Macroeconomic Effects of VAT in Nigeria: A Computable General Equilibrium Analysis

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EXECUTIVE SUMMARY

Context

Value added tax (VAT) has become a major source of revenue in many developing countries, including Nigeria, where it was introduced in January 1994. VAT revenues in Nigeria were N8.194 in 1994, which is 36.5% higher than the projection for the year. Revenues accounted for about 4.0% of total federal revenue in 1994 and 5.93% in 1995. VAT revenues for 1996 (when this study was done) were expected to top N25 million.

The government may be happy about the high and growing VAT revenues, but there are increasing complaints from the organized private sector about the effects of the VAT on their operating costs and the prices of their products.

What is the problem?

The complaints about the adverse effects of Nigeria's VAT suggest that there is a problem with the way VATable organizations are treating their liabilities, especially the VAT they pay on their inputs. Moreover, there may be a problem with the way government is managing the expenditure of the VAT revenues. It is the official view that the VAT should have no cascading or cumulative effect whatever. Yet, no feasibility study was done on the impact of the tax before it was introduced, nor have impact assessments been done since; to ensure the sustainability of the tax and its beneficial effects, government needs to know its macroeconomic impact on prices, output, income and consumption. Concern over the economy-wide effects of VAT is important because of the possibility that the tax may cause consumers to cut consumption of certain commodities, hence affecting labour productivity.

This study analysed the impact of VAT on key sectoral and macroeconomic elements of Nigeria's economy by combining a survey of Nigerian manufacturers, service providers and other VATable organizations with simulations of the impact of VAT under various scenarios.

Key features of Nigeria's value added tax

The idea of introducing a value added tax in Nigeria was mooted in 1991 in the context of a review of the country's entire tax system. A committee was set up to conduct a feasibility
study on the implementation of such a tax, but the committee's mandate did not extend to assessing the possible impact of the tax. Implementation of the VAT began in January 1994.

Nigeria's VAT has a number of features that theoretically make it quite straightforward and as painless as possible. First, it is a single rate tax (5%), which makes it easier to administer. Second, it uses an input-output method, which makes it self-policing. That is, although it is a multiple stage tax, it is expected to have a single effect on consumer prices and should not add more than the specified rate to the consumer price no matter the number of stages at which the tax is paid. Third, all goods and services are VATable, with limited and very specific exceptions. All imports are VATable, whether imported raw materials or finished goods, and VAT on imports is calculated on the total value of the total cost, insurance and freight. Exports are zero-rated, implying that exporters do not collect VAT on exports but they can claim credit for VAT paid on their inputs.

The Nigerian VAT has a very wide base with relatively few exemptions. Moreover, VAT does not replace any of the usual indirect or income taxes; it did replace the sales tax introduced in 1986, which had a narrow base and discriminated against locally produced goods and services as it excluded imports. Sales tax revenue new accrues exclusively to the state governments, while the VAT revenue is shared by all levels of government. Thus it can be assumed that VAT revenue is not sterilized but injected into the economy through increased government final consumption expenditure. In short, the VAT is paid on virtually all goods and services, but the credit system implies that the VAT revenue received by government should be devoid of cascading. In the absence of cascading effects, the increase in prices of final goods and services should not be more than the VAT rate, since the tax liability of a VATable organization is the difference between VAT on output and VAT on inputs.

The results of the study

The first phase of the study was a survey of manufacturers, service providers and other VAT able organizations to determine precisely how they treat their input VAT liabilities. Some 61 organizations were surveyed out of a possible sample of 70 of these, 49 pay tax on inputs. Only 13.6% of these organizations reported, as expected, that the input VAT had no effect on their production costs. This means that 86% of the organizations did report a change (and 36.4% said VAT increased costs by more than 5%), a situation that clearly suggests that these organizations treat input VAT as a cost. The implication is that there is some misunderstanding about the credit system of rendering VAT returns. Interviews with a number of the organizations indicate that this is indeed the case.

