RETHINKING THE EROSIONAL EFFECT OF INDIRECT TAXES ON INDIVIDUAL INCOME

Fulu G. Netswera*, Collins C. Ngwakwe**

Abstract

This paper examines the erosional effect of indirect taxes on individual incomes of South African citizens. A focus on taxation and the pervasion of indirect taxation in particular has become important given growing income inequality, unemployment and poverty amongst South Africans. The methodological approach utilised in this paper is rooted in reviews and use of hypothetical salaries to assess the erosional effect of indirect taxation on such salaries. The paper finds that although richer individuals may pay greater indirect taxes than poorer individuals; as a proportion of income however, poorer individuals spend higher proportion of their income on indirect taxes than richer individuals. This connotes therefore the lack of desired progressivity that should be implicit in South African indirect tax system. South Africa is among countries with the highest income inequality in the world. The implication of this research finding is that indirect taxes may exacerbate income inequality and work against the government vision of "better life for all" and in particular worsen the state of the poor class. The paper concludes that achieving effective reduction of income inequality and economic transformation in South Africa would require exempting individuals below certain threshold of income from paying some indirect taxes.

Keywords: Indirect Taxation; Poverty Alleviation; Economic Transformation; Income Inequality; South Africa

**University of Limpopo, PO Box 756 Fauna Park 0787*
Tel: 015 290 2830
Email: fulufhelo.netswera@ul.ac.za
***Faculty of Management and Law, University of Limpopo*
Tel: 015 290 2835
Email: collins.ngwakwe@ul.ac.za

1 Introduction

Julian May provides a laconic analysis of poverty and inequality trends in South Africa emerging mainly from the Carnegie inquiries. The first of such inquiries was in 1922 with a focus on the state of poor whites. After 1994 both Carnegie and the Labour and Development Research Unit (SALDRU) poverty reports on South African have an interest on poverty manifestations and impact on all races (May 1998). While May (1998) and Hoogeveen and Özler 2005) reports presents contradicting poverty calculations, they all however agree that poverty has always been skewed against black South Africans. In the mid1990s (1994-1995) majority of South Africans (58 to 61%) who were poor were blacks (55% to 68%) followed by Coloureds (38%), Indians (5%) and Whites (1%). Although more than 70% of the world's population are presumed to live in poverty (Anderson et al, 1991; Mashigo, 2006), the Gini coefficient which has risen from 0.55 to 0.62 between 1993 and 2008 pitching South Africa among the poorest in the world (Coetzer, 2013).

Both poverty-extreme poverty and inequality escalated after 1994, between 1995 to 2000 due to the recession, and thereafter due to stagnant economic growth and poor investment, among other factors. The overall inequality rose sharply fuelled by rising inequality among blacks with an overall Gini coefficient for expenditure rising to 0.62 and thereby turning South African one of the most unequal societies in the world (Hoogeveen and Özler 2005). Unemployment too has risen steadily after 1994, though highest levels are in the rural areas, levels of between 30-41% were recorded between 1998 and 2005 on the basis of the broad definition (Gandhi-Kingdon & Knight 2001; Klasen & Woolard, 2008). These unemployment rates catapults South Africa to be at high-end among developing countries, among the highest in the world and the highest measured open unemployment in Sub-Sahara Africa (Klasen & Woolard, 2008).

The social contract which legitimises state authority posits that society cedes legal rights like guardianship for attainment of social justice, a working economy, security, adequate health, among others, for preservation by the state (Lubchenco,

1998). To legitimise and guarantee this obligatory role the state creates enabling policies and raises resources through a taxation system (John, 2006;). While many scholars give a cursory review to the effect of taxation systems, especially the indirect taxation on poverty and inequality, a few provide an intense critique of its effect on the "true value" of incomes and effect on individual savings (Koch, et al 2005; Aron & Muellbauer, 2000). Favourable taxation systems, equitable and progressive tax though every state's choice, it is never the less difficult to implement and attain. Where pressing challenges like unemployment, inequality and hyperinflation persists many states gravitate towards, among others, welfare state trajectory to provide a safety net, introduce regressive tax measures and potential for high indirect tax incidents (Caragata, 1998).

