STATE OF CITY FINANCES 2015

BASICS + INNOVATION

South African CitiesNetwork

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FOREWORD

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Urban local government is playing an increasingly prominent role in transforming South African society. The forthcoming 2016 State of Cities Report makes the case for cities being drivers of national and local economic development. But for cities to be able to fulfil their developmental local government mandate and enable inclusive and sustainable growth, as also envisaged in the national Draft Integrated Urban Development Plan (IUDF) effective, financing and financial management is essential.

South Africa's urbanisation trends suggest that by 2050 around 80% of its population will live in cities. Urbanisation presents an important opportunity for capitalising on the agglomeration benefits that result from firms and people locating near one another. However, our cities have been unable to respond fast enough to the ever-growing pressures from their citizens, many of whom are poor and with limited access to resources. This has contributed to increasingly precarious conditions for urban dwellers, characterised by a majority being confined to poverty and informality.

City governments will continue to operate under extreme pressure given the current trends of urbanisation and the prevailing municipal revenue models, which rely on fees-for-service and formal property rates payments. Cities have to develop appropriate mechanisms to respond to critical demands for basic services (both historic backlogs and new demand), while at the same time growing their economies. Furthermore, while the much-awaited devolution of key built environment functions is important and appropriate, cities could be placed under even more pressure if the additional responsibilities and expectations are not carefully planned for. Global experience shows that these functions are not neat, full-cost-recovery services. The implication is that expecting cities to be self-funding – and at the same time develop inclusive, accessible cities – is unrealistic when devolving such functions.

Equally important is the day-to-day financial management of cities. South Africa's cities have demonstrated consistent financial management improvements over the past 15 years, as evidenced by SACN's State of City Finances reporting. However, much work still needs to be done to maximise existing revenue potential and to strive for more transparent, policy-aligned, value-for-money procurement and delivery. Cities will clearly have to adapt their administrative capacity to support and enable more responsive governance, while also considering economic, social and environmental constraints. This means addressing immediate challenges (getting the basics right), as well as driving the transformation agenda that will shape cities' inclusive urban growth and development (innovating).

The theme of this edition of the State of City Finances Report is Basics + Innovation. It calls upon cities to address gaps and inefficiencies in the current system, while keeping a close eye on the complexity of their future role. But it also suggests that the system must simultaneously confront the need to rethink how cities are financed and funded, so that they are able to sustain themselves and to drive critical agendas, such as green growth, the provision of sustainable human settlements and improved mobility through affordable and integrated public transport.

Building on the 2013 edition, this report provides a strong focus on affordability – for households as well as for cities – in a difficult economic climate. The cost of doing business in cities (in both the formal and informal sectors) is another, often under-emphasised issue of affordability that featured in the Doing Business in South Africa 2015 study. Nevertheless, while affordability issues are important, they should not limit our ability to imagine South Africa's cities of the future. By getting the basics right while exploring innovative solutions to current and future challenges, cities can drive the economy and become inclusive, sustainable and accessible for all.

> "Urban local government is playing an increasingly prominent role in transforming South African society"

EXECUTIVE SUMMARY

Cities occupy an important place in South Africa's economy and are at the forefront of spatially transforming society. The State of City Finances report 2015 focuses on nine of the largest cities in South Africa: Johannesburg, Cape Town, eThekwini, Ekurhuleni, Tshwane, Nelson Mandela Bay, Buffalo City, Mangaung and Msunduzi. The combined population of these cities was 22 million in 2014, or 40% of South Africa's total population. In these cities, more of the working age population is employed and the average per capital income is higher than in the rest of South Africa.

The theme, doing the basics right (efficient and effective financial management) and innovation (finding new ways of expanding municipal revenues), is the focus of the publication's eight chapters.

Locating Cities in Government

This chapter looks at where cities are located in government, in terms of the institutional, functional, legal and fiscal arrangements that make up the intergovernmental fiscal system in South Africa. It explores the structure of the intergovernmental fiscal system and its impact on city finances. The importance of local government in democratic South Africa is highlighted by the Constitution having one entire chapter that deals specifically with local government matters. In addition to allocating a wide range of powers and functions to municipalities, the Constitution sets out the fiscal framework for funding them through own taxes (mainly property rates), service charges, an equitable share of nationally raised revenues and other allocations from national and provincial government (i.e. conditional grants). A strong redistributive element is built into the way local government is structured and financed in response to the need to redress the inequalities caused by apartheid. Notwithstanding this, local government's participation in national and provincial intergovernmental processes and decisions remains ad hoc, while cities are under increasing pressure from unfunded mandates and limitations of the equitable share formula. It is thus important that the voice of cities is represented more prominently and systematically throughout intergovernmental fiscal processes.

The Changing State of City Finances

This chapter provides an overview of the volatile and challenging environment in which cities have been operating since the 2008 economic downturn. The result has been increased pressure on cities' revenues and expenditure, and a direct impact on households' ability to pay municipal bills. Against this background, the chapter reviews city revenues, expenditure, debtors and cash position. Most cities' revenues have held up or recovered remarkably well since 2008, and many cities are clearly making a concerted effort to get the basics right when managing revenues. Certain cities saw a real decline in revenues in some years, but these instances have generally been related to internal management issues rather than external environmental factors. For own revenues, the 'less significant' revenue sources (e.g. traffic fines, development charges) show the greatest potential for future growth because they have been relatively neglected by cities in the past. Targeting these revenues could also contribute to developing a culture of payment, which would then flow through to other services. The management of municipal debt remains a challenge for many cities. City expenditure increased sharply in 2013/14, driven by increases in bulk purchases and employee costs. A concern is that spending on repairs and maintenance may be reduced in order to save costs, but this will only cost the city more in the medium to long term. A positive development is that, despite economic pressures, three of the nine cities have increased the amount of capital funding drawn from internally generated funds since 2009/10. However, eight of the nine cities have also become more dependent on grant funding for capital projects. Another positive development is that cities' audit outcomes continue to improve, although cities need to continue exploring ways of preventing the misuse of public funds, and to ensure efficient and effective spending, thereby building public confidence.

Assessing the Financial Management of Cities

South Africa is unique in that the Public Expenditure and Financial Accountability (PEFA) methodology has been used to evaluate the operation of the public financial management system in all three spheres of government. These evaluations took place at around the same time, and the three municipalities (Johannesburg, Tshwane and Ekurhuleni) that were assessed are all in the same province, Gauteng. This chapter reports on the outcomes of the assessments and the lessons that can be learned across the three spheres of government. The assessments highlight the extent to which the financial management arrangements of the three metros are regulated. The metros are able to meet these legal prescripts in most cases, being relatively well capacitated in terms of both staff and systems. Hence many of the PEFA ratings are consistent across the three metros and, in most cases, show a level of performance above basic functionality (i.e. doing the basics of public financial management right in most areas). Nevertheless, the indicator analysis reveals some areas of weakness, which seem not to be given high priority in the current reform efforts. These include areas such as stock management and monitoring of expenditure payment arrears, effectiveness of measures for taxpayer registration and tax assessment, effectiveness of payroll controls, competition, value for money and controls in procurement, effectiveness of internal audit and the quality and timeliness of in-year budget reports.

Cities' Core Income: Managing Property Rates

Property rates revenue accounts for up to 22% of city operating revenue and represents one of the most important revenue sources, as cities have wide discretion over its use and can allocate it according to their priorities. A range of factors influence how much rates revenue a city collects, but the starting point is the base on which property rates is levied. Properties are rated on their market value and therefore present a relatively stable tax base. This contributes greatly to the financial sustainability of cities. However, to realise the full potential of this base, cities need to manage the entire revenue collection chain, from ensuring completeness of their property register and billing processes, to billing and payment processes, and debt management. The make-up of the cities' property stock varies, which means that each city needs to tailor its package of property rates differently in order to raise the required revenue. The differences in property stock means that restrictions on the property rates base imposed by national government through the Municipal Property Rates Act affect cities differently, hitting some cities harder than others. What is clear is that cities with proportionately more commercial properties are stronger financially, suggesting a link between encouraging business investment and sustainable city finances. Cities also provide different rebates and exemptions, which means revenue foregone that needs to be recouped from elsewhere. Cities have the power to generate more revenue that they currently do through property rates, and so need to re-evaluate their current property rating strategy and its impact on paying and non-paying ratepayers and on the city budget, in order to assess revenue potential within the context of ensuring that rates are equitable and affordable.

Affordability of Domestic Rates and Service Charges

This chapter extends the analysis done in Chapter 2 of the State of City Finances 2013 Report, which examined 'the affordability of metropolitan taxes and service charges to households' over the period 2009–2012. It uses exactly the same methodology and supporting data, so the results are fully complementary. Like the 2013 study, the chapter asks whether cities are 'pricing themselves out of the market' by imposing increasingly unaffordable municipal service changes on households. It explores whether the nine cities' municipal bills are regressive or progressive, looking at how cities have applied the ability-to-pay principle, particularly the concept of vertical equity, when setting their rates and service charges. The analysis found that, with the partial exception of Ekurhuleni, all cities have regressive tax and tariff structures; in other words, poor households use a larger share of their income to pay municipal bills than wealthier households do. If an affordability threshold for a typical, standard household municipal bill is set at 10% of household income, municipal bills are affordable only for households with a monthly income above R26,968. The unaffordability of municipal bills, especially for lower income households, threatens city financial sustainability in a number of ways: household collection rates can be expected to remain under pressure, their willingness to pay is likely to weaken, and the financially weaker cities will struggle to add substantial new spending responsibilities (e.g. housing). A national debate is needed on whether national government and provincial government are leaving sufficient tax room to enable cities to raise property rates revenues required to fund those services that do not appear on the municipal bill, such as roads, public transport, environmental health and safety, stormwater management and public parks. The analysis shows that increases in bulk tariffs for electricity and water, which are controlled by national government, are driving most of the recent increase in municipal bills. There is thus a direct link between national government pushing up these bulk tariffs and the unaffordability of municipal bills, which affects the financial sustainability of cities.

Cities' Use of Tariffs to Promote Efficient Resource Use

Cities can use a wide range of interventions to promote the efficient use of environmental resources. One such instrument is tariffs, which are usually more effective when used in conjunction with other mechanisms, such as regulations that enforce the use of environmentally efficient technologies or design. Two challenges to using tariffs are an emphasis on equitable access to services and the cities' role in promoting government's development objectives. This chapter explores the direct costs to a city of implementing tariffs, charges and rebates aimed at encouraging the use of renewable energies, reduced pollution and recycling, as well as the revenue loss and potential cost savings that can come from improved operational efficiencies. Although cities have developed green economy strategies, it seems that they may not have considered tariffs as an important component thereof. Yet most cities can encourage the efficient use of resources through their existing rates and tariffs policies, although in some cases new taxes are necessary and would have to be applied for. The chapter suggests that cities have an obligation to take the initiative and lead the transition to the green economy because small changes can lead to significant gains. Nevertheless, cities also need to find ways of mitigating the risk that their energy-efficiency strategies will lead to people moving off the grid, thereby reducing the cities' income from electricity sales in the immediate term, and compromising longer-term equity objectives. They will have to find the level at which tariffs bring about behaviour change but do not damage competitiveness or encourage non-compliance. In addition, cities will require the technical capacity and skills to implement such innovative tariffs and taxes, the value of which should be measured based not only on financial viability but also on the broader impact (e.g. companies introducing cleaner and more profitable business processes in response to emission/effluent charges).

Financing the Human Settlements Mandate

'Human settlements' is a contested term that is widely used but poorly defined. The human settlements mandate is essentially about integrating multiple functions in space to create conducive living environments. However, how these functions are allocated among government spheres creates unnecessary complexity: human settlements are everybody's business, but nobody is responsible for everything. The chapter provides an overview of the human settlements mandate and describes the overlaps in functional responsibility for its different components between the spheres of government, as well as the associated problems with funding. From a city perspective, financial challenges include the administrative burden of managing and reporting on multiple grants; the funding of land; the integration and coordination of spending by multiple stakeholders; the lack of incentives for private sector investment; the lack of a coherent strategy for backyard residents; and the poorly understood link between spatial location of settlements and their impact on municipal operating costs. The main financing challenge relates to the development of low-income settlements for which the available grant funding is insufficient. Instead of a sector-based approach to funding, cities need to move towards a strategic planning and portfolio financing approach. We chapter offers a number of options, including consolidating grant funding, introducing matching and incentive grants, radically revising how land is financed and released, exploring land value capture instruments, introducing new mechanisms to intervene in backyarding, and quantifying the link between spatial planning and municipal finance.

