CAUSALITY BETWEEN GOVERNMENT EXPENDITURES AND REVENUES: 
THE ZIMBABWEAN CASE 1980-2004

Talknice Saungweme
Great Zimbabwe University, Box 1235 Masvingo, Zimbabwe
E-mail: talknice2009@gmail.com

ABSTRACT
Zimbabwe underwent a series of political, economic and social transformation following the attainment of independence in 1980. Such paradigm shift led to changes in both revenue and expenditure policies and patterns. This study examines the direction of causality between expenditure and revenue of the Zimbabwean government over the period from 1975 to 2004. Both bivariate and multivariate Granger causality models were developed to test the tax-spend hypothesis in the country’s public finance management system. The results of this study support Barro’s (1974) hypothesis that government expenditure causes revenue, and that there exists a stable long-term relationship between total government expenditure and total revenue.

KEY WORDS
Public expenditure, fiscal deficit.

1.0 Introduction

In 1980, the new government of Zimbabwe inherited a dualistic economy in terms of resource distribution and economic opportunity. The new regime endeavoured to meet increasing population demands for social and economic needs by catering for the previously marginalized groups, mostly the black majority. The native black Zimbabweans were deprived access to health, education and other social services by the white minority administration. Such immense social expenditure programmes, coupled with intensive infrastructure development, and massive industrial and agricultural subsidies from the fiscus by the new black government blew up public expenditure. The increase in government expenditure coincided, particularly since 1980, with the notion that government deficit spending stimulates economic growth and creates employment.

1.1 A synopsis of government expenditure and revenue, 1980-2004

The process of national re-building, resource and service re-alignment by the Zimbabwean government soon after 1980 means recurrent expenditures and transfer payments accounted for a large public sector. The increase in public expenditures was further exacerbated by drought in 1982 and civil war which ended in 1987 after the signing of the Unit Accord between ZANU and PF ZAPU. Further, the devaluation of the Zimbabwe dollar after 1991 increased the cost of servicing foreign debt, while higher domestic interest rates also made it more expensive to honour domestic obligations. Interest expenditure absorbed about 19% of total expenditure in 1993/94. Political instability in the region, for example in Mozambique, Democratic Republic of Congo (DRC) and South Africa and the subsequent intervention by Zimbabwe further constrained the fiscus.

Central government expenditures in Zimbabwe, as a percentage of GDP, were high in comparison with other countries. While expenditures were in the range of 35% of GDP (at factor cost) when the country attained independence, they rose rapidly thereafter, reaching 52, 5% of GDP in 1986/87. During the last two decades ending 2004, total government expenditure as a ratio of GDP averaged 37%, relative to 20% of tax revenue during the same period.

2 The figures were calculated using data from the National Accounts, Central Statistic Office (CSO).
As table 1 below shows, public expenditures in Zimbabwe accounted for a higher proportion of GDP, way above the average for all regions in the world. The only countries which come close to the levels of expenditures in Zimbabwe are Botswana and Namibia. However, both these countries had higher proportions of revenues-to-GDP, implying small fiscal deficits, which led to expenditure sustainability.

Table 1: International Comparisons of Expenditures

<table>
<thead>
<tr>
<th>Region</th>
<th>Percentage of GDP</th>
<th>Country</th>
<th>Percentage of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Asia</td>
<td>22.9</td>
<td>Botswana</td>
<td>34.2</td>
</tr>
<tr>
<td>South Asia</td>
<td>23.5</td>
<td>South Africa</td>
<td>31.6</td>
</tr>
<tr>
<td>SSA</td>
<td>26.3</td>
<td>Namibia</td>
<td>35.4</td>
</tr>
<tr>
<td>Latin America</td>
<td>20.4</td>
<td>Malaysia</td>
<td>26.7</td>
</tr>
<tr>
<td>Middle east</td>
<td>29.7</td>
<td>Thailand</td>
<td>16.3</td>
</tr>
<tr>
<td>All countries</td>
<td>20.8</td>
<td>Mauritius</td>
<td>22.2</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>37</td>
<td>Zimbabwe</td>
<td>37</td>
</tr>
</tbody>
</table>


Like most developing countries, taxes in Zimbabwe constituted the bulk of internal revenue source. The country had tax/GDP ratio of about 30% in the fiscal year 1990/91. The main sources of revenue to the government were taxes on incomes and profits (both individual and company taxes); taxes on goods and services (VAT, customs duty, excise duties etc) and revenue from investments and properties (interest and dividends). International economic sanctions and poor industrial performance adversely affected the inflow of international aid (and grants). The insulating effects of the external sanctions were compounded by poor revenue performance by companies (due to losses) and domestic foreign trade regulations introduced after 2000 to manage the balance of payments crisis.