The question that underpins this paper therefore is: how do indirect taxes affect the disposable income of low income earners? Consequently the aim of this paper is to use a hypothetical illustration to buttress literature on the effect of indirect taxes on low income earners.

The paper is organised as follows: the next section after the introduction presents an overview of indirect taxation; section three presents a review of literature on the regressive and erosional effect of indirect taxes on income. Section four presents the methodology and a hypothetical illustration whilst section five draws conclusion.

2 Overview of the Objectives of Indirect Taxation

Governments all over the world are inundated with many national obligations and functions that require financial capacity. These functions include *inter alia* national defence, maintenance of law enforcement personnel, healthcare, roads, education and poverty alleviation. These obligations are financed by different forms of taxation including indirect taxation, which are those levied at rates regardless of taxpayers' characteristics (Conklin, 1991)**.** Experts acquiesce that the core objectives of indirect taxation comprise fiscal revenue generation, equity, and efficiency (Atkinson and Stiglitz, 1972; Bovenberg, 1987; Burgess & Stern, 1993)**.** Indirect taxes are one of the important avenues for raising short-term revenue by governments (Bovenberg, 1987). According to PriceWaterHouseCoopers (2007) indirect taxes constitute a major source of government revenue globally, and the seeming reliance on indirect taxation for raising revenue is growing as many nations give preference to a more-consumption oriented tax policies (see also, Creedy and McDonald' 1992; Ken Yan et.al, 2010). For instance in South Africa, indirect tax revenue constitutes a significant portion of total tax revenue and value added tax (VAT) in particular is acclaimed by the National Treasury as a stable source of revenue PriceWaterHouseCoopers (2007). Regarding the equity objective; it is argued that since equity principle of taxation considers people's ability to pay, indirect taxation is therefore considered as satisfying the objective of equity. This is because the taxpayer pays indirect tax according to his/her consumption ability which thus has an element of equity. More governments have continued to move toward indirect taxation; for instance in 2009, the Jamaican Government adopted indirect taxation and the Caribean Policy and Research Institute (CaPRI) lauded this indirect tax move as equitable (The Gleaner, 2009). Furthermore indirect taxes seem to satisfy the equity objective given that luxury goods and services are taxed higher to such extent that only the rich pays such higher indirect taxes as they consume related goods and services, whereas the convenient goods and services may have lower rates that the low income class can afford to pay. However there are growing arguments that indirect taxation may be flawed in terms of equity objective; this argument touches on the crux of this article and shall be considered in the later part of this article. On the other hand, indirect taxation is said to address the efficiency objective more than direct taxation (Conklin, 1991). This is because whilst indirect taxation assists in raising sufficient government revenue, it does not create adverse distortions such as reduction in individual work incentives. Hence a tax expert – Ernst & Young (2012, p.1) comment that "the economic efficiency of indirect taxes, is encouraging many countries to increasingly rely on consumption taxes, both by raising headline rates and by expanding their tax bases".

Nonetheless it is important to balance the need for increased fiscal revenue and the other objectives – equity and efficiency (Bovenberg, 1987; Burgess & Stern, 1993). An overt implication of neglecting this balance may be that if increased revenue objective is made to dominate the other objectives, these (other objectives) may be suffocated to the detriment of the common citizens –the very low income group whom the tax system is supposed to carter for. Thus the impact of indirect taxation on the standard of living has received growing attention by scholars (Aasness et al., 2002). Hence scholars have presented argument against indirect taxation in developing countries if desired growth must be realised (Bird, 1987, 2010) and these poverty and growth implications of indirect tax arguments have relevance for Africa –particularly South Africa that is in dire need for pro-poor economic policies toward economic transformation and poverty alleviation. Thus the erosional and poverty implication of indirect taxation constitutes the core aim of this article and shall be discussed in the later part of this article.

