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DOES VALUE-ADDED TAX REVENUE INSPIRE GROWTH? EVIDENCE FROM SOUTHERN AFRICA

Zurika Robinson¹ and Jesse De Beer

Abstract

The purpose of this article is to take the lead and investigate value-added tax (VAT) revenue and economic growth in Southern Africa, especially referring to the Southern African Development Community (SADC). The objective of the study on which this article reports was to look at the relationship between VAT revenue and economic growth. The hypothesis was whether VAT revenue had an impact on economic growth or alternatively whether VAT revenue had no impact on economic growth. The effect of VAT on economic growth in different countries is unclear, and this has become an important empirical question. Our two-stage least squares model indicated that VAT revenue has a positive impact on economic growth. The same goes for the generalised method of moments (GMM) model. The corruption perception index also leads to a positive outcome on economic growth. The current study attempted to contribute to the surprisingly small body of academic economics research examining value-added tax in Southern African countries. Policymakers and revenue authorities should thus take note that room for higher VAT rates exists although these are already quite high in SADC. VAT is regarded as a regressive tax commonly burdening the poor. Alternatively, higher VAT rates and revenues on luxury goods commonly purchased by the wealthy might be an alternative option for further investigation in the future. Efficient and corruption-free service delivery in SADC can contribute to future VAT revenues supporting economic development in the region.

The first section details the introduction and background, which is followed by the theoretical and empirical literature review. Thereafter, the research methodology and findings are presented with the conclusion ending the article.

Keywords: VAT revenue, SADC, economic growth

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1 Introduction and background

Tax policy can help generate economic growth and prosperity. The type of tax regime and the level of tax rates may have a significant influence on economic growth. Since the late 1960s, VAT has been the main consumption tax in the developed and developing world. Although the specific reasons for adopting VAT differ from one country to another, the main argument has been that a properly designed VAT regime raises more revenue with lower administrative and economic costs than other broadly based consumption taxes. In recent decades, it has been commonly contended that VAT increases government revenue, improves economic efficiency, promotes exports, raises revenue rapidly, simplifies the tax administration procedures, widens the tax base, and fosters growth. However, the impact of VAT on economic growth in different countries is unclear, and this has become an important empirical question. The current study attempted to contribute to the surprisingly small body of academic economics research examining VAT in Southern African countries.

The use of VAT and VAT rates is shown in Table 1.

Table 1: VAT rates in the SADC (2020)

COUNTRY	VAT rates (%)	Zero-rated goods
Angola	14 (special VAT rate on importation or supply of goods of 2% in Cabinda Province)	Basic goods (milk, beans, rice, flour, cooking oil, sugar, soap)
Botswana	12	Zero-rated supplies given proper documentation
DRC	16	Exports
Lesotho	15 (varied rates of between 9% and 15% on electricity and telecommunication)	Exports and specific list of supplies
Madagascar	20	Exports
Malawi	16.5	Exports and specific list of supplies
Mauritius	15	Exports and specific list of supplies
Mozambique	17 (lower rates apply to electricity and water)	–
Namibia	15	Exports and specific list of supplies
Seychelles	15	Exports and specific list of supplies
South Africa	15	Exports and specific list of supplies
Swaziland (Eswatini)	15 Zero rate (0%) on electricity	Exports and specific list of supplies
Tanzania	18	–
Zambia	16 Zero rate (0%)	–
Zimbabwe	14.5	Specific list of supplies

	20% on exports of chrome	
	Zero rate (0%)	

Source: PricewaterhouseCoopers (PwC) (2020)

In South Africa, the Margo Commission found that General Sales Tax (GST) should be abolished and be replaced with VAT, which was, therefore, introduced on 12 June 1991 (South African Government, 1991). In 2018, South Africa raised its VAT rate from 14% to 15% (PwC, 2020). Various SADC countries have followed suit and introduced VAT (see PwC, 2020).

The influence of tax regimes on economic growth has gained significance given the recent economic downturn in the wake of the devastating effects of the Covid-19 pandemic and economic policy debates on how to recover from the pandemic. In an attempt to improve fiscal sustainability, countries responded in different ways to the Covid-19 pandemic. In the Southern African context, Botswana raised its VAT rate from 12% to 14% in April 2021 to find alternative ways of financing development projects considering the difficult revenue situation (PwC, 2022).