Since the inception of the economic reform programs in 1991, there was a noted steady decline in revenues. The marginal individual income rate of 45% and the corporate tax rate of 40% were a serious dis-incentive to savings and investment and were encouraging extensive tax evasion and avoidance. In addition to the rate changes, the bulk of wage and salary incomes subject to personal income tax have not kept pace with inflation, and business incomes have been held back by the combined effects of drought, high interest rates and increased international competition in domestic and external markets.

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3 Data refer to average expenditures as a percentage of GDP. Regional data show average expenditures covering the period 1985 to 1990; individual country data are for 1993
5 Budget Statement (2003/4)
2.0 Theoretical Literature Review

2.1 The schools of thought

In theory there are three main hypotheses on the causal relationship between government expenditure and government revenues. The first of these is the fiscal synchronization hypothesis where government expenditure and government revenues are said to be determined simultaneously. The Public Finance literature investigates the fiscal synchronization hypothesis. It takes the view that in a representative democracy, budgetary decisions on taxation and allocation are made simultaneously by the executive and legislative branches of government.\(^6\) According to Vamvoukas (1997), this suggests that there is a feedback causal relationship between expenditure and revenue. In this hypothesis the public is said to determine the levels of government spending and taxation by weighing the benefits of government services to their costs. Meltzer and Richard (1991) have advanced arguments in favour of this theory for the US.

The second hypothesis is mainly known as the tax-and-spend hypothesis. This approach stresses that any expenditure budget must be expanded in line with taxation and therefore that expenditure must follow revenue. Thus the amount of tax revenues available will determine the level of government spending. The view here is that if taxes are raised they will propel a growth in government spending. Friedman (1978) searched for intertemporal causal relations between revenues and expenditures. In his "tax-spend hypothesis", he argued that the rise in taxes lead to an increase in government expenditures and consequently worsens the budgetary balance. In this model, lowering taxes is a necessary condition to bring development of budget deficit under control.

Drawing on the Fiscal Illusion Arguments, Buchanan and Wagner (1977) agree that taxes influences expenditure but that the causal relationship is negative. Thus, in the Buchanan- Wagner framework, government grows because when spending is financed by other than direct taxes, people falsely perceive its price to be less than what it really is. If the government is to finance this deficit entirely through direct taxes, demand for restraining the expenditures would be called for by the society.

Other researchers such as Manage and Marlow (1986) found a unidirectional causality running from federal receipts to expenditures. Blackley also showed that increasing revenue leads to increased expenditures. However, they criticized the Reagan administration’s deficit reduction packages which emphasized the tax increase over deficit reduction pointing out that these packages where designed to reallocate the combination of various revenue sources without concentrating on aggregate spending levels.

The third hypothesis is that government spending actually leads revenue. Advanced by Peacock and Wiseman (1961) and others like Barro (1979), this view is based on their observation that any large-scale exogenous disturbances like wars and other unstable political conditions or natural disasters, will induce an increase in government spending and therefore an increase in tax revenues. The solution suggested here to problems of budget deficits is that government spending should be reduced.

Endogenous growth models such as those of Barro (1990) and King and Rebelo (1990), on the other hand, predict that distortionary taxation and productive expenditures will affect the long run growth rate.\(^7\) In this regard, Robert Barro’s view of government spending, taxation and debt financing offer an important challenge to the previous views. In contrast to Friedman, he does not see increased taxation as

\(^6\) See Wildawsky, 1988 or Musgrave, 1966
\(^7\) The implications of endogenous growth models for fiscal policy have been partially examined by Barro (1990), Ram (1968).
a causal mechanism in the growth of government; rather he sees the situation in reverse. Barro (1979) with his Intertemporal Tax Smoothing model conclude that expenditures cause taxes. Similar conclusions were reached by Peacock and Wiseman (1979).

