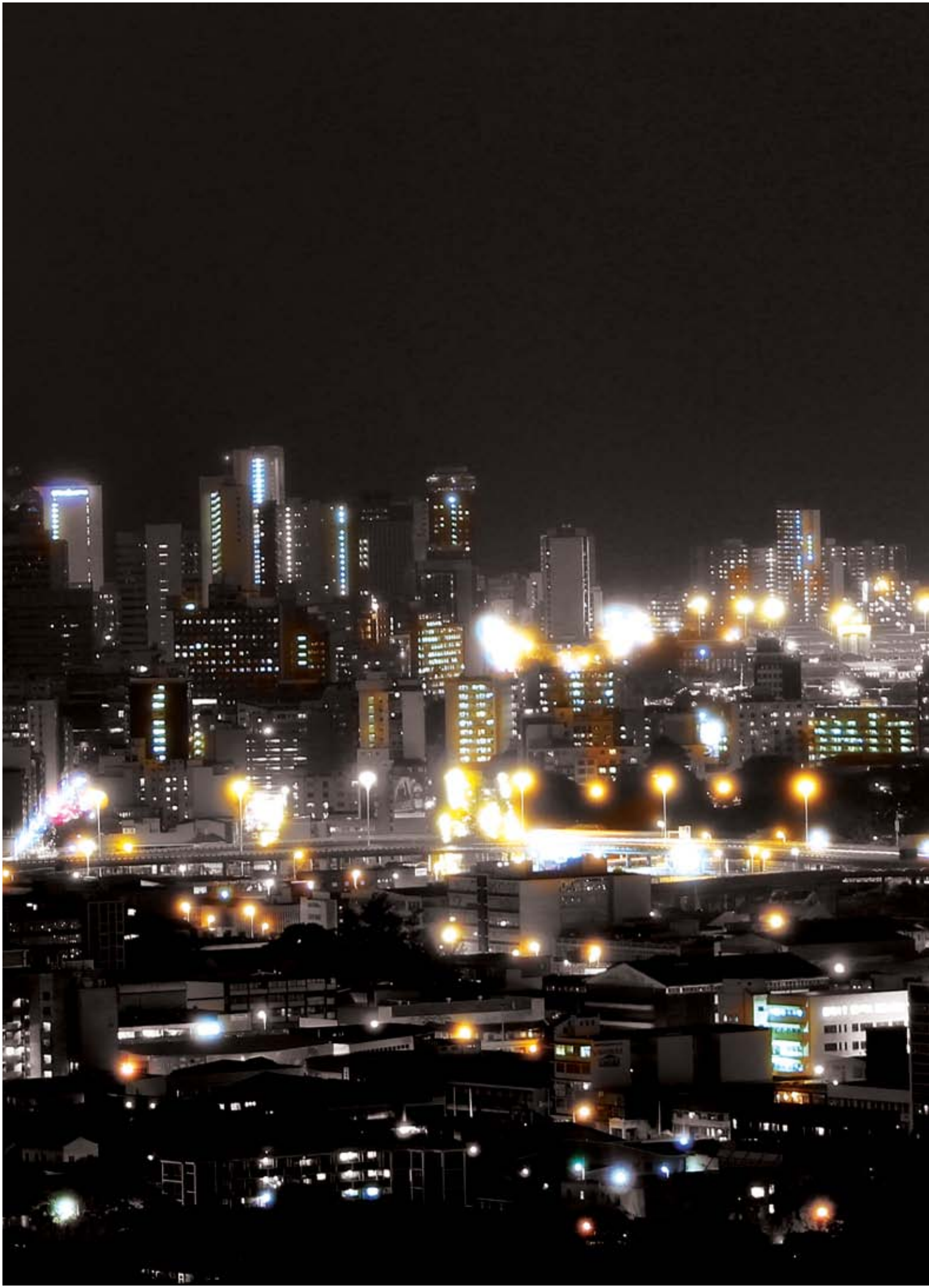
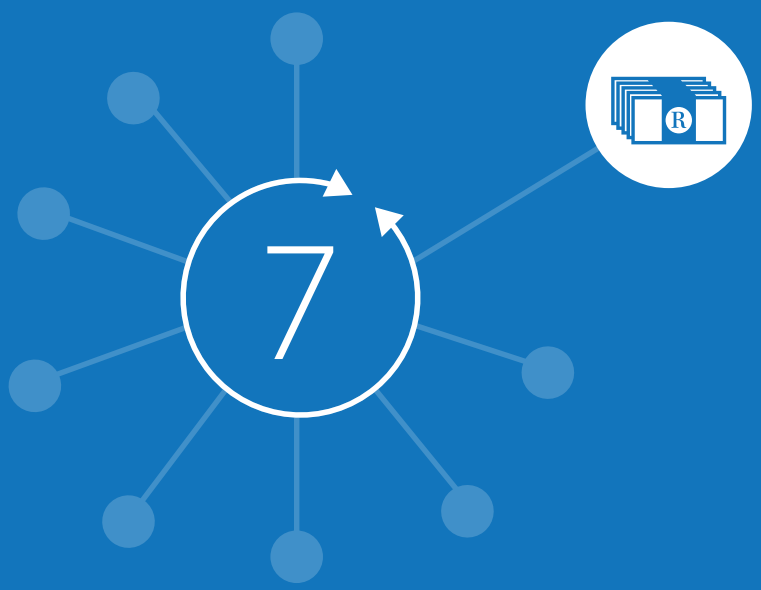


FINANCE AND **INNOVATION**

Sustainable financing for today's and tomorrow's cities



@iamthetakz

Key Messages

1. Cities have improved their financial reporting and audit findings, and increased their revenue and expenditure significantly.

2. Challenges to municipal financial health include inadequate finance for delivering required infrastructure and services, affordability of municipal services for consumers, corruption, and an increasing administrative burden.

3. Cities should continue to seek operational efficiency gains and improve revenue collection.

4. Cities need to make better use of existing revenue sources and explore innovative financing options, including reforming the current municipal financing model.

5. Cities must balance immediate community development aspirations against longer-term transformation needs.

@mikebarwood

INTRODUCTION

With total expenditure of R164.0-billion in 2014, SACN member cities are collectively responsible for managing larger budgets than any of the individual provinces. Every day they deliver services that affect over 20 million people, or about 40% of the total national population. Municipal officials, councillors, civil activists and others interested and involved in local government have a duty to understand and debate how cities raise and spend their money. In a well-functioning democratic local government system, debates should include whether:

- City budgets are appropriate and responsive to local conditions and priority needs.
- Budgeting processes are adequately consultative and informed by sufficient analysis of feasibility, cost estimates and risk assessment.
- Budgets are translated into a clear enough performance management system to enable accountability through reporting against performance indicators and targets.
- Local revenue and taxes are reasonable, serve a redistributive or social justice agenda, and influence citizen behaviour in an appropriate way (through incentives and penalties).
- Expenditure achieves service delivery improvements, developmental results, value for money and longer-term sustainability gains.

The South African municipal finance management system has matured since the Municipal Finance Management Act (MFMA) (No. 56 of 2003) was promulgated. For the past 10 years, SACN has been measuring and reporting on the financial position and performance of South African city governments. Over this period, the cities have demonstrated improved capacity to manage public funds and achieve expenditure outcomes. They have also developed their financial and performance reporting systems, to enable more immediate and detailed interrogation of results. However, despite these system improvements, cities do not have sufficient financial resources to realise their constitutional mandate, deliver services to the satisfaction of citizens and improve their global competitiveness. They are limited in their ability to fulfil their developmental local government role because of insufficient budgets for new infrastructure to transform the space economy, inadequate revenue-raising opportunities and threats to current revenue sources.

Cities may have made progress in planning for the future but do not have the financial freedom to realise these plans, despite calls to devolve funds and functions to cities. Yet, within the intergovernmental system, cities are best positioned to understand the lifecycle costs and benefits of the range of infrastructure investments that influence land-use patterns (including housing, transport, service distribution networks, and social services). They are also best able to understand and anticipate the long-term consequences of spatially targeted investments in peripheral or segregated developments. The municipal finance model needs to be reformed, so that cities can have more autonomy in raising and allocating the funding required to achieve their objectives of resilience, sustainability and shared growth.

This chapter was developed using information from the SACN State of City Finances reports. It provides a synthesis of key findings and themes related to the state of city finances over the last 10 years and highlights the financial management challenges that cities continue to face.

FINANCIAL REPORTING AND OVERSIGHT

Since 2010 most SACN member cities have improved the quality of their financial management and reporting and, since 2011, have had improved audit findings: seven of the nine cities achieved unqualified audits in 2014 (Table 7.1).

Table 7.1: Summary of audit outcomes (2010–2015)

	2010	2011	2012	2013	2014	2015
Johannesburg	Qualified	Qualified	Qualified	Unqualified	Unqualified	Unqualified
Cape Town	Unqualified	Unqualified	Unqualified	Unqualified	Unqualified	Unqualified
eThekwini	Unqualified	Unqualified	Unqualified	Unqualified	Unqualified	Unqualified
Tshwane	Qualified	Unqualified	Unqualified	Unqualified	Unqualified	Unqualified
Ekurhuleni	Unqualified	Unqualified	Unqualified	Unqualified	Unqualified	Unqualified
Nelson Mandela Bay	Unqualified	Adverse	Qualified	Qualified	Qualified	Qualified
Mangaung	Disclaimed	Disclaimed	Outstanding	Qualified	Unqualified	Unqualified
Buffalo City	Qualified	Adverse	Qualified	Qualified	Qualified	Qualified
Msunduzi	Qualified	Unqualified	Unqualified	Unqualified	Unqualified	Unqualified

Source: SACN (2015)

The Public Expenditure and Financial Accountability (PEFA)[1] sub-national study of three Gauteng metropolitan municipalities found that the municipalities are demonstrating relatively sound financial management practices in relation to international good practice. Reforms continue at national and local levels that seek to improve further municipal financial management. Some cities have established municipal audit committees to strengthen internal audit processes. Payroll and procurement are two large expenditure areas where controls can be improved.

1 The most comprehensive framework to assess the quality of budget systems and institutions is the Public Expenditure and Financial Accountability (PEFA) Performance Measurement Framework for public financial management (PFM). This framework has 31 indicators, and measures institutional arrangements at all stages of the budget cycle. It also addresses cross-cutting dimensions, budget credibility and donor practices. The framework was designed to provide a benchmark for donors and governments to measure PFM performance and track progress over time. (*https://www.pefa.org/en/content/pefa-framework*)

In 2013/14, unauthorised, irregular as well as fruitless and wasteful expenditure combined accounted for only 6% of metropolitan municipal expenditure,[2] demonstrating that the metros seem to be performing relatively well (with the larger metros performing notably better). Across local government, the Auditor-General has noted that management responses to audit reports are not yet systematic and timely within all metros (AGSA, 2013; 2014).

National Treasury has issued 75 circulars to provide guidance on how to improve compliance with the Local Government: Municipal Finance Management Act (No. 56 of 2003) (MFMA) and the application of good practice in municipal finance management. On 15 June 2007, the Municipal Regulations on Minimum Competency Levels were issued, requiring officials who are responsible for financial management to have higher education qualifications, work-related experience, and managerial, financial management and supply chain management (SCM) skills. All municipalities and their municipal entities were given five-and-a-half years to implement these requirements (i.e. by 1 January 2013). The aim was to ensure that the responsible officials have the necessary skills to manage municipal finances in accordance with the provisions of the MFMA and the regulations governing local government finances, including the relevant reporting standards. This deadline was subsequently shifted to 1 January 2015. For the first time, in March 2015, disciplinary procedures were instigated against 36 senior municipal managers who did not have the required academic qualifications for their jobs.[3] None of the SACN member cities, except for Nelson Mandela Bay (whose municipal manager was dismissed) were implicated.

