

## **CHAPTER 5: FORMULATING THE CONCEPTUAL FRAMEWORK**

### **5.1 INTRODUCTION**

McClellan (2003:28) points out that '[h]ow the tax burden is calculated has a big influence on the perception of fairness'. This insight suggests the importance of formulating a comprehensive methodology to underpin the conceptual framework that is developed in the current study.

In Chapter 2, the inherent characteristics of the tax burden were analysed to provide clarity on the theoretical constructs relating to the phenomenon of the imposed tax burden. Chapter 3 built onto the theoretical constructs set out in Chapter 2 by showing how the construct of the imposed tax burden is integrated into the South African tax environment. Chapter 4 analysed and clarified the theoretical construct of the perceived tax burden. The purpose of Chapter 5 is to formulate a conceptual framework for evaluating the tax burden of individual taxpayers based on a methodology that provides a foundation for the consistent measurement and comparison of the tax burden.

### **5.2 METHODOLOGY UNDERPINNING THE CONCEPTUAL FRAMEWORK**

The tax burden is central to numerous debates in the literature. Generally, the purpose of studies on the tax burden is to provide information to a government on the distribution of taxes and the economic well-being of the citizens of the country concerned. These studies are accomplished using either a macro-level or a micro-level approach, for instance, the studies by Bellak, Leibrecht and Römisch (2005), Dickert, Houser and Scholz (1994), Essama-Nssah (2008),

Fullerton and Rogers (1993), Immervoll (2004), Reed and Rogers (2006), Townsend (2003) and Van der Berg (2001).

Macro-level studies are concerned with aspects relating primarily to the national level, for example, studies concerned with the total tax burden as a percentage of the gross domestic product (GDP), the effect of changes in the tax policy on the tax burden, and measuring economic inequality in the population before and after tax, using the Gini coefficient (Devarajan, Fullerton & Musgrave, 1980:15; Reed & Rogers, 2006:410; Townsend, 2003:11; Van der Berg, 2012:124). By contrast, micro-level studies have a narrow focus, and are mainly concerned with individuals, firms, consumers and particular sectors, for example, studies by Harding, Warren and Lloyd (2006:1), the National Treasury (2011a:208) and Townsend (2003:6). The focus of the present study is on the individual as a taxpayer in South Africa, and therefore a micro-level approach was adopted as the methodology to underpin the conceptual framework developed here.

The term 'tax' can have various meanings. In a narrow sense, it refers to taxes that economic agents pay; in a broader sense, it concerns the total fiscal policy of a country (Salanié, 2003:1). Traditionally, policymakers, researchers, academics and others used only taxes as a basis to measure and evaluate tax burdens (Chamberlain & Prante, 2007:1,4). However, using only taxes as a basis for measuring the tax burden is now considered inadequate to measure the progressivity of tax burdens between taxpayers or income groups, because, in addition to taxes, the benefits received from government also affect taxpayers' economic position (Chamberlain & Prante, 2007:11; Grown, 2010:18; Harding *et al.*, 2006:1; Lile & Soule, 1969:435; Morgan, 1994:515-516). This implies that, in evaluating the tax burden of individual taxpayers, it is essential to include all the taxes and benefits that account for the difference between a taxpayer's gross income and his or her economic spending abilities. In the literature, this phenomenon is commonly referred to as the **fiscal incidence** (Chamberlain & Prante, 2007:11; Essama-Nssah, 2008:39; Martinez-Vazquez, 2001:40; Van der Berg, 2001:244).

Fiscal incidence studies are generally concerned with comparing taxpayers' original (gross) income with their (net) income after accounting for taxes, transfers and benefits (Essama-Nssah, 2008:39; Hemming & Hewitt, 1991:121-122). The phenomenon of fiscal incidence is frequently studied in the public finance and economic disciplines. These studies are usually concerned with the distribution of the tax burden between groups of citizens and/or taxpayers in a country (Atkinson, 1994:13-16; Musgrave, 1959:217-225; Singer, 1976:42-44; Van der Berg, 2012:126-127).

The present study, as is often the case with fiscal incidence studies, is concerned with the evaluation of taxpayers' tax burdens. Therefore a methodology based on the principles of fiscal incidence studies was considered the most appropriate for the conceptual framework developed here. Methodological issues associated with fiscal incidence studies include the unit of analysis, the time frame, the method of measurement, the coverage, the valuations, inter-unit comparisons, and incidence assumptions<sup>126</sup> (Harding *et al.*, 2006:6). These methodological issues need to be clarified and defined in relation to the present study, in order to ensure a reliable and consistent methodology for the conceptual framework developed in this study.

### 5.3 UNIT OF ANALYSIS

The tax burden can be evaluated not only for an individual person, but also for a household unit. It is therefore important to clarify the unit of analysis, because it has a material impact on the methodology applied to evaluating the tax burden.

As a point of departure, it is important to clarify the concept of 'individuals as taxpayers'. The term 'individual' is defined in the *Oxford Dictionary and Thesaurus* (2009:474) as 'considered separately; single'. The focus is on the word 'single'. For the purposes of this study, the term 'individual' thus refers to a single person contributing towards any tax or taxes in the country.

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<sup>126</sup> The incidence assumption relating to taxes is explained in Section 2.2.6.2 and is therefore not dealt with again in this chapter. The benefit incidence assumptions form part of the discussion in Section 5.5.1.

A household consists of a person or a group of persons,<sup>127</sup> often a family, who live together and share resources as a unit (*Cambridge Advanced Learner's Dictionary*, 2008:700; Statistics South Africa, 2010:47). Smeeding and Weinberg (2001:2) refer to this type of unit as 'the income-sharing unit'. They explain that '[t]his unit must be large enough to capture all regular forms of income sharing as well as economies of scale derived from sharing resources and durable goods within the unit' (Smeeding & Weinberg, 2001:2).