Zagler and Darnecker (2003) argued that fiscal policy, in essence is a short-run issue, which has macroeconomic consequences. In the short run, fiscal policy can be considered expansionary(contractionary) when public expenditures exceed (fall short of) public revenues and the resulting deficit exhibits can be considered growth enhancing, then a government deficit exhibits an indirect effect on long term economic growth. In a Ricardian world, however, where agents view the deficit as taxes delayed, there should be no difference between tax and deficit finance of government expenditures, as long as the structure remains unchanged in the future. On the other hand, if the economy is non-Ricardian then, public deficits can change the private incentives to accumulation and thus directly influence the rate of the economy.

Finally, in the neoclassical growth model of Solow (1956), together with its many subsequent extensions, the long run growth rate is driven by population growth and the rate of technical progress. Distortionary taxation or productive government expenditures may affect the incentive to invest in human and physical capital, but in the long run this affects only the equilibrium factor ratio, not the growth rate, although in general there will be transitional growth effect.

Other researchers have developed the hypothesis that there is no causal relationship between government expenditure and revenue, while the Institutional Separation hypothesis by Baghetsani and McNown (1994) emphasized that expenditure and revenue decisions are made independently.

2.2 Empirical Literature Review (from Developing countries)

Daniel K. Moalise\textsuperscript{8} used two models (bidirectional and a multivariate model) to assess the link between government spending and revenue. Both models proved that there is a unidirectional causal link running from revenue to spending in the case of Botswana, thus supporting the tax-and-spend hypothesis of Friedman and Buchanan-Wagner. In his paper, “Government revenue and expenditures in Guinea-Bissau: Causality and Cointegration”, Francisco G. Carneiro assessed the intertemporal relationship between government expenditures and revenues for the case of Guinea-Bissau – a low income country under stress that has struggled to achieve fiscal discipline. The results suggested that while government expenditures and revenues exhibit a stable relationship in the long run, there exists unilateral causality from expenditures to revenues in Guinea-Bissau. In Pakistan, the results by Haider Hussain\textsuperscript{9} supported Barro’s hypothesis that government expenditure causes revenues.

\textsuperscript{8} Department of Economics, Fordham University, 2004
\textsuperscript{9} http://www.spdc-pak.com
3.0 Model specification

This study used a modified model by Daniel K. Moalusi (2004)\textsuperscript{10}. It is pertinent to point out that Moalusi had adopted the model which was first used by Darrat for the case of Turkey. The following forms of bivariate models were estimated:

\[ GE_t = \alpha_0 + \sum_{i=1}^{n} \alpha_i TR_{t-i} + \sum_{i=1}^{n} \beta_i GE_{t-i} + \mu_t \] \hspace{1cm} 1

\[ TR_t = \alpha_1 + \sum_{i=1}^{n} \lambda_i TR_{t-i} + \sum_{i=1}^{n} \delta_i GE_{t-i} + \mu_2 \] \hspace{1cm} 2

Where GE is total government expenditure, and TR is total tax revenue; \( \mu_1 \) and \( \mu_2 \) are white noise error terms. The paper tested the hypotheses \( H_0: \sum a_i = 0 \) and \( H_0: \sum \delta_i = 0 \), respectively, for both the equations. If both the hypotheses are subject to rejection, then we can conclude the presence of feedback effect between \( GE \) and \( TR \). If only one of the hypotheses is subject to rejection, we can construe the unidirectional causality from that variable to the independent variable of the equation. Furthermore, we also anticipate that \( \sum a_i < 1, \sum \beta_i < 1, \sum \lambda_i < 1 \) and \( \sum \delta_i < 1 \).