In addition to providing clear guidelines on the competency standards, National Treasury has made training material available for use by training providers. Accredited training programmes are offered by approximately 78 tertiary training institutions, including universities, further education and training (FET) colleges and private training institutions. Each municipality or municipal entity carries the cost of training and the time-off given to officials to achieve the required competence, which has placed a noticeable burden on the cities. Reports on the value of the training are mixed. Some experienced senior officials without formal qualifications have found the training a waste of time, and many have started but not completed various modules. Less-experienced officials and officials, who would like to build careers in local government, are more positive about what they have gained from the training.[4]

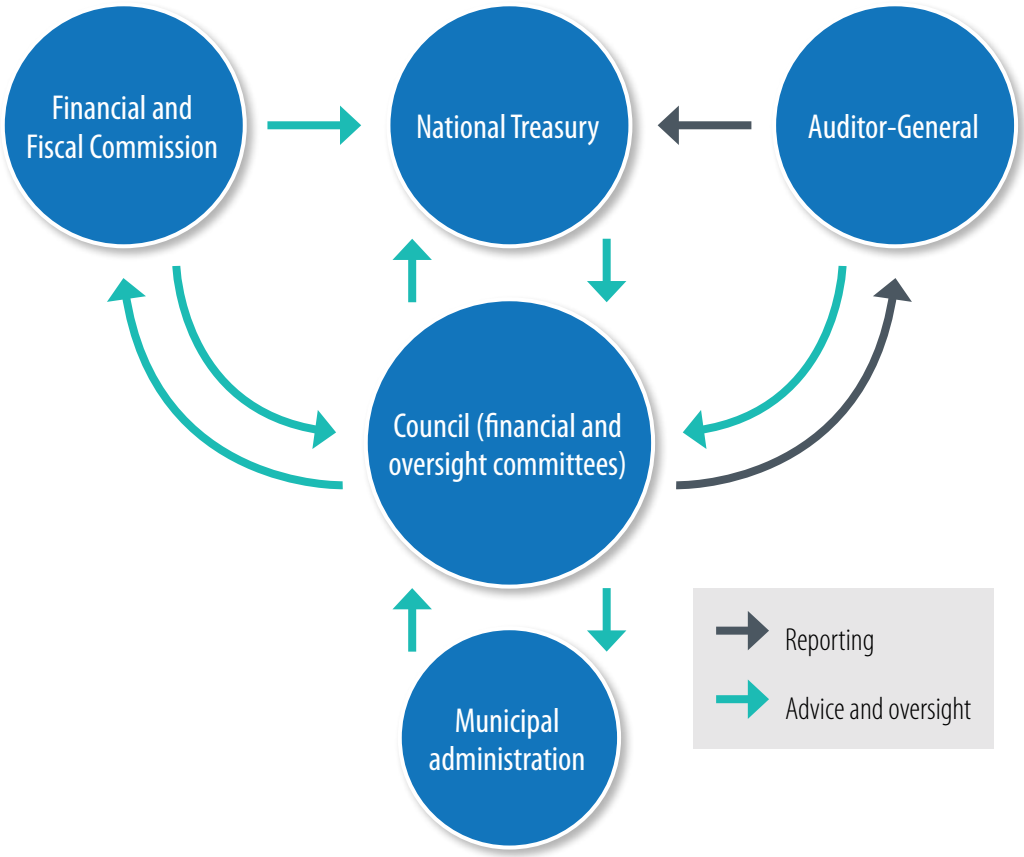
The MFMA regulates financial reporting and oversight, and the key external stakeholders are depicted in Figure 7.1.

2 A response from the finance minister on 20 February 2015 to a question raised in the National Assembly. *http://www.treasury.gov.za/publications/other/MinAnsw/2015/Reply%20to%20PQ%20366%20[NW394E].pdf*

3 Rand Daily Mail, 'Thirty six "unqualified" government officials fired', 10 March 2015. *http://www.rdm.co.za/politics/2015/03/10/36-unqualified-government-officials-fired*

4 Various informal interviews with municipal officials in 2014 and 2015.

Figure 7.1: Reporting and oversight lines for municipal finance



- The National Treasury collates and publishes consolidated quarterly reports on municipal expenditure against budgets and annual financial statements that reflect the state of a municipality's finances.
- The Auditor-General is responsible for assuring the quality of financial and performance reporting systems across the public sector.
- The Financial and Fiscal Commission advises and makes recommendations to Parliament, provincial legislatures, organised local government and other organs of state on financial and fiscal matters. It supports the creation and maintenance of an effective, equitable and sustainable system of intergovernmental fiscal relations in South Africa, which it does through producing and publishing a series of technical and review reports on financial themes.

The financial departments in the nine cities all have a similar structure, with a Chief Financial Officer (CFO) responsible for managing the teams and divisions that deal with at least the following functions: budgets, treasury, revenue management and SCM. Financial teams tend to have significant influence in the city administrations, and the Member of the Mayoral Committee responsible for finance is always a senior member of the Mayoral Executive Committee. Figures 7.2 and 7.3 give two examples of how the finance function is structured in the cities.

Figure 7.2: Nelson Mandela Bay Municipality's finance function in 2015

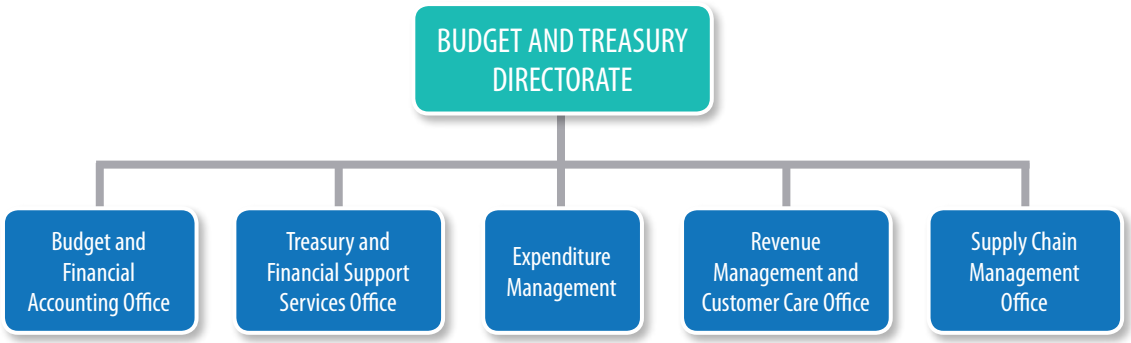
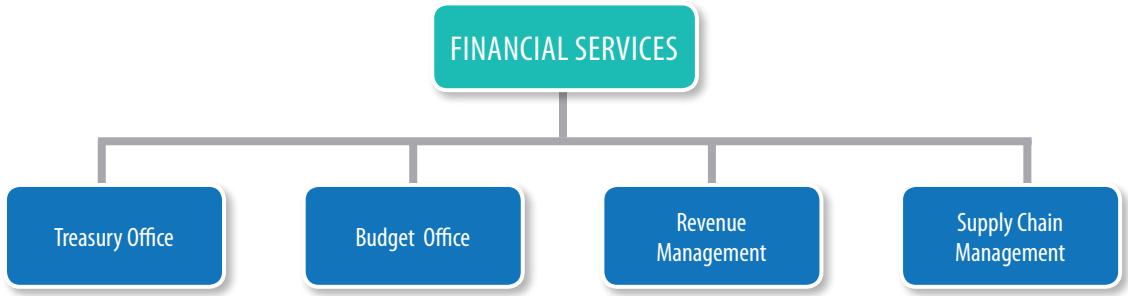


Figure 7.3: City of Tshwane's finance function in 2015



In recent years, a key trend has been the development of internal audit functions and risk management practices. The purpose of internal audit departments is to assure the quality of financial and performance reporting systems, and to support audit committees in fulfilling their oversight role. The maturing internal audit and risk management functions represent an administrative burden for the line departments, as audit and risk management processes require time and attention from officials, and can distract from core responsibilities. However, risk management and audit processes add to the competence and effectiveness of municipal administrations, and managers and members of the executive should be trained in how to optimise their usefulness.

The International Standards for the Professional Practice of Internal Auditing (ISPPIA) defines internal auditing as "an independent, objective assurance and consulting activity designed to add value and improve an organisation's operations. It helps an organisation accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and governance processes."

Source: National Treasury (2009b)

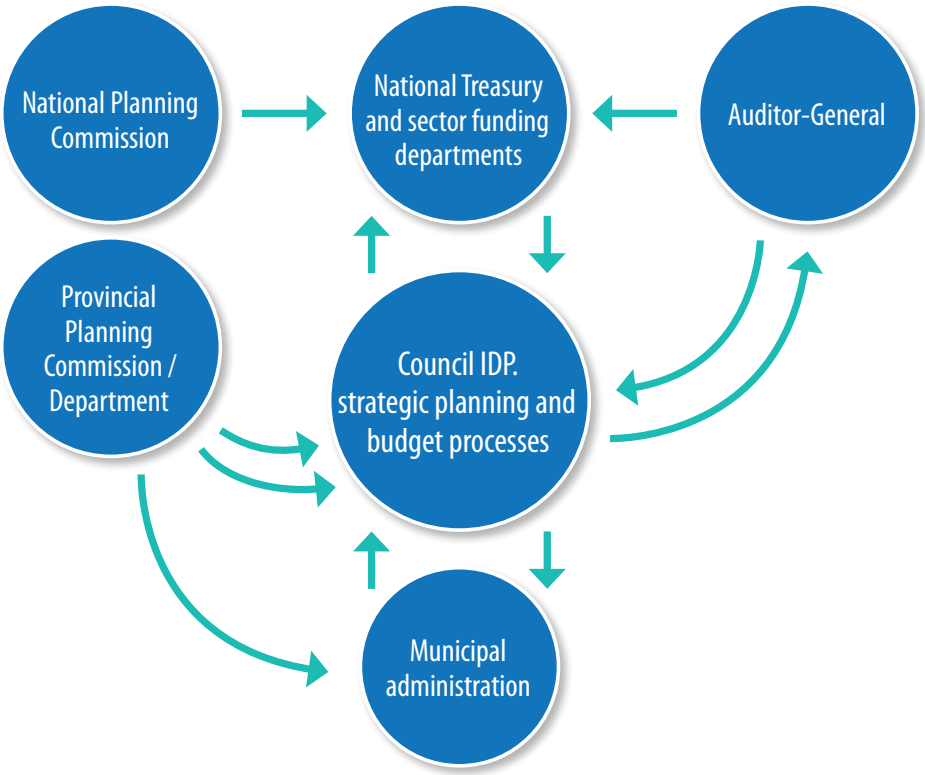
ALIGNING BUDGETING AND OUTCOMES

The Constitution states that "a municipality must structure and manage its administration and budgeting and planning processes to give priority to the basic needs of the community, and to promote the social and economic development of the community". The MFMA requires municipalities to align their priorities, plans, budgets, implementation actions and reports.

The key components of the financial management and accountability cycle include:

- The **Integrated Development Plan (IDP)**, which sets out the municipality's goals and development plans. These need to be aligned with the municipality's available resources, based on realistic estimates of costs, and reflective of local development needs and priorities which are confirmed through meaningful public consultation. Council adopts the IDP and undertakes an annual review and assessment of performance against objectives.
- The **three-year budget** sets out the municipality's plan for revenue raising and expenditure that must be approved by council. The allocation of funds needs to be aligned with the priorities in the IDP.
- The **service delivery** and **budget implementation plan** (SDBIP) sets out monthly or quarterly service delivery and financial targets aligned with the annual targets set in the IDP and budget. As the municipality's implementation plan, it lays the basis for the performance agreements of the municipal manager and senior management.

Figure 7.4: Institutional arrangements for budgeting



The challenge is that the interface between planning, budget and outcomes is weak because the outcomes approach to budget reporting was "superimposed on an existing performance management and budgeting framework" (FFC, 2013: 335). Cities link their performance objectives retrospectively to a relevant outcome, which is based on priorities set by national government. This linkage exercise is theoretical and abstract, and rarely aligned to the cities' departmental or individual performance management systems.

The cities' budgeting processes still largely follow a sectoral approach, "where individual departments bid for additional resources" (ibid: 336). However, the links between inputs, outputs and outcomes are unclear, as operational and organisational structures do not always match programme budget structures. The MFMA Budget and Reporting Regulations require municipalities to present the "financial performance budgets" in two formats: (1) by function, e.g. governance, water, and electricity, and (2) by responsibility, i.e. according to the organisational structure of the municipality. In cities, functions are usually aligned to the organisational structure because cities are large enough to justify having separate departments for each function. But in the small municipalities, often a single department is responsible for a number of functions.