A rationale for adopting the household as the unit of analysis for evaluating the tax burden can be given using the definition of the tax burden by Townsend (2003:6) as a point of departure. Townsend (2003:6) defines the 'burden of taxation' as 'an expression of the proportion of income which is paid in taxes'. In South Africa, the direct tax burden of a person can be determined with relative ease, because the tax is normally directly imposed on an individual person's income or wealth. However, it is a much more complicated task to allocate an individual taxpayer's indirect tax burden accurately. Indirect taxes are levied on the consumption of goods and services by a household, and the indirect tax burden may be borne by either a single taxpayer in a household, or by more than one taxpayer in a household.

In an instance where a single taxpayer in the household funds the consumption of the household, the indirect tax burden is allocated directly to that particular taxpayer. Consumption in households where more than one taxpayer contributes to the funding of the household consumption makes the allocation of the indirect tax burden much more complicated. The question is whether such a household's indirect tax burden can be allocated to each individual taxpayer in the household both accurately and consistently over a given period. Such an allocation is possible, but its accuracy and consistency is always questionable, because the ratio of funding between the various individual taxpayers in a household used as a basis may change frequently, the number of taxpayers in a household may

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<sup>127</sup> These persons in a household unit may be related or unrelated (Smeeding & Weinberg, 2001:2).

increase or decrease, one taxpayer in the household may fund more expenses than the others, or any other factor affecting the ratio of the funding of household consumption may vary.

The household as an economic unit is considered a more reliable and consistent basis for evaluating the tax burden of individuals as taxpayers. This approach does not depend on the ratio of funding required to allocate indirect taxes to each individual taxpayer, and the approach provides a reliable and consistent platform to evaluate the overall tax burden of individual taxpayers functioning together as a household. Stamp (1921:14-15) argues that it is not adequate to ask only how much a person's income is to determine how much tax the person must pay. Consideration should also be given to family size and other factors. Households are frequently used as a basis for studies that relate to the income, expenditure and/or taxes of persons (Dickert *et al.*, 1994; Dwyer, 2006:124; Glewwe, 2000; Masemola & Van Wyk, 2009; OECD, 2011; Statistics South Africa, 2010; Townsend, 2003). However, the definitions of what precisely comprises a household vary between studies. Despite attempts to standardise the definition of a household, "the "household" remains somewhat of a "black box" in the words of Beaman & Dillon (2009:1,14). For purposes of the current study, a household is defined as consisting of one person, or of two or more persons living together, whose food purchases and other household expenses are usually managed as one unit, a definition frequently used for examining the income and expenditure of households in South Africa (Masemola & Van Wyk, 2009:9). This definition includes persons who are temporarily absent, as well as dependent children away at school (Masemola & Van Wyk, 2009:9).

#### **5.4 TIME FRAME**

The conceptual framework developed in the current study is concerned with the recurrent tax burden of individuals as taxpayers in South Africa. The recurrent tax burden, as defined in Section 2.2.6.1, refers to taxes that affect the burden of individual taxpayers on an ongoing basis over a given period.

The period referred to in the conceptual framework can be either only one calendar month or more than one calendar month combined, but is limited to a maximum of one year. The year refers to the 'year of assessment' for natural persons, as defined in section 1 of the Income Tax Act (58 of 1962). It consists of the twelve-month period ending on the last day of February of each year.

## 5.5 METHOD OF MEASUREMENT

The method of measurement, in the context of the current study, refers to the method underpinning the evaluation of the tax burden of individual taxpayers in South Africa. The broad concept of the method of measurement from fiscal incidence studies (Chamberlain & Prante, 2007:11; Essama-Nssah, 2008:39; Grown, 2010:18; Harding *et al.*, 2006:1; Hemming & Hewitt, 1991:121-122; Musgrave & Musgrave, 1980:266), namely comparing the original income<sup>128</sup> of taxpayers with their income after accounting for taxes and benefits,<sup>129</sup> was adopted in the present study as the basis from which the tax burden of individual taxpayers can be evaluated. This concept adopted from fiscal incidence studies was extended for the purposes of this study to make provision for the theoretical concepts that may affect the way in which taxpayers perceive their tax burdens, including the concepts of fiscal illusion and fiscal perception.<sup>130</sup>

In summary, it is important to clarify the extended method of measurement adopted in this study for evaluating the tax burden of individual taxpayers, as members of a household, by explaining the measurement of the essential elements underpinning the evaluation, namely gross household income, the imposed tax burden, and the perceived tax burden consisting of the concepts of fiscal illusion and fiscal perception.

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<sup>128</sup> For the purposes of this study, the original income of a taxpayer refers to the gross income of the taxpayer before any government interventions. This is similar to the definition used by Townsend (2003:16).

<sup>129</sup> For the purposes of this study, the income after taxes and benefits is referred to as the taxpayer's real net income.

<sup>130</sup> A person's fiscal perception consists of his or her perception of the fairness of the taxes, the cost of compliance, and the taxpayer-government exchange (see Section 4.2.2).

### 5.5.1 Measurement of gross household income

Some definitions of gross income are a useful point of departure to explain the theoretical constructs relating to taxpayers' gross income.

The *Oxford Dictionary and Thesaurus* (2009:413) defines the term 'gross' to mean '(of income, profit, or interest) before tax has been deducted'. The term 'gross income' is also synonymous with the term 'before deductions' (*Oxford Dictionary and Thesaurus*, 2009:413). The main point relevant to this study is that a person's gross income consists of income before tax or other deductions. This raises the question of what must be included under the term 'income' as it relates to gross income.

'Income' is defined in the *Cambridge Advanced Learner's Dictionary* (2008:730) as 'money that is earned from doing work'. The *Oxford Dictionary and Thesaurus* (2009:470) lists the following synonyms for 'income': '**earnings**, salary, wages, pay, remuneration, revenue, receipts, takings, profits, proceeds, yield, dividend'. These synonyms create the impression that income refers mainly to cash or money. However, this impression is not accurate, as a person's income does not always consist only of money. Earned income may also be remitted in the form of goods in kind, or the right to something. It is therefore important in this study to base the gross income of a household on a comprehensive definition.

