimate the amount of tax that is legally owing to their government but not collected. This amount is commonly referred to as 'tax gap'. In the past tax gap studies were branded unreliable. Tax administrations and other bodies criticised any attempts at quantifying tax non-compliance on the basis that it was costly and inconclusive. However based on the significant number of tax gap studies undertaken recently

until more recently. Tax administrations and other bodies have traditionally criticised any attempts at quantifying tax non-compliance on the basis that it was costly and inconclusive. Since the 1990s however there have been a number of countries, both members of the Organisation for Cooperation and Development (OECD) and developing countries, which have been able to estimate tax gap. Many have publicised

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assistance.[9] The World Bank also assesses government performance using tax gap estimates amongst other measures.[10]

This section has identified just a few examples of tax gap studies undertaken in different countries around the world. A list of publicly available tax gap estimates and related documentation in these and other countries such as New Zealand, the Philippines and Brazil is provided in Appendix 1. The estimates identified cover a range of different taxes including:

- VAT gap estimates – for example in France, Sweden and the UK, as noted above.
- Sales tax gap estimates – as undertaken by Minnesota, US.
- Federal Income tax gap estimates – calculated in the US for example.[11]
- State Income Tax Gap – calculated in Idaho, California and New York State.[12]
- Corporate tax gap estimates – currently being developed by the UK HMRC.[13]

The increasing number of jurisdictions investing in the development of tax gap models indicates there is significant value in doing so. The following section summarises the associated benefits of tax gap studies.

BENEFITS OF TAX GAP STUDIES

The literature on tax administration and tax compliance suggests there are three key benefits that flow from estimating tax gap. These are:

- the identification of the types and level of non-compliance that contribute to the tax gap;
- improved efficiency of resource allocation within a revenue authority to combat non-compliance; and
- as a measure of effectiveness of a revenue authority.

These three main benefits are discussed in more detail below. However it should also be noted that in the UK, the VAT gap estimates have had the added benefit of helping to identify areas where legislative amendment might be required in order to address problems when taxpayers interpret the law in a way that attracts a particular VAT

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[9] See the IMF involvement in the Caribbean Regional Technical Assistance Centre (CARTAC) program which involves tax gap estimates in Caribbean countries at <www.cartac.com.bb/CARTAC%20Activity%20Report%20Oct%2003%20-%20April%2004.doc > at 15 March 2006.

[10] *Afghanistan Managing Public Finances for Development*, Report No. 34582-AF, 2005, World Bank, <http://siteresources.worldbank.org/AFGHANISTANEXTN/Resources/305984-1137783774207/afghanistan_pfm.pdf> at 15 March 2006.

[11] <http://www.irs.gov/newsroom/article/0,,id=137246,00.html> at 15 March 2006.

[12] See Appendix 1 and <http://www.lao.ca.gov/handouts/revtax/2005/Californias_Tax_Gap_030105.pdf>, <http://www.taxadmin.org/fta/meet/05rev_est/bolognino.pdf>, <http://www.legislature.idaho.gov/ope/publications/reports/rt_generalgov.htm>

[13] Although the UK HMRC corporate tax estimates are not yet publicly available, preliminary studies by an independent body are documented in 'Mind the Gap', (2006), *Tax Justice*, <http://www.taxjustice.net/cms/upload/pdf/Mind_the_Tax_Gap_-_summary_-_13_Jan_2006.pdf> at 15th March 2006.

treatment (such as GST-free/zero rated) when this is not intended. Tax gap estimates can therefore potentially highlight inequities and economic inefficiencies which arise from non-compliance with taxes.

The UK VAT gap research has also highlighted data availability problems which have subsequently been addressed to improve the reliability of time series estimates, particularly the National Accounts methodology applied in relation to cross-border and trade.[14] What has resulted is a better understanding of the size and operation of the underground economy, its impact on UK VAT raised and its implications for tax system integrity.

Identifying the sources and level of non-compliance

Identifying sources of non-compliance is a complex and difficult task but it is a key aspect of managing tax compliance. In order to identify sources of tax gap, a revenue authority needs to have a sound understanding of the tax(es) administered and associated types of compliance requirements, taxpayers and their compliance behaviours, and the environment in which they operate. This requires access to various sources of information which is typically gathered from audit and other compliance activities.

This process of identifying sources of non-compliance is often referred to as risk management. Tax gap estimates can assist in this process by providing considerable guidance on what the sources of risks ar

summary of tax gaps and their sources as a result if its studies to assist in identifying and monitor them (refer to Figure 1).