South Africa is not the only country tackling the issue of linking planning, budgets and outcomes.[5] The solution lies in programme or portfolio budgeting, whereby expenditure is classified by broad functions or programmes aggregated across city departments (FFC, 2013). The Collaborative African Budget Reform Initiative (CABRI) shares this view and runs training courses on programme budgeting for public officials across Africa.[6] Some cities, including the City of Johannesburg, have introduced a cluster approach to budgeting and programme alignment. The results have been mixed: many officials are critical of the time demands and apparent duplication of effort resulting from cluster coordination meetings and reporting processes; yet these complaints seem to be balanced by the benefits of shared knowledge and coordinated programmes.[7]

Furthermore, management performance incentives in South Africa are not directly linked to the achievement of an outcome. Instead, incentives are formulated around individual performance agreements and a handful of conditional grants. Conditional grants are seldom tied to a specific outcome, and their incentives are meant to trigger spending performance rather than expenditure outcomes (FFC, 2013).

Increasingly, the story of municipal finances is linked to political and technical leadership. Cities need to be more assertive about their role in planning and leading future investments in the urban space. The quality of budgeting processes, the effectiveness of audit and risk management systems, and the credibility of reporting, along with evidence-based decision-making, are all dependent on an informed engagement with the executive (SACN, 2014a).

5 See SACN (2010) for an analysis of regional intergovernmental fiscal systems.

6 *http://www.cabri-sbo.org*

7 Various interviews with municipal officials at the City of Johannesburg 2014–2015.

EVOLUTION OF FINANCIAL POLICIES IN THE CITIES

The evolution of financial management policy and practice can be divided into four phases.

Phase 1: Establishing democratic local government institutions and systems (1994–1999)

In the early days, the focus was on demarcating the new municipal boundaries and establishing the laws and regulations to govern local government, e.g. the Municipal Structures Act (No. 117 of 1998). The Reconstruction and Development Programme (RDP) informed municipal service delivery, and the emphasis was on addressing service and infrastructure backlogs, as well as access to housing and services.

This phase was characterised by the following:

- Incomplete financial statements and financial data that was not comparable.
- Fluctuating operating expenditure.
- Increasing reliance on intergovernmental grants and a slight decline in revenue from property taxes.

Key lessons:

Financial feasibility and the spatial trade-offs between feasibility and governance need to be understood. Roles and responsibilities need to be clarified, and unfunded mandates confronted (SACN, 2007).

Phase 2: Regulating and standardising municipal financial management (2000–2003)

During this period, two important Acts were introduced: the Municipal Systems Act (No. 32 of 2000), which defines the legal nature of a municipality, clarifies its executive and legislative powers, and establishes a framework for municipal planning, performance management, as well as the use of resources; and the MFMA, which defines roles and responsibilities and (as noted) regulates financial reporting and oversight. Many national departments introduced policies with implications for developmental local government. These include Breaking New Ground (BNG) (a human settlements strategy) in 2004; preferential procurement; and public-private partnership (PPP) regulations. The economic growth priority gained ground with the introduction of the Growth Employment and Redistribution (GEAR) macro-economic strategy.

This phase was characterised by the following:

- A reduction in own-revenue sources, with increasing threats to municipal finances from the non-payment of municipal accounts.
- Slight increases in operating surpluses.
- The introduction of municipal bonds, which were first issued by the City of Johannesburg in 2004.

Key lessons:

Limited capacity makes compliance with the MFMA difficult. There is thus a need for financial management training, as well as improved oversight and accountability systems and practices (SACN, 2007).

Phase 3: City autonomy and accountability (2004–2010)

The Local Government Municipal Property Rates Act (No. 6 of 2004) established a uniform property rating system across the country. During this period, cities established internal audit units and practices, strengthened audit committees and their oversight responsibilities, and improved external audit practices and reports. Cities called for the built environment functions and funding to be further consolidated at local level because of the limited success of planning-led development through the IDP. This would enable cities to play a greater role in transforming the space economy and changing inherited apartheid spatial patterns. The Green Economy gained traction, with discussions about the natural resource crisis (electricity and water) and the financial implications of demand-side management. This was, in part, because municipal services were becoming increasingly unaffordable for urban dwellers (SACN, 2011).

This phase is characterised by the following:

- More detailed analysis of comparative financial data, as data quality and availability improved.
- Some growth in own revenue (from service charges) and less dependency on grants and subsidies.
- Higher capital infrastructure spending in the period leading up to the 2010 FIFA World Cup, funded mainly by grants from national government.
- The recognition that reinvestment in existing assets was vastly insufficient, and maintenance of assets underfunded.

Key lessons:

Policy contradictions and competing objectives undermine local government's implementation role. Local planning is not comprehensive enough and is not respected by other government spheres and entities. Perceptions of corruption increase, driven by more extensive audits and media reports of financial mismanagement, tender fraud and wasteful expenditure (SACN, 2013).

Phase 4: Outcomes-based delivery (2011–2015)

After the establishment in 2010 of the Department of Performance Monitoring and Evaluation (DPME) in the Presidency, a government-wide monitoring system was introduced, with performance agreements signed between the President and the Cabinet ministers. The maturing municipal risk management systems and approaches required constant review and prioritisation of risks, a clear assignment of risk management responsibilities and detailed reporting. The National Planning Commission (NPC, 2012) published the National Development Plan (NDP), and National Treasury and the DPME began expenditure reviews. The larger cities (Johannesburg, Cape Town and Tshwane) appointed chief economists or expanded their economic capacity, as awareness grew about the importance of economic analysis for economic development policy and plans, expenditure and investment plans and project preparation.

This phase was characterised by the following:

- Community protests in reaction to failures in public participation and local political contestation and dissatisfaction with service. This was mirrored by more assertive opposition politics in many councils.
- Intensive and compulsory financial management training.

- Bulk purchases (of water and electricity) as a percentage of city expenditure continued to grow, and spending on repairs and maintenance remained inadequate.
- Employee costs increased, while capital expenditure declined. However, operating surpluses remained relatively stable at about 5% of operating expenditure.

Key lessons:

Audit is a double-edged sword, as it may drive system improvements but can also result in a loss of confidence and trust. Many municipalities and municipal entities are paralysed or slowed down by fear of non-compliance and the administrative burden of increased risk management.

South Africa's public finance management system

South Africa has a respected public finance management system. In 2008, the PEFA assessment of South Africa's public finance gave high scores for transparency, and fiscal discipline and control (PEFA Secretariat, 2008). More recently, the PEFA methodology was used to evaluate the public financial management system across all government spheres, i.e. national government, Gauteng province and the three Gauteng metros. It found that "[b]udgets appear credible in national government, Gauteng and the three metros, with only minor concerns about the forecasting of revenue" (SACN, 2015: 47). The significant rate arrears in the three metros were being managed with appropriate provisions being made, which may also be a sign that projections of revenue could be more accurate (SACN, 2015).

The municipal finance management system also contributed to the following country rankings in 2013:

- The Global Competitiveness Index of the World Economic Forum ranked South Africa 53 out of 148 countries. South Africa did well on measures of the quality of its institutions (41st) and the high accountability of its private institutions (2nd).
- The World Bank/IFC's Doing Business report ranked South Africa 39 out of 185 countries. South Africa was a strong performer in terms of tax payments (32/185), but electricity supply remained one of the country's major weaknesses (150/185).
- The Emerging Markets Opportunity Index by Grant Thornton SA ranked South Africa 14 out of 26 countries. South Africa was the leading emerging economy in Africa and the only country on the continent to be ranked in the top 15 worldwide.
- The Economic Freedom index, published by The Wall Street Journal and US think tank the Heritage Foundation, ranked South Africa at 74 out of 177 countries. This index uses 10 benchmarks (including financial freedom, property rights, and freedom from corruption) to measure the economic success of 179 countries.

However, the Corruption Perceptions Index (CPI) by Transparency International ranked South Africa 67 out of 174 countries, with a score of 44, in 2014. The CPI measures the perceived level of public-sector corruption in 174 countries and territories, and is a "survey of surveys", based on expert and business surveys. Countries are ranked on a scale of zero (perceived to be highly corrupt) to 100 (perceived as having low levels of corruption). With a score below the 50 mark, South Africa is closer to the highly corrupt end of the spectrum and performs more poorly than neighbouring countries like Botswana, Namibia, and Lesotho.

National Treasury uses Uniform Financial Ratios and Norms as a benchmarking tool to compare municipal financial management performance. The MFMA Circular 71 provides guidance on a set of measures for financial position, financial performance and budget implementation (National Treasury, 2014b). Reporting against these ratios and norms is not prescribed yet, but National Treasury has indicated that these reports will be compulsory at some point.

MUNICIPAL FINANCIAL PERFORMANCE

Over the past 10 years, SACN has tracked financial performance indicators, through the State of the Cities Reporting system (Table 7.2). All data is drawn from the audited financial statements of the municipalities.

Table 7.2: List of finance performance indicators with definitions

	Performance indicator	Definition
1	Percentage of capital and maintenance budgets allocated and spent	Percentage of the allocated budgets spent on developing and maintaining infrastructure – a measure of commitment to IDP and SDBIP goals
2	Capital and maintenance budgets	Percentage of budget allocated to maintenance and operations, versus new capital development
3	External audit	Status of audit findings
4	Residential and business rates	Rand value of rates paid by residences and businesses
5	Services charges	Rand value of charges paid by residences and businesses for services
6	Capital grants and transfers	Value of grants and transfers for capital expenditure
7	Spending profile	Metro expenditure by type (e.g. public transport, residential housing, roads)
8	Capital expenditure	Funding for capital projects by source
9	Debt collection	Amount of bad debt recovered
10	Debtors	Money owed to metros
11	Bad debt	Money owed to metros by creditors that cannot be collected (i.e. loss and all reasonable collection efforts have been exhausted)
12	Acid test ratio	Current assets minus inventory divided by the current liabilities
13	Debt to income ratio	Total liabilities of municipalities compared with their total revenue
14	Current ratio	Current assets providing cover to meet current liabilities
15	Debt ratio	Proportion of debt municipalities have relative to their assets – an indication of how much municipalities rely on debt to finance their assets
16	Budget funding	Value of shortfall between budget and income
17	Wasteful expenditure	Value of wasteful expenditure

A selection of these indicators are reviewed and analysed in this section, to give an overview of revenue and expenditure trends and the financial health and prospects of the cities.

Municipal revenue

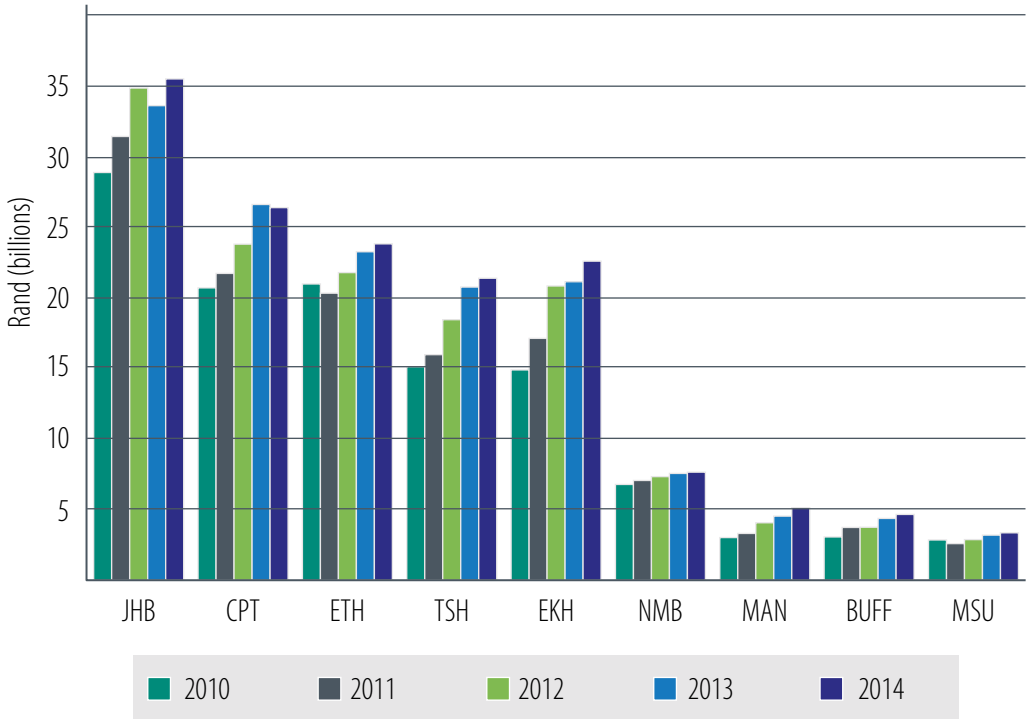
Since 2008, SACN member cities have collectively seen a steady rise in revenue, which has grown at an annual average of 10.5%. Total city revenue increased from R55.3-billion in 2003 to R84.8-billion in 2008 and (after a small decline in 2009) rose steadily to reach R150.6-billion in 2014. Table 7.3 provides a summary of revenue between 2003 and 2014, while Figure 7.5 shows revenue per city for the 2009/10–2013/14 period.