Section 1 of the South African Income Tax Act (58 of 1962) defines 'gross income' as the total amount in cash or otherwise received by or accrued to a person during a year of assessment. This definition excludes amounts of a capital nature, but includes income received in kind or in any other form. This study focuses only on the recurrent tax burden. The exclusion of capital income is in line with this focus, as the taxes imposed on capital income normally refer to taxes that have an impact on the lifetime burden of a taxpayer, also referred to as a 'stock'.<sup>131</sup> An important aspect of this definition is that the income must be received or accrued, which must be interpreted to refer only to real income and

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<sup>131</sup> For an explanation of a stock see Section 2.2.6.1.



not imputed income (Stiglingh, 2011:16). This definition is very comprehensive and, hence, it is concluded that it provides a suitable basis for measuring gross income for the purposes of this study.

Townsend (2003:16), in a study on the tax burden of households in the United Kingdom, defines 'gross income' as the 'original income (before government intervention) plus cash benefits, e.g. state pension'. Caputo (2005:7) refers to gross income as the comprehensive household income, which consists of pre-tax income, plus income from other sources. Comprehensive household income includes, for instance, wages, salaries, self-employed income, rents, taxable and non-taxable interests, dividends, retirement benefits, unemployment insurance, fringe benefits from employers, food stamps, school lunches, housing assistance and energy assistance. These definitions are similar to the definition from section 1 in the South African Income Tax Act (58 of 1962), but they specifically include social benefits received by households, for instance, State pensions and unemployment benefits. This suggests that the gross income of households must include not only income, but also any benefits received from the State.

The benefits received from the State consist of both publicly provided goods and services, and cash benefits and non-cash benefits, also referred to as social transfers in kind (Harding *et al.*, 2006:2). Cash benefits normally consist of government transfers to needy families or veterans, and of other transfers in terms of social programmes. Non-cash benefits refer to public goods and services received in the form of education, health, housing, and other public benefits in kind (Chamberlain & Prante, 2007:4; Harding *et al.*, 2006:2; Salanié, 2003:1).

The allocation of non-cash benefits to individual taxpayers has long been a controversial issue in the literature (Harding *et al.*, 2006:5; Heyns, 1999:207; Lutz, 1936:352-353; Musgrave & Musgrave, 1980:272; Smeeding & Weinberg, 2001:11). Research on this topic focuses mainly on the question of who pays taxes and who receives benefits from government spending programmes. Studies on the allocation of non-cash benefits are mainly concerned with



measuring the effectiveness of poverty-reducing programmes (Chamberlain & Prante, 2007:9; Van der Berg, 2001:258-259). Therefore these studies do not provide an objective basis that can be used for the accurate allocation of non-cash benefits. The debate around the basis for allocating non-cash benefits falls beyond the scope of this study, and therefore non-cash benefits from the State are not included in the term 'benefits' for the purposes of measuring gross household income in this study.

In conclusion, the gross household income of taxpayers (which is essential for evaluating the tax burden of individual taxpayers) is measured by referring to the gross original income of taxpayers before any government interventions, and to the gross cash benefits provided by the government to individual taxpayers.

### **5.5.2 Measurement of the imposed taxes**

Studies measuring and evaluating tax burdens historically depended to a large extent on either formal tax rules (tax rate structures), or on a tax ratio (the total tax in relation to the taxable income). The use of tax rate structures or a tax ratio is inherently problematic, as neither accounts for or considers the interaction between different types of taxes and benefits in the overall tax burden. To address this problem, studies have turned to comparing effective tax rates (Immervoll, 2004:4-5).

The effective tax rate is expressed as a percentage of the defined gross income, thus in effect taking cognisance of the statutory or nominal tax rate, and of other aspects that influence tax liability. These other aspects refer, for instance, to allowable tax deductions and benefit payments received from the government (Immervoll, 2004:2; National Treasury, 2011a:204). Effective tax rates can be measured either by using a forward-looking or a backward-looking approach. A forward-looking approach is normally followed in hypothetical studies using simulations, whereas a backward-looking approach is followed when *real* data are observed in a study (Bellak *et al.*, 2005:10-11; Immervoll, 2004:6-7). The underlying purpose of the present study was to evaluate the tax burden as

perceived by individuals as taxpayers. Therefore a backward-looking approach to observe real data was considered the most appropriate basis for the conceptual framework developed in this study. The imposed tax burden, for the purposes of this study, is measured in terms of the effective tax rate, referred to in this study as the **imposed effective tax rate**.

### 5.5.3 Measurement of the fiscal illusion

The misperception of the imposed tax burden referred to as the fiscal illusion of taxpayers can only be accurately measured and evaluated by determining taxpayers' estimations of their effective tax rate, and then comparing this estimate to the imposed effective tax rate. This basis for evaluating the fiscal illusion of taxpayers is advocated by Fochman *et al.* (2010). It is also recommended by Tyran and Sausgruber (2000:4), who indicate that the only real way to evaluate whether there is a misperception of the tax burden is to compare the true tax burden (measured in terms of the **imposed effective tax rate**) to the perceived tax burden (measured in terms of the **estimated effective tax rate**).

### 5.5.4 Measurement of the fiscal perception

Kirchler (2007:74), citing a study by Schmolders (1960), claims that taxpayers' beliefs about unfair treatment relative to the treatment of other taxpayers or relative to the benefits that taxpayers receive tend to influence taxpayers' morale. Since Schmolders's seminal study, the concept of equity has been the subject of numerous studies, but there are a number of inconsistencies between the findings of these studies (Kirchler, 2007:74; Wenzel, 2002:41-42). To address these inconsistencies, Wenzel (2002) developed a conceptual framework based on three distinctions relating to justice recognised in the discipline of social psychological justice research. These three distinctions refer to distributive justice, procedural justice and retributive justice. **Distributive justice** is concerned with the **fairness** of resource allocation and distribution; **procedural justice** is concerned with the **processes** of resource allocation and distribution; and **retributive justice** is concerned with the **breaking of social rules** and the

fairness of reactions or sanctions to the breaking of these rules and norms (Kirchler, 2007:75-76; Wenzel, 2002:46-47).

The conceptual framework developed in this study is concerned primarily with measuring the distributive justice of the tax burden as perceived by individuals as taxpayers in South Africa. Distributive justice in social psychology refers to how people evaluate the fairness of the relative benefits they and others are entitled to receive in comparison to the contribution they make (Kinsey, Grasmick & Smith, 1991:845; Kirchler, 2007:75), in this case, their tax contribution. The construct of distributive justice is widely accepted – therefore this study adopted the concept of distributive justice as a basis for formulating methods to measure taxpayers' fiscal perceptions.