Financing the Transport Function

South Africa's cities are facing a public transport funding crisis. Cities are committed to major investments in modern public transport systems, but operating costs are much higher than expected at a time when national finances are being squeezed at every level. This problem is not going to go away any time soon and is something that all government spheres need to grapple with. This chapter reviews how different public transport modes are funded, including those potentially assigned to cities. The economic rationale for state funding of public transport systems is to provide affordable access to economic opportunities to lower-income groups, and to achieve a better balance between private and public modes of transport in order to support the more efficient functioning of cities. Three very different examples of how cities are locally assigned transport are illustrated through case studies of Johannesburg's Rea Vaya, the proposed assignment to eThekwini of the commuter rail subsidy, and the city of George's GoGeorge bus network. The chapter highlights the likely shortfall in the operating subsidies required by cities for public transport systems in the coming years. All role-players will need to explore innovative solutions and recognise that public transport will require ongoing and probably increased national funding. The chapter suggests that future business models for public transport in South African cities will need to find ways of combining the ingenuity of the minibus taxi industry with effective management of systems and operations. This will require cities to work far more closely with the MBT industry in transforming the entire municipal network of transport services that carry the public.

Recommendations

Funding the development and expansion of cities is a global challenge. Like all municipalities (and nearly all governments around the world), the cities would like to have access to additional revenues.The 2015 State of City Finances review concludes with the following recommendations:

1) **Spend funds more efficiently by eliminating wasteful and irregular spending**, which will result in direct savings that can be reallocated to fund necessary, priority services and infrastructure.
2) **Make better use of existing revenue sources** by using the full range of own-revenue sources available to them, appropriately structuring service charges, tariffs and indigent policies, and checking that their billing systems are complete and up-to-date.
3) **Explore options for additional taxes and charges revenues** in consultation with the Minister of Finance and the Minister of Cooperative Governance.
4) **Continue to argue for an increased equitable share from the national fiscus** based on their ongoing development needs as a result of in-migration and on their importance to the national economy.
5) **Explore innovative financing options**, such as using municipal bonds to invest in infrastructure developments that will grow their revenue base and thus contribute directly to increased future own revenues, and innovative property-related instruments.
6) **Lobby to have a stronger voice in government** through direct representation in intergovernmental forums, especially those involved in the division of nationally collected revenues.

All in all, zcities are improving on doing the basics right but should continue to do better, in particular by addressing inefficiencies in the current system. At the same time, cities operate in a shifting and dynamic economic and fiscal environment, and so need to adapt and innovate in order to maximise their revenues and fulfil their developmental mandate. This may require rethinking how cities are financed and funded to allow them to drive the economy while developing inclusive and accessible cities that are affordable for all citizens.

Bella Van Der Linden

INTRODUCTION

This publication focuses on nine of the largest cities in South Africa: Johannesburg, Cape Town, eThekwini, Ekurhuleni, Tshwane, Nelson Mandela Bay, Buffalo City, Mangaung and Msunduzi. Over the past decade, the combined population of these cities has increased by about 3.5 million (18.7%), from 18.6 million in 2004 to 22 million in 2014, or 40.8% of South Africa's total population of 54 million (Stats SA, 2014). The draft Integrated Urban Development Framework (IUDF) recognises the dominant position of urban centres in South Africa (COGTA, 2014: 8):

> *[C]ities and large towns produce over 80% of the national gross value added (GVA). Metros are growing twice as fast as other cities and towns and also have much higher (by about 40%) average incomes compared to the country as a whole. Employment also grew twice as fast in metros than elsewhere and between 1996 and 2012, metros accounted for three-quarters of all net jobs created in the country.*

The concentration of economic activity and people in South Africa's largest cities 'brings the population into a stronger alignment with jobs, livelihood opportunities and services' (COGTA, 2014: 26).

Compared to other municipalities, metros enjoy considerable advantages that enable them to raise revenues to drive development (Turok and Borel-Saladin, 2015):

- In 2013, the average per capita income in the metros was approximately twice the value of that in the rest of South Africa, at R63,754 compared to R32,353.
- The employed constitute a higher percentage of the working age population in metros than the rest of South Africa. In 2011 the official employment rate was 48% in metros versus 32% in the rest of the country.
- In 2013, the percentage of the metro population living below the poverty line was 25% (down from 29% in 1996), compared to 40% in the rest of South Africa.

The theme of the 2013 State of City Finances Report was 'towards sustainable municipal finances'. A central focus of the report was affordability, as rising electricity and water tariffs are placing notable pressure on municipal revenues and households' ability and willingness to pay. Furthermore, the financial impact of the devolution of functions was discussed. Two years later, the need for sustainable financing for cities continues. Expanding on this notion, the 2015 State of City Finances Report argues that the necessary conditions for achieving financial sustainability are doing the basics right and innovation. Doing the basics right refers to efficient and effective public financial management in all its different dimensions: ensuring the municipality has appropriate finance policies and efficient systems, processes, procedures and practices for managing its planning, revenue, expenditure, cashflow, billing, procurement, debt etc. This idea, of doing the basics right, underpins the city's role in encouraging business development, developing human settlements and managing public transport. And, above all, having robust systems of management accountability and council financial oversight that ensure municipal revenue is accounted for, spending goes to where it is most needed, and wastage and misappropriation of funds are avoided.

Building on the foundation of doing the basics right, a city must then innovate. In a changing and challenging environment, city officials need to explore new ways of doing things. Innovation refers to developing new ideas, methods or products in order to address the challenges confronting municipal finances, and municipal service delivery. It means looking at 'out of the box' ideas for expanding municipal revenue sources and better ways of managing the city's existing revenues, structuring tariffs in order to be more equitable and affordable, and developing more affordable approaches to delivering basic services.

While cities need to take responsibility for doing the basics right and innovating, they also operate within a context strongly influenced by the decisions and actions of other actors – particularly national and provincial government. This means that cities must work as part of the full system of government to ensure, for example, the orderly devolution of human settlements and transport functions, while remaining vigilant about any initiatives that may negatively affect the health and sustainability of city finances. Well-meaning but misguided interventions have tended to have unintended consequences for cities and the sustainability of their finances. Therefore, in order to influence urban development and give local government a stronger voice, cities have to continue learning from each other and cooperating where possible, and not think that they can go it alone.

This report tells some important stories about the state of finances in cities and provides recommendations for capitalising on revenue-raising opportunities and mitigating revenue threats. It discusses the dynamic issues that influence municipal finances, including areas of immediate pressure and areas that affect the cities long-term growth.

1

Locating Cities in Government

written by Conrad Barberton with Vailet Mukotsanjera- Kowayi

Locating Cities in Government

Democratic South Africa had a bold vision for metropolitan municipalities, recognising that cities were integral to solving the country's problems. Urban centres dominate the economy, and metros are growing twice as fast as other towns and cities. Their size and composition mean that metros enjoy considerable fiscal advantages relative to the rest of the country's municipalities, such as the ability to raise own revenues. Indeed they were 'expected to be largely self-funding by charging for services and levying property rates' (Turok, 2014: 174). This chapter looks at where cities are located in government, in terms of the institutional, functional, legal and fiscal arrangements that make up the intergovernmental fiscal system in South Africa. The aim is to explore the structure of the intergovernmental fiscal system and its impact on the cities' finances.

Cities' Place in Government

The Constitution lays the foundation of the intergovernmental fiscal system, stating in Chapter 3 that 'government is constituted as national, provincial and local spheres of government'. The different levels of government are called spheres, not tiers or levels, to reflect the extent to which they are 'distinctive' and yet also 'interdependent and interrelated'. Chapter 3 enjoins the three spheres of government to 'cooperate with one another in mutual trust and good faith'. An important element of this cooperative relationship is the need for a clear understanding of each sphere of government's powers and functions, so that one sphere 'does not encroach on the geographical, functional or institutional integrity of government in another sphere'.

Chapter 7 of the Constitution establishes a framework for local government. At the time, having a chapter in the Constitution dealing specifically with local government matters was an innovation, as until then most constitutions had only made passing reference to local government (Shah, 2006). This shows the importance of the local sphere of government to post-apartheid policy-makers. The legislative framework developed for local government established a uniform governance system for inclusive (wall-to-wall) municipalities that treated all residents equitably and provided opportunities for residents to participate actively in the governance of municipalities. Table 1 describes the national legislation related to local government and the intergovernmental fiscal system.

Table 1: National legislation governing local government finances in South Africa

Name of legislation / policy	Main purpose
The local Government Transition Act (No. 209 of 1993)	Provides for revised interim measures with a view to promoting the restructuring of local government.
The Intergovernmental Fiscal Relations Act (No. 97 of 1997)	Sets out the process for the division of nationally raised revenues between the three spheres of government.
The White Paper on Local Government (1998)	Establishes the basis for a new developmental local government system.
The Municipal Structures Act (No. 117 of 1998)	Provides for the establishment of different types of municipalities and the division of powers and functions between local and district municipalities.
The Municipal Systems Act (No. 32 of 2000)	Sets out detailed requirements in relation to community participation, integrated development planning, performance management, administration, service provision and debt collection.
The Municipal Finance Management Act (No. 56 of 2003)	Provides a framework for municipalities to implement standardised and modern budgeting, accounting and financial management practices, and ensure sustainable local government financial management.
The Municipal Property Rates Act (No. 6 of 2004)	Establishes a uniform property rating system across the country.
The Municipal Fiscal Powers and Functions Act (No. 12 of 2007)	Regulates municipal powers to impose surcharges on fees for services and to provide for the authorisation of taxes, levies and duties that municipalities may impose.

A strong redistributive element is built into the way local government is structured and financed because of the need to redress the inequalities caused by apartheid. This is most evident in the demarcation of the current municipal boundaries giving effect to the slogan of 'one city, one tax base' (see box below).

The One City, One Tax Base Idea

Under apartheid, cities were divided along racial lines: on the one side were well-financed white municipalities, and on the other were poorly financed black local authorities. In the 1980s, the 'one city, one tax base' idea arose, whereby revenue from the entire city should be used to fund services equitably across the entire city, which in practice would mean funds from the wealthy white areas would cross-subsidise services in the poorer black areas. Developments since 1994 show how the local government sphere has moved strongly towards the one city, one tax base idea:

- *Widely drawn municipal boundaries.* In 1999, when the Municipal Demarcation Board drew the boundaries of the metropolitan municipalities, commuting patterns were used to determine the interdependence of people, communities and economics. This was because 'commuting is probably the best single measure of the relationship between human settlements on the one hand, and employment, spending and amenity usage patterns on the other' (Cameron, 2006: 76). The result was the establishment of six metros[1] with wide boundaries encompassing rich, poor, established and informal areas. In 2011, two new metros[2] were established, while Tshwane's boundaries were extended still further to include two Category B municipalities.[3]
- *Integrated development plans.* Cities are required to develop a single, integrated development plan that seeks to address the needs of all communities on an equitable basis. Many cities have gone further and developed spatial development plans, which seek to encourage development that will enhance integration.
- *Single city budgets.* The single budget reflects all the revenue and expenditure for the entire city. As all revenues are paid into a single pot and then allocated on the basis of priorities, there is substantial redistribution from wealthy areas to poor areas.
- *Uniform schedules of rates and service charges.* Cities have moved to having a single valuation roll, and uniform schedules of rates and service charges applicable to all residents.
- Indigent policies and cross-subsidies. All cities have adopted indigent policies, whereby poor residents receive rates rebates and free or discounted services. Many cities have also adopted block tariff structures, where higher tariffs cross-subsidise the lower tariffs, i.e. the wealthier, high-volume consumers cross-subsidise the poorer, low-volume consumers.

Nevertheless, challenges remain. The infrastructure base across areas remains very unequal and will take a long time to address. Not all areas enjoy the same standard of service, which is due to various reasons, including: the availability of infrastructure; affordability issues; the city not being responsible for all services (for instance, Eskom is still the electricity distributor in many areas); and certain areas not forming part of the one tax base, either because of being located on traditional land, or because government has not transferred property rights to the residents.

[1] Cape Town, Johannesburg, Tshwane, Ekurhuleni, eThekwini and Nelson Mandela Bay

[2] Buffalo City and Mangaung

[3] The Constitution provides for three types of municipalities: Category A (metros), Category B (local municipalities) and Category C (district municipalities).

Cities' Participation in Intergovernmental forums

The intergovernmental system depends on 'well-coordinated policy, planning, budgeting, implementation and reporting [. . .] within spheres and between spheres and is effected through technical, executive and legislative consultative forums' (National Treasury, 2001: 30). The Intergovernmental Relations Framework Act (No. 13 of 2005) ensures the implementation of the cooperative governance principles in Chapter 3 of the Constitution. It provides a framework for establishing intergovernmental forums and other mechanisms to coordinate the work of all government spheres. Cities are represented on the national intergovernmental structures by 'organised local government' in the form of the South African Local Government Association (SALGA) but are usually directly involved at provincial level (Table 2).