Table 7.3: Summary of revenue

Aggregate real city revenues by source (constant 2012 R b)												
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Property and other taxes	20,976	29,170	32,538	35,876	26,273	26,389	29,126	32,077	32,330	34,564	35,874	40,049
Service charges	30,118	38,483	40,452	39,770	41,840	41,492	46,389	56,200	65,400	74,309	76,874	76,997
Operating grants										15,168	14,773	15,655
TOTAL OPERATING REVENUE	51,094	67,653	72,990	75,645	68,113	67,881	75,514	88,278	97,730	124,041	127,522	132,700
Capital grants	2,341	2,281	4,480	4,909	5,871	11,021				11,287	13,042	12,884
Interest	1,853	2,876	2,883	3,097	3,997	4,484	4,100	2,682	2,307	2,120	3,031	2,808
Other non-operating revenue	0,001	0,227	0,405	0,742	0,763	1,420	0,314	0,311	0,444	0,437	1,585	2,239
TOTAL ALL REVENUE SOURCES	55,288	73,037	80,758	84,394	78,744	84,806	79,928	91,270	100,481	137,885	145,180	150,631

Source: SACN (2015)

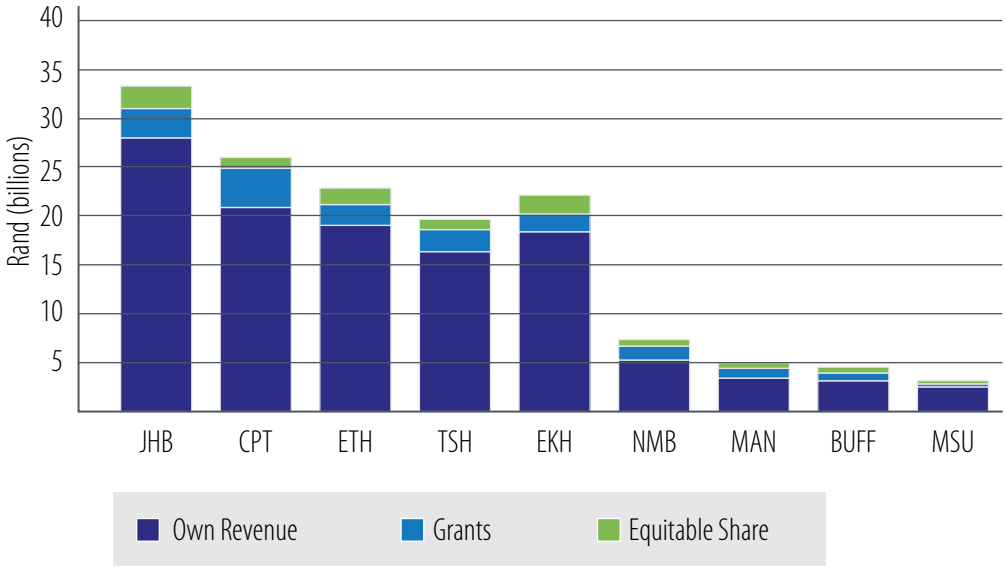
Figure 7.5: City revenue (2009/10–2013/14)



Source: SACN (2015)

As Figures 7.5 and 7.6 show, Johannesburg collects more revenue than the other cities. Own revenue (mostly property taxes and service charges) has increased its contribution to overall revenue. For cities, property rates represent a significant source of own revenue. Since 2005, municipalities have rated property based on the value of land and improvements, which has resulted in a general increase in property rates but poses a burden for poorer households. In 2009, SACN proposed a range of property tax relief measures including exemptions, exclusions and rebates, indirect property rates instruments to impact market behaviour, special rating areas, and other planning and zoning instruments (SACN, 2009b).

Figure 7.6: Revenue by source (2013/14)



Source: SACN (2015)

Although grants still make up a relatively small percentage (between 6% and 14%) of total revenue, some cities are increasingly relying on conditional grant funding, especially for capital expenditure. There is an ongoing debate about the share between the municipal equitable share (an unconditional transfer to municipalities from the national fiscus) and conditional grants allocated to municipalities for specific programmes such as public transport, public works and housing. Many of the CFOs would prefer more funds to be transferred to municipalities in the form of unconditional grants, which would allow cities to make more informed and strategic use of this funding. In response, national government has consolidated some conditional grants to the cities and relaxed conditions to allow for greater flexibility. However, at the same time, equitable share funding to cities is under pressure because of national government's aim to use it as a redistributive instrument to support smaller municipalities (National Treasury, 2012a).

As Figure 7.6 shows, the largest revenue source for cities is own revenue, which is made up of service (utility) charges, property rates and other taxes. Growth in this revenue is mostly because of the increase in utility charges, which are passed on to the consumer. However, the ever-rising electricity prices and load-shedding pose a significant threat to future municipal revenue because electricity

sales will undoubtedly reduce, as consumers find a way to go off-grid, aided by advances in storage technology. Therefore, municipalities will need to find ways to keep users on the grid, through (for example) guaranteeing energy supply or investing in local/neighbourhood storage solutions, and incentivising independent power producers, by (for example) changing an annual penalty for opting out of the grid, or encouraging investment in smart meters.

To make up for the reduced income from electricity sales, cities will have to introduce other sources of revenue, such as a local business tax,[8] or demand-side charges for waste, water and energy. Cities could also leverage municipal-owned properties through development rights or leasing, or optimising uses such as outdoor advertising and increasing rents. Large amounts of wealth are tied up in public property assets, which can be used to generate significant income or save costs. However, a concern is that some cities are selling off municipal property in order to finance deficits instead of looking at leveraging development rights to such properties in order to increase revenue over the longer term.

Municipalities allocate development rights and construct public infrastructure, which translate into added value. For instance, municipalities create incremental land values (sometimes of significant magnitude) when they build roads, provide infrastructure services, or reallocate public offices. With a sound infrastructure investment strategy and changes in the land-use designation, municipalities can capture large portions of the capital investment costs from land value appreciation and subsequent land sales (SACN, 2009c).

VALUE CAPTURE: exploring opportunities

Value capture is a public financing technique that "captures" a part or all of the increases in private land values that result from new public investment (in, for example, public transport or a nearby school), by imposing a tax on the property or requiring an in-kind contribution (Urban LandMark, 2012). It is a way of recycling public funding invested in infrastructure and property developments for the public good.

The notion of value capture is not new, and instruments that are based on property value (e.g. the property rating system) are in use in South Africa. However, most municipalities have not adequately explored the opportunities that exist for creating and capturing value (Urban LandMark, 2009).

Any large-scale infrastructure development is likely to have a positive influence on land values in its vicinity. Some of this added value can be captured for the public good. To be effective, this needs to be negotiated and agreed among the role-players early on in the process, as the expectation that land values will increase is present from the proposal stage of a development.

8 "Theoretically, there is wide agreement that a local business tax is an appropriate tax for local government, and cities should continue to argue for such a tax to be considered." (SACN, 2015: 170)

In the case of property developments, a number of instruments can be used to capture value, based on three categories of benefit:

- Bulk infrastructure: e.g. development impact fees or contributions, joint development agreements, and air rights.
- Area-based development: e.g. a betterment tax or special assessment, zoning tools, land value increment taxes, land banking or leaseholds, and tax increment financing.
- Community development: e.g. city improvement districts (CIDs) or special rating district charges.

These instruments provide a means of capturing the value of public investment that can be used to fund much-needed infrastructure and to enable poorer communities to access well-located sites in the city.

Spending profile

Between 2003 and 2014, city expenditure grew by an average of 10% per year, from R58.8-billion to R164.0-billion. As reflected in Table 7.4, significant growth occurred between 2007 and 2010 because of increased capital expenditure in the run up to the 2010 FIFA World Cup. After a slight decline in 2011, expenditure has grown steadily.

Table 7.4: Aggregate city expenditure (2003–2014)

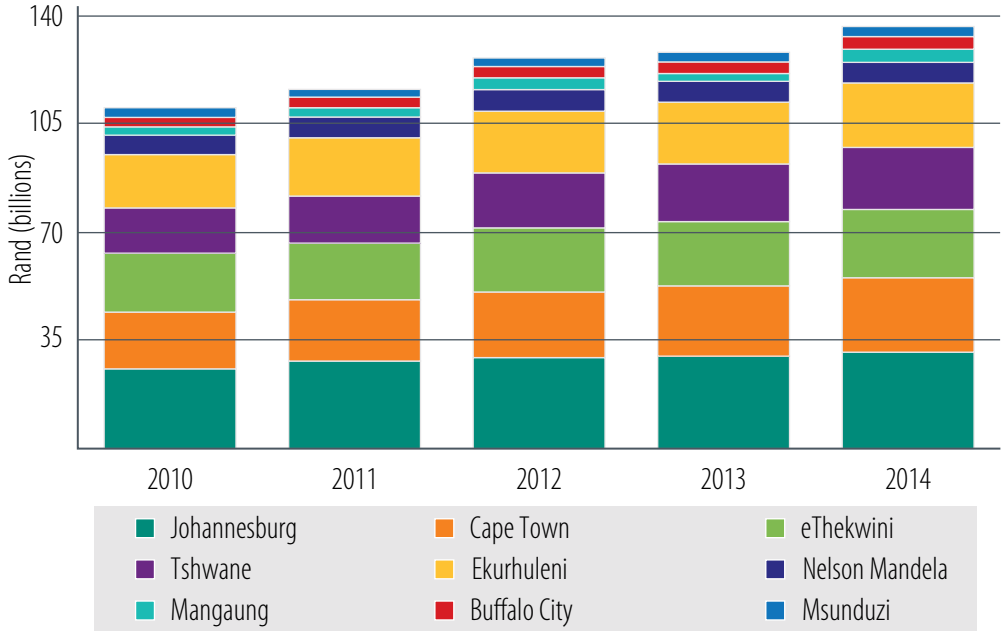
Constant 2012 Rb	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Remuneration	16.3	22.5	23.0	23.2	25.1	25.1	27.5	31.1	32.1	34.6	33.8	36.6
Bulk purchases	11.9	16.0	20.3	20.3	21.2	20.6	24.9	29.4	35.2	41.6	42.9	43.8
Other expenditure	26.0	34.9	35.4	36.7	37.1	40.5	44.5	49.6	48.7	49.9	51.3	55.9
Operating expenditure	54.2	73.4	78.7	80.2	83.4	86.2	96.9	110.1	116.0	126.1	128.0	136.3
Capital expenditure	4.6	9.3	11.4	12.6	15.0	21.6	27.7	26.7	18.3	18.7	25.7	27.7
TOTAL 9 CITIES	58.8	82.8	90.1	92.8	98.4	107.7	124.7	136.7	134.3	144.9	153.6	164.0

There is a direct correlation between increased capital expenditure on new infrastructure and rising operating budget requirements. However, as Table 7.4 illustrates, this is not reflected in the cities' budgets: capital expenditure has increased much faster than operating expenditure. As a result, infrastructure maintenance and operating budgets will come under increasing pressure, as departments have to do more maintenance with the same or less funding.[9] Even in 2006, municipalities were clearly not spending enough on maintaining infrastructure and managing their assets (CSIR and CIDB, 2007). Since then, municipal budget reforms have been introduced to address this issue. MFMA Circular 62 requires CFOs to provide written confirmation of adequate future operating and maintenance budgets for all contracts over R10-million prior to going out to tender (National Treasury, 2012c).

