



# A CONCEPTUAL REVIEW OF TAX GAPS IN NON FINANCIAL INSTITUTIONS IN NIGERIA

DISU, SAMSON ADEWALE<sup>1</sup>, SOMOYE, RUSSEL  
OLUKAYODE CHRISTOPHER<sup>2</sup> AND AKINTOYE,  
ISHOLA RUFUS<sup>3</sup>

<sup>1,2</sup>Olabisi Onabanjo University, Ago-Iwoye, Nigeria; & <sup>3</sup>Babcock  
University, Ilishan-Remo, Nigeria.

## ABSTRACT

The Nigerian economy has been having a regressive pattern in the last decade hence the revenue generation could not sustain the infrastructural growth and development of the nation. The objective of this study is to elucidate various determinants of tax gaps in non-financial institutions in Nigeria. Tax avoidance has been a concern in accounting studies as it reduces the government's ability to generate revenue and to implement its policies because tax payers engage in affairs to reduce

## Introduction

The Gross Tax Gap is the difference between tax liability in any year and the amount of that tax paid voluntarily and on time. The gross tax gap has three components – non-filing, underreporting of tax owed, and underpayment. The three components are mutually exclusive and add up to the total tax gap. The non-filing is the tax not paid on time by the tax payers who have legal requirement to file tax returns, but do not file them on time. The underreporting gap is the tax owed by tax payers who file returns on time, but underreport the amount of tax they owe. The underpayment gap is the loss of revenue owed by taxpayers who file returns on time, but do not pay their reported tax due on time (Toder, 2007).

The gross tax gap is measured net of overpayments of tax liability. That is if a tax payer whose return is examined in a tax gap study is found to have reported and paid too much tax, his or her overpayment is subtracted from the measure of the gross tax gap. In calculating the gross tax gap, the Revenue Service also nets out withholding taxes paid by individuals who fail to file tax returns on time (Toder, 2007).

A tax gap may arise either because of assessment risk or collection risk (Villos, 2012). Assessment risk is the difference between tax that is due and tax actually assessed by the tax authorities as owing by the taxpayer. This includes the gap attributable to taxpayers underreporting their income and not lodging their tax returns. The



their taxable base. Tax evasion is the use of unlawful act to reduce tax liability. It is akin to a pandemic for the countries because it could be difficult to control.

**Keywords:** Tax Evasion, Tax Avoidance, Tax Gap

major portion of the tax gap is caused by assessment risk (around 90% of the overall tax gap in developed economies). Collection risk is the difference between tax payments received and tax actually assessed by the taxpayer. In the US, this difference is largely caused by accidental non-compliance and employers' failure to withhold income and employment taxes. Danquah and Osei-Assibey (2016), defined tax gap as the difference between tax revenues collected and those that would be theoretically expected to be collected in the absence of any evasion or late payment. Another approach which is commonly used by authors in identifying the tax gap is by first defining the 'hidden economy' or 'hidden income' - income that is earned but is hidden from the tax authorities and, usually, official statisticians – and then the hidden income is multiplied by a suitable tax rate to obtain the tax gap (Giles, 1999).

Meanwhile, a distinction is made between the gross tax gap and the net tax gap. Thus, the gross tax gap is the difference between tax liability in any year and the amount of tax that is paid voluntarily and timely. Whilst the net tax gap is the gross tax gap in any tax year less payments of that year's tax liability that come in later through either voluntary late payments or enforcement activities of the tax authorities. However, payments of interest and penalties associated with late payments or underreported tax liability are not counted in either the gross or net tax gap measures. The gross tax gap has three components — non-filing, underreporting of tax owed, and underpayment. The three components are mutually exclusive and add up to the total tax gap. The non-filing gap is the tax not paid on time by taxpayers who have a legal requirement to file a tax return, but do not file on time. The underreporting gap is the tax owed by taxpayers who file returns on time, but underreport the amount of tax due. The underpayment gap is the loss of revenue owed by taxpayers who file returns on time, but do not pay their reported tax due on time (Toder, 2007; Mazur & Plumley, 2007).