Table 2: Intergovernmental forums on which local government is represented

Intergovernmental Forum	Participants	Purpose
Extended Cabinet	Cabinet members, provincial premiers and the chairperson of SALGA.	The highest cooperative governance mechanism, advising Cabinet in the finalising of the fiscal framework and the division of revenue on which Medium Term Expenditure Framework (MTEF) budgets are based.
The President's Coordinating Council	The President (chairman), provincial premiers, the national ministers responsible for cross-cutting functions, SALGA chairperson (representing local government) and mayors of metropolitan municipalities.	This forum discusses the implementation of national policy and legislation in provinces and municipalities. It also focuses on coordinating and aligning priorities, objectives and strategies across the three spheres. The forum is an opportunity for cities to make an impact on national policy.
The Budget Council and Budget Forum	The Budget Council consists of the Minister of Finance and the members of the executive council (MECs) responsible for finance in each of the provinces. The Budget Forum consists of the members of the Budget Council plus representatives of SALGA.	Established under the Intergovernmental Fiscal Relations Act (1997), these forums enable the national and provincial spheres to consult on any fiscal, budgetary or financial matters affecting provinces as well as any legislation that has financial implications for provinces.
MinMECs	National ministers responsible for concurrent functions and their provincial counterparts, as well as SALGA representing local government.	These are sectoral policy forums.
Technical intergovernmental forums (various)	Senior officials. Officials from municipalities participate in (e.g.) the City Budget Forum.	These forums provide technical support to the political forums.

Over a decade ago, Layman (2003) argued that local government's role in intergovernmental forums needs to be strengthened and institutionalised. Without its full participation, the vital contribution of locally articulated preferences (based on municipalities' participatory governance procedures - ward committees and IDP processes) will be missing. Yet local government's participation in national and provincial intergovernmental processes remains ad hoc rather than systematic.

1

Cities' powers and functions

The powers of municipalities, especially cities, are complex (Nel et al., forthcoming):

- Municipalities are *governing* entities. They have legislative and executive powers to govern the natural and legal persons within their municipal areas, including passing bylaws and adopting policies and plans for the municipality.
- Municipalities are *governed* entities. They have to comply with applicable national and provincial legislation, particularly legislation that sets norms and standards in relation to the functional responsibilities allocated to municipalities.
- Municipalities must adhere to standards of *good governance* in the exercise of their legislative, executive and administrative powers and functions. These standards are set out in national legislation, including the Municipal Structures Act, the Municipal Systems Act and the Municipal Finance Management Act.

As mentioned earlier, the Constitution provides for three types of municipalities: category A (metros), category B (local municipalities) and category C (district municipalities). Metros are responsible for all local government functions listed in Parts B of Schedules 4 and 5 of the Constitution (Table 3). All of these functions are concurrent functions because either national or provincial government may regulate how municipalities exercise their executive authority for these functions. However, municipalities have a high degree of autonomy when making bylaws and administrating these functions within the prescribed national or provincial frameworks.

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Table 3: Constitutional allocation of functions to local government

Functional areas of concurrent national and provincial legislative competence: Schedule 4B	Functional areas of exclusive provincial legislative competence: Schedule 5B
The following local government matters to the extent set out in section 155(6)(a) and (7): ▪ Air pollution ▪ Building regulations ▪ Child care facilities ▪ Electricity and gas reticulation ▪ Firefighting services ▪ Local tourism ▪ Municipal airports ▪ Municipal planning ▪ Municipal health services ▪ Municipal public transport ▪ Municipal public works only in respect of the needs of municipalities in the discharge of their responsibilities to administer functions specifically assigned to them under this Constitution or any other law ▪ Pontoons, ferries, jetties, piers and harbours, excluding the regulation of international and national shipping and matters related thereto ▪ Storm water management systems in built-up areas ▪ Trading regulations ▪ Water and sanitation services limited to potable water supply systems and domestic waste-water and sewage disposal systems.	The following local government matters to the extent set out in section 155(6)(a) and (7): ▪ Beaches and amusement facilities ▪ Billboards and the display of advertisements in public places ▪ Cemeteries, funeral parlours and crematoria ▪ Cleansing ▪ Control of public nuisances ▪ Control of undertakings that sell liquor to the public ▪ Facilities for the accommodation, care and burial of animals ▪ Fencing and fences ▪ Licensing of dogs ▪ Licensing and control of undertakings that sell food to the public ▪ Local amenities ▪ Local sport facilities ▪ Markets ▪ Municipal abattoirs ▪ Municipal parks and recreation ▪ Municipal roads ▪ Noise pollution ▪ Pounds ▪ Public places ▪ Refuse removal, refuse dumps and solid waste disposal ▪ Street trading ▪ Street lighting ▪ Traffice and parking

According to Section 156(4) of the Constitution, national and provincial governments must assign the administration of functions to a municipality if 'that matter would most effectively be administered locally' and 'the municipality has the capacity to administer it'. In other words, if assignment would mean better service delivery. Assigning a function to a city can be done through legislation or by executive decision. Sections 9 and 10 of the Municipal Systems Act outline the processes to ensure that sufficient funding and capacity building initiatives are made available to local government when a function is assigned.

When a function is delegated to a municipality, the municipality is given the responsibility for implementing the function under the authority and direction of the national or provincial government (the authority). Certain provinces have delegated the administration of libraries, clinics, emergency medical services and the implementation of housing projects to municipalities. The delegating authority should provide the funding for the municipality to implement the delegated function, but such funding is not always provided or is insufficient – in other words, the function is an unfunded mandate.[4]

[4] An unfunded (or underfunded) mandate arises when 'municipalities carry out functions that are not included in the powers and functions allocated to them by the Constitution or legislation' (FFC, 2011: 2).

Cities and the allocation of revenue sources

Section 152(2) of the Constitution requires that municipalities must achieve their objectives and functions within their financial and administrative capacity. Ideally, the local government fiscal framework should provide municipalities with access to the revenue sources necessary to fund the powers and functions assigned to them. In other words, 'the whole local government fiscal framework is designed to fund local government, and not just the transfers from national government' (National Treasury, 2011: 27). Chapter 13 of the Constitution provides the framework within which municipal funding is structured. The following provisions are relevant:

- Municipalities are expected to raise their own revenues from service fees, property rates, surcharges and other taxes, levies and duties (sections 227(2) and 229(1)).
- Local government is 'entitled to an equitable share of revenue raised nationally' (section 227(1)(a)).
- Local government may receive additional conditional transfers from national and provincial government (section 214(1)(c)).
- National legislation must be put in place to regulate rates, surcharges and other taxes (section 229(5)).
- National legislation must be put in place to allow municipalities to raise loans for capital or current expenditure, only for bridging purposes during a fiscal year. See section 230A of the Constitution.

Table 4 lists the main sources of municipal revenue.

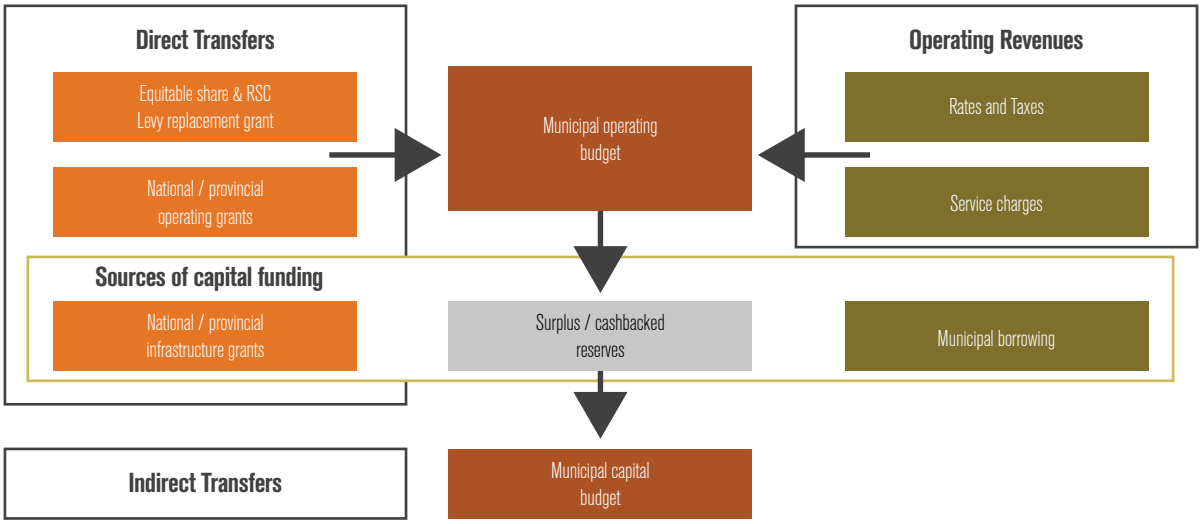
Table 4: Main sources of municipal revenue

Source of local government funding	Constitutional provisions	Governing legislation
Municipal own revenue sources		
Rates on property	Sections 229 and 227(2)	Municipal Property Rates Act
Surcharges on fees for services provided by or on behalf of the municipality	Sections 229 and 227(2)	Municipal Fiscal Powers and Functions Act
Service charges/ fees	Sections 229 and 227(2)	Municipal Systems Act Municipal Finance Management Act Electricity Act and Electricity Regulation Act National Water Act Provincial land use planning ordinances
Other taxes, levies or duties	Sections 229 and 227(2)	Municipal Fiscal Powers and Functions Act
Administrative fees		Municipal Systems Act
Fines		National Road Traffic Act
Borrowing		Section 230A Municipal Finance Management Act
Credit control and debt collection		Municipal Systems Act
Transfers from national and provincial government		
Local government equitable share of nationally collected revenues	Sections 214 and 227	Intergovernmental Fiscal Relations Act The annual Division of Revenue Act
Fuel levy sharing with metropolitan municipalities	Sections 229(1)(b)	The annual Taxation Laws Amendment Act
Conditional grants from national government	Sections 214(c), 226(3) and 227(1)(c)	Intergovernmental Fiscal Relations Act The annual Division of Revenue Act The annual National Appropriation Act
Conditional grants from provincial government	Section 226	The annual Division of Revenue Act The annual Appropriation Act of the relevant province

Source: National Treasury (2011)

Figure 1 shows how these different sources of municipal revenue relate to the funding of cities' operating and capital budgets.

Figure 1: Funding of municipal operating and capital budgets



Source: National Treasury (2012a)
Note: borrowing is not a source of revenue but a financing mechanism that enables a municipality to spread the cost of new infrastructure over time, so as to promote intergenerational equity in the financing of infrastructure.

Working within the above local government fiscal framework, the municipalities of the nine cities in 2014 budgeted to collect a combined R184-billion in revenue, and to spend R165-billion and R35-billion in operating and capital expenditure respectively. In each instance this is around 55.6% of the total revenue, operating expenditure and capital expenditure of all municipalities in South Africa.[5] Given that 40% of the population lives in these cities[6], the municipalities serving them are better off on a per capita basis relative to nearly all other municipalities in the country.

Shifts in the Cities' Funding Model

The transition to a new model of local government required a new funding model, to respond to the constitutional requirements related to intergovernmental fiscal relations (although certain elements, such as property rates and the notion of paying for municipal services, were carried over from the previous dispensation). The bulk of the work on the new funding model was undertaken between 1993 and 2004, since then the model has been further refined. From 2000/01, greater priority was given to funding local government relative to national and provincial government, as shown by local government's increased overall share of nationally raised revenues. This includes the local government equitable share and conditional grants from national government. Between 2001/1 and 2013/14, local government's overall share of nationally raised revenue increased from 4.2% to 8.8% (revised estimate). In other words, the local government's overall share grew at an annual average rate of 22.9% (National Treasury, 2014: 100), whereas national tax revenue grew at an average annual rate of 11% over the same period.[7]

Local government equitable share

The local government equitable share is transferred to municipalities in terms of section 227 of the Constitution in order to supplement municipal own revenue and support municipalities to meet their constitutional duties to provide services to their residents. Services for non-poor consumers should be funded through revenues generated from those consumers (National Treasury, 2012c: 10), whereas this transfer of nationally raised revenue is unconditional and provides funding for municipalities to deliver free basic services to poor households, and subsidises the cost of administration and other core services.