The measurement of taxpayers' fiscal perceptions can be divided into the measurement of taxpayers' perceptions regarding the **fairness of taxes**, the **complexity of taxes** and the **taxpayer-government exchange**.<sup>132</sup>

#### 5.5.4.1 *Measurement of the fairness of taxes*

It is assumed in the current study that taxpayers' perceptions of the distributive justice of their tax burden are influenced by some ideal or expected configuration of both the taxes paid and the benefits received in return. This assumption is based on the arguments of Kinsey *et al.* (1991:845), who cite Adams (1965), Crosby (1982), Homans (1974), as well as Walster, Walster and Bersheid (1978). According to these arguments, individuals form perceptions of distributive justice by comparing the outcomes of transactions with their expectations regarding the outcomes from these transactions. In the context of the present study, this must be interpreted as referring to the fact that individual taxpayers might place a value on the goods and services provided by government and conclude that the imposed effective tax rate is either excessive or too low.

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<sup>132</sup> See Section 4.2.2 for an explanation of these concepts.

To measure and evaluate the fairness of the tax burden as perceived by individuals as taxpayers, this study adopted the notion that taxpayers form a perception of distributive justice with reference to some expected or preferred effective tax rate. This **preferred effective tax rate** of the individual as taxpayer is compared to the **imposed effective tax rate** to assess the effect of fairness on how the individual as a taxpayer perceives his or her tax burden. This approach of comparing the preferred tax rate to the actual imposed effective tax rate as a basis for assessing fairness in taxes is not a new concept in the literature on taxation, as the approach was already used by Schmolders (1975) (cited in Kirchler, 2007:74), as well as by Roberts and Hite (1994), in studies on the fairness of taxes.

#### *5.5.4.2 Measurement of the complexity of taxes*

Chattopadhyay and Das-Gupta (2002:4) cite Sandford (1995) and Bardsley (1997) to support the argument that the growing complexity of tax systems has an adverse effect on tax administration, tax compliance and tax compliance cost. The current study is not concerned with tax administration and compliance elements, but focuses on the element of compliance cost from the point of view of the individual taxpayer, as a member of the household.

The **costs of compliance** have a distributive justice dimension, in that the cost of compliance may place a material monetary burden on the taxpayer (Dirkis & Bondfield, 2004:116; Wenzel, 2002:54). The complexity of tax systems is difficult to measure, as Chattopadhyay and Das-Gupta (2002:4, citing Pope, 1994, Mckee, 1992 and Klepper and Nagin, 1989), indicate, but using compliance cost is one way of measuring the complexity of taxes (Pope, 1993:70).

The cost of compliance is used by the present study as a tool to measure the effect of complex tax systems on the perceived tax burden of the individual as a taxpayer. The cost of compliance is classified and referred to as a **perceived tax** for the purposes of this study, because it effectively reduces the economic spending ability of taxpayers. Thus the cost of compliance may be deemed an

additional tax from the taxpayer's point of view. This interpretation of the cost of compliance as an additional tax effort is in line with findings by Blaufus *et al.* (2011:1).

#### 5.5.4.3 *Measurement of the taxpayer-government exchange*

Taxpayers may evaluate the fairness of their tax burden by referring, *inter alia*, to their satisfaction with government's (hopefully efficient) spending of taxpayers' tax contributions to government. It may be difficult for taxpayers to assess the exact value of the benefits they receive from government in exchange for paying taxes, but they may base their evaluation on the expected benefits (Kirchler, 2007:79-80; Wenzel, 2002:53). In respect of the concept of distributive justice, the effect of perceptions relating to the taxpayer-government exchange can be evaluated by referring to the expected benefits received in return for taxes paid.

Using the same argument from Wenzel as in Section 5.5.4.2, it is possible to argue that, similar to the effect of a complex tax system, ineffective or inadequate government services may also give rise to an additional monetary burden (tax) on taxpayers. This additional monetary burden relating to perceived ineffective or inadequate government services, for the purposes of this study, is classified as a **perceived tax**. The assumption underlying this choice is that this additional monetary burden placed indirectly on a taxpayer by government effectively reduces the economic spending ability of the taxpayer. Private expenses relating to these perceived ineffective and inadequate government services are used as a tool to measure the effect of the taxpayer-government exchange on the tax burden, as perceived by individuals as taxpayers in South Africa.

#### **5.5.5 Measuring the tax burden of individuals as taxpayers in South Africa**

The methods of measurement relating to the supporting essential elements of gross household income, imposed taxes, the fiscal illusion, the fairness of taxes, the cost of compliance, and the taxpayer-government exchange were used in this study to establish a measurement framework. This measurement framework

forms the foundation for the conceptual framework developed in this study, from which the tax burden of individual taxpayers (as perceived by the individual taxpayers) in South Africa, can be evaluated. This measurement framework is presented in Table 70, below, as the framework for measuring the tax burden of individual taxpayers in South Africa.

**Table 70: Framework of measuring the tax burden of individual taxpayers in South Africa**

Description	Rand
<b>Gross household income</b>	<b>XXX</b>
Gross original income	XX
Gross cash benefits	XX
<b>Less: Imposed taxes</b>	<b>XXX</b>
Direct recurrent <sup>133</sup> taxes	XX
Indirect recurrent taxes	XX
<b>Economic spending ability</b>	<b>XXX</b>
<b>Less: Perceived taxes</b>	<b>XXX</b>
Complexity of taxes <sup>134</sup>	XX
Taxpayer-government exchange <sup>135</sup>	XX
<b>Perceived economic spending ability</b>	<b>XXX</b>

  

Effective tax rates	Calculation
Imposed effective tax rate (Imposed tax burden)	Imposed taxes as a percentage of the gross household income.
Perceived effective tax rate (Perceived tax burden)	Imposed taxes and perceived taxes combined as a percentage of the gross household income
Estimated effective tax rate (Fiscal illusion)	Estimated rate by taxpayer
Preferred effective tax rate (Fairness of taxes)	Preferred rate by taxpayer

<sup>133</sup> The framework in Table 70 can be used as basis for measuring the random tax burden of individual taxpayers, but this study focuses on the recurrent tax burden (see Section 5.6.2).