9 See also the *State of City Finances Report 2013*, chapter on City Assets.

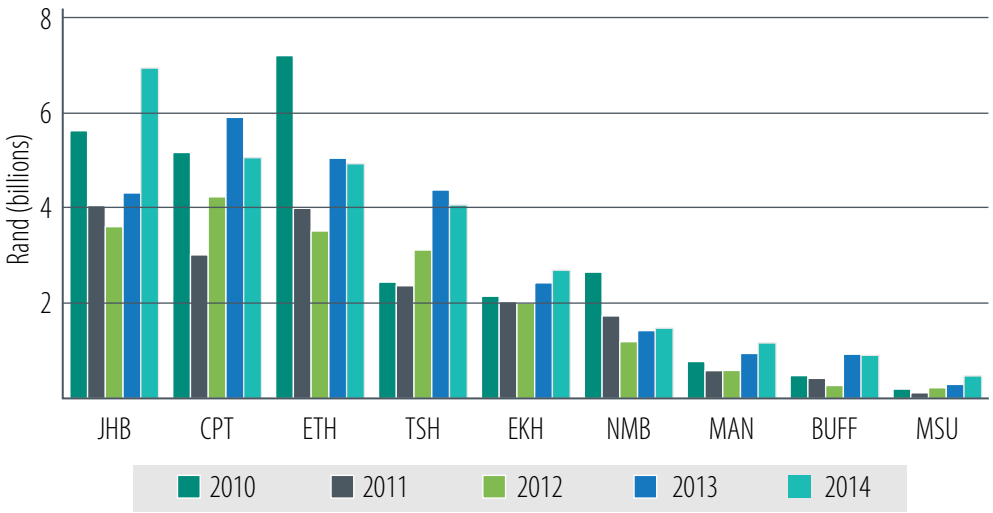
As Figure 7.7 shows, all the SACN cities have experienced growth in expenditure, but the impact is particularly apparent in the smaller cities which started from a low expenditure base.

Figure 7.7: Total expenditure by city (2010–2014)



Capital expenditure fluctuates over the period and per city, but in most cities peaked in 2009 in the run-up to the 2010 FIFA World Cup (Figure 7.8).

Figure 7.8: Summary of capital expenditure (2010–2014)



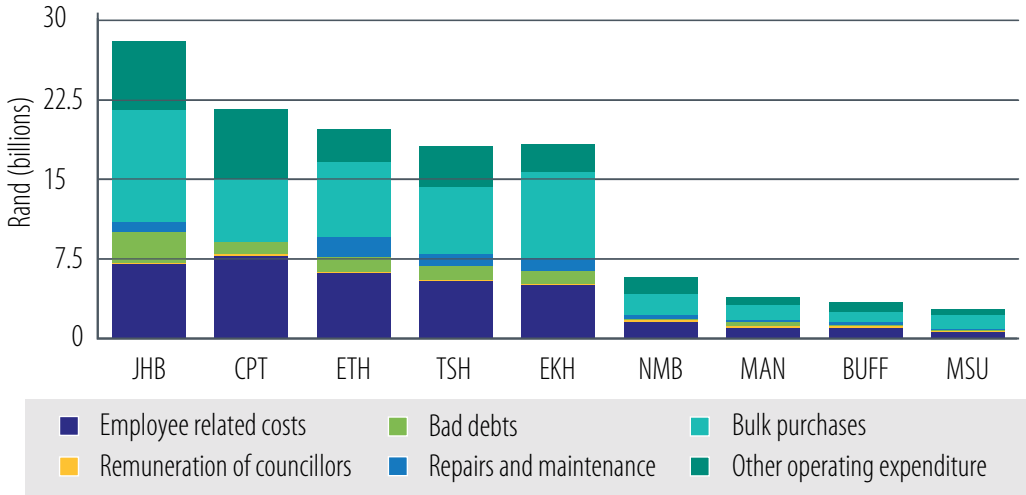
Source: SACN (2015)

Since 2013, most cities have steadily increased their capital investments, driven by the national infrastructure investment priorities, i.e. roads and public transport, housing (both RDP housing and, increasingly, social housing), and municipal services including water, sanitation and electricity

distribution. Johannesburg's capital expenditure has increased the most, to over R6-billion in 2014, matching the 2009 peak. Overall Johannesburg dominates capital expenditure, exceeded only by eThekwini in 2010 and 2013, and Cape Town in 2013.

Operating expenditure has shown steady growth, driven largely by strong increases in bulk purchases (of electricity and water) and in employee-related costs across all of the cities (Figure 7.9).

Figure 7.9: Summary of operating expenditure categories (2014)



The key cost driver has been bulk purchases of electricity, as the above-inflation tariff increases over a number of years have had a significant impact on electricity's share of expenditure. Since 2009, bulk purchases as a percentage of total operating expenditure has increased by between 1% and 14% across cities. This has placed pressure on all other operating expenditure, and cities have had to stabilise or reduce spending in other areas, such as repairs and maintenance and employee costs.

At 5% of total operating expenditure, repairs and maintenance are underfunded across all of the cities. Since 2009, its share of total operating expenditure has declined by between 5% and 2% in most of the cities. While saving on repairs and maintenance may be an easy option because the impacts are not immediately apparent, this strategy will be more costly in the medium term, as deteriorating infrastructure will have to be replaced rather than repaired.

Despite perceptions about runaway employee costs, most of the cities have stabilised growth in this expenditure since 2009 (Table 7.3).

Table 7.5: Expenditure on employees (2009–2014)

R billion	2009	2010	2011	2012	2013	2014	Annual average growth (2009–2014)	Growth in number of employees (2009–2014)
Johannesburg	5.89	6.56	6.82	6.88	7.07	7.09	2%	5%
Cape Town	5.24	6.24	6.52	6.92	7.06	7.83	6%	5%
eThekwini	4.72	5.13	5.18	6.58	5.69	6.21	5%	23%
Tshwane	6.53	3.96	4.47	4.82	5.03	5.48	8%	7%
Ekurhuleni	3.98	4.54	4.15	4.26	4.22	5.07	3%	-3%
Nelson Mandela Bay	1.48	1.81	2.02	2.03	1.63	1.59	-3%	0%
Mangaung	0.68	0.77	0.81	0.86	0.88	0.99	7%	3%
Buffalo City	0.77	0.87	0.91	0.96	0.93	1.02	4%	6%
Msunduzi	0.67	0.70	0.68	0.67	0.65	0.67	-1%	-3%
Total for 9 cities	26.96	30.57	31.56	33.96	33.16	35.96	4%	7%

Overall, employee costs have increased by an average of 4% annually, from R26.96-billion in 2009 to R35.96-billion in 2014. The only city to have substantially increased the number of employees is eThekwini, with an additional 23% employees joining the staff between 2009 and 2014. Over the same period, Ekurhuleni and Msunduzi have both reduced their staff complements by 3%. Collectively the SACN cities employed just over 157 000 people in 2014.

CORRUPTION: impacts of irregular expenditure

In 2013/14 the Auditor-General reported a reduction in irregular as well as fruitless and wasteful expenditure, but increases in unauthorised expenditure.

Irregular expenditure of R11.5-million was incurred by 264 municipalities – an improvement from the R12.2-million incurred in 2012/13. Non-compliance with procurement process requirements was the main reason for irregular expenditure.

The audit findings show that R6.6 million (58%) of the irregular expenditure was for goods and services received, despite the normal procurement processes not being followed. Unauthorised expenditure of R11.4-million was incurred by 190 municipalities (71%) – a significant increase from the R8.5-million in the previous year. While this is not a direct measure of corruption, it is an indication that corruption may be taking place. Overall R16.3-million in municipal expenditure could not be accounted for in 2014/15, a very small percentage of the R281.9-billion in total municipal expenditure.

- Despite this, the overwhelming perception is that corruption is endemic in some municipal functions including many of the law enforcement, vehicle licensing and supply chain management departments. The costs of corruption are not all direct and have political, economic and social costs. Politically, corruption is an obstacle to the rule of law. In a democratic system, offices and institutions lose their legitimacy when they are misused for private advantage, and developing accountable political leadership in a corrupt climate is extremely challenging.
- Economically, corruption depletes national wealth. Corrupt politicians invest scarce public resources in projects that will line their pockets rather than benefit communities, and prioritise high-profile projects such as dams, power plants, pipelines and refineries over less spectacular but more urgent infrastructure projects such as schools, hospitals and roads. Corruption also hinders the development of fair market structures and distorts competition, which, in turn, deters investment.
- Socially, corruption corrodes the fabric of society. It undermines people's trust in the political system, in its institutions and in its leadership, and a distrustful or apathetic public can then become yet another hurdle to challenging corruption.[10]

The cost of living in cities

A national conversation is needed about the rising cost of living in the big cities. It should include a discussion about redesigning municipal services and upgrading infrastructure to reduce operating and maintenance costs. For example, solar water heating programmes or small-scale biogas projects would reduce household energy costs over the longer term.

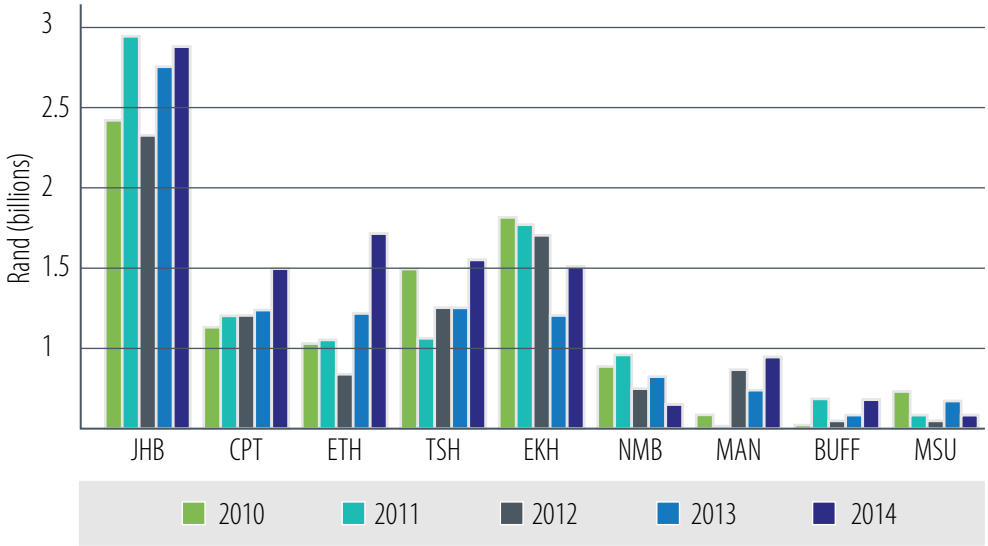
The above-inflation increases in municipal bills negatively affect local economic growth prospects, the number of indigent households and ratepayers' willingness to pay (SACN, 2015). Municipal bills are becoming unaffordable, especially for poorer households.[11] Smart meters and smart grids are tools that can assist cities to restructure their billing structures and to make tariffs more progressive.

The rising cost of living is a contributing factor to the rising levels of bad debt experienced by all of the cities (Figure 7.10). eThekwini has been most successful at managing this debt, while Cape Town has managed to limit the growth in debt since 2012. The City of Johannesburg introduced a SAP system in 2013, but problems with implementation led to a "billing crisis". By 2014, the city had managed to reduce the number of complaints, but it is not unreasonable to conclude that distrust in the billing system has driven some of the increases in bad debt.

10 Transparency International, FAQs on Corruption *https://www.transparency.org/whoweare/organisation/faqs_on_corruption/2/*

11 Chapter 5 of the State of City Finances report (SACN, 2015) provides an analysis of the affordability of domestic rates and service charges.