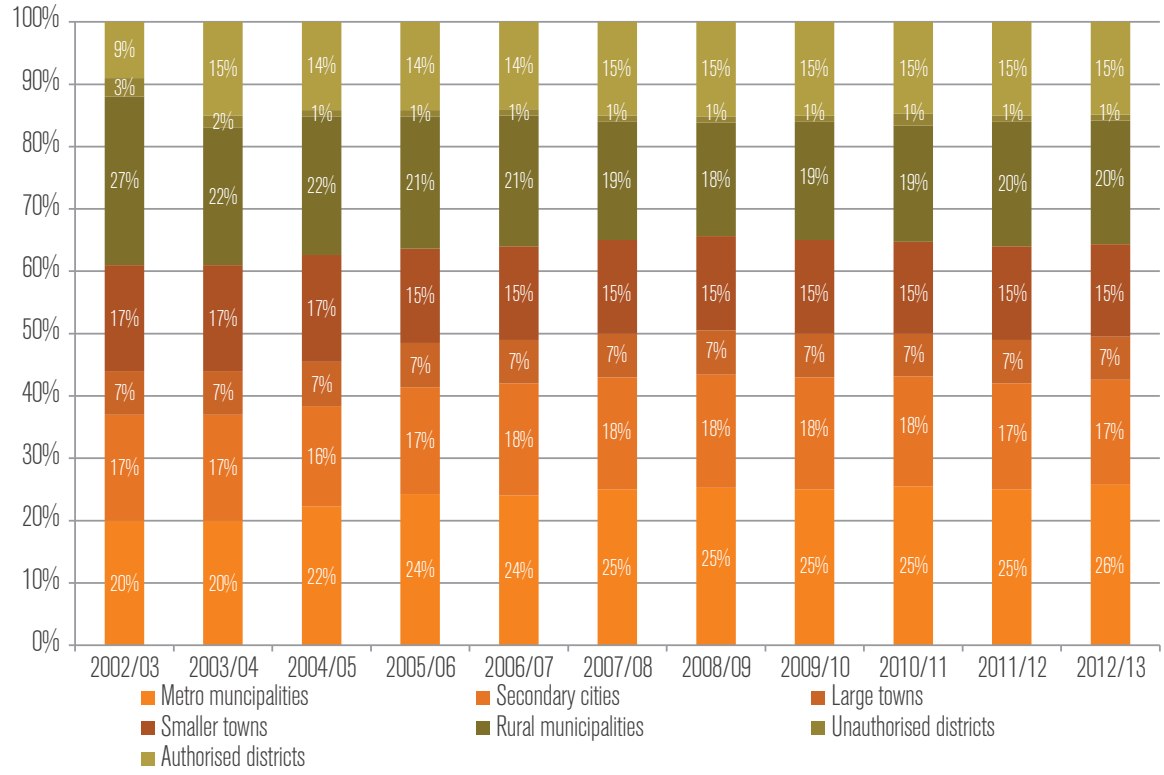
[5] Calculated using data from the National Treasury Local Government Database: Original Budget 2014

[6] Stats SA. 2014. District Council Projection by sex and age (2002-2014) http://www.statssa.gov.za/?page_id=1854&PPN=P0302&SCH=6012

[7] Own calculations from National Treasury. 2014. 2014 Tax Statistics. Pretoria: National Treasury.

The equitable share is divided among the 278 municipalities using a formula, which has changed over the years. Initially based on the number of poor households in a municipality and the cost of providing them with basic services, a review by National Treasury in 2004 saw the introduction of a revenue-raising capacity component, which reduced the proportion of the grant allocated to wealthier and better capacitated municipalities. Nevertheless, despite these changes, the formula still favoured the metropolitan municipalities over other municipalities. As Figure 2 shows, between 2002/02 and 2012/13 the local government equitable share allocated to metropolitan municipalities increased by about 6%, whereas that allocated to small towns, rural municipalities and unauthorised districts declined from 39% in 2002/13 to 36% in 2012/13.

Figure 2: The division of the local government equitable share across types of municipality (2002/03–2012/13)



Source: National Treasury (2012b)

This changed from 2013/14, when the equitable share redistribution model was modified, after a comprehensive review began in 2012 by National Treasury, the Department of Co-operative Government and Traditional Affairs (COGTA), SALGA and the Financial and Fiscal Commission (FFC). As a result, over 50% of the 2014/15 local government equitable share will be going to the rural local and district municipalities (National Treasury, 2014: 100).[8] Further details about the revised formula can be found in Chapter 2 (page 26).

City-specific conditional grants

In recognition of the important role that cities play, and the greater responsibilities that are being allocated to cities for functions such as housing and transport, government has put in place a number of city-specific conditional grants. The main grants are:

- The Urban Settlements Development Grant. This grant is allocated only to the eight metropolitan municipalities. It replaced the Municipal Infrastructure Grant for cities (MIG Cities) in 2011/12 and is intended as supplementary funding that metros can use to fund informal settlement upgrades. (For more details on this grant, see Chapter 7.)
- The Public Transport Infrastructure and Systems Grant. The grant aims to help cities create new and improve existing public transport (including provision of infrastructure for the bus rapid transport system) and non-motorised transport infrastructure. For more details on this grant, see Chapter 8.
- The Neighbourhood Development Partnership Grant. This grant aims to create a platform for third-party public and private investments to improve the quality of life in township urban hubs.
- The Integrated Cities Development Grant. This grant aims to incentivise the metros to integrate and focus their use of all available infrastructure investments to achieve a more compact and efficient urban spatial form.

In addition to these city-specific (in most cases metro-specific) grants, other fiscal incentives have been introduced, including tax incentives for the regeneration of specified urban development zones and additional grant financing in social housing restructuring zones (National Treasury, 2013b).

City own revenues

The 2008 global economic crunch and resultant slow-down in economic growth and drop in employment has made collecting revenue more difficult for cities. In addition to these cyclical pressures, certain national government policy initiatives have affected the city's revenue base, tariff setting or their residents' ability to pay municipal rates and tariffs. For example:

i. The Municipal Property Rates Act places limitations on a municipality's property rates base and level of tariffs. (See Chapter 4 for a full discussion.)
ii. Large tariff increases granted to Eskom has affected municipal revenue generated from electricity sales, which represents a large proportion of city revenue. In addition, national government's decision to promote and fund electricity demand-side management measures has reduced electricity usage by business and high-end domestic consumers. (See Chapter 6 for a full discussion.)
iii. With the introduction of e-tolls in Gauteng, price-sensitive commuters may choose to avoid the tolls by taking alternative routes, along roads that are maintained and repaired by cities. Revenue will therefore need to be redirected from other developmental areas to maintain the road infrastructure with no compensation for this from provincial or national government. E-tolls also reduce city residents' disposable income and their appetite for other rates or tariff increases that cities may want to impose, thereby limiting the city's scope to raise own revenues.

The separation of policy and financing (at national and provincial level) and implementation (at local level) can result in unfunded mandates, putting further pressure on a city's available revenue.

Unfunded mandates

An unfunded mandate arises when 'municipalities carry out functions that are not included in the powers and functions allocated to them by the Constitution or legislation' (FFC, 2011: 2). National or provincial government decides on a policy or course of action that must be implemented by local government but without funding to do so. An unfunded mandate may arise as a result of the following reasons (FFC, 2011):

- Historical roles assumed in the past.
- Weak, incomplete or confused allocation of functions.
- Implicit or explicit choice by the sphere of government to perform the function.
- No coherent set of legislated function definitions.

Unlike local government, provincial government is protected by Section 35 of the Public Finance Management Act (PFMA) from possible unfunded mandates originating from national government:

> *Draft national legislation that assigns an additional function or power to, or imposes any other obligation on, a provincial government, must, in a memorandum that must be introduced in Parliament with that legislation, give a projection of the financial implications of that function, power or obligation to the province.*

The MFMA does not contain a comparable provision, but Sections 9 and 10 of the Municipal Systems Act provides a far more detailed framework for the 'assignment of functions or powers to municipalities generally by Acts of Parliament or provincial Acts' or 'to specific municipalities by acts of executive or by agreement'. When seeking to assign a function or power, the provincial or national government minister must ask the FFC to assess the implications of such an assignment on the municipality's finances, and 'must take appropriate steps to ensure sufficient funding, and such capacity-building initiatives as may be needed'.

Despite this legal framework, unfunded mandates are a reality. While (strictly speaking) municipalities are not required to fund functions that are not explicitly allocated or assigned to them, the Municipal Structures Act does not prevent a municipality from providing and funding such services. Some may argue that municipalities should simply stop funding functions that are the responsibility of other government spheres, but this would disrupt existing services and would have both practical and political consequences. The decision by cities to prioritise certain expenditure on unfunded mandates can be either through political influence and agreement, or through an identified community need. Nevertheless, cities need to find ways of ensuring that the sphere of government responsible for the relevant function comes up with the funds – provinces in the case of health, libraries and museums and national government in the case of housing.

[8] National Treasury, 2014. Budget Review 2014. Pretoria: National Treasury. page 100

Provincial Library Services – Case Study of an Unfunded Mandate

In terms of the Schedule 5 Part A of the Constitution, 'libraries other than national libraries' are a provincial mandate and, therefore, provinces are required to budget and fund them. However, for historical reasons, municipalities are widely involved in providing (and contributing to funding) of library services.

In 2011/12, total government spending on library services came to about R2.3-billion. Table 5 shows each government sphere's contribution to the running of libraries in each province.

Table 5: Spending on provincial public libraries by sphere of government

Provincial own funding				Municipal own funding			National grant funding		
R Thousands	2009/10	20010/11	20011/12	2009/10	20010/11	20011/12	2009/10	20010/11	20011/12
Eastern Cape	36 013	59 782	64 432	57 268	82 888	141 508	55 515	77 240	95 474
Free State	30 100	30 854	45 883	54 411	68 364	39 403	40 315	45 197	47 909
Gauteng	9 251	12 581	11 281	302 866	343 452	349 853	46 043	51 619	54 716
KwaZulu-Natal	67 973	86 981	103 782	284 304	291 618	264 806	34 147	38 282	48 971
Limpopo	6 841	10 285	10 886	31 402	46 436	53 209	55 956	62 733	74 941
Mpumalanga	16 028	13 313	14 418	45 406	36 264	31 847	55 956	62 733	66 497
Northern Cape	5 875	4 847	13 744	30 845	14 721	19 071	58 820	65 943	69 900
North West	48 066	31 391	39 215	29 683	35 576	32 432	52 872	59 275	62 832
Western Cape	68 450	64 264	104 136	344 696	390 157	388 761	40 976	49 638	48 694
Total	288 598	314 299	407 778	1 180 881	1 309 476	1 320 890	440 600	512 660	569 934
Provincial, municipal and grant funding as a percentage of total spend									
	15%	15%	18%	62%	61%	57%	23%	24%	25%

Source: National Treasury, Provincial Budget Datatase & Local Government Database

At an aggregate level, provinces contributed just 18% of total government spending on provincial public libraries in 2011/12. Although slightly higher than in previous years, provinces are still contributing the least of the three spheres of government to the funding of the provincial libraries function. In 2011/12, municipalities contributed 57% of total government spending on provincial public libraries, with the lion's share coming from metros. As Table 6 shows, in 2012/13 the metros budgeted R1.2-billion for the libraries function, up from R845-million in 2009/10. The annual average growth rate of 12% over the period is very positive. Cape Town spends the most of all the metros on libraries, followed by eThekwini and then Johannesburg.

Table 6: Metros' adjusted budgets for libraries and archives

R Thousands	2009/10	20010/11	20011/12	20012/13	Average annual growth
Buffalo City	22 632	24 543	20 794	28 340	8%
Nelson Mandela Bay	39 777	43 042	129 435	50 834	9%
City of Cape Town	295 918	334 524	354 023	441 750	14%
City of Johannesburg	139 117	147 689	155 204	183 978	10%
City of Tshwane	62 763	77 986	74 916	91 953	14%
Ekurhuleni	95 424	105 488	110 242	124 891	9%
eThekweni	176 763	204 407	211 425	244 642	11%
Mangaung	13 539	16 706	17 270	18 982	12%
Total Metros	845 933	954 385	1 073 309	1 185 370	12%

Source: National Treasury, Provincial Budget Database & Local Government Database

The amounts in Table 6 include the grants that certain metros receive from their respective provinces. However, incomplete data means identifying the own revenue contribution of each metro is not possible, although the amounts are substantial.

Source: Department of Arts and Culture. 2013. 'Project Report for the Costing the South African Public Library and Information Services Bill'. Pretoria, South Africa

Conclusion

Cities occupy an important place in South Africa's social, economic and political landscape, given the size of their populations and their level of self-sufficiency. The Constitution allocates a wide range of powers and functions to municipalities and sets out the fiscal framework for funding them through own taxes (mainly property rates), service charges, an equitable share of nationally raised revenues and other allocations from national and provincial government. National Treasury makes the important point that 'the whole local government fiscal framework is designed to fund local government, and not just one component of it such as own revenues or the equitable share' (National Treasury, 2011: 37). The Constitution envisages a future where municipalities with good administrative capacity must be assigned responsibility for the administration of national and provincial functions. The Municipal Systems Act sets out the framework for managing the assignment of functions to municipalities. It focuses on ensuring that the financial implications are considered in detail before any function is assigned. Unless the assignment or delegation of a function is processed in accordance with these provisions, the municipality is theoretically under no obligation to fund the function. However, in practice, this does not happen.

Processes are underway to devolve responsibility for the housing and transport function to cities. The risk for cities is that simply devolving the national and provincial budget for these functions will not fully compensate local government for taking on the functions. Unfunded mandates are already an issue, and these devolution processes may impose further unfunded mandates. Metros will need to insist that the public finance maxim 'funds follow function' is adhered in relation to all such function assignments.