It is also worthy to note that even though the tax gap is usually studied within the context of the underground economy (informal economy), it is not synonymous with the latter; there might be some overlapping. The underground economy in some respect comprises illegal activities which are not considered in the estimation of the tax gap (Mazur & Plumley, 2007).



According to Murphy (2014), the tax gap is made up of three parts : Tax debt (non-collection; tax that is not paid by someone who knows that he owes it, but who doesn't pay, or delays payment), Tax avoidance (tax that is lost when a person claims to arrange his affairs to minimise tax within the context of tax law), and Tax evasion (tax that is lost when a person or company deliberately and unlawfully fails to declare income that he knows is taxable or claims expenses that are not allowed).

Tax Gap should be considered also from the perspective of both positive economics (the way it is), and normative economics (the way it should be). The main reason behind it is the dual character of public finance as funds are both accumulated and spent, whereas tax gap is a direct determinant of the budget deficit, public debt as well as the possibilities of performing the statutory state tasks. There are various definitions of tax gap adopted in the practice of operation of tax authorities in different countries and many means of its measurement too. Based on the general definition by the Internal Revenue Service (IRS), which corresponds with the one used by Her Majesty, Revenue and Customs in UK, one may assume that tax gap is “the degree to which the taxpayer evades taxation, which results in undue reduction of the tax base and a decrease in due contributions to the state budget” (Raczkowski *et al.* 2015). Some researchers (Plumley 2005) believed that tax gap features could be aggregated into three components:

- a. Failure to file a return;
- b. Under-reporting of income and overstating of deductions; and
- c. Under-payment, e.g. failure to fully pay taxes owed to the state.

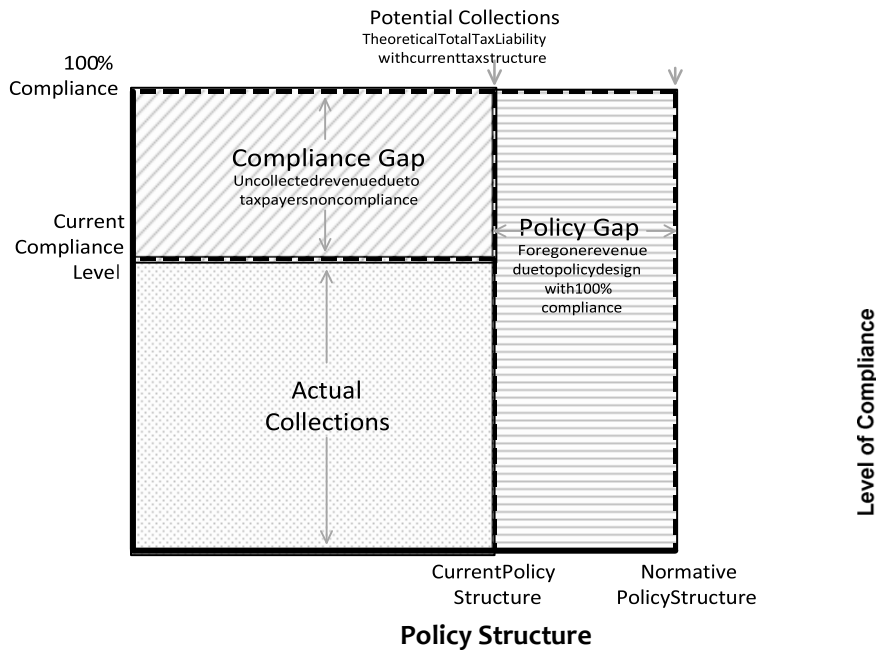
The definition of tax gap offered by Giles (1999) is based on the use of the notions of “shadow economy” and “hidden income”. Hidden income is revenue generated (earned) by the taxpayer, which has not been disclosed to the tax authorities and not captured in the statistical registration. In such a context, the Tax Gap is defined as the amount of hidden income multiplied by an appropriate (i.e. adequate for a given taxpayer and the level of income) tax rate. Such an approach poses many conceptual and methodological problems, e.g. what are the components of hidden income and what does “appropriate” tax rate mean (Gemmell & Hasseldine, 2012).