3 Regressive & Erosional Effect of Indirect Taxation on Income

Although a much acclaimed objective of indirect taxation is to enhance progressivity in taxation (Deaton, 1977; Boadway & Pestieau, 2003); but extant literature does suggest it is fraught with regressivity and hence erosional. The regressive nature of indirect taxation may be dysfunctional and disadvantageous in societies battling with income inequality. In their study on regressive nature of indirect taxation in five European countries, Decoster, et al., (2010) conclude that indirect taxes are regressive especially with respect to disposable income (see also, UK office of National Statistics, 2011), Matsaganis & Leventi (2011). A cause for concern is the erosional implication of the regressive nature of indirect tax on disposal income, with emphasis on the burden on low income group of society (Tait, 1991; Parliament of Australia, 1999). If the low income earners' disposable income is eroded due to indirect taxation, there is the tendency that this erosion might trigger higher level of poverty in the families of low income earners as these might not be able to meet the basic needs of immediate and extended families. Given that the rich and poor pay the same rate on some commodities, this has the implication of stretching the income disparity between the rich and poor. In their conclusion on whether indirect taxes are regressive, Figari and Paulus (2012, p.28) state:

Looking at the redistributive role of indirect taxes, expressed by the increase in inequality indices when indirect taxes are subtracted from disposable income, we can conclude that indirect taxes are a regressive form of taxation with respect to income.

They further point out that poorer workers spend a larger percentage of their disposal income on indirect taxes when compared to rich workers (Figari and Paulus, 2012). Even where certain goods are VAT exempt, notwithstanding, Figari and Paulus (2012) argue that exemption of certain goods from VAT is not an effective redistribution means as such exemptions are not only meant for the benefit of poorer citizens. Thus Crawford et al. (2010) maintain that a uniform VAT rate is regressive. Albeit the distributional claims Cremer, et al (2001) of indirect taxation, Kakwani (1977) provides strong evidence that when the distributional effect is completely broken down, all commodity tax becomes regressive. This therefore may mean that the much rhetorical claims of progressivity in indirect taxation and distributional implication on the poor may be somewhat weak and thus may be failing to protect the poor from the erosional impact of indirect taxation. The implication therefore is that indirect taxation may disadvantage the poor (Fourie and Owen, 1993). They stress vehemently that indirect tax such as value added tax is regressive and laments its implications on economic justice and poverty as the poor carries greater burden of indirect taxation (see e.g. Fourie and Owen, 1993, p. 308; Deloitte & Touche, 2012).

The chief disadvantage of indirect taxes on low income earners is the erosion of disposable income of such workers; low income workers become poorer more than middle or higher class after paying indirect taxes, consequently such plummeted condition of disposable income of poor workers limits their ability to meet the economic needs of immediate families. Furthermore, the poor workers are accordingly deprived of present and/or future capacity to save and invest. Therefore indirect taxes can be said to be furthering income inequality and poverty. A recent research by the UK national office of Statistics as reported in The Telegraph (2013) lament that the poor bear greater grunt of indirect taxes such as VAT, with high erosion of disposable income amongst the poor workers, and thus makes the poor poorer. The erosional effect of indirect taxes requires important attention and rethinking in South Africa given extensive income inequality and poverty in the Republic. The next section presents a hypothetical illustration of erosional effect of indirect taxes on disposable income of low and medium and high income earners.

4 Methodology

The methodological choices for this study are a hypothetical illustration that shows the erosional effect of indirect taxation on disposable income of workers. The authors borrowed percentage of tax paid on indirect taxes from the country study of Casale (2009). In the country study of indirect taxation in South Africa, Casale (2009) limited indirect taxation to VAT, excise duties, and fuel levy; similarly in our attempt to present a lucid illustration, we also limit our example to the three indirect taxes as used by Casale (2009) which are VAT, excise duties, and fuel. Whilst Casale (2009) explored the impact of indirect taxation on gender equity; we are interested on the erosional effect of indirect taxation on disposable income of workers –particularly on the low income workers. Except for the percentage of indirect tax borrowed from Casale (2009), all other figures in Rand are hypothetical. Hypothetical illustrations has been widely used in research to offer insights to new knowledge and to galvanise research inquisition toward applying the illustration to real data research or to real world application, (example is the use of illustration to suggest a new environmental budgeting method) by Burritt and Schaltegger (2001), which is popular today in environmental budgeting.