However, there is increasing evidence that national government is expecting the cities to take greater responsibility for the sustainability of their own finances. Cities need to continue exploring avenues to increase revenues, as well as to demonstrate that existing revenues are being spent efficiently and effectively. Residents will resist initiatives to expand the cities' tax-base if the general perception is that the city wastes funds. Also, tackling wasteful and corrupt spending will yield direct savings which can be reallocated to fund priority services and infrastructure. Cities must ensure that they are using the full range of available revenue sources (and not just three of four of them), that taxes, tariffs and the indigent policies are appropriately structured and properly managed, as well as completeness in billing and effective debt collection. Furthermore, attention needs to be given to the link between borrowing and growing the revenue base.

The location of cities in government seems clearly based on the legislative framework. However, given the changing intergovernmental dynamics and shift in how cities are funded, perhaps it is time for a more fundamental review of city funding. For this, cities will need to make their voices heard much more strongly, by

assuming a stronger role in intergovernmental forums, as '[w]ithout its full participation, the vital contribution of locally articulated preferences (based on municipalities' participatory governance procedures – ward committees and IDP processes) will be missing' (Layman, 2003: 22). While SALGA's role in representing the interests of local government is of paramount importance, its ability to represent effectively all municipalities is compromised by the shear diversity of local government and the competing interests within the sector. Given cities' size and economic role, they should have direct representation on more the intergovernmental forums, particularly those involved in the division of nationally collected revenues. Metros should be represented by one of their mayors, separately from SALGA, at the Extended Cabinet and MinMECS. Consideration should also be given to consolidating the Budget Council and Budget Forums into a single forum, so that all three spheres of government are able to participate on an equitable basis in the discussions regarding the division of revenues.

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Richard Johnson

2

The Changing State of City Finances

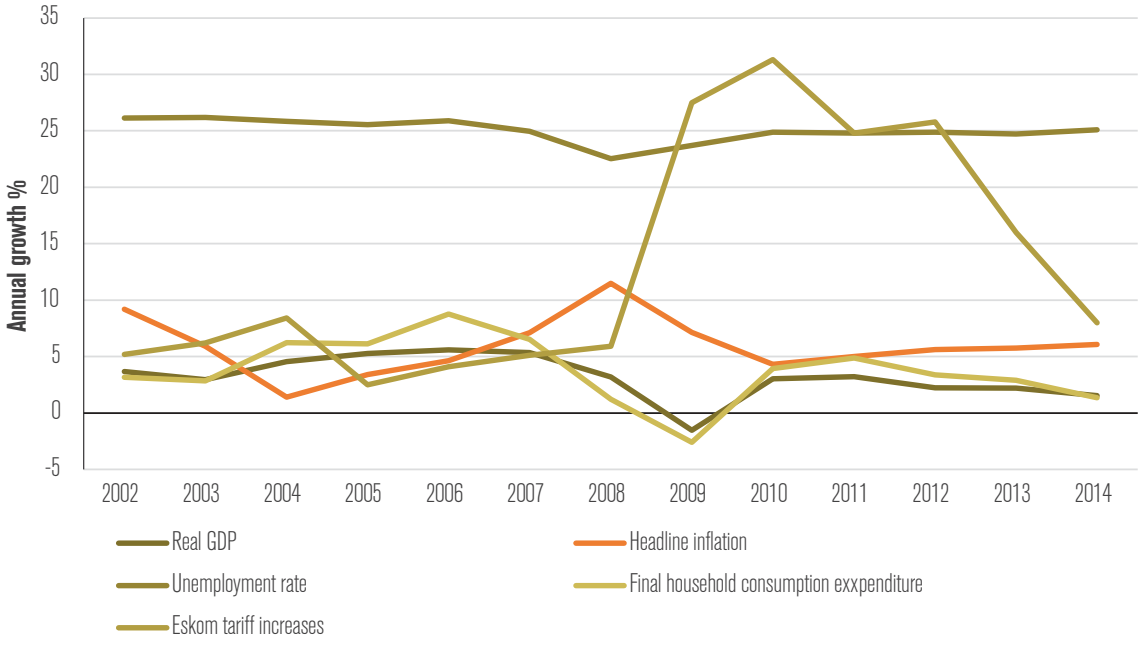
written by Carmen Abdoll with Vailet Mukotsanjera-Kowayi

The Changing State of City Finances

Since 1994, cities have faced changes to their boundaries, the intergovernmental fiscal arrangements, and their population, which has grown as a result of rapid in-migration. All these changes have affected city finances directly or indirectly. More recently, like all spheres of government, cities have had to contend with the impacts of the 2008 global economic meltdown, the sharp drop in South Africa's economic growth rate, higher inflation and weak employment levels. Cities have also had to deal with above-inflation wage increases and sharp increases in the bulk price of electricity from Eskom. The slower economic growth 'has put pressure on government revenues and reduced the fiscal space for increased expenditure' (National Treasury, 2009a: 2). Similarly for cities, the economic slowdown and higher unemployment levels have directly affected households' ability to pay municipal bills. At the same time, national government has called on municipalities, and cities specifically, to shield the poor from the worst impacts of the economic crisis, (National Treasury, 2009b) , which is not an unreasonable request but does have implications for city finances.

As a consequence of the economic crisis in 2008, cities are operating in a far more volatile and challenging environment than in the preceeding years (Figure 3).

Figure 3: Economic environment (2002–2014)



Source: Statistics South Africa

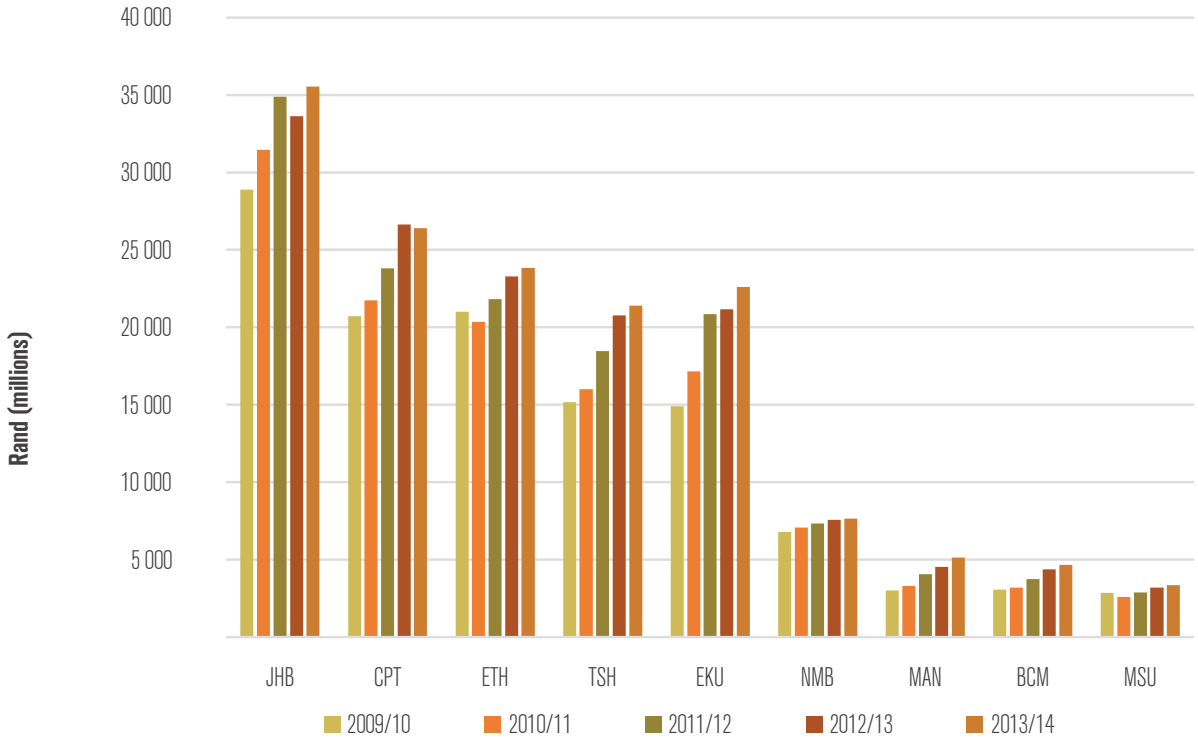
The South African Cities Network (SACN) has been reporting on the state and health of finances of its network members for many years through its State of City Finances reports. This chapter lays the foundation for much of the discussion and analysis in the publication. It establishes the state of the SACN member cities' finances by updating the financial indicators from the State of City Finances 2013 using the latest financial data and in constant 2012 Rands. It reviews city revenue, expenditure, debtors and cash position over the period 2009/10 to 2013/14.

The majority of the information presented in this chapter is drawn from the SACN database 2014, which is compiled from the relevant municipalities' consolidated annual financial statements (AFS). Unlike the previous State of City Finances reports, a deliberate effort has been made to present the information by city, allowing for comparisons between cities and highlighting areas where cities could improve their financial reporting.

Revenue

A city's revenue determines the funds available for expenditures. Since 2008/09, most cities' revenues have held up or recovered remarkably well (Figure 4). In some years, certain cities show a decline in revenues, which has generally been related to internal management issues rather than external factors. More concerning is the levelling off in city revenue growth between 2013 and 2014.

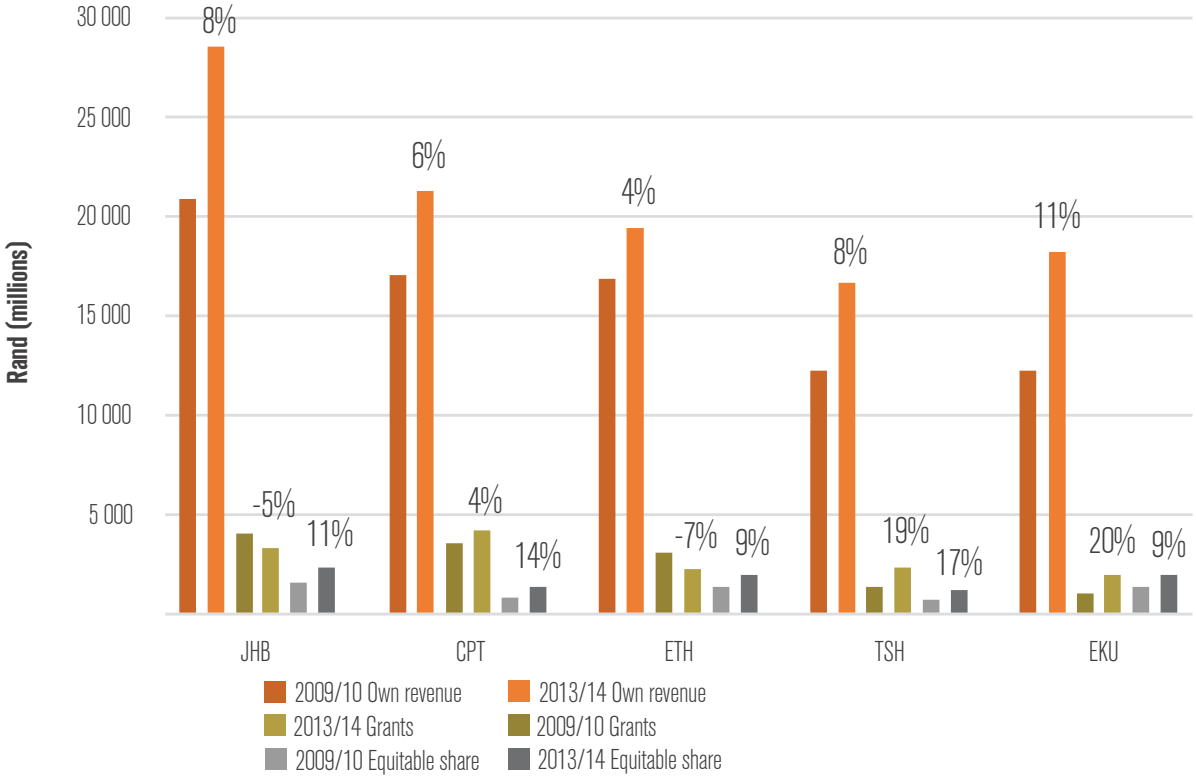
Figure 4: City revenue (2009/10–2013/14)



Source: SACN database (2014)

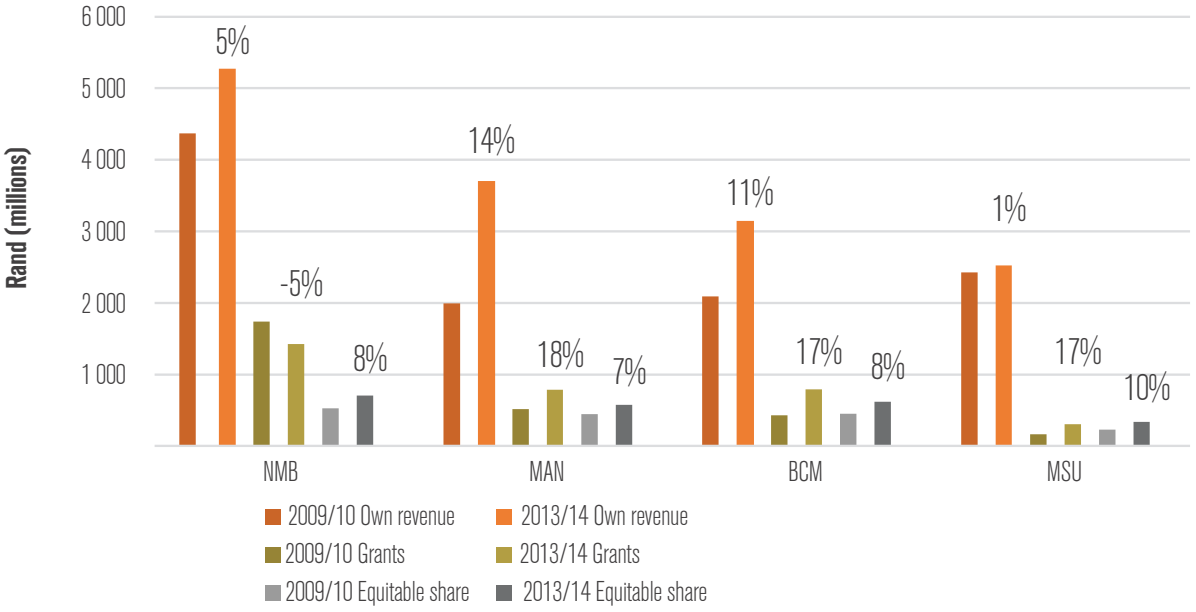
Figures 5 and 6 compare the cities' real revenue (in constant 2012 rands) by source for 2009/10 and 2013/14. The percentages above the pairs of bars show the average annual growth in the respective revenue sources over the four years. The cities have been split into large cities (aggregate real city revenues above R10-billion) and medium cities (aggregate real city revenues below R10-billion), so that the graphs can be read more clearly.