<sup>134</sup> Complexity of taxes is measured in terms of the cost of compliance – see Section 5.5.4.2.

<sup>135</sup> The taxpayer-government exchange is measured in terms of the private expenditure (perceived by taxpayers to be additional taxes) that originate from the perceived ineffective services of government – see Section 5.5.4.3.

The methods used to measure the essential elements provide an important foundation from which the tax burden of individual taxpayers in South Africa can be evaluated, but it is just as important to clarify the coverage of these essential elements in order to enhance understanding of the conceptual framework developed in this study.

## **5.6 COVERAGE**

It is important to explain the coverage of the essential elements underpinning the evaluation of the tax burden of individual taxpayers in the conceptual framework developed in this study. The focus of the current study is on individual taxpayers in South Africa, and therefore it is necessary to define the coverage of the gross household income, the imposed taxes, and the perceived taxes,<sup>136</sup> as they all relate to the households of individual taxpayers in South Africa.

### **5.6.1 Coverage of gross household income**

To clarify the coverage of the gross household income and to ensure consistency, an underlying structure of gross household income in South Africa was formulated to underpin the conceptual framework developed in the current study. Clarity on the extent to which gross household income is covered in the conceptual framework is important, because it forms the platform for the conceptual framework used to evaluate the tax burden of individual taxpayers in South Africa.

Gross household income in South Africa consists of revenue from different sources. The main sources of household revenue in South Africa are income from work (74.3%), income from capital (1.2%), private pensions and annuities (2.6%), social insurance and grants (6.1%), other income (6.3%) and imputed rent (9.5%) (Statistics South Africa 2008:9). The main sources of gross household income in South Africa were used together with the definitions of

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<sup>136</sup> The perceived taxes consist of the cost of compliance and the taxpayer-government exchange – see Section 5.5.4.2 and Section 5.5.4.3.



gross income in Section 5.5.1 to formulate a theoretical structure of gross household income for the conceptual framework developed in this study. These main sources of gross household income are based on structures applied in previous studies in South Africa to household income and expenditure (Masemola & Van Wyk, 2009:98-99; Statistics South Africa, 2008, 2011:137).

Household income from work consists of salaries and wages, and self-employed income and business income. Income from capital refers to interest, dividends, rent and royalties. Private pensions and annuities refer to pensions from previous employment and annuities from own investments. Social insurance consists of government social support in the form of State old-age grants, war veterans' grants, disability grants, foster care grants, care dependency grants, child support grants, as well as income from the Unemployment Insurance Fund and compensation funds. The category of 'other income' consists of alimony, transfers between individuals, donations, tax refunds and various other types of income. Imputed rent refers to an estimate of the value from using owner-occupied housing (National Treasury, 2011a:101; Statistics South Africa 2008:9).

Household revenue from transfers between individuals, donations and tax refunds was excluded from household gross income for the purposes of this study. The reason for this exclusion is that these types of income are random in nature and therefore fall outside the definition of the gross household income in Section 5.5.1. Imputed rent was also excluded from gross income for the purposes of this study, because this is not real income and thus does not comply with the definition of gross income.

The extent of coverage of gross household income in South Africa for the purposes of the conceptual framework developed from the current study is summarised in Table 71, referred to as the framework of gross household income. The framework in Table 71 must be read in conjunction with the method of measuring the gross household income in Section 5.5.1.

**Table 71: Framework of gross household income**

	<b>Rand</b>
<b>Income from work</b>	
• Salaries, wages and remuneration	
• Self-employed and business income	
<b>Income from capital</b>	
• Interest	
• Dividends	
• Rent	
• Royalties	
<b>Private pensions and annuities</b>	
• Pensions	
• Annuities	
<b>Social insurance and grants</b>	
• Old-age and war pensions	
• Disability grants	
• Family and other allowances	
• UIF and workmen's compensation	
<b>Other income</b>	
• Other income (any income that complies with the definition)	
<b>Gross household income</b>	

Source: Adapted from Statistics South Africa (2008:12)

### 5.6.2 Coverage of imposed taxes

The conceptual framework developed in this study focuses on the **recurrent** tax burden of individual taxpayers in South Africa. The coverage of imposed taxes in the conceptual framework was identified from the analysis of government imposts summarised in Table 69. These imposed taxes are divided into those that directly affect the recurrent tax burden and ones that indirectly affect the recurrent tax burden. The direct and indirect recurrent taxes imposed on the households of individual taxpayers in South Africa are summarised in Table 72, which is referred to as the framework of the imposed recurrent tax burden in South Africa.

**Table 72: Framework of the imposed recurrent tax burden in South Africa**

Government impost	Tax	Direct recurrent tax burden	Indirect recurrent tax burden
<b>Revenue from imposts on income:</b>			
<i>Imposts on income and profits:</i>			
• Income tax	✓	✓	
<i>Imposts on payroll and workforce:</i>			
• Skills development levy	✓		✓
<b>Revenue from imposts on wealth:</b>			
<i>Recurrent imposts on immovable property:</i>			
• Property rates	✓	✓	
<b>Revenue from imposts on consumption:</b>			
<i>Imposts on value-added transactions:</i>			
• Value-added tax (Consumer goods)	✓		✓
<i>Imposts on turnover:</i>			
• Turnover tax payable by micro businesses	✓	✓	
<i>Excises:</i>			
• Specific excise duties	✓		✓
<i>Imposts on the use of motor vehicles:</i>			
• Imposts on motor vehicles:			
○ Motor vehicle licences – renewal	✓	✓	
• Imposts on fuel:			
○ General fuel levy	✓		✓
○ Road accident fund levy	✓		✓
○ Specific excise duties on fuel	✓		✓
○ Demand side management levy	✓		✓
○ Illuminating paraffin dye levy	✓		✓
<i>Imposts on the drivers of motor vehicles:</i>			
• Drivers licence – renewal	✓		✓
<i>Imposts on the use of goods and on the permission to use goods, or on the permission to perform services:</i>			
• Firearms licences – renewal	✓	✓	
• Liquor licences renewal	✓	✓	
• Business licences – renewal	✓	✓	✓
• Television licences – renewal	✓	✓	
<i>Other imposts on the use of goods and services:</i>			
• Electricity environmental levy	✓		✓