Southern African countries – and specifically SADC member states – represent a diverse set of countries in terms of general economic indicators and specific characteristics relevant to the implementation of VAT, in particular, or tax systems in general. The countries vary significantly in size, per capita income, the impact of civil disturbances in recent decades, size of government, major sources of revenue, aid dependency, educational attainment, and sector and trade structures (Hollinrake, 2004). A common feature, however, is a high degree of trade integration for most southern mainland country members.

In most SADC member states, imports form a high share of GDP (Hollinrake, 2004). The importance of imports coupled with difficult domestic bases result in the collection of VAT being dependent on effective customs control and collection at the border. In the context of forming a common market, where border controls are weak, to protect revenues, VAT may need to be charged on internal exports with reconciliation of border VAT collections to ensure the revenues of the net importing countries (i.e. an origin as opposed to a destination system).

VAT is often seen as efficient and easily administrable compared to other types of tax. This enables the government to generate higher revenue to finance the development of a country (Mitchell & Scott, 2019). VAT is a net turnover tax levied on sales of commodities at every stage of production (Letete, 2012). Its defining feature is that it credits taxes paid by enterprises on their material inputs against the taxes they must levy on their own sales. This mechanism further creates an effective paper trail which makes it easy for the tax authority to enforce compliance. Pomeranz (2015) provides excellent empirical evidence for the effectiveness of the self-enforcing mechanism, and Waseem (2022) does the same for Pakistan (Cnossen, 1998). This avoids the so-called “cascading effects” (i.e. levying tax on products that have already been taxed in earlier stages of the production process) and is neutral regarding national competition.

Because the final consumption price easily and clearly expresses the entire effective tax burden, VAT makes border equalisation easy and controllable, and is especially suitable for the promotion of trade within an economic union (Petersen, 2010).

However, the advantages and disadvantages of VAT remain controversial at the very least, and the suitability of VAT for developing countries has been hotly debated. The popularity of VAT is often ascribed to the fact that tax policy in developing countries has been heavily influenced by the International Monetary Fund (IMF) and national elites (Itriago, 2011). VAT can be problematic when the economy of a country has a large informal sector, wherein VAT is often seen as an inherently regressive tax that harms poorer segments of the population (Emran & Stiglitz, 2005; Keen, 2008).

Although Keen and Lockwood (2010) argue that VAT can easily be made compatible with international trade, thus helping businesses compete internationally since it does not affect export prices, the experience of some countries suggests otherwise. For sectors within economies that are export-oriented, the question of how to manage exports for VAT purposes has always been contentious (Conrad, 2012). An IMF survey of 36 countries found that refund payments have created tension between tax authorities and the business sector causing it to become the “Achilles heel” of the VAT system (Harrison & Krellove, 2005). It is usually from these exemptions that unintended consequences affecting supply chains and revenue mobilisation tend to emerge (Gérard & Naritomi, 2018). An example of such conflict is Zambia where export, such as copper, incurs VAT at a rate of 0% (PwC, 2020). In September 2018, it was announced that Zambia would abolish VAT in April 2019, and replace it with a non-refundable sales tax. This decision was, however, reversed at a later stage (PwC, 2020).

2 Theoretical and empirical literature

Two strands of literature were relevant for the current study: the literature on consumption tax competition and tax harmonisation, as well as theories on the determinants of economic growth. Explanations of the effect of taxes on economic growth centre on the influence of such taxes on incentives for consumers and producers. This can be explained in terms of different frameworks, namely the neo-classical economic and endogenous growth theory and Keynesian growth models. This section provides a brief overview of the relevant literature, and the way literature evolved.

2.1 Theoretical background with commodity tax competition

Various authors (see for example Kanbur & Keen, 1993; Mintz & Tulkens, 1986) investigated commodity taxation within a tax competition context. This type of analysis is especially applicable within a process of economic integration, for instance in a common market or economic union, and a federation. Different commodity tax rates across borders create distortions that, in turn, induce spillovers or externalities such as cross-border shopping. The most familiar types of commodity taxes are the single-stage retail or general sales tax (RST/GST) and the multi-stage or broad-based value-added tax (VAT). The main difference between the two entails different methods of collection, with

retail sales tax (RST) on a suspensive system and VAT on a repayment system. In addition, the tax base being taxed also differs.

With VAT, the onus is always on traders to convince tax authorities that their claims for refunds on their inputs are justified, whereas under RST, there are no such claims (the tax is levied only once at the final destination or on imports). The claims for refunds or the tax liability can be computed via subtraction, addition, or tax credits (invoice method). Detailed records of purchases and sales have to be kept under a VAT mechanism but not under RST. Administrative difficulties may therefore occur more readily with VAT, but it is also typically implemented to curb tax evasion and corruption. VAT is further introduced for minimising “tax-on-tax” for which RST/GST is criticised (PwC, 2020).