In consonant with popular views, Write (1979; Slocum and Mathews, 1970) identify three main groups of social class – lower class, middle class and upper class. We therefore concur with the three levels of social class theories, and proceed below to assign hypothetical salaries and pay as you earn taxation. The balance, being the disposable income is further

subjected to indirect taxation deductions, and as said earlier above, we try to keep the illustration succinct by adopting Casale (2009) three types of indirect taxation – VAT, excise tax, and fuel tax. Table below shows the illustration:

Table 1. Erosional Effect of Indirect Taxation on Disposable Income

Income Categories	*Lower class income group*	*Middle class income group*	*Higher Class Income Group*
Taxable income after allowances and deductions	***6 000***	***15 000***	***60 000***
PAYE	***106***	***1 779***	***17 131***
Disposable income	***5 894***	***13 221***	***42 869***
Expenditure attracting indirect taxes	**1500**	**3 000**	**9 000**
Indirect Taxes	**140**	**280**	**842.4**
% of income paid as indirect taxes	***2.4%***	***2.1%***	***1.96%***

Source: authors' hypothetical Illustration

Indirect taxes: (VAT, excise tax, and petrol tax)

Monthly tax deductions (PAYE) are estimated from SARS' March 2013 to February 2014 monthly tax deduction table (SARS, 2013). Using Casale (2009) total indirect tax (VAT, excise, and petrol) paid by families where only the male is the breadwinner which according to Casale (2009) is 9.36%.

Low income: expenditure attracting indirect tax: R1500 x 0.0936 = Total indirect tax of R140

Therefore percentage indirect tax on income = R140/*5894* = 0.0233;

Medium income: expenditure attracting indirect tax: R3000 x 0.0936 = Total indirect tax of R280

Therefore percentage of indirect tax on income = R280.8/*13221*= 0.021;

High income: expenditure attracting indirect tax: R9000 x 0.0936 = Total indirect tax of R842.4

Therefore percentage of indirect tax on income = R842.4/*14869*= 0.0196

5 Conclusion

We set out to illustrate the erosional effect of indirect taxes on income, specifically to highlight that indirect taxes may widen income inequality given its regressive nature. Extant literature reviewed in this paper point to the regressivity implicit in indirect taxes and how the poorer workers are disadvantaged. Using a hypothetical illustration, we attempted to buttress literature assertion that low income workers feel the brunt of indirect taxation more than the middle and/or high income earners. We used an empirical finding by Casale (2009) of average indirect tax paid as a percentage of expenditure by South African male bread winner families. Applying this percentage on our hypothetical expenditure we find that although high income earners pay greater indirect taxes than low income earners, an examination of the percentages indicate that low income earners pay higher proportion of their disposable income on indirect taxes more than the high income earners. This thus connotes partial lack of desired progressivity implicit in indirect taxes. The implication hence is that indirect taxes may widen income inequality. But this is not desirable as the Nation battles with measures to reduce income inequality to enhance economic transformation. It is therefore likely that indirect taxes may be fostering income inequality, and therefore deserves rethinking by tax authorities. We consequently think that achieving effective reduction of income inequality in South Africa would require exempting low income individuals below certain threshold of income from paying indirect taxes.