<b>Government impost</b>	<b>Tax</b>	<b>Direct recurrent tax burden</b>	<b>Indirect recurrent tax burden</b>
• Plastic bags levy	✓		✓
• Incandescent light bulb levy	✓		✓
• Mineral and petroleum royalties, prospecting fees and surface rentals	✓	✓	
• Levy on educators	✓	✓	
• Levy on suppliers of private security services	✓	✓	
• Aircraft passenger safety charge	✓		✓
• Aviation fuel levy	✓		✓
• Maritime safety levy	✓		✓
• Water research levy	✓		✓
<i>Customs and import duties:</i>			
• Customs duties – specific excises	✓		✓
• Diamond export levy	✓	✓	
<i>Other imposts on international trade and transactions:</i>			
• Air passenger tax	✓		✓
<b>Revenue from social contributions:</b>			
<i>Social security contributions:</i>			
• Contributions to the Unemployment Insurance Fund – employee	✓	✓	
• Contributions to the Unemployment Insurance Fund – employer	✓		✓
• Contributions to Compensation Fund.	✓		✓
<b>Revenue from the sale of goods and services:</b>			
<i>Sales by market establishments:</i>			
• Municipal services:			
○ Surcharge on electricity supply services	✓		✓
○ Free basic electricity	✓		✓
○ Inclining block tariffs on electricity consumption	✓		✓
○ Surcharge on water supply services	✓		✓
○ Free basic water	✓		✓
○ Inclining block tariffs on water consumption	✓		✓
○ Sanitation service fees	✓		✓
○ Refuse service fees	✓		✓
• Energy supply services:			
○ Distribution network demand charge	✓		✓
○ Distribution network access charge	✓		✓

Government impost	Tax	Direct recurrent tax burden	Indirect recurrent tax burden
○ Network access charge	✓		✓
○ Transmission network charge	✓		✓
○ Electrification and rural subsidy (ERS)	✓		✓
○ Inclining block tariffs on electricity	✓		✓
• Human settlement services:			
○ Levies on home builders	✓	✓	
• Air travel services:			
○ Airport service fee on air passengers	✓		✓
• Bulk water supply services:			
○ Water Boards surcharge	✓		✓
<i>Incidental sales by non-market establishments:</i>			
• Public school fees	✓		✓

Source: Table 69 of the current study

### 5.6.3 Coverage of the perceived taxes

The perceived taxes, as explained in Section 5.5.4.2 and Section 5.5.4.3, consist of the concepts of the complexity of taxes and the taxpayer-government exchange. Hence, the extent to which these two elements are covered in the conceptual framework developed in this study needs to be clarified

#### 5.6.3.1 Complexity of taxes

The cost of tax compliance is a popular topic for research, as found in the literature (Chattopadhyay & Das-Gupta, 2002; Slemrod & Sorum, 1984; Smulders, 2006). The total cost of compliance may consist of different elements, for instance, the time spent by the taxpayers, bribes paid, psychological cost and the direct monetary costs incurred to comply with the tax laws (Chattopadhyay & Das-Gupta, 2002:4; Sandford, 2000:126; Slemrod & Sorum, 1984:2).

What precisely comprises the cost of compliance for a taxpayer is a much-debated topic which is open to interpretation (Tran-Nam *et al.*, 2000:232;

Smulders & Stiglingh, 2008:355). However, Evans (2008:451) states that it is possible to identify 'hardcore' cost elements that indisputably contribute to the cost of compliance, of which the following are typical:

- the time taken in compiling receipts and recording data in order to be able to complete a tax return;
- the costs of labour/time consumed in completion of tax activities, for example, the time taken by a business person to make the necessary calculations, fill in the tax returns, acquire appropriate knowledge to deal with tax obligations such as Pay As You Earn ("PAYE") or VAT; or
- the cost of expertise purchased to assist with the completion of tax activities (typically, the fees paid to professional tax advisers); and
- incidental expenses incurred in the completion of tax activities, including the purchase of computer software, postage, travel etc.

These cost elements are summarised by Turner, Smith and Gurd (1998:96) into the categories of

- a taxpayer's and unpaid helper's time;
- tax agent fees; and
- incidental expenses.

In addition to these 'hardcore' elements, Evans (2008:451) also lists psychological costs, social costs, computational and tax planning costs, and accounting costs.

As already indicated, it falls beyond the scope of the current study to pursue a detailed analysis of the phenomenon of the cost of compliance. Hence, the discussion on the cost of compliance for the purposes of this study was limited to the brief comments above, which were included merely to illustrate the complexity of defining the cost of compliance.

### 5.6.3.2 *The taxpayer-government exchange*

The South African government's responsibility towards its citizens is set out in the Constitution of the Republic of South Africa (108 of 1996). In terms of section 7(2) of the Constitution, it is the government's responsibility to respect, protect, promote and fulfil the rights of its citizens, which includes the right to safety and security, education, health, and social security.

To enable the South African government to fulfil its responsibilities, as specified in the Constitution, an annual budget is drafted by the Minister of Finance, who allocates amounts, earmarking them for functional areas of government. The allocation in the 2011/2012 annual national budget of South Africa (National Treasury, 2011a:164), used in conjunction with the provincial budget allocations (National Treasury, 2011c), is summarised in Table 73, overleaf.