In models of commodity tax competition, governments are able to influence the size of their tax base at the expense of their neighbours and are assumed to act as non-cooperative Nash agents. The more mobile the tax bases of commodity taxes become, the stronger eventual tax competition becomes (Kanbur & Keen, 1993; Mintz & Tulkens, 1986).

Mintz and Tulkens (1986: 135) were the first to investigate commodity tax competition between independent fiscal authorities theoretically. A two-region economy (high-tax and low-tax) where an origin-based commodity tax is levied by each region was investigated. This tax is levied on a private good to finance a local public service. The Nash equilibrium of these tax rates is analysed whilst all other private goods are untaxed. Emphasis is placed on the fact that tax competition is inefficient under the origin (source) principle in both regions, and that cooperative policy measures may become essential in improving the outcome in short Nash equilibrium.

Kanbur and Keen (1993) recognise that international integration pressurises existing national tax structures. They used a two-country model to examine two forms of tax coordination to reduce such inefficiency: tax harmonisation (a common tax rate is set between the two Nash equilibrium tax rates), and agreement on a minimal tax rate. In their study, Kanbur and Keen (1993) focused particularly on the role of country size since differences in size exacerbate the inefficiency from non-cooperative behaviour, harming both countries. The smaller country loses from harmonisation to any tax rate between those set in the non-cooperative equilibrium, but both countries gain from the imposition of a minimum tax anywhere in that range. The fully optimal response to freer cross-border trade, however, may be to do nothing.

2.2 Tax harmonisation

“Tax harmonisation” refers to harmonisation of tax bases or even the tax rates of two jurisdictions. This would make transparent tax bases and a certain convergence in the tax rates. Both measures simplify administration and cross-border trade, alleviate border controls, reduce inefficient waiting times at borders, and diminish incentives for purely tax-avoiding cross-border shopping activities. By harmonising to an agreed regional standard, countries relinquish the ability to structure their tax system to their own individual preferences, resulting in the tax systems are structured in accordance with the policies agreed upon at the regional level. This will ensure uniformity to a certain extent and eliminates any aspect of tax competition practices, which are caused by different tax policies and systems. However, countries are reluctant to agree to uniform taxation in areas where their economies differ (Kanbur & Keen, 1993).

2.3 Theories and literature of government spending

Key theories to explain the effect of taxes on economic growth include those that are related to economic growth models such as the classical school, new growth theories by the Keynesian school of thought, and endogenous growth models.

Classical and neoclassical economists highlight that government spending results in excessive borrowing, creates pressure on the credit market, and leads to higher interest rates, which hamper private investment (Abu-Bader & Abu-Qarn, 2003). As suggested by the classicalists, the use of taxes as government revenue to finance state expenditures leads to distortions of market prices and resource allocations (Carboni & Medda, 2011). Furthermore, Carrère and De Mello (2012) point out that the distortionary effect of taxes on economic growth is unavoidable unless government revenue can be raised in a non-distortionary manner.

2.3.1 Neoclassical framework

In the neoclassical setting of the Solow (1970) model, economic growth depends on the accumulation of the production factors of labour and capital. Any given tax structure generates an equilibrium of the capital–labour ratio, while further growth in GDP per capita results from exogenous technical change. In this setting, there should be no long-term effect of tax policy on economic growth, because the extent of potential misallocations generated by the tax structure does not matter for the steady-state growth rate (Solow, 1970).

2.3.2 Endogenous growth theory

The development of the endogenous growth theory allows for explicit modelling of the individual decisions that contribute to growth. Barro's (1990) endogenous growth model suggests that productive government spending contributes positively to the long-term growth rate. Productive spending in the areas of education, health, defence, infrastructure, the communication system, and public research increases the productivity of nations and stimulates potential output in the economy. Higher government spending on public goods through higher tax collection contributes to long-term economic growth because it improves the infrastructure service and corrects for externalities.

The Keynesian school highlights that government intervention remains important and beneficial, especially in the supplies of public goods, which are a significant portion of the aggregate demand. In this context, imposing income taxes leads to positive effects on economic development because these taxes create a more equitable society resulting in better development of nations. The new growth theory of Keynes further underscores the role of government intervention to reverse any economic downturn where high levels of government consumption boost employment, productivity, profitability, and investment through the multiplier effect. The success or failure of government intervention largely depends on the ability of such a government to reallocate resources to achieve the intended economic goals (Dutt, 2010).