The multivariate models that were estimated were defined as follows:

\[ GE_t = \beta_0 + \sum_{i=1}^{n} \beta_{1i} GE_{i-i} + \sum_{i=1}^{n} \beta_{2i} TR_{t-i} + \sum_{i=1}^{n} \beta_{3i} Y_{t-i} + \sum_{i=1}^{n} \beta_{4i} I_{t-i} + \varepsilon_t \] \hspace{1cm} 3

\[ TR_t = \alpha_0 + \sum_{k=1}^{m} \alpha_{1k} TR_{t-k} + \sum_{k=1}^{m} \alpha_{2k} GE_{t-k} + \sum_{k=1}^{m} \alpha_{3k} Y_{t-k} + \sum_{k=1}^{m} \alpha_{4k} I_{t-k} + \mu_t \] \hspace{1cm} 4

Where Y represents GDP and I interest rates in both equations while \( \varepsilon_t \) and \( \mu_t \) are white noise error terms. For equation 3, the null hypothesis to be tested is that TR does not Granger cause GE. This null would be rejected if the \( \Sigma \beta_{2i} \) were significantly different from zero as a group. For equation 4, the null hypothesis to be tested is that GE does not Granger cause TR. This null will be rejected if the summation of \( \Sigma \alpha_{2k} \) were significantly different from zero as a group.

Equations (5) and (6) were estimated following the existence of a long-term relationship between revenue (TR) and expenditure (GE):

\[ \Delta TR_t = \phi + \sum_{i=1}^{q} \alpha_i \Delta TR_{t-i} + \sum_{i=1}^{q} \gamma_i \Delta GE_{t-i} + \varepsilon_t \] \hspace{1cm} 5

\[ \Delta GE_t = \phi + \sum_{i=1}^{q} \beta_i \Delta TR_{t-i} + \sum_{i=1}^{q} \varphi_i \Delta GE_{t-i} + \mu_t \] \hspace{1cm} 6

4.0 Estimation and Interpretation of Results

Most tests and regressions were done using the E-Views 3.1 statistical package. The Augments Dickey-Fuller (ADF) model was used to test for stationarity of variables under consideration. The results for unit root tests are presented in the following table.
Table 2: Stationarity Results in levels using the ADF Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>K</th>
<th>ADF Statistic (With intercept)</th>
<th>5% Critical Value</th>
<th>F-Statistic</th>
<th>DW</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>LGE</td>
<td>3</td>
<td>0.9737</td>
<td>-2.9798</td>
<td>10.3625</td>
<td>2.046</td>
<td>Non-stationary</td>
</tr>
<tr>
<td>LTR</td>
<td>3</td>
<td>0.7639</td>
<td>-2.9798</td>
<td>17.5517</td>
<td>2.0014</td>
<td>Non-stationary</td>
</tr>
<tr>
<td>LRGDP</td>
<td>0</td>
<td>2.3819 (no intercept)</td>
<td>-1.9530</td>
<td></td>
<td>1.460</td>
<td>Stationary</td>
</tr>
<tr>
<td>LINT</td>
<td>2</td>
<td>0.04480</td>
<td>-2.9750</td>
<td>2.50</td>
<td>1.8997</td>
<td>Non-stationary</td>
</tr>
</tbody>
</table>

*L denotes the natural logarithm

The summary of unit roots results in table 2 above indicates that the natural logarithm of government expenditure (LGE), total revenue (LTR) and interest rates (LINT) are non-stationary in levels. The natural logarithm of Real Gross Domestic Product (LRGDP), on the other hand, is the only variable that is stationary in levels, I (0). However, the rejection of the null hypothesis that $\beta = 0$ for the other variables means that the variables are all non-stationary and may have at least one unit root.

Table 3: Summary of the Bivariate and Multivariate Granger Causality Tests for Expenditures and Revenue: 1975 to 2004

<table>
<thead>
<tr>
<th>Null Hypothesis</th>
<th>F-Statistic</th>
<th>Probability</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bivariate Models:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dependent variable: LGE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TR does not Granger Cause GE</td>
<td>1478.24</td>
<td>0.00000</td>
<td>Do not reject</td>
</tr>
<tr>
<td>LTR does not Granger Cause LGE</td>
<td>7.06722</td>
<td>0.00405</td>
<td>Do not reject</td>
</tr>
<tr>
<td><strong>Dependent variable: LTR</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE does not Granger Cause TR</td>
<td>2.00006</td>
<td>0.15819</td>
<td>Reject</td>
</tr>
<tr>
<td>LGE does not Granger Cause LTR</td>
<td>2.54120</td>
<td>0.10066</td>
<td>Reject</td>
</tr>
<tr>
<td><strong>Variable</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\Delta$LTR does not Granger Cause $\Delta$LGE</td>
<td>7.48931</td>
<td>0.00331</td>
<td>Do not reject</td>
</tr>
<tr>
<td>$\Delta$LGE does not Granger Cause $\Delta$LTR</td>
<td>0.83568</td>
<td>0.44688</td>
<td>Reject</td>
</tr>
<tr>
<td><strong>Multivariate Models:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The results from table 3 show that for the bivariate model, we fail to reject the null hypothesis that total government revenue (TR) does not Granger cause government expenditure (GE). However, we reject the null hypothesis that government expenditure does not Granger cause total government revenue. This means that causality runs from spending to revenue and thus supports a spend-and-tax hypothesis. Also from table 3, we do not reject the null hypothesis that changes in the natural logarithm of total revenue do not granger cause changes in the natural logarithm of government spending. Instead, we conclude that changes in government expenditures are causing changes in total revenue. Results from the bivariate model could have some bias due to omission of variables.

