ETHEKWINI MUNICIPALITY

THE DURBAN EDGE

ARE WE REALLY IMPROVING ETHEKWINI'S REVENUE COLLECTION BY INVESTING IN PUBLIC INFRASTRUCTURE?

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ECONOMIC TRANSFORMATION SERIES 2

----- January 2023 -----

Abstract

This study is designed to investigate the economic impact of eThekwini Municipality's capital expenditure (infrastructure investment) on its total revenue collection. The time series econometric method of the vector autoregressive (VAR) model of Sim (1980)* was employed for the analysis. The study used monthly time series data which covered the period 2015M1 to 2021M12. We discover that there is a positive relationship between capital expenditure and revenue collection. As a result, for every 1% increase in CAPEX, 0.1% more revenue is collected after infrastructure repairs/upgrades. This only applies in the short run, so an increase of 1% in CAPEX will only temporarily raise revenue by 1%, implying that the increase will not be sustained indefinitely. The City must ensure that CAPEX routinely rises in the short-term to maintain revenue growth. A regular short-term expenditure on infrastructure repairs and upgrades will be necessary as a practical method of maintaining a rise in revenue. The status quo indicates the steep decline in capital budget spending comes against a backdrop of man-made and natural disasters which required increased capital investment into infrastructure. Also found that the capital budget for eThekwini Municipality comes in third place, it is behind by **R3.7 billion** in other major cities. The revenues collected from energy in 2021/22 increased by 2.9% (even though electricity relies more on tariff increases) and water consumption fell by 12.8% due to infrastructure damages during flooding.

1. Introduction

The primary responsibility of local government is to make sure that any money collected through service fees is used for the provision of service delivery. This is how public funds are generated, which are then used to fund infrastructure upgrades and provide services to citizens and businesses. Furthermore, it can boost total revenue collection if done so with strong governance and financial investment (Titus 2013, Sewchurran and Davidson, 2021). Infrastructure development is a crucial engine for boosting economic activity. The report's first section compares Durban's capital spending to those of the main cities in South Africa. It also examines Durban's capital expenditure and revenue collection performance, including the impact of capital expenditure on Durban's economy, and it presents the data collected from project managers' interviews. The last section investigates the relationship between capital expenditure and revenue generation. The key questions that the paper seeks to investigate are:

1. What is the impact of infrastructure investment on total revenue collection? Or are we really improving City's revenue collection by investing in public infrastructure?

2. What is the capital budget threshold for eThekwini Municipality in comparison to other cities?

3. Given the two questions above, how should eThekwini be responding to its current infrastructure crisis?

2. Capital Budget Performance of SA's Major Metros

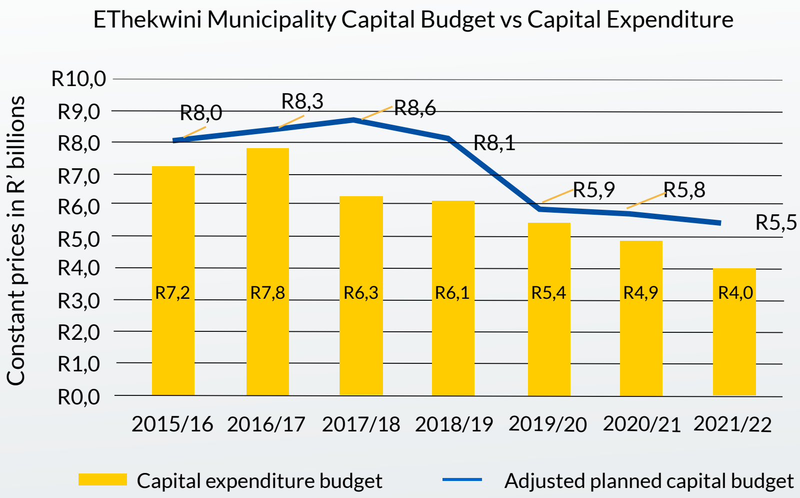
This section compares eThekwini's capital spending to those of the major cities in South Africa in order to observe if there is a spending gap between us and the rest of the Cities. The budget for SA Metros' total expenses is **R302.4 billion** in 2021–2022, and it rises to **R341.3 billion** in 2023–2024. Given those metropolitan areas are widely regarded as economic growth engines, this emphasises the overall significance of these areas in promoting economic growth and job creation (MTREF National Treasury, 2022). SA Metros' capital expenditures make up an average of **52.1%** of all municipal capital budgets over the course of the 2021/22 MTREF (Medium Term Revenue and Expenditure Framework).