The literature also suggests that taxes affect the distribution of income, and the nature of the effect on the overall economic outcomes depends on the type of tax system. Kneller et al. (1999) found that distortionary taxation reduced growth, whereas non-distortionary taxation increased growth. This finding is in line with findings by Afonso et al. (2005), who suggest that taxes should be non-distortionary and need to display low marginal rates. Broadway and Sato (2009) offer a unifying framework according to which the relative merits of VAT versus trade taxes depend on a number of factors including the ability of government to tax firm profits.

For instance, using a panel of 21 Organisation of Economic Cooperation and Development (OECD) countries over 34 years, Arnold et al. (2011) found that, in the context of revenue-neutral tax reallocations, a rise in consumption taxes offset by a fall in income taxes promotes growth. While Xing (2012) argues that the results might not be fully robust, Acosta-Ormaechea and Morozumi (2021) found that consumption taxes are indeed more growth-friendly than income taxes even in a broader sample of 70 countries over 40 years. Gemmell et al. (2011) categorise taxes into distortionary and non-distortionary ones based on whether taxes directly affect investment decisions and show, in the context of 17 OECD countries, that changes in those taxes have different growth effects when the budget deficit is assumed to finance them.

2.4 Empirical literature

The relevant empirical literature includes the effect of tax structure on economic growth, the influence of the adoption of a VAT system on economic growth, and the outcome of VAT rate changes on economic growth. Among the first studies to analyse the effects of indirect taxes on economic growth, are those of Harberger (1964), who found that the effects of indirect taxes on investments are insufficient to stimulate economic growth. Simionescu & Lucian-Liviu (2016) analysed the influence of a standard VAT rate on the economic growth of five Central and Eastern European countries (Bulgaria, Czech Republic, Hungary, Poland, and Romania) using different types of panel data models (random effect model, dynamic panel, and panel vector-autoregression) during the period 1995–2015 which indicated a positive influence of VAT rate on economic growth.

Chan, Ramly and Karim (2017) examined the outcome of government spending efficiency on the economic growth of 115 countries with a VAT system using the GMM estimation. They observed that government spending efficiency promotes economic growth, and that the VAT system enhanced the effect of efficient government spending on the economic growth. The authors further emphasised that the VAT system plays a positive role in strengthening government discipline in collecting and managing tax revenue, but to achieve higher economic growth, the government needs to ensure public spending is channelled to productive sectors.

Obtaining information from a panel of 15 European Union (EU) countries over the period 1961–2005, Alm and El-Ganainy (2013) show that increases in the VAT rate could lead to both short- and long-term reductions in aggregate consumption. Chiricu (2019) measured the effect of VAT on the rate of

economic growth for the years between 1996 and 2017 in Southern European countries, and the empirical evidence highlighted a significant positive influence of VAT on economic growth, but a poor and ineffective use of the tax revenues during the period under review. Corruption is considered a strong impediment to economic growth and development; moreover, the corruption perception index is a useful tool in quantifying the level of corruption in a country (Chiricu 2019).

Acosta-Ormaechea and Morozumi (2021) examined whether, in the context of the OECD countries, a revenue-neutral increase in VAT, offset by a fall in income taxes, may have different effects on the long-term growth depending on how VAT is raised. Their results suggest that an increase in C-efficiency, possibly reflecting the broadening of the VAT base through fewer exemptions and a more uniform rate structure with fewer reduced rates promotes growth rather than an increase in the standard rate.

Adhikari (2020) emphasises that VAT adoption has a different output effect depending on the income level of the country, citing some distinctive features of developing countries, such as the prevalence of tax evasion.

In the African context, Ebeke and Ehrhart (2011), who examined the effects of the tax arrangement on the volatility of tax revenues in Africa, found how a relatively large share of domestic indirect taxes has a stabilising role in tax revenue collection. Ahlerup, Baskaran and Bigsten (2015) continued this work and examined the effects of VAT adoption on revenues, and found that the presence of a VAT system has not increased revenues in African countries.

For an analysis of the effects of indirect taxation on economic growth in South Africa, Koch, Schoeman and Van Tonder (2005) used a series of data for the period 1960–2002 wherein they found that, at the time, decreased tax burdens were strongly associated with increased economic growth potential. In addition, contrary to most theoretical research, decreased indirect taxation relative to direct taxation was strongly correlated with increased economic growth potential. One possible reason for this anti-growth conclusion could be that public resources are not returned to the economy in an efficient manner and/or are not invested in appropriate public goods.