Figure 7.10: Bad debt per city (2010–2014)



South African cities also have to deal with the high social, financial and environment costs that are the result of apartheid spatial planning, which produced sprawling, low-density cities characterised by inefficient land use and distribution, where the "poor are typically located on the urban periphery" with "little access to housing and services" (FFC, 2011: 170). A recent study on the costs of sprawl in American cities estimated that the costs of energy use, road accidents, congestion and emissions amount to US$1-trillion per year (Litman, 2015). This is equal to approximately US$4556 per capita per year, of which US$2568 is a cost to households and US$1988 is carried by other people, such as the municipality or insurers.

A South African analysis found that housing and infrastructure costs for households were lower in peripheral neighbourhoods, encouraging investment decisions that increased urban sprawl (Biermann, 2006). However, at city-scale, sprawl results in significant additional costs, from installing and maintaining infrastructure for water and sanitation and other municipal services, to ongoing operating costs associated with providing services, such as waste management and community safety, in a dispersed geographic area.

Cities can unlock direct savings and reap wider benefits by encouraging a shift from private vehicles to public transport. The Rea Vaya BRT service in Johannesburg has resulted in an overall saving of over US$890-million (Gouldson et al., 2015). The key savings are a result of the reduced travel times and increased road safety, with lower greenhouse gas emissions contributing to about 10% of the savings.

A better understanding is needed of the systemic cost savings that can be achieved through spatial transformation, so that a case can be made for assertive spatial transformation policy and programmes funded through municipal revenue or intergovernmental transfers.

Effectiveness of spending and service delivery

National Treasury presents annual expenditure reviews for national, provincial and local government, as well as sector expenditure reviews (since 2013, for primary healthcare, education, human settlements and public transport). Most reviews found significant cost variations, inefficiencies, and limits to reporting on expenditure outcomes (National Treasury, 2001; 2002; 2003; 2004; 2005; 2006; 2007; 2008; 2009a; 2010; 2011).

In the cities, effectiveness is often about the appropriateness of capital spending. Choices and trade-offs have to be made: between building new infrastructure to address backlogs or to support economic development; between equitable infrastructure and services and catalytic spatially targeted investments; and between the types of infrastructure and development projects.

All agree that too little is being spent on infrastructure maintenance and management. Underspending on maintenance and repairs suggests a weak capital investment appraisal system and a weak relationship between life-cycle costing and budget decisions.

In the last five years, most capital expenditure has been on municipal roads and electricity distribution infrastructure (Table 7.6). The other categories of infrastructure expenditure include public transport, public works, municipal property development, community facilities and housing.

Table 7.6: Capital expenditure by infrastructure type (2010–2014)

R billion	Roads	Water	Electricity	Sewerage	Other	Total	% Road of total	% Water of total	% Elec of total	% Sewerage of total
Johannesburg	3.69	2.90	5.24	0.57	12.14	24.54	15%	12%	21%	2%
Cape Town	5.43	1.15	3.85	5.59	8.50	24.52	22%	5%	16%	23%
eThekwini	4.27	4.58	2.68	2.12	10.88	24.53	17%	19%	11%	9%
Tshwane	4.37	0.42	2.76	1.79	7.01	16.35	27%	3%	17%	11%
Ekurhuleni	2.76	0.78	1.83	0.58	5.35	11.30	24%	7%	16%	5%
Nelson Mandela Bay	2.77	1.17	0.95	0.80	2.78	8.47	33%	14%	11%	9%
Mangaung	1.08	0.56	0.64	0.67	1.11	4.06	27%	14%	16%	17%
Buffalo City	0.86	0.28	0.31	0.60	0.95	3.00	29%	10%	10%	20%
Msunduzi	0.36	0.13	0.26	0.19	0.36	1.30	28%	10%	20%	15%
	25.59	11.97	18.52	12.91	49.08	118.07				

Some cities have spent more on roads than others. At R5.43-billion, Cape Town spent the most money, while Nelson Mandela Bay spent the largest proportion (33%) of its capital budget on roads. Spending decisions are based on the extent and quality of the existing road network and associated infrastructure such as traffic lights, the scale of the backlog of gravel roads, and the need for road upgrades to address economic growth, safety concerns and congestion. These conditions vary from city to city, but the general

view is that roads are not being maintained and repaired adequately, despite the large allocations. Cape Town spent a similar amount on sanitation as on roads, while Johannesburg's focus has been on electricity infrastructure, and eThekwini has prioritised water infrastructure.

Another aspect of effectiveness is whether or not the cities achieve value for money through their spending. Cost efficiencies for delivering municipal infrastructure and services are difficult to benchmark because local cost drivers and conditions vary. In addition, some variations are inexplicable. For example, the cost per kilometre of constructing dedicated busways ranges from US$1-million in Jakarta to US$20-million in Islamabad.[12] In South Africa, Phase 1A of the Rea Vaya service in Johannesburg cost R37.7-million and Phase 1B cost R34.7-million per kilometre, while the first phase of new dedicated busways for Cape Town's MyCiTi cost an average of R49.4-million per kilometre. Cost variations can usually be explained by the type of infrastructure specified in the design of the systems, and by input costs such as professional fees, materials and labour. With robust systems for assessing capital expenditure, cities would be able to make more efficient investment decisions based on more credible costs and benefits.

Financial health of the cities

In its most recent annual assessment of the state of municipal finance, National Treasury made the point that an unqualified audit opinion does not mean that a municipality has no financial problems (National Treasury, 2014c).

In 2009, the Ministry of Cooperative Governance and Traditional Affairs (COGTA) launched its Operation Clean Audit (OCA), a programme aimed at improving financial management practice and results. However, this intervention was ill-conceived and had little chance of success (Powell et al., 2014): there was no correlation between the OCA targets and the actual condition of municipalities and provincial departments, no factual basis for believing the targets could be met, and no adjustment of the targets to the actual results. More importantly, as financial management matters largely fell outside of COGTA's legislative mandate, the department did not control the levers of change and so had to rely on persuasion and indirect implementation. COGTA also lacked any means to enforce compliance, as no sanctions were applicable in the event of targets being missed. An important lesson from this experience was the need to be clear about the limitations of information and control when implementing policy reforms.

South Africa is ranked among the top five countries with regard to transparency in public finance management.[13] At local government level, the municipal financial management challenges are similar to those experienced globally (Farvacque-Vitkovic and Kopanyi, 2014). For example, South African

12 For these and other examples, see *http://www.chinabrt.org/en/cities/param-quan.aspx?param=26*

13 "SA national budget remains one of the most transparent in the world. South Africa ranked 3rd in the world during 2015, beating the US, UK, Germany and France." *http://www.stanlib.com/EconomicFocus/Pages/SAnationalbudgetremainsoneofthemosttransparentintheworldSouthAfricaranked3rdintheworldduring2015.aspx*

cities have low capital expenditure patterns, give less attention to the repair and maintenance of infrastructure, and are best assisted through capacity development programmes when they experience financial difficulties.

National Treasury uses eight key measures to assess the financial health of municipalities (National Treasury, 2007):

- Cash as a percentage of operating expenditure
- Persistent negative cash balances
- Overspending of original operating budgets
- Underspending of original capital budgets
- Debtors as a percentage of own revenue
- Year-on-year growth in debtors
- Creditors as a percentage of cash and investments
- Reliance on national and provincial government transfers
- The extent of repairs and maintenance as a percentage of property, plant and equipment

A few of these indicators are discussed in greater detail below.

Table 7.7 highlights how operational expenditure is under pressure in the metropolitan municipalities. Most showed marginal overspending (averaging 2%) until 2011/12, but in 2013/14 this was substantially higher at 6%, representing a decline in financial health in the metros.

Table 7.7: Overspending of operating budgets in metro municipalities (2010–2014)

	2009/10	2010/11	2011/12	2012/13	2013/14
Metropolitan municipalities (8)	R Million	R Million	R Million	R Million	R Million
Total original operating budgets	96 657	109 105	124 931	138 942	149 512
Total overspending of original operating budgets	1 980	2 633	2 051	–	8 984
Overspending as % of original operating budgets	2%	2%	2%	0%	6%
Number of municipalities who overspent by					
less than 10% of their operational budget	5	6	4	8	2
between 10% and 25% of their operational budget	0	0	0	0	5
more than 25% of their operational budget	3	2	4	0	1

The underspending of capital budgets is an indicator of either limited capacity for project implementation, or poor project planning and budgeting. As well as issues associated with the conditionality of some grants. As Table 7.8 shows, the metro municipalities have a fairly good track record in capital expenditure: in 2013/14 the municipalities underspent only 13% of their original capital budget.

Table 7.8: Underspending of capital budgets in metro municipalities (2010–2014)

	2009/10	2010/11	2011/12	2012/13	2013/14
Metropolitan municipalities (8)	R Million	R Million	R Million	R Million	R Million
Total original capital budget	22 866	20 428	22 379	25 082	30 249
Total underspending of original capital budget	(1 039)	3 307	3 922	2 036	3 928
Underspending as % of original capital budget	–5%	16%	18%	8%	13%
Number of municipalities who underspent by					
less than 10% of their capital budget	0	0	2	3	1
between 10% and 30% of their capital budget	4	5	4	2	6
more than 30% of their capital budget	0	1	2	1	0

Of concern is the rise in debtors as a percentage of total own revenue since 2009/10 (Table 7.9).

Table 7.9: Debtors in metro municipalities (2010–2014)

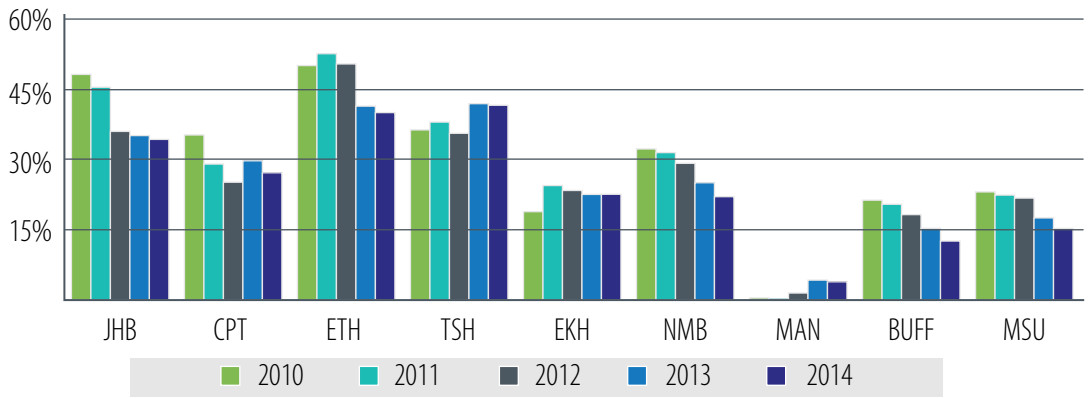
	2009/10	2010/11	2011/12	2012/13	2013/14
Metropolitan municipalities (8)	R Million	R Million	R Million	R Million	R Million
Total own revenue	103 482	100 907	51 319	53 763	146 182
Total debtors	32 412	38 636	46 089	57 659	52 879
Debtors as a % of total own revenue	31%	38%	90%	107%	36%
Number whose total debtors are					
less than 15% of their total own revenue	0	0	4	3	0
between 15% and 30% of their total own revenue	5	4	2	2	3
more than 30% of their total own revenue	3	4	2	3	5

The underperformance of collections against billed revenue can be attributed to the affordability of municipal services (National Treasury, 2012b). The ongoing economic slowdown and substantial increases in electricity tariffs are starting to have an impact on affordability and the ability of consumers to pay for services. Nevertheless, the growth in the level of consumer debt may also be because of the following:

- Failure by the mayors and municipal councils to provide political backing to revenue enhancement programmes (often councillors are in arrears with their own payments).
- Failure on the part of municipal managers to allocate sufficient staff/capacity to the revenue collection function, thus compromising implementation of revenue-enhancing policies.
- Poorly designed revenue management, indigent and debtor policies.
- Resistance among certain communities to pay for certain types of services (or to be billed in a particular way).
- Ratepayer boycotts, sparked by deteriorating service delivery and perceptions that the municipality is unresponsive to community concerns.

An encouraging development is that all of the cities have managed to reduce or stabilise their long-term liabilities over the last five years (Figure 7.11).

Figure 7.11: Long-term liabilities as a % of operating revenue



National Treasury has voiced an opinion that the cities should borrow more for infrastructure spending, and rely less on capital grants (National Treasury, 2014c), but it is not clear how much borrowing is appropriate.