FIGURE 1 - IRS TAX GAP MAP

Source: <www.irs.gov/pub/irs-soi/01tgapmp.pdf>

Resource allocation efficiencies

An associated benefit of prioritising or ranking risk of non-compliance on a more reliable and comparable basis through tax gap estimates rather than other arbitrary ranking processes, is a more efficient resource allocation within the revenue authority. Because tax gap estimates allow the revenue authority to monitor changes in risk areas they are able to better identify what areas they should allocate resources to in order to achieve optimum results. This is a particularly important benefit given the limited resources available to revenue authorities.

For example, the IRS have shifted resource allocations as a result of completing their most recent tax gap estimates. Mr Everson, IRS Commissioner, said:

> We are ramping up our audits on high-income taxpayers and corporations, focusing more attention on abusive shelters and launching more criminal investigations. [19]

The results of the UK VAT gap studies also provide an example of this potential use of tax gap information. The UK gap estimates were the stimulus for the development of a VAT Compliance Strategy (VCS) which was launched on 1 April 2003, with the claim of reversing the trend of an increasing difference between total 'theoretical' VAT liability and actual VAT receipts - the VAT gap.[20]

Managing resources efficiently impacts on the level of effective performance in combating non-compliance. Tax gap estimates are also able to help revenue authorities assess their overall performance by monitoring changes in the estiamted gap.

Revenue authority performance measure
In addition to being a valuable tool to ta

been collected if no one tried to cheat and no mistakes were made) and the tax actually collected.[23]

The IMF supports this view as it now routinely undertakes tax gap estimates in it review of the tax capacity of countries.[24] National auditors and accountability

When estimating tax gap, data is required from both the national statistician and the revenue authority. Broad issues which must be considered include the data's currency, reliability, validity and availability.

In relation to the data used in the tax gap estimates, a number of data problems have been raised regarding accuracy, reliability and cost. Specific concerns include the:

- timeliness of relevant data available, for example the latest Input-Output data in Australia relates to the 1998-99 financial year;
- lack of data on specific transactions such as capital stock/transfers;
- lack of a detailed industry break-up of data;
- inability to accurately map the national statistician's industry classification to those used by the revenue authority; and
- access to and/or of the revenue authority's data (based on privacy laws or tax laws relating to the use of information provided to the revenue authority, for example).

The data sources and their quality have a significant impact on the estimation not only in the validity of the result but in the design or ultimate methodology adopted. The data sources must match the required information that is dependent on both the approach adopted and the relevant tax legislation.

Although concerns regarding data are branded as limitations, recent experience shows that attempts to estimate tax gap can in fact assist in identifying data constraints and how they can be addressed, as has been the UK experience noted above. As a result the data limitations can be overcome and additional benefits arise. Overtime, with the improvement or changes in data collection and the refinement of the model for estimating the tax gap, valuable information can be obtained both regarding the sources and trends in the tax gap; and the performance of the tax administration.

Despite the fact that the data issues raised regarding tax gap issues can be addressed and in fact can produce additional benefits, some countries have still opted not to directly pursue tax gap estimates for data related and other reasons. For example,

> ...Australia does not attempt to estimate the total tax gap, but undertakes rigorous risk assessments to identify and address areas where this gap may be significant or have the potential to become significant.[28]

The Australian Taxation Office (ATO) has indicated the reasons tax gap estimates could not be undertaken, include:

- the Australian Bureau of Statistics (ABS) confirms that the underground economy is 2% of GDP;
- PRISMOD [An Australian Treasury model] is of minimal use;
- tax gap estimates are unlikely to provide pertinent information for understanding the overall efficacy of the range of measures undertaken by the ATO;
- changes in trends identified as a result of tax gap estimates are not useful.[29]

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[28] OECD Practice Notes on *Performance Measurement in Tax Administrations,*

The ATO has also more recently stated that it in its opinion, the results, they should not pose barriers for estimating tax gap or the other performance indicators.

Clearly outlining the purpose and the limitations of performance indicators renders them valid and useful. As the ATO state, a trend increase in GST gap need not solely reflect increased GST fraud.[35] However, what the trends and changes in trends (in all relevant indicators, including tax gap) can do is complement other intelligence gathered by the revenue authority and allow it to make measured decisions about how resources should best be used.

The literature on tax gap supports this assertion as it contains no express intention for tax gap studies to be used in place of other work undertaken by revenue authorities in their pursuit of reducing non-compliance. The ideal situation is in fact quite the contrary. Tax gap estimates are typically used to not only assist in interpreting the revenue authority's existing data and intelligence but can be used to develop and refine the techniques used to gather that data. Furthermore tax gap estimates are designed to drive the development of an effective mix of a range of compliance strategies.