**Table 73: Key functional areas of the South African government**

Functional area	% allocated funds
<b>Administrative and financial functions</b>	<b>22%</b>
<ul style="list-style-type: none"> <li>• Central administration and salaries</li> <li>• Financial and other administration</li> <li>• State debt cost</li> </ul>	<p>10%</p> <p>3%</p> <p>9%</p>
<b>Key functional areas</b>	<b>70%</b>
<ul style="list-style-type: none"> <li>• Communication services</li> <li>• Education services</li> <li>• Energy services</li> <li>• Healthcare services</li> <li>• Human settlement services</li> <li>• Social security services</li> <li>• Transport services</li> <li>• Public order and security services</li> <li>• Water affairs</li> </ul>	<p>1%</p> <p>19%</p> <p>1%</p> <p>13%</p> <p>4%</p> <p>13%</p> <p>4%</p> <p>14%</p> <p>1%</p>
<b>Other functional areas</b>	<b>8%</b>
<ul style="list-style-type: none"> <li>• Miscellaneous social services</li> <li>• Miscellaneous economic services</li> </ul>	<p>1%</p> <p>7%</p>
<b>Total</b>	<b>100%</b>

Source: National Treasury (2011a:164; 2011c)

The key functional areas in Table 73 are the ones that attract most of the funding originating from taxes. They were used as a point of reference to clarify the government services covered in the taxpayer-government exchange element of the conceptual framework developed in this study. The main public services rendered by government in respect of each of these key functional areas from the budget can be used as point of reference to identify the key functional areas covered under the taxpayer-government exchange element in this study.

Having clarified the unit of analysis, the methods of measurement, and the coverage of the essential elements in the conceptual framework developed in this study, it is also important to clarify the basis on which the value of each of these elements can be determined.

## 5.7 VALUATION

Valuation is concerned with attributing a monetary value to the concepts essential to evaluating the tax burden. The purpose of this section is to provide clarity on the basis on which the value for each of the essential concepts can be determined. The concepts that need to be valued and which are essential for the purposes of evaluating the tax burden are gross household income,<sup>137</sup> recurrent imposed taxes,<sup>138</sup> and perceived taxes.<sup>139</sup>

### 5.7.1 Valuation of gross household income

Combined with the coverage of gross household income from Section 5.6.1, the definition of gross income from section 1 of the South African Income Tax Act (58 of 1962) is used as the basis for the valuation of the gross household income in the conceptual framework developed in this study.

### 5.7.2 Valuation of recurrent taxes imposed on households

Recurrent taxes consist of direct taxes imposed on the income and wealth of a household and the indirect taxes imposed on the consumption of a household. These taxes are set out in Table 72.<sup>140</sup> The general basis on which these imposed taxes are valued for the purposes of this study is the applicable legislation<sup>141</sup> in terms of which the tax is imposed. Although legislation underpins the valuation of the imposed taxes, it is necessary to clarify specific concepts that may affect the valuation of the direct and indirect taxes imposed on a household, and which are important to consider in the conceptual framework developed in this study.

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<sup>137</sup> See Table 71 in Section 5.6.1.

<sup>138</sup> See Table 72 in Section 5.6.2.

<sup>139</sup> See Section 5.6.3.

<sup>140</sup> See Section 5.6.2.

<sup>141</sup> For the applicable legislation, see Chapter 3 of the current study.

#### 5.7.2.1 *Valuation of direct recurrent taxes imposed on households*

The direct recurrent taxes imposed on a household may consist of taxes imposed on income and of taxes imposed on wealth (see Table 72).

Direct recurrent taxes on the income or the wealth of a household may be imposed on more than one person in the household, because a household may receive income or wealth from more than one person, each one individually liable for paying tax on his or her income in terms of the applicable legislation. The basis on which these indirect taxes are valued for the purposes of this study is the applicable legislation.<sup>142</sup> This study uses the household as a unit of analysis. Therefore, the total amount of direct taxes imposed in terms of legislation on the income or wealth of individual persons in the household must be included when evaluating the tax burden.

Property rates are levied as a percentage of the tax assessed value, which consists of the market value of the property as defined in section 46 of the Local Government: Municipal Property Rates Act (6 of 2004) (Franzsen, 2005:181-183). This percentage differs from jurisdiction to jurisdiction (Franzsen, 2005:183). Hence, for the purposes of this study, the actual amount levied on the property of the taxpayer by the relevant local authority is used in the conceptual framework as the basis for the valuation of property tax.

#### 5.7.2.2 *Valuation of indirect recurrent taxes imposed on households*

Indirect taxes, also called consumption taxes, are imposts on the consumption of goods and services in a household. The recurrent indirect taxes that may be imposed on the consumption of a household are set out in Table 72. The basis on which these indirect taxes are valued for the purposes of this study is the applicable legislation<sup>143</sup> in terms of which the tax is imposed, and also approved tariffs in terms of regulations published in official government or public entity

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<sup>142</sup> For the applicable legislation, see Chapter 3 of the current study.

<sup>143</sup> For applicable legislation see Chapter 3 of the current study.

documentation, such as the *Government Gazette*, the *Budget Review*, customs and excise tariffs,<sup>144</sup> and other tariffs such as Eskom's tariffs and charges booklet (Eskom, 2011a).

It is important to bear in mind that more than one type of indirect tax may be imposed on the same consumer goods. Value-added tax in South Africa generally applies to all consumer goods, with a few exceptions. This effectively means that VAT may be levied on consumer goods on which other indirect taxes have already been imposed that then form part of the prices of these goods and services. For instance, tobacco products are subject to specific excise duties, but also attract VAT, calculated on the value of the tobacco product and the excise duty applicable to the product collectively.

The indirect recurrent tax burden imposed on a household depends on the consumption of goods and services in a household, so it is necessary to clarify the household expenditure underpinning the valuation. To ensure consistency, a particular household expenditure structure in South Africa was adopted to serve as a basis for the conceptual framework developed in this study.

The household expenditure structure was created by adopting a structure frequently used in government and other similar studies relating to the income and expenditure of South African households (Masemola & Van Wyk, 2009; Statistics South Africa, 2008, 2011a). This structure was adapted in this study to make provision for the specific expenses that have to be included to determine the monetary value of some of the indirect taxes, referring to Table 72. The household expenditure structure underpinning the valuation of the indirect imposed taxes is summarised in Table 74 and is referred to as the household expenditure framework.

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<sup>144</sup> Also referred to as the Harmonised Nomenclature System (SARS, 2009:6).