References

1. Aasness, J., Benedictow, A., & Hussein, M.F (2002) distributional efficiency of direct and indirect taxation, Economic Research Programme on Taxation – Statistics Norway, available at: http://www.oecd.org/tax/taxpolicyanalysis/39494113.pdf (Accessed 12 April 2013)
2. ANDERSON, A., MAY, P. & BALICK, M. (1991) *The subsidy from nature*. New York. Columbia University Press.
3. Aron, J & Muellbauer, J (2000) personal and corporate savings in South Africa.
4. Atkinson, A. B., & Stiglitz, J. E. (1972) The structure of indirect taxation and economic efficiency. *Journal of Public Economics*, *1*(1), 97-119.
5. Bird, R. (2010) Taxation and development, The World Bank, available at: https://openknowledge.worldbank.org/bitstream/handle/10986/10150/569440BRI0Econ10Box353751B01PUBLIC1.txt?sequence=2 (Accessed 20 April 2013)
6. Bird, R. M. (1987) A new look at indirect taxation in developing countries. *World Development*, *15*(9), 1151-1161.
7. Boadway, R., & Pestieau, P. (2003). 21 Indirect Taxation and Redistribution: The Scope of the Atkinson-Stiglitz Theorem. *Economics for an Imperfect World: Essays in Honor of Joseph E. Stiglitz*, 387.
8. Bovenberg, A. L (1987) indirect taxation in developing countries: a general equilibrium approach,

Staff Papers –International Monetary Fund, Vol.34, No.2, pp.33-373.
9. Bovenberg, A. L (1987) indirect taxation in developing countries: a general equilibrium approach, *Staff Papers –International Monetary Fund*, Vol.34, No.2, pp.33-373.
10. Burgess, R., & Stern, N. (1993) Taxation and development. *Journal of economic literature*, *31*(2), 762-830.
11. Burritt, R., & Schaltegger, S. (2001). Eco-efficiency in corporate budgeting. *Environmental Management and Health*, *12*(2), 158-174.
12. Caragata, P.J. (1998) From welfare state to optimal size government: a paradigm shift for public policy. *Agenda*, Vol5(3), 277-287.
13. Casale, D. (2009). Indirect taxation and gender equity: Evidence from South Africa. *Country report prepared for the project on Taxation and Gender Equity coordinated by American University and the University of KwaZulu-Natal*, available at: http://www.sds.ukzn.ac.za/files/South%20Africa_IT_2009.02.01_1.pdf (Accessed 26 April 2013).
14. Coetzer, P (2013) South African inequalities: unfulfilled hopes of the majority are fuelling frustration. Leadership Magazine http://www.leadershiponline.co.za/articles/south-african-inequalities (Accessed 14/03/2013).
15. Conklin, D (1991) *Comparative Economic Systems: Objectives, Decision Modes, and the Process of Choice*, London: Cambridge University Press.
16. Crawford, I., Keen, M., and Smith S., 2010, *Value Added Tax and Excises*, in J. Mirrlees (Chair) Dimensions of tax design. The Mirrlees Review. Oxford: Oxford University Press.
17. Creedy, J., & McDonald, I. M. (1992) UNION WAGE RESPONSES TO A SHIFT FROM DIRECT TO INDIRECT TAXATION*. *Bulletin of Economic Research*, *44*(3), 221-232.
18. Cremer, H., Pestieau, P., & Rochet, J. C. (2001). Direct versus indirect taxation: the design of the tax structure revisited. *International Economic Review*, *42*(3), 781-800.
19. Deaton, A. (1977). Equity, efficiency, and the structure of indirect taxation. *Journal of Public Economics*, *8*(3), 299-312.
20. Decoster, A., Loughrey, J., O'Donoghue, C., & Verwerft, D. (2010). How regressive are indirect taxes? A microsimulation analysis for five European countries. *Journal of Policy Analysis and Management*, *29*(2), 326-350.
21. Deloitte & Touche (2012) An increase in VAT rate not a free lunch, available at: http://www.deloitte.com/assets/Dcom-SouthAfrica/Local%20Assets/Documents/increase_in_vat_rate_not_a_free_lunch.pdf (Accessed 15 April 2013).
22. Ernst & Young (2012) developments in indirect taxes in 2012, available at: http://tmagazine.ey.com/insights/developments-in-indirect-taxes-in-2012/ (Accessed 13 April 2013)