Figure 5: Revenue by source (2009/10 and 2013/14) – large cities



Source: SACN database (2014) for own revenue and grants numbers; annual Division of Revenue Act (DORA) for the equitable share numbers

Figure 6: Revenue by source (2009/10 and 2013/14) – medium cities



Source: SACN database (2014) for own revenue and grants numbers; Annual DORA for the equitable share numbers

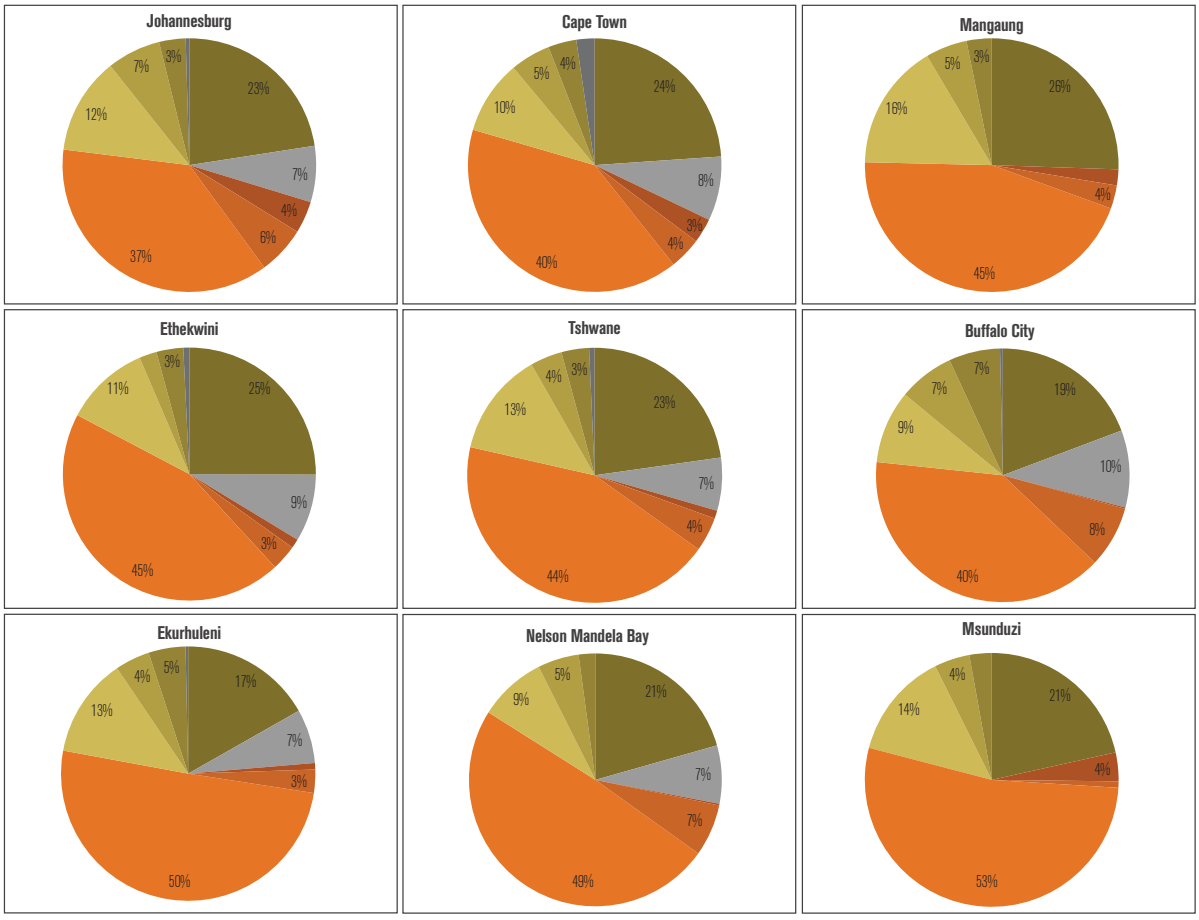
For both large and medium cities, the most important revenue source is own revenue, which comprises property rates, the cities' share of the fuel levy, service tariffs, fines etc., followed by conditional grants from national and provincial government, and the local government equitable share. The very low rates of real growth in own revenues in Nelson Mandela Bay (5%), eThekwini (4%) and Msunduzi (1%) suggest specific revenue-raising challenges in addition to the pressures in the economic environment. Between 2009/10 and 2013/14, five cities recorded substantial real growth in grant revenues, while three cities recorded negative real growth. This may relate to the respective cities' relative success in spending the conditional grants allocated to them. However, it is not possible to correlate the grant funding reported by the cities in their AFS (which is reflected in these figures) with the amounts allocated in the annual Division of Revenue Act (DORA) and the respective provincial government budgets. Therefore, it is not possible to verify whether these reported trends reflect trends in actual conditional grant allocations from national and provincial government.

The equitable share numbers in Figures 5 and 6 are the allocations set out in the annual DORA, and not the amounts reported by the cities in their annual financial statements. The growth in the equitable share allocations reflect national government's efforts to insulate local government from the fallout of the 2008 economic slow-down. Cities' equitable share allocations increased at rates well above the growth in nationally raised revenue, and also at rates that exceed the growth in most cities' own revenues. However, it is very unlikely that national government will be able to continue shielding local government (and the cities) from the fiscal pressures currently being experienced by the fiscus.

Own revenue

Compared to other, smaller municipalities, cities' scope to raise own revenue is greater because of their larger fiscal capacity – reflected by higher average household incomes and levels of employment, a more diverse business base and the presence of government institutions. However, fiscal capacity is not the only determinant of city own-revenue collection levels. Cities need to show fiscal effort as well. And, in a climate where residents are less able to pay, city collection strategies need to balance cultivating a culture of paying for services and protecting poor households. In 2013/14, the ratio of own revenue to operating revenue was between 84% and 92% for all cities. Figure 7 presents the breakdown of own revenues for each city.

Figure 7: City own revenue breakdown (2013/14)



Source: SACN database (2014)

Property rates

Revenue from property rates is the most important own-revenue source for cities (although second in size to electricity). This is because cities can allocate this revenue according to their priorities, whereas the revenues from service charges have to be ring-fenced to pay for those services. In 2013/14, the revenue from property rates ranged from 19% of total own revenue in Ekurhuleni to 27% in eThekwini. The importance of cities regularly updating their valuation rolls is emphasised by the following:

- In 2013/14, property rates revenue nearly doubled in Mangaung. According to the municipality, this was mainly due to the implementation of the new valuation roll in that year.
- In 2013/14, Johannesburg collected R1-billion more property rates revenue than expected, following the implementation of its latest valuation roll.

For further discussion on property rates, please refer to Chapter 4.

Electricity

The sale of electricity accounts for on average 47% of the cities' own revenue. It accounted for over half (56%) of Ekurhuleni's own revenue, in part because Ekurhuleni is a highly industrialised city, but also because the municipality has a very steeply inclining block tariff structure. Since 2009/10, electricity revenue in Ekurhuleni grew on average by 11% per year in real terms, compared to 9% and 8% in Johannesburg and Cape Town respectively. However, some cities have

experienced a decline in electricity demand as a result of load shedding,[10] sharp increases in the price of electricity and greater energy efficiency from consumers, which has had an impact on city revenues.

- During 2013/14, Ekurhuleni's actual revenue from electricity was 7.8% less than expected. This decline in electricity sales was the biggest contributing factor in the city not realising its budgeted income for this particular year.
- Tshwane also had to adjust its revenue estimates downward because of unexpected reductions in the use of electricity.

Some cities also experienced the effects of poor policy implementation. For instance, during 2013/14 Msunduzi discovered a contravention in the city's debt collection and credit control policies, whereby water and electricty consumption had been estimated for a longer period than allowed by the policy. After embarking on an exercise to locate and read water and electricity meters, R54-million in revenue had to be restated or written off in 2012/13 (Msunduzi Municipality, 2014: 111). Writing off revenue in such cases affects a municipality's balance sheet and its ability to fund capital expeditures.

Other own revenue

Revenue from other own revenue sources, such as traffic fines, may not constitute a major part of city own revenue but can make a real difference to city revenues at the margins. For instance, a 1% increase in other revenue sources (as a share of total operating revenue) would mean R310-million additional income for Johannesburg. Also revenue effort plays a big role in collecting from these sources. In Tshwane, the collection of fines was 94% under budget in 2013/14 because of persistent low payment rates among transgressors and because its Speed Law Enforcement project was not implemented in the financial year as planned (City of Tshwane, 2014: 170). Enforcing payment of smaller income streams (e.g. traffic fines, development charges, fees and rentals) contributes to developing a culture of payment among a city's customers. This payment culture flows through to other services that constitute larger portions of city budgets. Lastly, as cities have tended to neglect these revenue sources in the past, they have the greatest potential for growth going forward.

Transfers and grants

In 2012/13, metropolitan municipalities[11] received 26% of the local government equitable share, up from 20% in 2002/03, reflecting the updated population data (from 2011 Census) used in the local government equitable share formula, as well as other changes to the structure of the formula.[12]

Cities have seen significant changes to their infrastructure transfers over the period. The metropolitan cities currently receive the Urban Settlements Development Grant (USDG), which was born out of the Municipal Infrastructure Grant for Cities when that grant ended. The USDG was reduced by R130-million over the 2014 Medium Term Expenditure Framework (MTEF) to fund other priorities in urban development. The National Treasury (2015: 48), together with other stakeholders, is also proceding with a review of local government infrastructure grants focusing on the following areas:

- Rationalising the number of grants that each municipality receives.
- Having greater differentiation in the types of grants and levels of oversight for municipalities.
- Introducing life-cycle asset management to sustain the functionality of existing infrastructure.
- Strengthening administrative oversight to avoid ad-hoc proliferation of grants.
- Standardising reporting to increase accountability.
- Improving performance monitoring and benchmarking.

The ongoing fiscal pressure on nationally collected revenues resulted in National Treasury reducing direct transfers from national to local government by R3.8-billion over the 2014 MTEF (National Treasury, 2014a: 30). Further net cuts of R41-million were announced in 2015 (National Treasury, 2015: 33). Most of these funds were removed from under-performing conditional grants, so as to minimise the impact. No further information is available on how these reductions will affect transfers to the cities, although allocations to city-related conditional grants appear to take priority, so the impact on cities is likely to be less than on other municipalities.

[10] Note: the figures do not reflect the impact of recent load shedding in 2015.