The average capital investments made by the cities of Cape Town and Johannesburg are **R9.0 billion** and **R7.3 billion**, respectively, whereas eThekwini makes an average capital budget investment of R5.3 billion, falling behind Cape Town by **R3.7 billion**. When compared to other metros, eThekwini ranks third in terms of capital expenditure and third in terms of GDP growth. This highlights the relationship between capital expenditures and the metros' GDP growth. When considering the three negative shocks (COVID-19, unrest, and floods) that have occurred in rapid order, the question of whether the capital budget given in Durban is sufficient to mitigate and quickly recover from all three shocks is raised. The largest capital budgets are in Cape Town, the City of Johannesburg, and eThekwini, at **2.8%, 2.7%**, and **1.8%** of the total budget for metros, respectively (operating and capital expenditure). The City of Tshwane's capital budget is relatively low at **1.3%** and decreases over the MTREF when benchmarked against the above-mentioned metros. However, it is closely comparable to the City of Ekurhuleni.

3. Should the EThekwini Municipality Consider Outside Funding Sources?

This section looks at the performance of historical capital expenditure in order to explore whether the City needs to consider outside funding sources. EThekwini Municipality's expenditure accounts for about 1.0% of Durban's GDP in 2021/22. The Municipality spent **R41.7 billion between 2015/16 and 2021/22** on capital expenditures. However, this was R8.5 billion short of its planned capital budget of R50.2 billion in the same period, mainly because of a lack of implementation and the repurposing of budgets. Over the medium term, the City's capital expenditure has been on a steep decline, dropping by **45.1%** in real terms between 2015/16 to 2021/22. Between 2015/16 to 2020/21, it dropped by **15.2%**, meaning the majority of the decline was experienced in the 2021/22 financial year. The primary cause of the decline in capital spending in the eThekwini Municipality and other municipalities is that they underspent on conditional grants and are not generating enough revenue to cover their capital budgets. The capital budget is **R4.9 billion for the 2022–2023 fiscal year, followed by R5.1 billion in 2023–2024 and R5.2 billion in 2024–2025**. Over the MTREF period, the capital budget increased from R4.8 billion to R5.1 billion. **Grant funding (66.9%)**, **loans (20.4%)**, and internally generated funds make up the three sources of funding for the 2022–23 budget **(12.7%)**.

The City's borrowing levels have steadily decreased in both real and relative terms, reaching **R7.4 billion or 1.9 percent** of local GDP in 2021. The growth in revenue is attributed to a rise in property value and service fees rather than a rise in the number of customers. The main factors influencing total capital expenditure from 2015/16 to 2021/22 were housing accounted for **R11.6 billion (27%)**, water, waste and sanitation, which account for **R8.7 billion (20%)**, roads and transport accounted for **R6.1 billion (14%)**, electricity accounts for **R5.1 billion (12%)**, engineering accounts for **R4.98 billion (11%)**, Other services account for **R4.98 billion (11%)**, and finally, economic development services account for **R1.9 billion (4%)**. What is clear is that at the current pace of repairs and budgeting, the City is likely to start experiencing disinvestment over the medium-term, unless serious interventions are made, in capital interventions to address the failing infrastructure repairs and upgrades.



4. Interviews with Capital Project Managers

Capital project managers from eThekwini Municipality's Economic Development Unit were contacted for the interviews in order to further shed light on the discrepancies between intended and actual capital expenditures and to pinpoint problems that contributed to the discrepancy and declining trend. Those interviewed were selected due to their direct and daily implementation of the City's capital budget.