23. Figari, F., Paulus, A. (2012) the impact of indirect taxes and imputed income on income inequality, Gini Discussion Paper 28, available at: http://www.uva-aias.net/uploaded_files/publications/DP28-Figari,Paulus-1.pdf (Accessed 13 March 2013).
24. Fourie, F. C. V. N., & Owen, A. (1993). Value-Added Tax and Regressivity in South Africa. *South African Journal of Economics*, *61*(4), 308-319.
25. Gandhi-Kingdon, G & Knight, J (2001) Unemployment in South Africa: The nature of the beast. Centre for the study of African economies: Oxford University
26. Hoogeveen, J.G and Özler, B (2005) Not separate, not equality: poverty and inequality in post-apartheid South Africa. William Davidson Institute Working Paper Number 739. The University of Michigan Business School.
27. John, D. J. (2006) The political economy of taxation and tax reform in developing countries. Research paper No. (2006/7) UNU-Wider
28. Kakwani, N. C. (1977). Measurement of tax progressivity: an international comparison. *The Economic Journal*, *87*(345), 71-80.
29. Ken Yan, M. C., Arokiasamy, L., & Ah Suat, C.L (2010) Indirect Taxation: Awareness and Impact on Undergraduates, *International Research Journal of Finance and Economics*, Issue 41, July, pp.
30. Klasen, S. & Woolard, I (2008) Surviving unemployment without state support: unemployment and household formation in South Africa. Journal of African Economies, Vol18 (1), 1-55.
31. Koch, S.F, Schoeman, N.J and Van Tonder, J.J (2005) Economic growth and the structure of taxes in South Africa: 1960-2002. http://repository.up.ac.za/bitstream/handle/2263/3667/Koch_Economics(2005).pdf?sequence=1
32. Lubchenco, J 1(998) Entering the century of the environment: *A new social contract for science. Science* V279 No5350; 491-497.
33. MASHIGO, P. (2006) The debt spiral in the small household of South Africa. *The international indigenous journal of entrepreneurship, advancement, strategy & education*, 3(2006): 1-21.
34. Matsaganis, M., & Leventi, C. (2011). *The distributional impact of the crisis in Greece* (No. EM3/11). EUROMOD Working Paper, No. EM3/11.
35. May, J (1998) Poverty and inequality in South Africa. Centre for Social and Development Studies: University of Natal (KwazuluNatal). http://www.info.gov.za/otherdocs/1998/poverty/presentation.pdf
36. Office of National Statistics UK (2011) How indirect taxes can be regressive and progressive, available at: http://www.ons.gov.uk/ons/rel/household-income/how-indirect-taxes-can-be-regressive-and-progressive/2001-02---2008-09/art-regressive-and-progressive-taxes.pdf (Accessed 5 March 2012)
37. Parliament of Australia (1999) the proposed GST impact on the distribution of income, available at: http://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/Publications_Archive/CIB/cib9899/99cib07 (Accessed 20 March 2013).
38. PriceWaterHouseCoppers (2007) Shifting the Balance –the evaluation of indirect taxes, available at: http://www.pwc.com/en_GX/gx/tax/assets/shifting_the_balance.pdf (Accessed 12 April 2013)
39. Slocum Jr, J. W., & Mathews, H. L. (1970). Social class and income as indicators of consumer credit behavior. *The Journal of Marketing*, 69-74.
40. SARS (2013) Monthly deduction table March 2013 – February 2014, available at: http://www.sars.gov.za/

Tools/Documents/DocumentDownload.asp?FileID=82562 (Accessed April 26 2013).
41. Tait, AA.(1991) 'VAT policy issues: Structure, regressivity, inflation, and exports,' in A.A. Tait (ed), Value-Added Tax: Administrative and Policy Issues, International Monetary Fund, Washington DC, p. 5.
42. The Gleaner (2009) Taxation measures equitable, available at: http://jamaica-gleaner.com/gleaner/20090426/news/news1.html (Accessed 12 April 2013).
43. The Telegraph (2013) the poor bear grunt of tax rise, available at: http://www.telegraph.co.uk/finance/personalfinance/consumertips/tax/9356884/Poor-bear-brunt-of-tax-rises.html (Accessed 28 April 2013).
44. Wright, E. O. (1979). Class structure and income detern~ ii~ ation. New York: Academic.