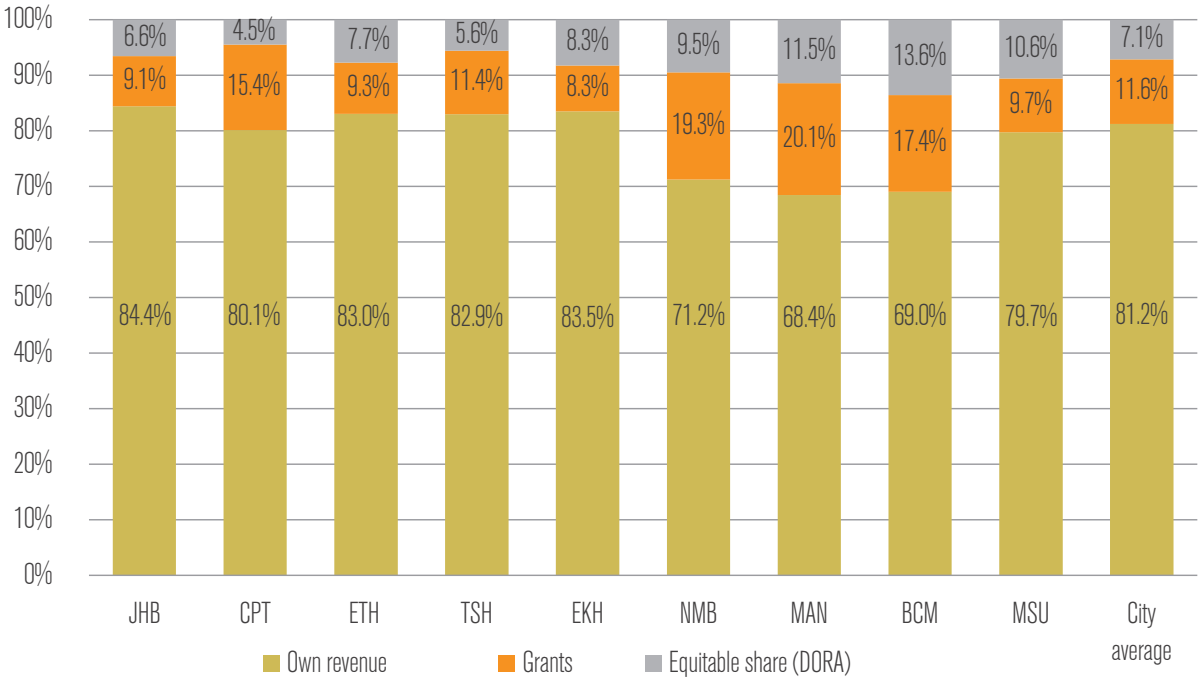
[11] Excluding Msunduzi

[12] National Treasury, working with the Department of Cooperative Governance and SALGA, and in partnership with the FFC and Statistics South Africa, has since reviewed the formula. In 2013/14 significant revisions were implemented that will result in a greater share of the local government equitable share going to rural local and district municipalities. The new formula is based on data from the 2011 Census, which led to major changes in some allocations. As a result, new allocations are being phased in over five years, ending in 2017/18 (National Treasury, 2014a: 32). These changes are not reflected in the figures that follow.

Equitable share

Equitable share funding is an important, but relatively small, part of city revenue (Figure 8).

Figure 8: Equitable share relative to other revenue sources (2013/14)



Source: SACN database (2014) for own revenue and grants numbers; annual DORA for the equitable share numbers

In 2013/14, the local government equitable share accounted for 7.1% of total city revenue. The equitable share's proportion of total city revenue was lowest in Cape Town (4.5%) and highest in Buffalo City (13.6%). The differences between cities can be explained by a combination of the equitable share formula (and the elements underpinning it), and the extent to which the cities are able to raise their own revenues given their differing fiscal capacity. Table 7 shows the equitable share allocations for 2009/10 and 2013/14 as reported in the cities' AFS, and their actual equitable share allocations set out in the annual DORA for 2009/10 and 2013/14.

Table 7: Equitable share allocations (AFS) 2009/10–2013/14

	Equitable shares reported by cities in their annual financial statements (AFS)		Equitable shares set out in the annual Division of Revenue Act (DORA)		Difference between AFS and DORA		% average annual growth between 2009/10 and 2013/14 (DORA)
	2009/10	2013/14	2009/10	2013/14	2009/10	2013/14	
JHB	3 497 620	4 452 207	1 234 256	2 293 212	2 263 364	2 158 995	17%
CPT	610 891	1 243 270	609 313	1 243 293	1 578	-23	20%
ETH	1 126 955	1 869 806	1 095 568	1 869 806	31 387	-	14%
TSH	528 547	1 166 964	512 149	1 166 964	16 398	-	23%
EKU	2 087 358	1 917 953	1 099 319	1 917 953	988 039	-	15%
NMB	466 835	742 909	456 625	743 325	10 210	-416	13%
MAN	394 637	605 072	384 373	605 072	10 264	-	12%
BCM	416 709	665 266	392 875	653 660	23 834	11 606	14%
MSU	206 178	354 313	199 824	354 313	6 354	-	15%

Source: : SACN database (2014) for own revenue and grants numbers; annual DORA for the equitable share numbers
Note: Johannesburg labels equitable share as equitable share and fuel levy, whereas Ekurhuleni does not distinguish between equitable share and fuel levy in their AFS

Table 7 shows that the cities' AFS do not reflect their equitable share allocations transparently, as either the numbers are simply different, or the amounts are combined with the fuel levy funding and/or conditional grant funding. This makes it difficult to track the allocation of these funds from the annual DORA through to the municipalities. Nevertheless, the accuracy with which the equitable share numbers are being reported improved between 2009/10 and 2013/14; only Johannesburg and Buffalo City still reflected significant discrepencies in 2013/14.

The average annual growth rate in the equitable share between 2009/10 and 2013/14 varied between 12% for Mangaung and 23% for Tshwane. These changes reflect the impact of a combination of factors, including:

- the normal growth in the local government equitable share,
- the updating of the population data to Census 2011, which greatly benefitted the cities as urbanisation trends began to be reflected more accurately, and
- the impact of municipal re-demarcation processes that took place in 2011, which affected Tshwane most.

In 2013/14, the formula used to allocate the local government equitable share was revised based on data from the 2011 Census. Major changes were made to some allocations (see box on page 26). As a result, new allocations are being phased in the period ending in 2017/18 (National Treasury, 2014a: 39).

The Revised 2014/15 Local Government Equitable Share Formula

Following a two-year consultation period, a new local government equitable share formula was introduced in 2014/15. The formula consists of the following components:

LGES = BS + (I + CS) x RA +- C

Where:

BS	Basic services component,
I	Institutional component,
CS	Community services component,
RA	Revenue-raising adjustment component,
C	Correction and stabilisation factor

The major difference between the old formula and the revised formula is that the old formula applied the revenue correction factor to the entire allocation calculated by the rest of the formula, whereas the new formula applies the revenue-raising adjustment component (RA) only to the institutional and community services components. The development component from the previous formula has also been removed, although it was never active in the old formula.

As in the old formula, the institutional component provides funding to assist municipalities with their administration and governance costs. The new community services component was introduced to fund the provision of core municipal services, such as municipal health services, fire-fighting, roads and storm water, municipal planning and cemeteries. Adding this component to provide for the explicit funding of these key local government services and functions will change the horizontal division of funds, favouring smaller municipalities.

The RA factor is applied to the institutional and community services components: for municipalities with greater revenue-raising potential (i.e. the top 10% of municipalities), a factor of zero is applied to the RA, which means that they do not get an allocation from these components; the bottom 25% of municipalities get a 100% RA factor applied and so get the full allocation for these components. To account for the varying fiscal capacities of municipalities, the RA component is based on a per capita index using the following factors from the 2011 Census:

- Total income of all individuals/households residing in a municipality (as a measure of economic activity and earning).
- Reported property values.
- Number of households on traditional land.
- Unemployment rate.
- Proportion of poor households as percentage of total number of households in the municipality.[13]

This method of applying a RA component is an improvement on the previous method which resized the municipal allocations based on municipalities' property rates revenue collected. To use actual property rates as a proxy for fiscal capacity was problematic on two counts: firstly, fiscal capacity is the ratio between a municipality's own revenue potential and the cost of meeting the demand for a defined set of municipal services – so using rates revenue collected only captures one side of this ratio. Secondly, using rates revenue collected to resize allocations results in those municipalities that show fiscal effort being penalised, while those that show no fiscal effort are rewarded.

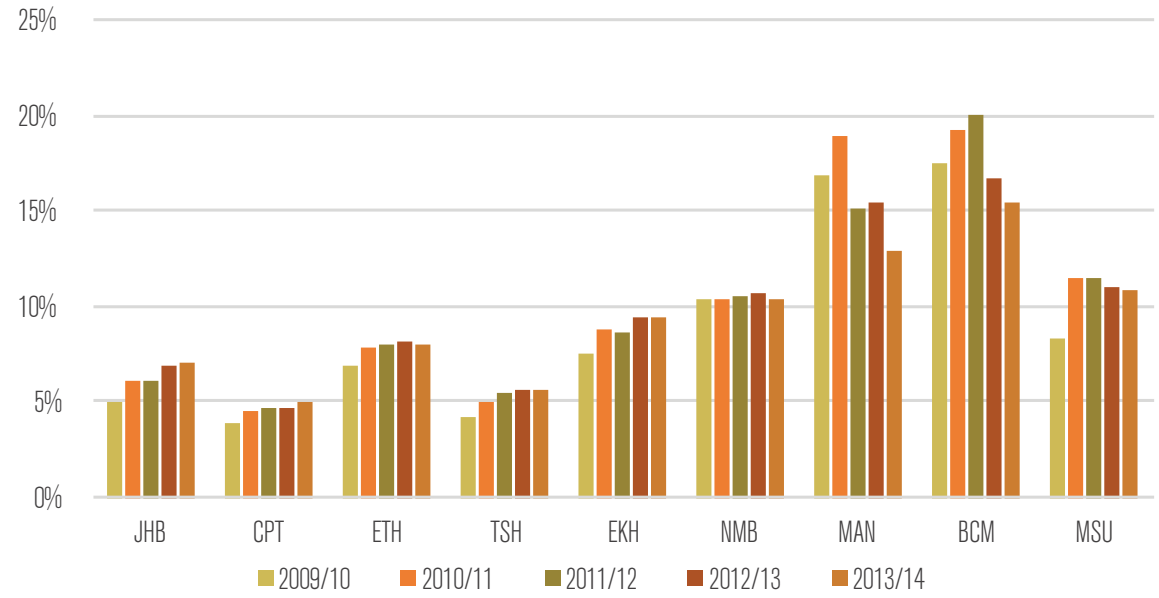
The impact of the changes to the equitable share will vary across municipalities. In order to mitigate against shocks to the municipal budgeting system, the government is phasing in the introduction of the new formula over a period of 5 years (the correction and stabilisation factor), with the full impact of the new formula being felt by municipalities in the 2017/18 financial year.

While the local government equitable share only constitutes between 5% and 15% of city revenues (Figure 9), cities are concerned with the revised formula, which they believe to be biased towards district and local municipalities. and cities have greater revenue-raising potential than other municipalities. Furthermore, the changes to the revenue-raising adjustment component mean that municipalities will no longer 'lose equitable share' if they collect more own revenues.

However, despite these changes, cities are still concerned that the revised formula does not proportionally address the increase in functional requirements and expectations of cities,. In addition, 'there is currently no measure used in allocating grants to ease the operational burden associated with the devolution of functions, changes in legislation or policy such as the redetermination of municipal boundaries and an expansion in capital grants' (City of Tshwane, 2015: 9).

[13] National Treasury. 2013a. 2013 Budget Review Annexure W1. Pretoria: National Treasury. page 39

Figure 9: City equitable share as a percentage of total operating revenue



Source: : SACN database (2014)

Some cities do not report on the separate conditional grants they receive, which means it is not possible to track the flow of funds from the annual DORA and/or the provincial budgets through to the municipalities. The problem is further exacerbated by the fact that the annual DORA does not show the separate conditional grant allocations by city. However, as in 2009/10 substantial conditional grants flowed to the cities in preparation for the 2010 Soccer World Cup, some of the cities may indeed have experienced a decline in conditional grants over the five-year period. What is most apparent is that cities need to improve their reporting on conditional grants received, to make accurate tracking of these revenues easier.

Conditional grants

Table 8 shows the conditional grants the cities report receiving in their AFS for 2009/10–2013/14.