Thus from these empirical results we conclude that the relationship between government spending and revenue is unidirectional, running from government spending to revenue. These findings support the spend-and-tax hypothesis in Zimbabwe. This implies that growth in government expenditure in Zimbabwe has influenced greatly the way the government generates its revenue, following the prediction by Peacock and Wiseman (1961) and others like Barro (1979).

### Table 4: Stationarity Results in first difference using the ADF test

<table>
<thead>
<tr>
<th>Variable</th>
<th>K</th>
<th>ADF Statistic With intercept</th>
<th>5% Critical Value</th>
<th>F-Statistic</th>
<th>DW</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>△LGE</td>
<td>3</td>
<td>3.923623</td>
<td>-2.9850</td>
<td>8.311956</td>
<td>2.114748</td>
<td>Stationary I(1)</td>
</tr>
<tr>
<td>△LTR</td>
<td>3</td>
<td>2.991128</td>
<td>-2.9850</td>
<td>2.140067</td>
<td>1.668467</td>
<td>Stationary I(1)</td>
</tr>
</tbody>
</table>

11 The results from Table 3 are based on a specification of two lags. The lag length was determined using the Akaike Information Criterion.
The results of table 4 above makes it necessary to test whether the variables of interest are cointegrated, and thus establish the existence of a long-run relationship. The results of the Johansen cointegration test are given in table 5 below:

**Table 5: Johansen test for the number of cointegration vectors**

<table>
<thead>
<tr>
<th>Eigen value</th>
<th>Likelihood Ratio</th>
<th>5% Critical Value</th>
<th>1% Critical Value</th>
<th>Hypothesized No. of CE(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.507336</td>
<td>27.56312</td>
<td>25.32</td>
<td>30.45</td>
<td>None *</td>
</tr>
<tr>
<td>0.268698</td>
<td>8.449063</td>
<td>12.25</td>
<td>16.26</td>
<td>At most 1</td>
</tr>
</tbody>
</table>

Basing on the likelihood ratio (LR) test statistic we reject the null hypothesis of no cointegration among the variables and, hence, conclude that there is one cointegration vector at 5% level of significance. This justifies the use of an error correction term to capture the long run equilibrium relationship, and the differenced term captures the short run dynamics, between government spending and revenues.

In this respect the error correction models estimated in this study were generated as below, with the results of the resultant ECM models in table 6 and 7:

ECM\(_1\) = 1* LGE + 3.206294 * LTR - 25.80424
ECM\(_2\) = 1* LTR + 0.311887 * LGE - 8.047997

**Table 6: Error correction model regression results** *(Dependent Variable: DLGE)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard error</th>
<th>t-value</th>
<th>t-prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.003941</td>
<td>0.056552</td>
<td>-0.069693</td>
<td>0.9450</td>
</tr>
<tr>
<td>DLTR</td>
<td>0.870149</td>
<td>0.130275</td>
<td>6.679326</td>
<td>0.0000</td>
</tr>
<tr>
<td>ECM(_1)(-1)</td>
<td>0.024188</td>
<td>0.006065</td>
<td>3.988128</td>
<td>0.0062</td>
</tr>
</tbody>
</table>