Internal Processes

- Delays in the approval of project plans,
- Significantly delayed SCM processes albeit post-BAC approval prior to site handover
- Misalignment of key performance targets for the same projects with implementing units and their "resources" resulting in a laissez-faire attitude to meeting targets.
- Innovation in the current functional structure is not applauded nor supported by the systems

Budget Issues

- Delays in the approved capital budgets
- Insufficient capital budget versus projects requirements
- No autonomy for project managers especially in relation to budget and delegation authority
- Budget cuts and repurposing of budgets

External Processes

- Lack of documented policies with parameters for "business forums" and contractor development programs.
- Involvement of political leadership in grading priority interventions

5. Estimated Economic Impact of the City's Capital Expenditure

The economic impact of capital expenditure through investment in public infrastructure will be highlighted in this section using the multiplier effect. Over the past seven years, eThekwini Municipality has spent/invested **R41.7 billion.** This investment will be applied as an economic shock to the economy through the SAM (Social Accounting Matrix) Model. The estimated result indicates that the net impact on the City's GDP between 2015 to 2022 is **R44.9 billion**, which is **10.6%** of the annual GDP. Every **R1 million** spent on capital expenditure is estimated to have increased GDP by **1.1%**. On average, the City is estimated to have generated **R5.6 billion a year**. Other economic impact results are as follows:

Employment:
Capital expenditure has generated/ sustained a total of **21 825 jobs**, split between:

- **12 236 direct jobs**
- **2 006 indirect jobs,**
- **7 584 induced jobs,**

Therefore, every R1 million of capital expenditure is estimated to create/sustain two jobs.

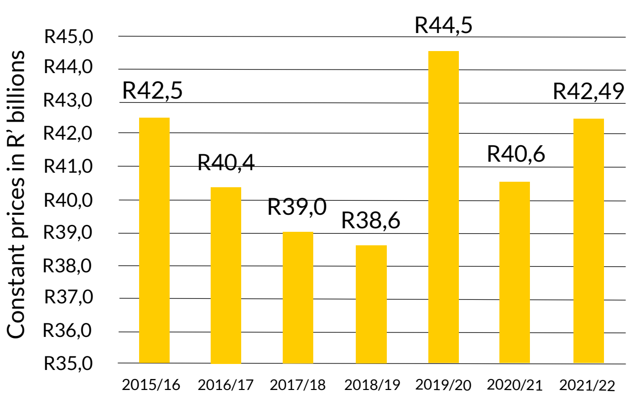
Household income:
The City's capital expenditure is estimated to have increased household incomes in Durban by **R39.5 billion.**

6. The Revenue Outlook of SA's Metros

This section compares eThekwini's revenue collection with that of South Africa's major cities. In 2021/22, **R302.5 billion** was added to the total budgeted revenue for all metros, which had increased from **R277.8 billion in 2020/21**. The three metros that contribute the most to the overall revenue are the City of Johannesburg, Cape Town, and eThekwini, with respective contributions of **24.5%, 18.5%,** and **16.2% in 2021/22**. Two metro areas, Mangaung and Buffalo City, account for a meager 3.1% and 3.3% of the total revenue, respectively. The revenue is expected to increase over the MTREF to **R322.3 billion in 2022–2023** and to **R342 billion in 2023–2024**, respectively. These total increases of **6.6%**, and **6.1%** in the two outer years of the MTREF.

7. EThekwini Municipality Revenue Collection Performance

To better understand collection rate changes and customer demands for the City, this section looks at the historical performance of revenue collection over time in Durban. The total revenue collected increased from **R40.6 billion in 2020/21 to R42.5 billion in 2021/22** in real terms. The City's revenue counts for 10.7% as a percentage of GDP and debt counts for 17% as a percentage of revenue. The main sources of income in 2021/22 are energy sources, which will bring in **R14.8 billion (34.9%)**, property rates, which will bring in **R10.3 billion (24.2%)**, water management, which will bring in **R5.2 billion (12.2%)**, and other service fees, which will bring in **R11.2 billion (26.5%)**. Energy in 2021/22 increased by 2.9% and water consumption fell by 12.8% due to infrastructure damages during flooding. The top customer is manufacturing accounts for 40% of all municipal business revenue, but this industry has recently seen significant downsizing and disinvestments. The trade sector, which has also been directly impacted by lockdown regulations in 2020, is the second-largest source of business revenue at 20%. Professional services is the industry with the greatest growth potential. However, this industry naturally consumes less electricity and water.