### **Understanding Tax Gaps**

The International Monetary Fund (IMF) proposal for measuring tax gap is a distinction drawn between tax compliance gap which is the difference between actual collections ( $T^A$ ) and the potential tax collections given the current policy structure ( $T^L$ ); and tax

policy gap<sup>1</sup> which is the difference between the potential tax collections given the current policies and the potential collections given some normative or preferred policy (T\*) design.

**Fig.1 IMF Compliance and Policy Gaps**



Source: IMF (2015a, p.64), Toro et al. (2013, p.50).

It is important to state that tax gap studies can be expanded beyond taxes by a revenue administration if it was also administering negative taxes (such as tax credits and subsidies) or social (income-contingent) transfer programs. Taxes administered could also have linked to them in any gap analysis burdens arising from (in)efficient tax policy (or deadweight losses DWL) and from complex legal design that results in an administrative cost (A) for government and a compliance costs (C) for the taxpayer. In this case the burden of a tax (T<sup>R</sup>) when broadly cast can be defined as:

$$T^R = T^{TL} + T^{TE} + T^E + DWL + A + C \quad \dots 2.1$$

where:

<sup>1</sup> Examples of sources are revenue loss attributable to provisions in tax laws that allow an exemption, a special credit, a preferential rate of tax, or a deferral of tax liability. Policy gap is more than tax expenditures and includes the revenue costs of poor design arising from distortions.



$T^{TL}$  theoretical legally liable tax with current policy design, 100% compliance and inclusive of observed and non-observed activity;

$T^{TE}$  additional tax potential<sup>2</sup> with standard rates and mandatory (or minimum typical) exemptions compared to current policy exemptions;

$T^E$  additional tax potential with standard rates and no exemptions compared to mandatory (or minimum typical) exemptions;

DWL deadweight loss or distortion to resource allocation from the tax rate and base design (excluding A and C)

A administration cost to the government of collecting revenue

C compliance cost for taxpayer (monetary and non-monetary) incurred in meeting their tax obligations.

In this case the cost of revenue administration (A) is modelled as detracting from revenue from the tax system. If in practice, there is less than 100% compliance, such that there is a gap between  $T^{TL}$  and tax actually liable  $T^{AL}$  due to this non-compliance  $T^{NC}$  then:

$$T^{TL} = T^{AL} + T^{NC} \quad \dots 2.2$$

and since tax actually liable ( $T^{AL}$ ) includes tax actually paid ( $T^{AP}$ ) plus tax debt which is liable but unrecoverable ( $T^D$ ) then:

$$T^{AL} = T^{AP} + T^D \quad \dots 2.3$$

Of the tax actually collected, some is paid voluntarily  $T^V$  and some is the result of compliance activity by the revenue administration  $T^C$  such that:

$$T^{AP} = T^V + T^C \quad \dots 2.4$$

Incorporating (3) and (4) into (2), then:

$$T^{TL} = T^{AL} + T^{NC} = T^{AP} + T^D + T^{NC} = T^V + T^C + T^D + T^{NC} \quad \dots 2.5$$

The difference between  $T^{TL}$  and  $T^{AP}$  has been termed the Net Tax Gap  $G^N$ :

$$G^N = T^{TL} - T^{AP} = T^{NC} + T^D \quad \dots 2.6$$

This measure is revenue lost despite all revenue administration compliance actions. If interest is in what tax was paid voluntarily and timely then  $T^V$  is relevant with the difference between  $T^{TL}$  and  $T^V$  being termed the Gross Tax Gap ( $G^G$ ). From (5):

$$G^G = T^{TL} - T^V = T^{NC} + T^D + T^C = G^N + T^C \quad \dots 2.7$$

with the difference between gross tax gap ( $G^G$ ) and net tax gap ( $G^N$ ) equal to:

$$G^G - G^N = T^C \quad \dots 2.8$$

---

<sup>2</sup> Tax expenditures must be measured against some normative structure or what the tax base 'ought' to be. In the case of an income tax, this would be all income regardless of source and with personal consumption, all household final consumption expenditure. See Toro et al. (2013).