Studying the 22 OECD member countries over the period 1960–1990, Madsen and Damania (1996) noted that a change from direct to indirect taxation had no effect on long-term economic activities. In terms of the influence of the adoption of VAT, Ufier (2011) investigated the influence of VAT adoption on several outcomes using a matching approach employing worldwide data. Ufier (2014) found that, after considering a selection problem due to an endogenous decision to adopt VAT, its adoption was associated with increases in investment, and less robustly with increases in growth. Ferede and Dahlby (2012) show that, in Canada, a switch to a provincial VAT system from a provincial retail sales tax system promoted growth through its positive effect on investment.

In terms of single-country studies, results are inconclusive. Ahmad and Ahmad (2018) investigated the relationship between economic growth and indirect taxes for Pakistan based on an annual database (1974–2010), using the ARDL (auto regressive distributed lag). The authors concluded that, in the long run, indirect taxes have a significant negative influence on economic growth, and in the short run, the coefficients related to them are not significant. Moreover, evidence showed that an increase of one percentage point on indirect taxes would lead to an economic downturn of 1.68% (Ahmad & Ahmad, 2018). In a study that investigated the relationship between direct and indirect taxes and economic growth for Turkey, using data for the years 1968–2006, it was concluded that indirect taxes are significantly and positively correlated with economic growth in Turkey (Arisoy & Unlukaplan, 2010). Aamir et al. (2011) analysed the impact of indirect taxes on economic growth in Pakistan and India for 2000–2009 and concluded that for Pakistan, indirect taxes were statistically significant and had a positive impact on growth. Scarlett (2011) used standard growth functions to investigate the relationship between taxation and economic growth in Jamaica. The study covered a quarterly time series from 1990 to 2010 and found a significant positive relationship between indirect taxes and long-term economic growth.

Recent VAT research in the Latin American context emphasised that, at the time, rising VAT revenue was a by-product of a commodity boom that boosted economic growth, domestic consumption and import (Bird & Zolt, 2013). However, VAT-to-GDP remained elevated (i.e. commodity boom levels) in Chile (2009–2016) and in Argentina (2009–2016) despite unchanged VAT rates and exemptions, customary lax enforcement, stagnant economic growth, low commodity prices and falling household consumption.

Findings by Mitchell and Scott (2019) suggest that the increased use of electronic payments and lower usage of cash are shifting some consumption from informal (hard-to-tax) markets to formal (easier-to-tax) markets leading to increased VAT revenue.

Based on this literature review, the variables for the model used in the current study were chosen. In terms of explanatory variables, a measure of corruption was also included based on a growing body of literature which reports on the influence of the political and institutional environment of a country on economic performance (Plümpert & Martin, 2003). Karim (2012) found that political stability and financial freedom contributed to higher public spending efficiency in East Asian countries. Based on the findings of Mitchell and Scott (2019), we also included a measure of financial inclusion as an explanatory variable.

4 RESEARCH METHODOLOGY AND EMPIRICAL RESULTS

The discussion thus far suggests that a general empirical or prospective model, as used by Chiricu (2019), explaining the influence of various independent variables such as VAT revenues on the economic growth (GDP), which could take the following mathematical form:

$$= \log GDP_{it} = \mu_i + \lambda_t + \beta_1 \log X_1 + \beta_2 \log X_2 + \beta_3 \log X_3 + \beta_4 \log X_4 + \beta_5 \log X_5 + \beta_6 \log X_6 + \beta_7 \log X_7 + \dots \varepsilon_{it} \mu$$

Where: μ is the country dummy that represents country-specific factors;

λ is the time dummy that represents the change over time;

β represents the different coefficients; and

X is the different SADC members involved.

The data used in the pooled estimations was mostly obtained from the following sources:

- economic growth GDP World Bank;
- VAT revenues log_VATREV African Tax Administration Forum;
- government expenditure log_G and Imports M World Bank;
- corruption Perception Index log_CPI Transparency International;
- financial inclusion of those that have a credit card log_FINI World Bank.

The data covered the period 2000 to the end of 2020.

From the correlation matrix, it is noted that the variables that have a significant correlation with the dependent variable – as indicated by their significant p-values – is the VAT revenue. From the literature, it is noted that an indication of a weak association between two variables through correlation analysis does not imply that there will be no significant prediction through regression of the same variables. Therefore, the study proceeded to include all variables in the model, including those with a much weaker association, such as the GDP growth rate and control of corruption. The Pedroni test shown in Table 2 indicates the presence of cointegration and a long-term relationship between economic growth and VAT revenue.