8. Summarised Results of the Vector Auto-Regression Model Analysis

The vector autoregression (VAR) model is adopted to investigate the relationship between eThekwini's infrastructure spending and revenue collected. The monthly data is ultilised from 2015M1 to 2021M12, and it is sourced from eThekwini Municipality's Expenditure Unit, 2022. This will provide an answer to this study's main research question: "are we really improving City's revenue collection by investing in public infrastructure?"

We discover that there is a positive relationship between capital expenditure and revenue collection. As a result, for every 1% increase in CAPEX, 0.1% more revenue is collected after infrastructure repairs/upgrades. This only applies in the short run, so an increase of 1% in CAPEX will only temporarily raise revenue by 1%, implying that the increase will not be sustained indefinitely. The City must ensure that CAPEX routinely rises in the short term to maintain revenue growth. A regular short-term expenditure on infrastructure repairs and upgrades will be necessary as a practical method of maintaining a rise in revenue. Therefore, it is crucial to develop a solution that will enhance the City's spending culture and close the R8.5 billion difference between the planned budget and actual expenditure.

The operational expenditure in the model has a positive impact on the revenue collection. As the operational expenditure increases by 1%, the City's revenue collection increases by 0.2% on average. **This illustrates that the more eThekwini Municipality allocates its resources to essential activities, such as internal system automation, improving competitiveness, and making it easier for businesses to operate, these indirectly have a favourable impact on revenue collection.**

9. Conclusion

- A benchmark for cities in South Africa, is to spend about **20%** of their total budget on capital. While eThekwini was in line with this trend in 2015, with **18%** of its budget dedicated to capital expenditure, this figure has fallen to **9% in 2022/23**.
- The steep decline in capital budget spending comes against a backdrop of man-made and natural disasters which required increased capital investment into infrastructure.
- The implication of the decline, coupled with the flood damage, is that the City is not investing in its assets which are responsible for generating its revenue. This will have severely negative consequences for the City's short, medium, and long-term revenue trajectory.
- The study has found that the capital budget for eThekwini Municipality comes in third place, it is behind by **R3.7 billion** in other major cities.
- It's crucial to emphasise that, despite their financial difficulties, cities are seen to be spending less of the grant fund provided to them to carry out certain infrastructure projects.
- The revenues collected from energy in 2021/22 increased by **2.9%** (electricity rely more on tariff increases) and water consumption fell by **12.8%** due to infrastructure damages during flooding.
- The lack of project implementation and other primary factors identified by project managers are the key causes of the City's capital expenditures' downward sloping trend, causing a shortfall of **R8,5 billion** between 2015/16 to 2021/22.
- The VAR model proves that there is a positive relationship between capital spending, operating expenditure, and revenue collection significantly supports the notion that revenue collection is a necessary component of the City's budgeting method.
- EThekwini's debt levels have fallen over the years and remain well below the benchmark of **45%** of its own revenue – hence the City has an under-geared balance sheet.
- Given the infrastructure crisis resulting from the flood and expenditure in infrastructure over the last six years, combined with the low and declining levels of borrowing that the City currently has, it is important that the City increases its current levels of debt to address urgent developmental priorities.
- As disaster-related funding slowly comes through, these can assist in further addressing the infrastructure investment shortfall resulting from years of under investment or used to offset the debt.
- The danger of perpetuating the current approach which has resulted in disastrous levels of catchment pollution, an extremely delicate electricity network, and vulnerable water and stormwater infrastructure, is that the City will experience a sharp decline in revenue brought on by disinvestment, project cancellations, and declining local property and capital.
- It is estimated that to address the immediate infrastructure shortcoming (in waste electricity, stormwater, and water) and halt the unfolding of further natural and economic disasters, the City would need to borrow approximately R2 billion of infrastructure funding, which is well within the it's capability.

10. Recommendations

- To accelerate the completion of new infrastructure projects and maintain current infrastructure, it is necessary to package infrastructure funding requirements for all unfunded projects in an effort to secure external funding. This is a crucial factor in increasing the City's revenue collection.

- The Sakha iTheku Economic Strategy, which is a part of eThekwini Municipality's Economic Plan, recommends both the establishment of a company for economic development and the creation of public-private partnership models for large-scale infrastructure projects. This may serve as the solution to several problems that project managers have identified (See Section 4 for full discussion)

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Full list of references available on request

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