Gross Tax Gap  $G^G$  has little meaning other than indicating the timely payment of tax liable and while it might be relevant to the revenue administration who is focused on tax due being paid on time, ultimately it is the proportion of accrued tax liability  $T^{AL}$  that is paid  $T^{AP}$  rather than paid timely  $T^V$  that is the important indicator of the final compliance outcome. Tax collected timely  $T^V$  is essentially an artificial construct of limited broad policy use other than as an indicator of taxpayer willingness to comply with the legal submission and is not independent of revenue administration resourcing and capability (A). However, as noted in section 3.4 below, there may be interest in  $T^V$  when it is disaggregated into that part which is tax assured and that which is not. However, what is more immediately meaningful for the revenue administration is the Collection Gap ( $T^D$ ) and Compliance Outcome ( $T^C$ ), variables of concern also to an audit office or a treasury or ministry of finance when evaluating a revenue administration's performance. For government, Net Tax Gap  $G^N$  is particularly relevant as this is what revenue it has potentially available to fund expenditure programs.

Including  $T^{TL}$  defined in (5) into (1) yields:

$$T^R = [T^V + T^C + T^D + T^{NC}] + [T^{TE} + T^E + DWL + A + C] \quad \dots 2.9$$

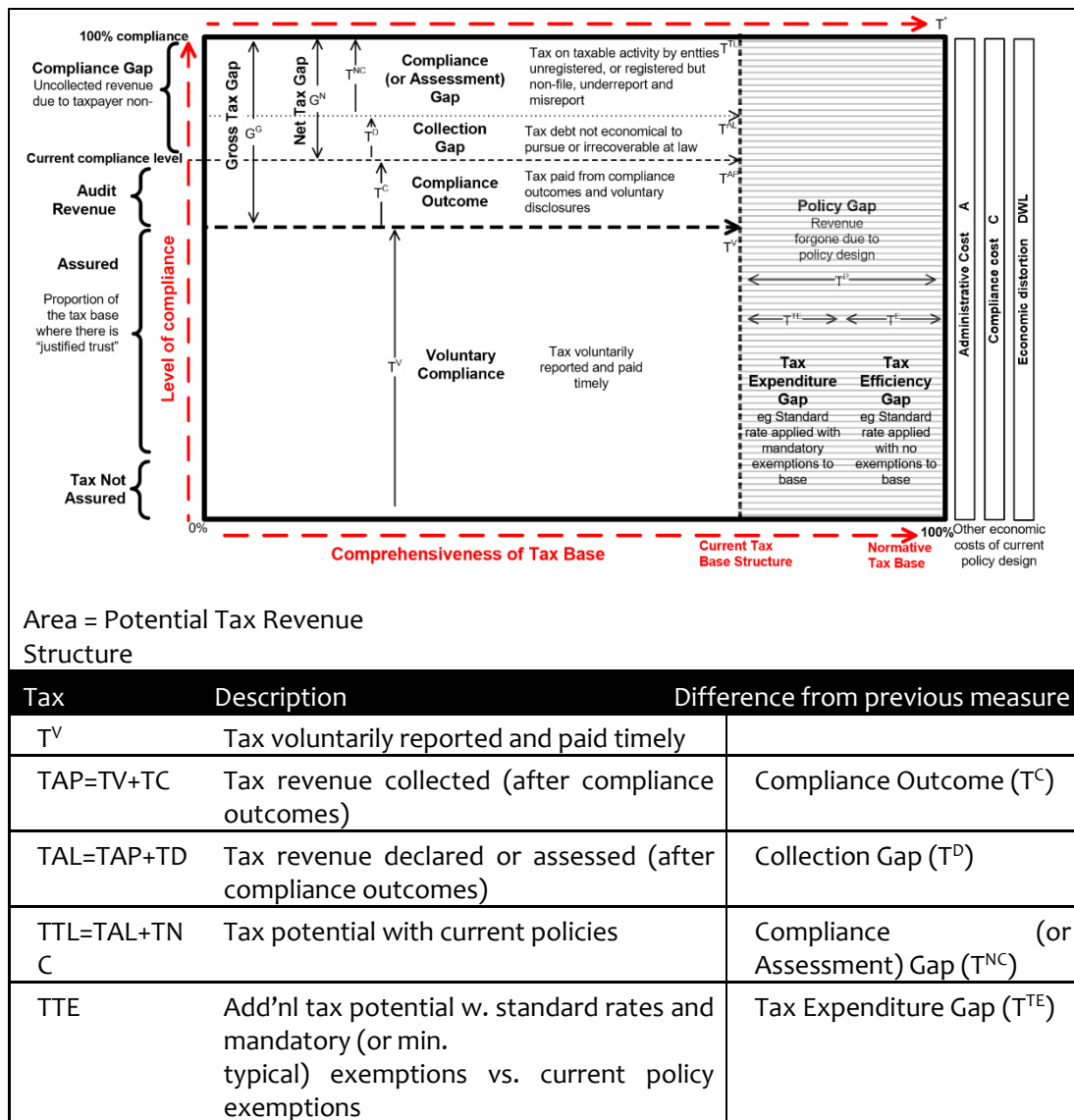
For a Treasury or Ministry of Finance, of particular relevance is why  $T^{TL}$  is different from  $T^{AL}$  or the Assessment Gap ( $T^{NC}$ ) hence  $T^{TL}$  differs from  $T^*$  or the Policy Gap ( $T^P$ ). In practice these component parts of  $T^*$  cannot be divorced from administrative costs (A) or the tax (rate and base) design, nor can tax expenditures  $T^{TE}$  or distortions impacting taxpayer behaviour (DWL), which also impacts taxpayer compliance costs (C). Moreover, non-compliance by taxpayers with the law evident in  $T^C$ ,  $T^D$  and  $T^{NC}$  have impacts well beyond just tax to the broader observed economy and onto the non observed economy of which the black economy is part. Figure 2 brings these elements together and presents a diagrammatic representation of (9). Since many treasuries and ministries of finance already estimate  $T^{TE}$  and A is known from the revenue administration budget, these two elements of (9) are often available. If C and DWL estimates are also available, there is little reason not to include  $T^{TE}$ ,  $T^E$ , DWL, A and C in any study estimating  $G^G$  and  $G^N$  as they indicate the other tax-related costs of current design.