When credit rating scores decline, the cost of borrowing increases. For South Africa, the factors that are currently driving declining credit scores include energy security and perceptions of future political stability. Most of these factors are beyond the control of municipalities, but cities can (and need to) work at distinguishing themselves from the sovereign rating by improving financial management, particularly bad debts, and the productivity of their own revenue sources. They should also explore funding sources that offer investors alternatives to the riskier sovereign debt-linked instruments.

In 2011, National Treasury claimed that "South African municipalities have an infrastructure investment requirement of about ZAR500-billion (US$61.7-billion) over 10 years", of which metropolitan municipalities account for R300-billion.[14] However, Moody's, one of the largest credit rating agencies, estimates that, between 2015 and 2017, these municipalities will only borrow about R24-billion, of which about 50% will be raised through municipal bonds.[15] Even with this funding, the gap remains significant.

Four of the cities – Johannesburg, Cape Town, Ekurhuleni and Tshwane – have already entered the debt capital market:

- In 2014, Johannesburg sold R1.5-billion of debt and plans to raise another R7.5-billion between 2015 and 2017. Its bonds have dropped 66 basis points to 9.52% since they were sold in June 2014.

14 Moody's. 2014. Moody's: South African metros' borrowing to rise to fund infrastructure projects, 18 May 2014.*https://www.moodys.com/research/Moodys-South-African-metros-borrowing-to-rise-to-fund-infrastructure--PR_325274*

15 Ibid

- In 2013, the City of Tshwane raised R1.39-billion through two inaugural bonds and plans to raise a further R10-billion over the medium term.
- In 2013, Ekurhuleni Municipality issued an R800-million amortising bond, the first issued by a South African municipality, after having previously issued more than R2.4-billion in bullet bonds with maturities ranging from 10 years to 12 years.
- By 2014, Cape Town had issued three bonds valued at R4.2-billion as part of the city's R7-billion domestic medium-term note programme.[16]

Increasing municipal borrowing and reducing dependence on intergovernmental grants should improve financial discipline and lessen the reckless spending that results from the need to spend capital funds within the year in which they are allocated. The additional oversight and checks and balances put in place by lenders will also improve compliance. One drawback is that borrowing will only be possible for projects with a feasible expectation of a return on investment. This means that social development projects, or projects with little prospect of achieving economic returns (which includes most of the public transport operations) will not be funded by borrowing, and so achieving a balance between grant funding and borrowing will be important. However, private finance sources such as "green" and social-impact bonds are being explored in the global municipal investment arena, seeking wider environmental and social return on investment. These potential finance sources and their viability will need to be monitored over the coming years.

According to the National Treasury's indicators, the financial health of the cities has stabilised and improved over the last five years. The maturing risk management systems in the cities make it possible to analyse common risks that all the cities face. The risks associated with the current state of municipal finances can be categorised as follows:

1. Service delivery risks
    - Staff refuse to work as a result of remuneration disputes.
    - Bulk services invoices do not get paid.
    - Contractors and suppliers do not get paid.
    - Spending on repairs and maintenance is invariably cut, placing service delivery and future revenues as risk.

2. Fiscal risks
    - Poor financial management processes and systems expose the municipality to corruption.
    - The municipality fails to properly use its resources by failing to collect available revenues.
    - Poor financial management increases the cost of borrowing for the municipality.

16 Municipal Focus. 2014. Infrastructure bonds help to pay R500 million backlog, 18 December 2014. *http://municipalfocus.co.za/infrastructure-bonds-help-pay-r500-million-backlog/*

3. Political interventions
    - Some municipalities have top-heavy, unaffordable "political offices" that often provide political advice on administrative matters and, in so doing, undermine and duplicate the role of the municipal manager, chief financial officer and senior managers.
    - Political interference in administrative decision-making processes (including SCM), which compromises municipal finances. In some municipalities, the interference impedes on revenue collection because the politicians do not want to antagonise the voting communities.

INNOVATION IN MUNICIPAL FINANCES

Since 2003, municipal finance management systems and practices have steadily evolved in South African cities. Certain themes are the focus of further innovation and learning: spatial transformation, the green economy, smart city strategies and ways of increasing revenue through asset management and alternative sources of funding.

Financing spatial transformation

As indicated in earlier chapters, national recognition and ownership are necessary to drive the agenda of transforming cities, so that the legacy issues can be addressed and, more importantly, cities can be prepared for their future roles, challenges and opportunities. This must be accompanied by serious consideration of adequate and sustainable city financing, and demands intergovernmental fiscal reform that recognises the medium- and long-term costs of urban spatial transformation (Smoke, 2015). Financing major, affordable public transportation systems, massively expanding access to quality public spaces and affordable accommodation, and ensuring inclusive, modernised urban economies (e.g. by counteracting negative gentrification effects and avoiding new technological access divides) have fiscal implications for urban municipalities (SACN 2015; SACN, 2016). A popular sentiment is that municipalities must borrow to finance economic infrastructure that grows the revenue base to contribute towards future own-revenue raising, i.e. property rates. However, growing the economy does not necessarily result in direct revenue-raising opportunities for the municipality. For instance, the recent expansion of public transport through the BRT represents an important infrastructure for growing the economy, but the reality has been an increased cost burden on the municipality.

The green economy

The importance of the green economy to municipal finances is growing (SACN, 2013; 2015).[17] However, local and provincial officials interpret regulation and legislation in the most conservative way, which is a

17 Chapter 5: The case for the green economy in cities and Chapter 6: Financial implications of demand-side management for electricity and water, in SACN (2013); Chapter entitled Use of tariffs to promote efficient resource use in SACN (2015).

barrier to innovation in environmentally sound projects (National Treasury and Western Cape DEADP, 2013). The level of skills available and the organisational structure of municipalities also impede the implementation of climate change-related projects. These projects need to be implemented by multi-disciplinary teams, whereas the organisational structure of municipalities is silo-biased, which creates divisions between technical experts in different branches (ibid).

With no simple and effective mechanism to raise adequate finance for climate change projects, the risk is that the adverse impacts of climate change on sustainable development and poverty reduction will be significant. Yet funding sources for green economy projects, such as climate change projects, do exist and include international climate change funding mechanisms, bilateral and multilateral assistance through overseas development agencies, and both private and public sector financing mechanisms in South Africa. Table 7.10 describes types of private sector investors.

Table 7.10: Private sector investor types

Investor Type	Function
Venture capital	Provide early stage capital to technology companies, project developers or demonstration projects and take significant risk, but expect higher returns. They typically target returns greater than 25%.
Balance sheet equity	Provide finance from private investors for a project that is reflected as equity or debt on their balance sheet. A company will evaluate a project based on the returns the project generates against the total finance provided by investors.
Project finance	Typically invest equity and leverage debt to achieve higher returns. Equity investors bear most of the risks in project finance arrangements. They assess projects based on risk-adjusted returns targeting returns greater than 15%.
Mezzanine	Provide a hybrid of debt and equity typically as debt capital that can be converted into equity if the loan is not repaid. It is generally subordinated to senior debt. Mezzanine investors typically target returns of 10–30%.
Debt	Provide loans to projects, with the main concern being the risk that project sponsors default on their obligations. Debt investors conduct detailed assessments of project risks, modelling scenarios in which borrower may default and likelihood of such a scenario. The key metric is the ***debt service coverage ratio***, which is calculated as cashflows available divided by principal and interest payments. Debt investors typically target returns of 7–12%.
Carbon finance (and other performance based payments)	Finance a project by paying for credits linked to the performance of a particular aspect of the project (e.g. in the case of carbon finance, these are the emission reductions generated by the project). Such investors will face additional risks associated with the market and price of the credit. Carbon finance investors typically assess returns based on fixed costs and revenue from the sale of credits.

Source: Gray and Tatrallyay (2012: 9)

The Gray and Tatrallyay study (2012) raised a number of challenges, including: the high upfront costs that most green economy projects require to finance technology change or infrastructure investment, the long payback period to recover the initial investment, self-funding constraints, the difficulty of financing investment on private property, the uncertainty of project returns and the lack of information. The study also highlighted success factors that contribute to the effective implementation of the projects. These are: sound project planning and preparation, robust implementation mechanisms, strong and consistent policy leadership, the use of low-risk financing instruments where available and the institutionalisation of post-implementation sustainability.

Smart city strategies

Smart city strategies include investing in ICT infrastructure and attracting technology businesses (e.g. establishing technology or innovation, or business process outsourcing hubs). Since 2013, all of the major cities have taken steps to commission and install broadband infrastructure, including providing free Wi-Fi in strategic areas or in public places (e.g. parks and railway or bus stations). The cost-benefit analysis for free Wi-Fi demonstrates a clear net gain to the city, as the economic activity that is stimulated by having access to the internet far outweighs the relatively low cost of installing and managing the service.

A market-led development is the introduction of digital neighbourhood solutions for well-organised, wealthy residential areas in the bigger cities. Craighall Park in Johannesburg was the first residents' association to announce such a solution, with the signing of a contract with Fibrehoods, a joint venture between Waterfall Investment Company and CSS Tactical, a security company, to invest in data and security infrastructure in the neighbourhood. This provides high-speed data through an aerial fibre network and 134 security cameras to support community security initiatives. Members of the residents' association pay for the infrastructure over a period of 10 years, and members can also become subscribers for the fibre to the home data services. The initiative has already resulted in increased property values in Craighall Park, and it will be interesting to see if all residents switch from Telkom fixed-line telecom services to the fibre services. Another initiative, Vumatel, provides free 1GB fibre connections to any school it passes, as it lays down fibre internet connections in selected suburbs in and around Johannesburg. A number of other neighbourhoods in Gauteng and the Western Cape are in discussions with service providers, while similar market-led neighbourhood services are being developed for energy supply, taking homes off the grid.[18]

If wealthy neighbourhoods choose to opt out of being connected to public networks, such as fixed telephone lines and electricity, the risk is that these public networks will not be financially sustainable. Therefore, municipalities should consider introducing special charges for those firms or neighbourhoods that do choose to go off-grid, in order to retain the revenue required to maintain and manage network infrastructure.

The use of municipal assets to increase revenues

National Treasury has gone on record to say that municipalities should be more entrepreneurial and innovative in the use of their assets, such as by leveraging more resources from the private sector and households (National Treasury, 2011: 91–103).

18 Fripp C. 'Inside Parkhurst's off-grid power plan – pricing and details revealed', 1 June 2015. *http://www.htxt.co.za/2015/06/01/inside-parkhursts-off-grid-power-plan-pricing-and-details-revealed/*

Cities construct, acquire, operate and maintain assets for service delivery or city development purposes. Every year, the nine cities create more than R10-billion in new assets. As their asset portfolios grow, municipalities need to manage effectively the increasing assets and associated lifecycle costs. Increasingly, municipal assets and capital investment are being used to increase local revenue and taxes.

Figure 7.12: Summary of municipal assets (2013)

ESTIMATED VALUE OF SACN CITIES INFRASTRUCTURE AND BUILDINGS		
R 589.69 billion	52%	R 306.52 billion
in replacement value	remaining service or economic potential	in carrying value

Source: SACN (2013)

Many of the cities have innovative examples of securing revenue through property leases and developments (Urban LandMark, 2009; 2012). They include the following:

- Nelson Mandela Bay has a lease agreement for the football stadium built for the 2010 FIFA World Cup. The lessee has strictly enforced event and performance targets, and rent is used to fund the operations of the Mandela Bay Development Agency.
- Newton Junction in Johannesburg was launched in 2014 as a retail and commercial property development on municipal-owned property. Atterbury secured a long lease through a competitive tender process that required the developer to meet minimum requirements for inclusionary space for arts and culture tenants, to satisfy the heritage conservation requirements for heritage assets on the site, and to make a financial contribution to the management and activation of the Newtown Cultural Precinct.
- The City of Johannesburg is also exploring transit-oriented property developments on a number of municipal-owned properties along the Corridors of Freedom. These are public transit facilities that make provision for expansion by private developers who are selected through a tender for a long-term development lease. For example, the Watt Street interchange near Alexandra will consist of a large bus and taxi interchange, as well as space for retail and housing developments by private partners.