Finally, data limitations and concerns about the information value of tax gap estimates should be distinguished from the inertia that might arise against undertaking such estimates. It seems that the limitations of tax gap estimates identified in the past can be overcome and/or minimised and are not significant enough to dismiss the use of tax gap estimates. Any resistance to calculating tax gap estimates that might still exist is possibly due to the pressure that quantifying tax gap may impose on governments to collect additional revenue, revenue which it is difficult to collect (without generating adverse public reaction). Additionally there may be public concern that the additional revenue raised might be spent and therefore increase the size of government without comparable improvement in services. Nonetheless, these are not limitation or even concerns about the concept or process of estimating tax gap but the politics of taxation and the implications for government of public knowledge of the tax gap.

DEVELOPMENTS ENABLING BETTER TAX GAP ESTIMATES

The most important development that helps overcome the perceived conceptual issues regarding the possibility of estimating tax gap and the value of doing so is the documentation of the process and creation of models that have been used to estimate tax gap in various countries around the world.

More specifically, in relation to the primary limitation noted above, relevant data, there have been and must continue to be a revision of the data that national statisticians need to be collecting and how that data should be aggregated. Measures of GDP based on the United Nations System of National Accounts (SNA93)[36] are an essential ingredient in tax gap estimates. The concepts used in SNA93 are broad and inclusive of all productive activities regardless of their legality. Barthelemy reminds us that,

[35] Ibid.

[36] *SNA*, (1993), United Nations, <http://unstats.un.org/unsd/sna1993/introduction.asp>, at 15 March 2005.

> …the fact that the GDP consists, in part, of incomes which undeniably come from the hidden economy means that in no case should we confuse hidden with unrecorded.[37]

Clearly consideration of both the observed and non-observed economy is important. In relation to the latter, SNA93 includes consideration of underground production, illegal production, informal sector production, and production of households for own final use. The OECD and IMF have more recently worked together to provide further guidance on this reporting.[38]

Specific examples of recent developments relating to relevant data also exist. Revisions of UK National Accounts methodology and trade and GDP estimates[39] were noted above. Additionally, recent changes to the secrecy provisions of Australia's *Income Tax Assessment Act 1936*[40] allow the ABS broader access to data collected by the ATO which could enable them to match their surveys with the respondents actual data report to the tax authorities.

On a more practical level, the positive view of tax gap estimates enforced by national auditors and accountability offices as well as revenue authorities have acted as the greatest enabler for the practice of tax gap estimates. The shift in attitude regarding tax gap studies appears to have arisen as a result of the recognition that undertaking time series estimates of tax gap - conditional on the estimates not having fundamental conceptual and data limitations - has merit in being able to illustrate trends which are important to government in relation to the performance of the revenue collection agency. That is, even if GST gap estimates are subject to various qualifications, as long as they do,ing fundamenta0.01ditors sulho.3 menta0-7T2 1 TfT*sc6o6o6o6o6D0.00. gapar4ph3I

> simply not known to the authorities. In others, it may be that many taxpayers who are in the system are substantially underreporting tax base. In still others, both problems may be important. Unless a careful study of the unreported base, and its determinants, is undertaken, no administration can properly allocate its resources to improving fiscal outcomes – whether through "sweeps" to find unregistered taxpayers or the generally more productive, if technically much more demanding, route of auditing.[41]

As Bird enumerates the main benefits of tax gap, highlighting the necessity of estimating it in terms of compliance, it is important to note that tax gap estimates are not a replacement for other forms of compliance management (which includes but is not limited to risk management) but can act as an effective complement to them. Concerns regarding the reliability of tax gap estimates and their perceived limitations must also be taken into consideration in evaluating them.

However it is noted that despite a number of concerns regarding tax gap estimates, there is growing international recognition that there is value to be gained from estimating tax gap. This is due in part to the fact that the potential limitations, particularly in relation to data, can be overcome. Furthermore, there is acceptance that there are limitations to any compliance measure and performance indicator available. Consequently it is concluded that the clear trend towards the growing acceptance and widespread adoption of tax gap estimates in recent years, as indicated throughout this article (and in Appendix 1), signifies that the benefits of tax gap estimates far out weigh any limitations, costs or risks. Tax gap estimates are becoming increasingly important in reassuring governments and taxpayers that the tax in question has integrity from a revenue authority, economic efficiency and an equity perspective.

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APPENDIX 1 - EXAMPLES OF TAX GAP STUDIES

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