Table 2: Pedroni test

Series: log_GDP log_CPI log_G log_VATREV log_M FDI_GDP					
				Weighted	
		Statistic	Prob.	Statistic	Prob.
Panel v-Statistic		-0.848154	0.8018	-0.747826	0.7727
Panel rho-Statistic		1.575840	0.9425	1.765496	0.9613

Panel PP-Statistic	-3.520541	0.0002	-1.990063	0.0233
Panel ADF-Statistic	NA	NA	NA	NA
Alternative hypothesis: individual AR coefs. (between-dimension)				
	Statistic	Prob.		
Group rho-Statistic	2.615386	0.9955		
Group PP-Statistic	-3.151694	0.0008		
Group ADF-Statistic	NA	NA		

The study panel had a shorter time series (2000–2020); efficient estimators were found using the Blundell and Bond (1998) GMM estimator. Baltagi (2005) reports that there is a need to utilise the initial conditions in generating efficient estimators when using dynamic panel data estimation, given the small time series in the data. The estimations, therefore, followed the leads of the Blundell and Bond (1998) GMM estimator, and the autoregressive panel data model.

In the current study, the existence of weak instruments in the difference GMM (DIF GMM) estimator prompted us to choose the SYS GMM estimator because weak instruments cause an increase in variance of estimates asymptotically, which leads to small sample bias. The system GMM estimator developed by Arellano and Bover (1995) as well as Blundell and Bond (1998) is meant to counter the weaknesses of the DIF GMM. The SYS GMM model is a system of regression in differences and in levels. The SYS GMM model uses lagged levels of explanatory variables as instruments for the regression model in differences and lagged differences of explanatory variables as instruments for the model in levels. The instruments are efficient under the assumptions of the model, although correlation may exist between levels of explanatory variables and cross-section-specific effects, with no correlation of the explanatory variables and the cross-section-specific effects in differences. Baltagi (2005) argues that the panel unit root test proves the estimation power of the model over the model that estimates separate unit root tests for each cross-section. However, this model cannot be applied in cases where cross-sections are correlated.

The following two-stage least squares model and GMM model are used in columns 1 and 2 of Table 3:

$$\log(\text{GDP}) = f(\log_VATREV; \log_G; \log_CPI; \log_FINI; \log(M))$$

Dependent variable: Economic growth GDP

Table 3	1	2
Ln_CPI	0.342	-1.886
		(0.000)*
Ln_FINI	-0.064	
Ln_G	-0.85	-0.85
Ln_VATREV	4.736	1.982
	(0.0000)***	(0.0000)**
M	0.642	0.254
Constant	-3.362	-2.24
	(0.0000)***	0.065**
Observations	13	13
R 2	0.798	0.798

Note: p-values are in brackets and ***indicates significant at 1% level, **indicates significant at 5% level and *indicates significant at 10% level. All data are expressed in natural logarithms except for data with negative values.

The random effect model in column 1 indicates that VAT revenues are significant, a 1% increase in VAT revenue leads to a 5.7% increase in economic growth GDP. The GMM model in column 2 indicates that VAT revenues are significant, as a 1% increase in VAT revenues leads to 0.53% increase in economic growth GDP. Here 1% increase in the corruption perception index leads to an 11.33% increase in economic growth GDP.

5 Conclusion and recommendations

VAT is regarded as a regressive tax commonly which burdens the poor more. The purpose of this paper was to take the lead and investigate value-added tax (VAT) revenue and economic growth in Southern Africa, meaning the Southern African Development Community (SADC). The objective was to look at the relationship between VAT revenue and economic growth. The hypothesis for testing was whether VAT revenue had an impact on economic growth or not. The impact of VAT revenues on economic growth in different countries is unclear and it has become an important empirical question. Our two-stage least squares model indicates that VAT revenues have a positive impact on economic growth; the same goes for the GMM model and the corruption perception index which also leads to a positive impact on economic growth. The paper attempts to contribute to the surprisingly small body of academic economics research examining the VAT in Southern African countries. Policymakers and revenue authorities should thus take note that room for higher VAT rates exists although these are already quite

high in SADC. VAT is regarded as a regressive tax commonly burdening the poor more. Alternatively, higher VAT rates and revenues on luxury goods commonly purchased by the wealthy might be an alternative option for further investigation in the future. Efficient and corruption-free service delivery in SADC can contribute to future VAT revenues supporting economic development in the region.

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