**Table 74: Household expenditure framework**

Household expense	Rand
<b>Food and non-alcoholic beverages</b>	
Basic food (maize, fruit, vegetables, milk, etc.)	
Other food and non-alcoholic beverages	
Plastic shopping bags	
<b>Alcoholic beverages and tobacco</b>	
Beer	
Wine	
Spirits	
Tobacco products	
<b>Housing, water, electricity, gas and other fuels</b>	
Rentals for housing	
Water (Kilolitres):	KL
Refuse services	
Sewerage collection	
Municipal property rates	
Electricity (Kilowatt):	KW
Gas	
Paraffin	
Incandescent light bulbs	
<b>Health</b>	
State healthcare	
Private healthcare	
<b>Transport</b>	
Fuel	
Toll fees	
Road transport (bus or taxi)	
Rail transport	
<b>Communication</b>	
Telephone services – Telkom	
Telephone services – Other	
<b>Recreation and cultural</b>	
National lottery	
<b>Education</b>	
State schools and tertiary institutions	
Private schools and institutions	
<b>Miscellaneous</b>	
Contributions to private retirement funds	
Short-term insurance	
Financial services – life insurance and non-fee based services	
Financial services – bank fees and other fee based services	

Household expense	Rand
Private security expenses	
Tax practitioners – compliance assistance	
Other (Specify)	
<b>Total household expenses</b>	

Source: Adapted from Statistics South Africa (2008:45).

This study adopted the principles of the consumption approach to value household expenditure (Statistics South Africa, 2008:38), according to which the total value of goods and services consumed or used during the period under review must be used as a valuation basis. Therefore the current study uses this principle of consumption (and not accrual of expenditure) as the basis for valuation. The value of the expenses refers to the gross cash amount or cash equivalent of the expenses.

### 5.7.3 Valuation of the perceived taxes

Perceived taxes in this study refer to the concepts of the complexity of taxes and the taxpayer-government exchange, measured in the form of the private expenditure incurred by taxpayers.<sup>145</sup>

The complexity of taxes can be measured in terms of the cost of compliance for the taxpayer.<sup>146</sup> However, attempting to place a monetary value on the elements that underpin tax compliance costs raises a number of questions relating to the availability and reliability of the data used to determine such values (Sandford, 2000:126). Hence, although the current study acknowledges that the cost of compliance may consist of various elements,<sup>147</sup> the debate around the methods for valuing each of these elements falls beyond the scope of the current study. Therefore, the valuation of the complexity of taxes, for the purposes of this study, was limited to the actual costs borne directly by the taxpayers, focusing on the private expenditure incurred by a household towards the services of tax practitioners.

<sup>145</sup> See Section 5.5.4.2 and Section 5.5.4.3.

<sup>146</sup> See Section 5.5.4.2.

<sup>147</sup> See Section 5.6.3.1.

The concept of the taxpayer-government government exchange is valued in terms of the actual private expenditure incurred by taxpayers in response to perceived ineffective service delivery from government. These services from government refer to the key functional areas which are covered in Table 73.<sup>148</sup>

The actual private expenditure perceived as taxes is inherently part of the household expenditure covered in Table 74, and therefore these expenses are valued, for the purposes of the conceptual framework developed in this study, on the same basis as that on which household expenditure is valued.

## 5.8 INTER-UNIT COMPARISON

Inter-unit comparison is concerned with comparing household units of different sizes and compositions with one another on an equal basis. Traditionally, studies used the cash income adjusted in many ways to measure and compare economic well-being between units, but the modern trend is to focus on *equivalent disposable income* (Harding *et al.*, 2006:1). Equivalent disposable income is thus widely used in studies measuring and comparing the distribution of economic well-being (Atkinson, 1997:302; Harding *et al.*, 2006:1; Saunders, 2003:5). The principles of equivalent disposable income were adopted as a unit of comparison for the conceptual framework developed in the current study. The equivalent disposable income methodology requires the use of *equivalence scales*, which is a tool that allows for comparisons between households of different sizes and compositions (OECD, n.d.; Saunders, 2003:5).

Equivalence scales are frequently used in poverty studies. There are different scales, each serving a unique purpose. The aim of the current study is not to debate the merits of the various scales available in the literature, but to adopt a tool that will provide consistent results that can be compared on an equal basis over a given period. The OECD's (n.d.:1-2) scale of equivalence (referred to hereafter as the modified scale of equivalence) was adopted for the purposes of

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<sup>148</sup> See Section 5.6.3.2.



the present study, because it is such a scale and is widely used by OECD member countries for the purposes of equal comparisons. The modified scale of equivalence refers to the size of the household, and the number of adults and children in the household, two factors commonly found in this kind of tool (OECD, n.d.:1). This scale assigns a value of 1 to the household head, 0.5 to each additional adult member and 0.3 to each child. For the purposes of this study, an adult is regarded as a person who is 18 years and older, and a child is someone under the age of 18 years, in line with the Children’s Act (38 of 2005). The table below provides an example of the structure of equivalence scales for the conceptual framework developed in this study:

**Table 75: Equivalence scales**

Household size	Value	Equivalence scale
Household head	1	1
Additional adult	0.5	1.5
Child	0.3	1.8
Additional child	0.3	2.1

The equivalence scale is applied as a factor to divide the disposable income of a household to determine the equal disposable income of the household. The disposable income, for the purposes of this study, refers to the **economic spending ability** and the **perceived economic spending ability** of a household as determined in terms of Table 70.

## 5.9 CONCLUSION

The purpose of this chapter was to formulate a comprehensive conceptual framework from theoretical constructs that can be used to evaluate the tax burden of individual taxpayers in South Africa. The conceptual framework formulated in this chapter theoretically provides a foundation for a consistent measurement and comparison of the tax burden, not only objectively (in terms of the imposed tax burden), but also subjectively (as the tax burden is perceived by individuals as taxpayers in South Africa).

The theoretical framework in this chapter is by no means considered a final version of the conceptual framework to evaluate the tax burden as perceived by individuals in South Africa. It should rather be regarded as a platform from which further research can be done to contribute to the development of a generally accepted conceptual framework for evaluating the tax burden as perceived by individuals as taxpayers.

The current study includes the validation of the theoretical constructs in the conceptual framework from Chapter 5 in a real-life context. The strategy followed in the present study to achieve this objective is explained in Chapter 6.