In measuring (9), transparency is also brought to how tax design and the funding of a revenue administration impacts a holistic representation of potential tax revenue. What tax gap estimation does is highlight clearly the inter-related nature of the different measures in (9). The question now is how to move from the theoretical concepts in (9) to practical measures.



In some cases these variables are known such as  $T^V$ ,  $T^C$ ,  $T^D$  and  $A$  but in others they are not such as  $T^{NC}$ ,  $T^{TE}$ ,  $DWL$  or  $C$ . Moreover, the various components of  $T^R$  are not independent of  $A$  or the tax design (rates schedule and base definition). This endogeneity must mean that changes in revenue administration and tax design will elicit behavioural responses which revenue administrations (and treasuries and ministries of finance) need to incorporate into their considerations. For example, if  $A$  was reduced,  $T^V$  would inevitably decline along with  $T^{AP}$  and  $T^D$  while  $T^{NC}$  would increase.

**Fig. 2: Tax Gap Framed**

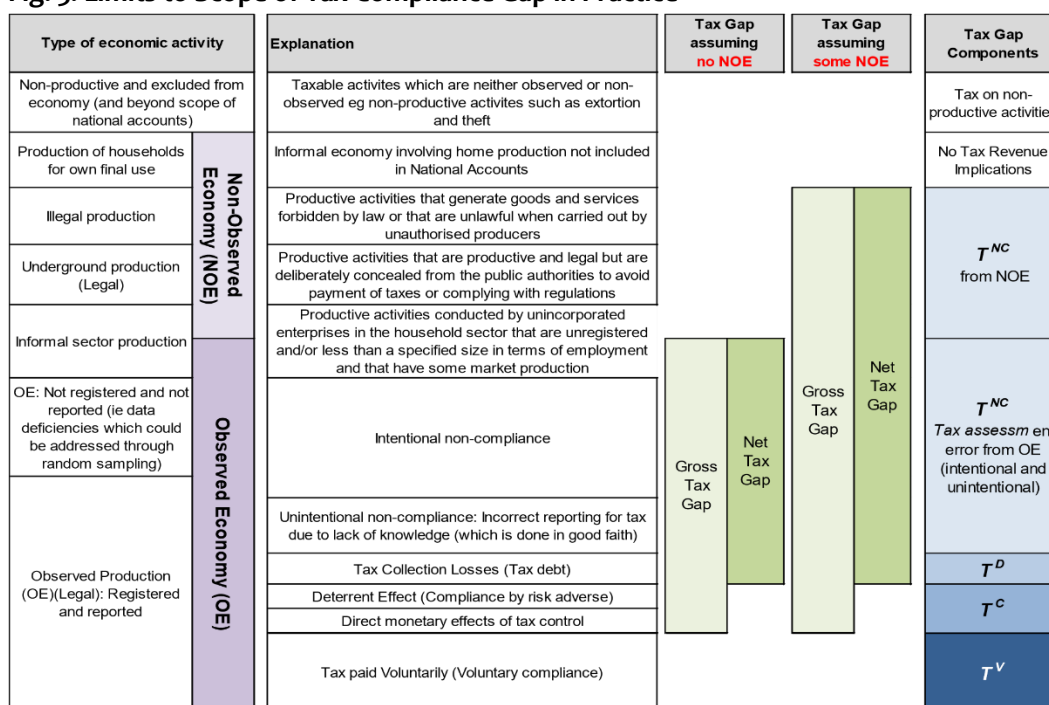




$T^E$	Add'l tax potential w. standard rates and no exemptions <sup>3</sup> vs. mandatory(or min. typical) exemptions	Tax Efficiency Gap ( $T^E$ )
$T^* = T^{TL} + T^P$	Tax potential with standard rates and no exemptions	Tax Policy Gap ( $T^P = T^{TE} + T^E$ )
$\eta = T^{AL} / T^{TL}$	Compliance Gap ratio	
$\eta = T^{TL} / T^*$	Policy Gap ratio (see Keen (2013) for the decomposition of VAT policy gap into that arising from exemptions (TTE) and that from rate differentiation (TE).	
$(1-\eta) \times (1-\eta)$ c-efficiency ratio (see Keen (2013) equation (8) and subsequent discussion)		

Source: Adapted from eJournal of Tax Research Vol.16,No.3 pp. 536-577

**Fig. 3: Limits to Scope of Tax Compliance Gap in Practice**



**Definitions**

**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 the and production

**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.

Source: Adapted from eJournal of Tax Research Vol.16,No.3 pp. 536-577

<sup>3</sup> The IMF approach to distinguishing  $T^E$  and  $T^{TE}$  was to state that: '[a]nother way to look at these two measures is that these two components divide the policy gap into the portion where revenue mobilization opportunities exist (the expenditure gap) and the portion where there is little opportunity for revenue mobilization (the efficiency gap)', and that: '[i]n others words the efficiency gap is the portion of the policy gap that results from the typical VAT exemptions necessary due to pragmatic considerations in the design of a VAT' (Thackray, Hutton & Kapoor, (2015b, p. 7).





Equally, changes in economic activity such as that brought about by the digital era will inevitably impact tax gap if it facilitates non-compliance (demonstrated by an increase in  $T^{NC}$ ). However, this could be counteracted through the technology accompanying the digital era facilitating more effective use of third party data on non-compliant taxpayers and the better utilisation of A, to increase  $T^C$  and decrease  $T^{NC}$  and  $T^D$ .

Crucially, examining tax gap can potentially bring greater transparency to the intended impact (spirit of the law) as against the actual (letter of the law) impact of the tax, along with any impact that was intended but not achieved ( $G^N$ ). This is particularly important for Treasury or the Ministry of Finance as it highlights the important potential revenue from that which is not known, understood or appreciated such as the revenue impact of taxpayer's behaviour and from failures of policy design. For revenue administration, it highlights how qualitative changes to the revenue administration can impact the effectiveness of expenditure (A) can therefore impact gap estimates  $G^G$  and  $G^N$ .