The use of financial incentives and disincentives

Fiscal instruments can be used to incentivise certain behaviours from the private sector and households. For example, the current electricity and water tariffs encourage resource efficiency, as consumers pay more if they consume more.

The dilemma for cities is finding the right balance between charging enough to encourage resource efficiency and keeping tariffs sufficiently low to maintain competitiveness, while ensuring that a section of the population gets services for free (SACN, 2015). If priced right, tariffs can generate revenue for cities, reduce their operational costs, and improve living conditions for residents. Cities need to find the level at which the tariffs bring about behavioural change but do not risk the city's competitiveness or

encourage non-compliance. If priced too high, they can lead to costly unintended consequences. Increasing the price of some services (for instance, water) can lead to additional surpluses for cities, whereas increasing the price of electricity too aggressively may cause households and businesses to shift to alternative sources of energy, leading to cities losing revenue. In the case of effluent and solid waste, badly structured tariffs can lead to non-compliance, which can result in damage to the environment.

Tariffs and taxes are only one of the instruments that cities can use to reduce environmental degradation and to decouple the economy.[19] Tariffs need to be supported through other mechanisms, over which cities have some control. These include a comprehensive legal framework that is rigorously enforced – compliance monitoring and enforcement are crucial. Ongoing strategic and intelligent investments by cities are also important, in order to enable residents and businesses to make choices that are more resource-efficient.

Possible spatial transformation incentives include congestion charges, on-street parking fees, bulk infrastructure contribution waivers, contributions to rates from regulated CIDs and affordable housing rates rebates. In addition to the municipal bond options and local business taxes already discussed, other funding sources for capital projects include a provincial fuel tax to fund infrastructure for mobility improvements, and special rating districts (such as CIDs) that could provide funds for small public environment upgrading projects, for example park upgrades. Special rating districts represent a real untapped source of revenue. They could be used to upgrade infrastructure in business districts, to provide higher levels of service in economic nodes or in areas of concentrated movement (e.g. station precincts), and to redistribute resources to reduce inequality within a node or neighbourhood.

Pooled finance, or programme borrowing, is a way for cities to access loan finance for similar projects, such as station upgrades or township retail property developments, and can reduce the cost of borrowing because of the shared risk in the portfolio of projects.

FUNDING CITIES: Moving towards an alternate city finance model

Stable and sustainable sources of city finance will be increasingly important for the growth and development of South African society. The reductions in available resources coupled with changing demographic and socioeconomic conditions are major threats to the already deficient current municipal financing model. Globally, municipal financing trends are moving towards:

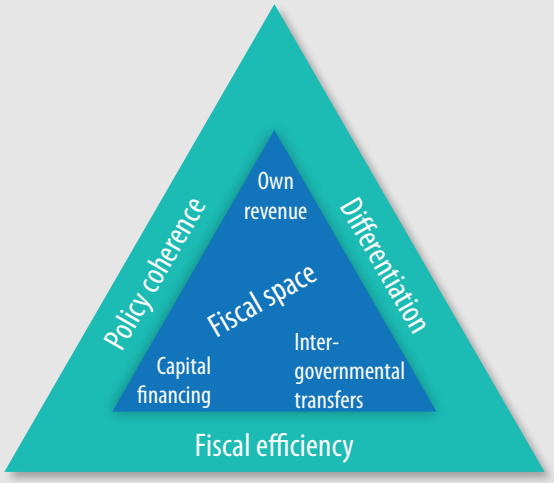
- fiscal decentralisation (local government is allocated more direct local taxes and more overall responsibility for public finances);
- revenue source diversity (municipalities receive revenue from a range of sources); and
- unconditional intergovernmental transfers (money transferred from national or provincial government is discretionary).

7

19 An economy is said to be decoupled when it is able to sustain GDP growth without having a negative impact on environmental conditions. The OECD definition: the term "decoupling" refers to breaking the link between "environmental bads" and "economic goods". In other words, the rates of increasing wealth are greater than the rates of increasing impacts. https://en.wikipedia.org/wiki/Eco-economic_decoupling

Municipalities rely on own revenue and intergovernmental transfers to fulfil their financing needs – capital financing is not considered a source because it relies on future own revenue and transfers to pay back the borrowed money. To maximise these sources, three cross-cutting principles need to be applied: **policy coherence** (how the various revenue sources come together to support policy); **differentiation** (municipalities develop financing approaches reflective of their context, capacity and function); and **fiscal efficiency** (municipalities strive to maximise efficiencies in revenue collection and spending-value for money).

City financing principles



Characteristics for an alternate metropolitan financing model are:

Intergovernmental transfers

- Grant funding allocations must strive to be unconditional.
- The equitable share will continue to be an important source of revenue to assist municipalities in meeting the service needs of indigent households.

Own revenue

- Own revenue needs to be diversified. Currently, property rates (which are viewed globally as a strong local government revenue source) and service charges make up the bulk of metropolitan municipal revenue. This is limiting.
- Service charges need to be more agile and innovative to generate revenue in a changing resource environment.
- The proposed local business tax would bring municipal investment strategy closer to business infrastructure and service demands, as well as incentivise stronger collaboration between private and public sectors at local level. The form of such a tax would need to be discussed.
- The proposed wealth tax in cities needs to be explored, as it could be a useful financing mechanism to confront persistent inequality.
- Financing for infrastructure investment needs to be structured in a way that disincentivises development outside the city's priority areas. Land-based financing is critical to the spatial transformation agenda.

- Municipalities could rightfully lobby for a share of alcohol, cigarette and vehicle (as well as other) tax revenues raised nationally to be allocated to them, as the negative impacts of alcohol and cigarette consumption and vehicle use are predominantly felt in the large urban centres. Careful consideration of the administrative consequences of collecting these various taxes is required, as the cost burden can outweigh the gain, especially in the short to medium term.

Capital financing

- Borrowing, PPPs and other private financing options are important to consider but have their limitations. Most notable are the exclusionary tendencies of private sector financing, which look for a financial return on investment. The private sector's capital investment focus also raises concern over the impact on operating costs: funds can be found to build a number of projects (perhaps in a disconnected manner) but what about additional funds required for operating and maintaining the infrastructure?

This information is derived from SACN (2016) Towards an Alternative Financing Model for Metropolitan Cities in South Africa. An Expert Panel commissioned study.

NEW REVENUE MODELS: reducing dependency on electricity revenue

National Treasury's Government Technical Advisory Centre (GTAC) recently considered new revenue models to reduce dependence on electricity revenue, which is under pressure in all the cities (Cullinan, 2014). Globally, the energy landscape is becoming demand (or consumer choice) driven, rather than supply driven. Future revenue models must unlock private sector investment and create space to grow the energy market. Four broad municipal revenue options were identified:

- **Smarter**, which is essentially the current system of adding a mark-up to the sale of electricity purchased from Eskom and others. The smarter option is to use pricing and tariff structures (e.g. time-of-use pricing). Although this may lead to a drop in total sales (e.g. if customers are more conscious of peak pricing costs), revenue could be maintained or increased. Minimum requirements include smart meters, a differential tariff regime and incentives for municipal consumers to stay connected to the grid.
- **Different**, which envisages a new revenue model for municipalities based on providing access to the municipal grid and charging per unit transmitted across the grid. Revenues come from traffic (KwH) across the grid. The option of variable rates for different times of day or year could also apply, but only as a way of regulating traffic. Minimum requirements are a smart grid (including smart meters and surge management), energy intermediaries and a new tariff structure based on KwH rates.

- **Alternative**, which is where electricity sales no longer contribute to municipal revenue. This would require a complete reworking of rates and tariffs, so that all municipal revenue comes via property rates (or other sources). Requirements include research to determine how this model could work, risk management to avoid revenue shortfalls or unintended consequences, and smart meters.
- **Combined**, which includes a balance of variable and time-of-use tariffs, as well as differentiated charges that include cost of supply (fixed) and cost of energy (variable). It should also encourage energy intermediaries and wheeling,[20] with specific wheeling charges for non-Eskom supply based on KwH distributed (or another basis). System requirements include a smart grid, energy intermediaries (e.g. Amatola Green Energy), a good understanding of cost of supply, and incentives to stay connected to the grid.

Cities should engage with National Treasury to refine the set of revenue options, and select and implement the best alternative.

CONCLUSION

The largest urban municipalities have improved their financial management and reporting. They are able to identify corrective actions for wasteful, irregular and unauthorised expenditure, but further efficiencies can be achieved and cities need to strive to continue improving their fiscal performance. The three most pressing financial challenges for cities are: there is not enough money to deliver infrastructure and services at the required level; money is not spent effectively or does not provide the best value; and the need to balance spending on short-term priorities against longer-term development strategies.

While cities must explore opportunities to grow revenues, it is equally important for them to demonstrate that they are spending existing revenues efficiently and effectively. Residents, businesses and other contributors to city revenues will resist initiatives to expand the cities' tax-base if the general perception is that the city wastes funds. Their experience must be that the city is delivering services of an acceptable standard, infrastructure is aligned to the community's development priorities, the administration is efficient, and the standard of governance demonstrates honesty and integrity.

20 Wheeling is the transportation of electric energy (megawatt-hours) from within an electrical grid to an electrical load outside the grid boundaries. *https://en.wikipedia.org/wiki/Wheeling_%28electric_power_transmission%29*

RECOMMENDATIONS

If spatial transformation is important to South Africa and its cities, then the policy and financing logic for cities must support and incentivise the kinds of decisions and behaviours associated with achieving spatial transformation objectives. Enabling city administrations to make better decisions about balancing current and future needs will require a comprehensive review of the fiscal arrangements for large cities in South Africa. The goal should be to ensure a sustainable financing approach that addresses the roles and demands of cities now and for the future (SACN, 2016).

Cities need to ensure they are making complete use of their existing revenue sources, which requires innovation and commitment. They have to seek efficiency gains in the delivery of municipal services and operations, by using natural resources efficiently, reducing the cost of municipal services through technology upgrades, improving revenue collection, and better communicating the outcomes and results in financial and performance reports. In addition, cities can improve accountability, through refining the role of auditors and responding better to audit and risk management findings, as well as work harder to address systemic corruption at every level of interaction with the public and improve public service interfaces and access points.

Cities must continue exploring options for additional taxes or additional charges, as Section 229 of the Constitution gives municipalities the power to impose surcharges on fees for services provided by the municipality and impose other taxes, levies and duties appropriate to local government "if authorised by national legislation".

Cities should argue for a greater share of nationally raised revenue, as cities are the "engines of growth" for the economy and have the highest in-migration, although – given the tight fiscal situation (which is likely to continue for many years) – it is unlikely that funds will be available to increase the cities' conditional grant allocations.

Cities need to develop a financially sustainable and responsible borrowing strategy for key infrastructure projects and services, in anticipation of reduced grant funding in the medium term. They can use debt-financing instruments (e.g. municipal bonds) smartly to invest in infrastructure related to developments that will grow their revenue base and thus contribute directly to raising future own revenues. However, it should be noted that investments in economic infrastructure often do not result in direct financial benefits for the municipality, limiting the ability of debt and other private financing instruments to address most pressing infrastructure needs.

Cities should increase revenue through municipal assets and innovate around their property portfolios through property swaps, property value capture, public-private partnerships, development leases and innovative loan financing. This strategy should be guided by spatial development plans for the city. Municipal assets and revenue streams can also be used to increase the income generation capacity of green economy projects. For example, by developing a policy and charges for the use of electricity distribution infrastructure (wheeling) and feed-in tariffs for small independent producers.

Project preparation needs to be developed as a municipal competency, through setting targets for project pipeline development work, establishing a project preparation facility within the city administration, and defining and assigning development facilitation roles and responsibilities within the administration.

With the start of a new mayoral term in 2016, the financial management teams in the cities will have a role to play in building the capacity of the executive to champion sustainable municipal financing and make good financial decisions based on sound evidence. They will also have to support the resilience of the urban system by driving efficient and effective expenditure, improving expenditure outcomes, and ensuring financially responsible budgeting. Finally, the financial and performance reporting systems are key to the credibility of city administrations: in-depth and quality reporting and audit processes can ensure that the municipalities are not paralysed or captured in the context of political uncertainty and change.

7