R\(^2\) = 0.831352    Adjusted R\(^2\) = 0.818379    RSS = 0.808002    F-statistic = 64.08371
DW = 2.364617    Log likelihood = 10.76784    Prob (F-statistic) = 0.000000
Table 7: Error correction model regression results (Dependent Variable: DLTR)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard error</th>
<th>t-value</th>
<th>t-prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.026858</td>
<td>0.0513</td>
<td>-0.522592</td>
<td>0.6057</td>
</tr>
<tr>
<td>DLGE</td>
<td>0.726080</td>
<td>0.108706</td>
<td>6.679326</td>
<td>0.0000</td>
</tr>
<tr>
<td>ECM2(-1)</td>
<td>0.032567</td>
<td>0.016749</td>
<td>1.944355</td>
<td>0.0627</td>
</tr>
</tbody>
</table>

\[ R^2 = 0.850061 \quad \text{Adjusted } R^2 = 0.838527 \quad \text{RSS} = 0.674222 \quad F\text{-statistic} = 73.70203 \]

The results in tables 6 and 7 above are in conformity with the Granger causality results obtained earlier, that is, there is a positive relationship between government expenditure and revenues. The variables have expected signs and are statistically significant at 5% level of significance. The constant term, however, in both cases is statistically insignificant at 5% level of significance. The negative sign can be interpreted to mean that when all other variables remain unchanged total government spending (or revenue) is expected to fall.

The coefficient of the ecm1t-1 indicates that 2% of previous disequilibria are corrected for in the current period while that for ecm2t-1 indicates that about 3% of previous disequilibria are corrected for in the current period. It, therefore, implies that any deviations/error from the long run equilibrium path can be corrected accordingly at a very slower rate. The coefficients carry the expected positive sign and are statistically significant at 5%. The hypothesis that there is a cointegration relationship is therefore reinforced. Further, the models have a good fit as explained by the R² and the F - statistics. An R² of 83% and 85%, respectively, provides a convincing proof that the models fit the data set fairly well. That is to say 83% of the variations in GE are explained by TR, the remainder (17%) is captured by the error term.

5.0 Conclusions and Policy Implications

The results of this research support Barro’s (1974) hypothesis that government expenditure causes revenue, and that there exists a stable long-term relationship between government expenditure and revenue. That is, the government seems to spend first and then raise revenue and/or request/receive grants to finance its expenditure, rather than adopting the approach of raising funds first to finance spending later. This result that total revenue does not cause government expenditure can best and only be explained by the political economy of Zimbabwe where the main expenditures are the outlays chiefly determined politically by bureaucratic influence (defence, debt servicing, general administration). Although debt servicing is a liability transfer from previous periods, it is included here too because the debts taken have not been reflected in increased development and other investment expenditure over the years.

Henceforth, the hypothesis that government spending granger causes total revenue suggests that spending decisions have a life of their own, and eventually lead to tax changes. Here, the government decides on the “appropriate” spending level, and taxes adjust to cover the cost.
The policy recommendation for Zimbabwe can be summarized as follows:

In order to achieve fiscal sustainability the government expenditure should be re-examined with the view to assess (i) their contribution to an efficient allocation of resources within the economy and (ii) their potential to finance growth enhancing spending categories (such as, for example, those considered in the framework of endogenous growth models – i.e., infrastructure, research and development, education, and health). A reduction in the size of large consumption outlays and their shifting towards development and other investment expenditures will facilitate this economy to move towards Pareto optimal solutions. In addition, the presence of and dependence on the political factors in determining the preferences for expenditures can interrupt any economic step taken to correct the revenue-expenditure gap.

In a second moment, the government should seek ways to re-order the intertemporal relationship between expenditure and revenue in a way consistent with the country’s revenue mobilization potential. This could pave the way for a sound medium term budgeting framework and help the government to control its expenditures rather than increasing its fiscal revenues, thus re-establishing fiscal discipline without jeopardizing the accumulation of factors affecting the country’s long-term growth potential. In addition, in determining the new outlays, economic efficiency should be preferred over political determination.

Moreover, as is the focal point of this study, results suggest that besides the tax & tariff reform programme of the government which emerged and was enhanced during the 1990s, we strongly need an expenditure reform curriculum in which comprehensive cost benefit analyses should be conducted for government expenditures together with the analyses of adopting optimal approach for gradual shifting and reformation. This whole scenario should be scrutinized in a general equilibrium framework so that the effect and distributional consequences of any expenditure could be spread over the entire economy.

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