The challenge for comprehensive tax gap analysis is therefore to estimate in practice the unknown components of  $T^*$  at a point in time including  $T^{NC}$ ,  $T^{TE}$ ,  $T^E$ , DWL, A or C, and understanding how the known and unknown components of  $T^*$  change with context and time. Here context can be framed by changes in the economic environment (as with change arising from the digital era); quantitatively and qualitatively from tax design changes; by time in both a stable economic environment or across the economic cycle; and by demographic social economic and geographic attributes.

In framing  $T^*$  in a way that captures the implications of the ascendancy of the digital era, what is important is drawing a link between tax gap and economic activity. Figure 3 highlights how tax is a direct outcome of economic activity. However not all activity theoretically liable for tax will incur tax. Equally economic statistics may not always observe all economic activity – some can be non-observed – as with the black economy. If the digital era allows previously observed activity to become non-observed, then the tax gap will be impacted as will the integrity of the national accounts data if this activity remains unknown and unacknowledged. Ideally, a comprehensively framed tax gap study will capture any change in the mix of observed and non-observed economy and act to inform not only tax gap but also national statistics.

### **Components of Tax Gaps**

The Tax Gap is a broad economic problem consists of many components gaps. Those that were identified were (Murphy, 2008):

#### **Absolute Gaps**

##### **The Revenue Gap**

The difference between what the tax authority expects to raise in tax given current levels of economic activity, and what it actually raises in taxation revenue. This Gap can, of course, be broken down between different taxes e.g. Income taxes, Company taxes, Value Added taxes (Murphy, 2008)

##### **The Proportionate Gap**

The difference between the proportion of income paid in tax by the best off in a society, and the proportion of income paid in tax by the worst off in a society. This is a measure of how progressive the tax system is (Murphy, 2008).



### **Poverty Gap**

The difference between the after tax incomes of the rich and the poor in a society, to which taxation policy contributes. This is a measure of social justice within a society (Murphy, 2008).

### **Corporate Gaps**

#### **The Reporting Gap**

The difference between the information that a reasonable user of the accounts of a corporation needs to appraise the tax it pays and the information they actually get. This gap is a measure of how well a company accounts for its activities (Murphy, 2008).

#### **The Expectation Gap**

The difference between the headline or declared tax rate for companies, and the rate of tax they actually pay. This gap is a measure of the difference between the contribution society expects business to make by way of tax paid, and what is actually paid (Murphy, 2008).

### **Taxpayer Gaps**

#### **The Responsibility Gap**

The difference between the duty of care towards a country that a tax payer is expected to show when declaring their taxation liabilities, and the duty they actually display in their actions. This is a measure of the attitude taxpayers take towards their duty to pay tax and is likely to indicate the scale of both tax avoidance and evasion in an economy (Murphy, 2008).

#### **The Trust Gap**

The difference between the actual levels of trust that exist between tax payers, and tax authorities and the level of trust which would benefit both parties in the management of their mutual obligations. The measure is important because taxation is ultimately always levied with the consent of those who pay it. If that trust breaks down, less tax is paid (Murphy, 2008).

### **International Gaps**

#### **The Competitive Gap**

The difference between the tax rates offered by different countries as an incentive is to attract inward investment into their economies. This is a measure of tax competition (Murphy, 2008).

#### **The Resource Gap**

The difference between the resources countries are able to allocate to ensuring that the international aspects of their taxation affairs are properly managed. This is a measure of the gap between developed and developing countries. Many developing countries do not have the resources available to them to pursue enquiries about tax liabilities that may be due in their territories if they are not voluntarily declared (Murphy, 2008).

#### **The Multinational Gap**

This is the difference between the tax rates paid by the companies who operate internationally and the tax rates paid by the companies who only operate in one country. This is a measure of the taxation benefit companies who operate internationally obtain over their domestic rivals (Murphy, 2008).



### **The Haven Gap**

The gap between what is considered reasonable behaviour in tax havens and what is considered reasonable behavior elsewhere. This is a measure of both the difference in tax rates on offer in tax havens and elsewhere and the difference they offer in defining taxable income, which in many cases is the way in which they avoid charging individuals and companies to tax (Murphy, 2008).

### **The Mobility Gap**

The difference between the way those who are internationally mobile are taxed in a country and the way those who live there permanently are taxed. This is a measure of the advantages the tax system of a country offers to those people who are internationally mobile compared to those who are normally resident in their country (Murphy, 2008).