In essence, even though VATable organizations deduct the VAT paid on inputs from the VAT accruing on their outputs before remitting the balance to the VAT office, they still regard their input VAT as cost. Moreover, given the prevailing markup pricing regime, the VAT on inputs is magnified by the markup rates, leading to considerable cascading contrary to expectations. Finally, although consumers respond to the price increases by reducing demand, producers respond by reducing their output rather than their markup rates in a bid to lower prices. Reduced production may ultimately have devastating economy-wide effects because production in every sector of the economy depends directly or indirectly on imported intermediate inputs, all of which are VATable.
The way VATable organizations treat their VAT costs is only part of the story; the other factor is the way government spends the revenue from the tax. The study developed three scenarios. In order to approximate the presumed Nigerian situation the study assumed that government pursued an active fiscal policy involving the re-injection of the VAT via increases in government final consumption expenditure in combination with a presumed non-cascading treatment of the VAT. Two other simulations considered an active fiscal policy combined with a cascading treatment of VAT and a passive fiscal policy combined with a non-cascading treatment.

The study found that if VATable organizations treat the VAT in the expected non-cascading way, all sectoral prices and the general price level will increase by only the amount of the tax, in this case 5%. However, the impacts on other key economic variables such as consumption expenditure, output (hence employment), factor income and its distribution, and private government and foreign savings depend critically on the prevailing fiscal policy.

As it turned out, the scenario of a cascading treatment of VAT with an active fiscal policy not only had the most deleterious effects on the economy, it was also the one that most closely approximated the situation in Nigeria. VAT revenues under this scenario are than 3% lower than the first scenario, the general price index increases by 12%, and wage and profit incomes fall by 8.54% and 12.27%, respectively. Overall, GDP declines by 11.34%. Such a situation poses a great threat to the sustainability of VAT. Moreover, the effects are so large that it is doubtful they can be addressed through appropriate targeting of VAT revenues alone.

**Implications for policy makers**

Nigerian companies treat their VAT expenses as input costs and pass these on to the consumer. For its part, the government injects the VAT revenue back into the system as consumption expenditures. Because this combination results in a serious negative impact on the economy, it is necessary to consider strategies for ensuring both that companies treat VAT properly and that government direct its expenditure toward sectors that are most likely to lessen the adverse effects of VAT on consumer welfare, production, employment and income.

As a first step it is necessary to secure appropriate treatment of VAT by the VATable organizations in Nigeria. This will require a massive public awareness campaign targeted at these organizations and their customers. The VATable organizations could be reached through the media, as well as through various private sector organizations and associations such as chambers of commerce, production associations and others.

Moreover, VATable organizations should be required to publicize the recommended retail prices for their products or services and clearly indicate the pre-VAT and VAT-inclusive retail prices. External auditors should be required to verify and report on the treatment of VAT by the VATable organizations. The proposed consumer protection council and committees at federal and state levels could monitor costs and prices and ensure that VATable organizations are treating VAT appropriately.

At the government expenditure level, federal, state and local governments should target their VAT induced increases in expenditures at activities that will reduce operational constraints to the agricultural sector (including livestock and fishing), as well as manufacturing, especially
food, drinks and beverages, footwear, textiles, and drugs and chemicals. These are the sectors that are most likely to suffer setbacks if the VAT revenue is indiscriminately injected into the system. This approach to expenditure of VAT revenue will lessen the effects of the unavoidable price increases on consumer welfare, the nutritional status of the people, production, employment and income.

Failure to address these inadvertent adverse effects of VAT will ultimately decimate the overall benefits of the tax to the economy, and will indeed threaten its sustainability especially if an increase in the tax rate is contemplated. Probably it is the low initial tax rate that has obscured the adverse effects so far; without remedial measures, at a higher VAT rate they will be much more visible and much more damaging.

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