### **National Gaps**

#### **The Corporate Gap**

The difference between the tax rate paid by entities on a profit and the rate an individual might reasonably be expected to pay on the same profit. This is a measure of the taxation benefit companies are given in a society (Murphy, 2008).

#### **The Large/Small Gap**

This is the difference between the tax rate suffered by large companies and the tax rate suffered by small companies. This is a measure of the benefit large business gets in a society, largely because of its lobbying power, when compared to small business. It is measured by the difference in the average actual tax rate suffered when similar rules are apparently applied to each type of company (Murphy, 2008).

#### **The Social Security Gap**

This is the difference between the tax due (including social security charges) on average earnings in a country if earned from employment, and the tax due on the same level of income from other sources. This is a measure of the total additional tax charges levied upon earnings derived from human endeavour when compared with the tax charges levied on similar income from any other source (Murphy, 2008).

#### **The Administration Gap**

This is the difference between the administrative burdens suffered by government with regard to tax and of the burdens a tax system imposes which are not directly measured as part of the tax charge (Murphy, 2008)

#### **The Direct/Indirect Gap**

The proportionate difference between the amount of tax a country collects from direct and indirect tax. This is a measure of the difference between the tax charged on earnings in a country and the tax charged on consumption in a society. It is a good measure of the degree of repressiveness within a tax system since those on lower levels of earnings tend to spend much higher proportions of their income on consumption than those on higher levels of income, who have a capacity to save.



In summary, the Tax Gap might focus upon technical issues, but it is also about (Murphy, 2008):

- a. Social Justice
- b. Corporate Responsibility
- c. Government Accountability, and
- d. The Stability of the income of the world's nation states.

### **Government Gaps**

#### **The Corruption Gap**

The difference between the tax taxpayers think they pay to a government and the amount that the government actually has paid to it. The gap measures the corruption present in any tax collection system, whether that corruption is undertaken by politicians, government officials or others e.g, within banks (Murphy, 2008).

#### **The Efficiency Gap**

The difference between the benefit that could be obtained if all government revenues were spent in pursuit of its policies and the actual sum spent having allowed for waste, inefficiency and corruption. This is a measure of both the management inefficiency of government and the corruption that occurs in their spending programmes. The measures overlap because very often it is difficult to differentiate the reasons for the loss (Murphy, 2008).

#### **The Transparency Gap**

The difference between the information the taxpayers in a country think they need to be able to understand what their government does with the money paid to it and the information they actually receive. The gap measures the accountability of governments (Murphy, 2008)

### **REFERENCES**

- Danquah, M. & Osei-Assibey, E. (2016). Informality and the tax gap: a case of non-farm enterprises in Ghana. *International Growth Centre (IGC) Working Paper*.
- Gemmell, N. & Hasseldine, J. (2012). The tax gap: a methodological review. In *Advances in Taxation*, 203-231. Emerald Group Publishing Limited.
- Giles, D. E. (1999). Modelling the hidden economy and the tax-gap in New Zealand. *Empirical Economics*, 24(4), 621-640.
- Mazur, M. J., & Plumpley, A. H. (2007). Understanding the tax gap. *National Tax Journal*, 569-576.
- Murphy, R. (2014). *The Tax Gap. Tax Evasion in 2014 and what can be done about it*.
- Murphy, R. (2008). *The Tax Gap*, Tax Research LLP, Norfolk, The Old Orchard.
- Plumley, A. (2005, January). Preliminary update of the tax year 2001 individual income tax underreporting gap estimates. In *Proceedings. Annual Conference on Taxation and Minutes of the Annual Meeting of the National Tax Association* (98, 19-25). National Tax Association.
- Raczkowski, K., Schneider, F. & Mróz, B. (2015). Shadow economy and tax evasion in the EU. *Journal of Money Laundering Control*, 18(1), 34-51.
- Toder, E. (2007). What is the tax gap? *Tax Notes*, 117(4), 367-378.
- Villos, S. (2012). Measuring the tax gap of business taxpayers in Australia. *Revenue Law Journal*, 21(1).