Table 8: Capital grants as reported by the cities (2009/10–2013/14)

	2009/10	2010/11	2011/12	2012/13	2013/14	Ave annual growth since 2010 (%)
JHB	3 547 362	2 875 046	2 987 574	2 311 756	2 374 457	-10%
CPT	2 587 870	1 632 410	2 620 791	3 943 588	2 736 509	1%
ETH	2 386 826	1 016 483	1 604 485	1 526 598	1 759 220	7%
TSH	845 381	523 631	1 224 657	2 041 314	1 905 110	23%
EKU	601 110	639 713	1 336 081	1 238 518	1 560 941	27%
NMB	1 609 235	757 937	919 158	849 459	925 238	-13%
MAN	429 051	367 823	333 629	400 976	695 777	13%
BCM	343 179	344 724	326 861	552 841	661 714	18%
MSU	87 514	89 281	149 070	162 095	221 786	26%

Source: : SACN database (2014)

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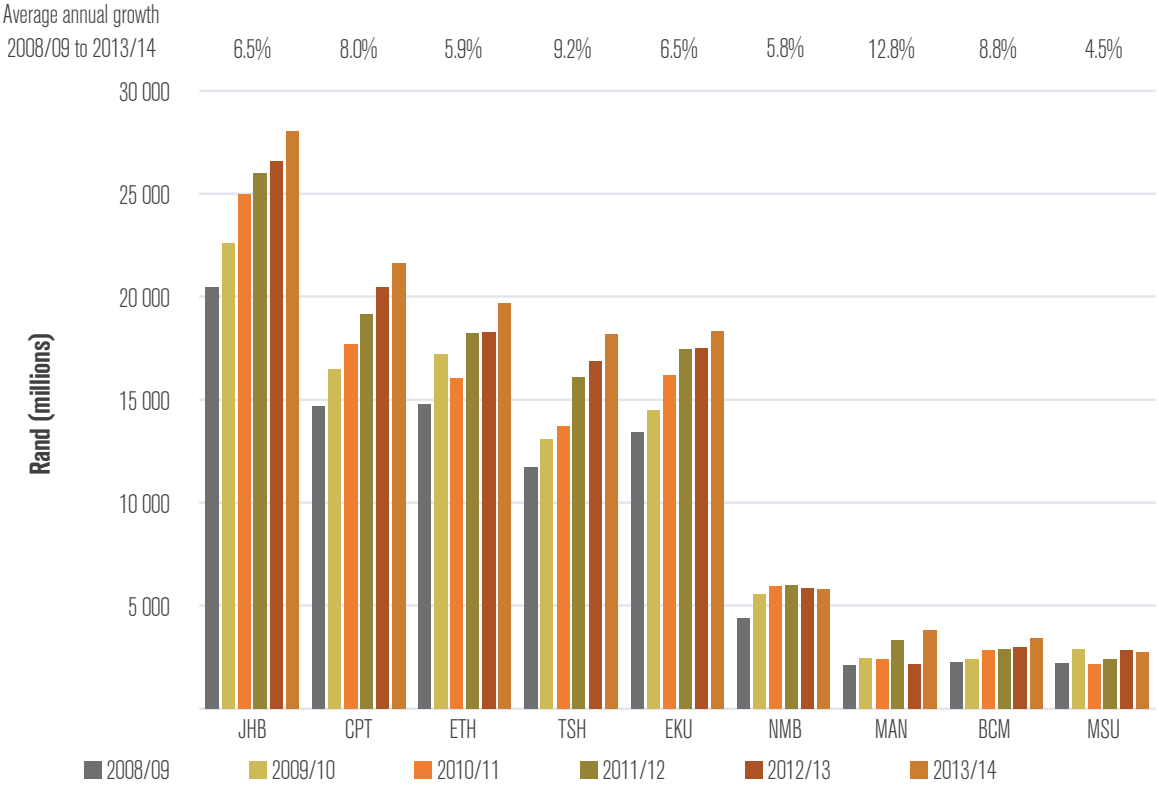
Operating Expenditure

Operating expenditures refer to expenditures related to running a city and providing services. They include bulk purchases, employee-related costs, repairs and maintenance, and 'other' expenditure. Figure 10 shows cities operating expenditure for 2008/09 to 2013/14 in constant 2012 rands, i.e. the effect of inflation has been removed.

Figure 10: City operating expenditure (2008/09–2013/14)



Source: : SACN database (2014)

Between 2008/09 and 2013/14, operating expenditures across all cities grew by an annual average rate of 7.2%, with Mangaung showing the most rapid growth (12.8%) and Msunduzi the slowest growth (4.5%). Since 2010/11, real expenditures in Nelson Mandela Bay have declined slightly. In 2013/14, expenditure in most cities increased sharply, which was primarily driven by increases in electricity bulk purchases and employee costs.

Operational expenditure breakdown

Table 9 gives a breakdown of the cities' operating expenditure for 2009/10 and 2013/14, and shows the average annual growth. The amounts are given in constant 2012 rands, i.e. the effect of inflation has been removed.

Table 9: Operating expenditure breakdown (2009/10–2013/14)

2008/09 R'000	Employee related costs	Remuneration of councillors	Bad debts	Repairs and maintenance	Bulk purchases	Other operating expenditure	TOTAL
JHB	5 888 504	79 244	1 702 638	477 332	6 265 894	6 265 894	20 477 051
CPT	5 237 528	91 329	1 042 132	795 698	3 322 067	3 322 067	14 692 773
ETH	4 719 555	80 415	549 276	1 731 035	4 212 084	4 212 084	14 802 600
TSH	3 534 009	63 886	504 671	1 297 371	3 272 489	3 272 489	11 735 247
EKU	3 979 894	67 771	1 677 713	1 223 314	4 757 647	4 757 647	13 413 021
NMB	1 478 388	47 617	202 620	440 463	1 087 068	1 087 068	4 386 143
MAN	680 617	23 822	213 414	156 285	708 828	708 828	2 101 137
BCM	772 764	22 344	159 406	134 805	538 722	538 722	2 252 013
MSU	672 205	22 120	11 542	89 951	734 965	734 965	2 230 635

2013/14 R'000	Employee related costs	Remuneration of councillors	Bad debts	Repairs and maintenance	Bulk purchases	Other operating expenditure	TOTAL	Average annual growth
JHB	7 093 194	108 684	2 855 328	908 284	10 624 086	6 425 826	28 015 401	6.5%
CPT	7 829 746	108 246	1 196 234	-	5 938 047	6 527 650	21 599 923	8.0%
ETH	6 210 567	85 334	1 458 312	1 819 030	7 062 692	3 077 080	19 713 014	5.9%
TSH	5 482 870	87 196	1 261 823	1 175 811	6 331 958	3 845 428	18 185 086	9.2%
EKU	5 074 158	84 812	1 211 729	1 230 742	8 191 636	2 551 403	18 344 479	6.5%
NMB	1 586 866	50 065	180 871	441 237	2 028 431	1 514 579	5 802 049	5.8%
MAN	995 955	42 438	535 646	238 723	1 339 679	679 835	3 832 277	12.8%
BCM	1 017 338	40 776	217 126	257 370	1 000 418	906 669	3 439 697	8.8%
MSU	671 160	33 423	101 513	125 425	1 309 371	532 759	2 773 650	5.4%

Source: : SACN database (2014)

- For most cities, the largest expenditure item is bulk purchases of electricity and water from Eskom and the different water boards, and the second largest is employee-related costs.
- Other operating expenditures cover a very wide range of items, including audit fees, advertising, bank charges, communication, travel and subsistence etc. Analysing the detail of these items can often reveal possible efficiency savings. eThekwini and Msunduzi both report spending less on these 'other' items in 2013/14 relative to 2008/09. In contrast, Mangaung's expenditure on 'other' items grew at an average annual rate of 16% and Cape Town's by 9%.
- Bad debts represent a very significant cost to cities. Between 2008/09 and 2013/14, only two cities succeeded in reducing their bad debts: Ekurhuleni (-6%) and Nelson Mandela Bay (-2%). Bad debts increased in all other cities, with the highest average annual growth rates being in eThekwini (22%), Tshwane (20%) and Mangaung (20%). Johannesburg shows the greatest increase in bad debts in absolute terms (R1.15 billion increase), which represents an average annual growth of 10%. Bad debts in Msunduzi have grown at an annual rate of 54% over the period, but this was off a very low base in 2008/09 that probably did not reflect the true situation.
- In 2013/14, Cape Town reported zero spending on repairs and maintenance, which is probably because the city recorded this expenditure under 'other'. However, given the importance of this expenditure item for accountability, it is not good reporting practice to hide the expenditure in this way.
- Johannesburg's spending on repairs and maintenance is low compared to other cities of its size. Despite growing by an annual average of 14% since 2008/09, repairs and maintenance expenditure still only constitutes 3% of its total operating expenditure for 2013/14, which is the lowest of all cities excluding Cape Town.

Table 10 shows the proportion that each expense made up of operating expenditure in 2013/14.

Table 10: Proportion of specific expenses of total operating expenditure (2013/14)

2013/14	Employee related costs	Remuneration of councillors	Bad debts	Repairs and maintenance	Bulk purchases	Other operating expenditure
JHB	25%	0.4%	10%	3%	38%	23%
CPT	36%	0.5%	6%	0%	27%	30%
ETH	32%	0.4%	7%	9%	36%	16%
TSH	30%	0.5%	7%	6%	35%	21%
EKU	28%	0.5%	7%	7%	45%	14%
NMB	27%	0.9%	3%	8%	35%	26%
MAN	26%	1.1%	14%	6%	35%	18%
BCM	30%	1.2%	6%	7%	29%	26%
MSU	24%	1.2%	4%	5%	47%	19%

Source: : SACN database (2014)

It is interesting to note where the cities are spending and which cities spend more on particular items and less on others. However, far more important is to gain an understanding of the factors underlying these differences. For instance, why do Cape Town (27%) and Buffalo City (29%) spend significantly less on bulk purchases than all the other cities, especially Msunduzi at 47%?

To understand the factors that underlie the differences between city spending on the various items would require a detailed analysis of many factors. These include the city's approach to outsourcing the management of services, to delivering particular services, and the composition of its customer base. For instance, the difference in bad debt levels could be explained in part by better management but also the socioeconomic conditions in each city. The differences also reflect the relative priority that a city gives to an area of expenditure, such as repairs and maintenance. In this regard, Table 10 shows that eThekwini (9%) gives greatest priority to repairs and maintenance than Johannesburg (3%).

Table 11 shows how the relative composition of cities' spending changed between 2008/09 and 2013/14. A positive number indicates that the item's share of total expenditure has been growing, while a negative number indicates that the item's share of total expenditure has been declining. A negative number does not necessarily imply declining expenditure on the relevant item (see Table 4), but rather that spending on other items is growing more rapidly.

Table 11: Change in proportion of expenses to total operating expenditure between 2008/09 and 2013/14

	Employee related costs	Remuneration of councillors	Bad debts	Repairs and maintenance	Bulk purchases	Other operating expenditure
JHB	-3%	0.00%	2%	0.9%	7%	-7%
CPT	1%	-0.12%	-2%	no data	5%	2%
ETH	0%	-0.11%	4%	-2.5%	7%	-8%
TSH	0%	-0.06%	3%	-4.6%	7%	-5%
EKU	-2%	-0.04%	-6%	-2.4%	9%	1%
NMB	-6%	-0.22%	-2%	-2.4%	10%	0%
MAN	-6%	-0.03%	4%	-1.2%	1%	3%
BCM	-5%	0.19%	-1%	1.5%	5%	-1%
MSU	-6%	0.21%	3%	0.5%	14%	-12%

Source: : SACN database (2014)

- Bulk purchases share of total operating expenditure has shown the greatest increase across all cities, with the exception of Mangaung.
- Employee-related costs declined as a proportion of operating expenditure in six of the nine cities, i.e. Ekuhurleni (2%), Johannesburg (3%), Buffalo City (5%) and Nelson Mandela Bay, Mangaung and Msunduzi (6%).
- Repairs and maintenance declined as a proportion of operating expenditure in most of the cities, with only Johannesburg and Buffalo City showing a slight increase (of 1%).

Clearly the increased cost of bulk purchases is placing pressure on all other categories of operating expenditure.

Employee-related costs

Employee-related costs account for between 24% and 36% of total operating expenditure across cities (Table 10), but these costs as a percentage of total operating revenue have declined by between 6% and 3% in six of the nine cities (Table 11). However, as Table 12 shows, this does not mean that cities are spending less on employee-related costs but simply that the share of spending on this item has declined, i.e. other areas of expenditure have increased more rapidly, most notably spending on bulk purchases. Table 12 shows spending on employee-related costs in constant 2012 rands, to remove the effect of inflation

Table 12: Employee-related costs (2009/10–2013/14)

	2009/10	2010/11	2011/12	2012/13	2013/14	Growth between 2010/11 and 2013/14	Growth in number of employees between 2010/11 and 2013/14
JHB	6 563 667	6 822 372	6 876 153	7 068 958	7 093 194	4%	5%
CPT	6 238 462	6 522 586	6 924 527	7 064 705	7 829 746	20%	5%
ETH	5 131 473	5 182 783	6 576 031	5 686 029	6 210 567	20%	23%
TSH	3 956 784	4 468 534	4 815 285	5 033 172	5 482 870	23%	7%
EKU	4 535 367	4 149 470	4 257 095	4 217 074	4 893 815	18%	-3%
NMB	1 805 117	2 016 750	2 030 722	1 627 860	1 577 548	-22%	0%
MAN	759 248	788 442	841 770	880 234	927 337	18%	3%
BCM	869 335	907 706	956 365	930 637	1 017 338	12%	6%
MSU	696 731	683 726	668 305	651 791	671 160	-2%	-3%

Source: SACN database (2014); National Treasury database

Between 2010/11 and 2013/14, employee-related costs increased at a faster rate than employee numbers in five of the nine cities. This indicates that these cities are spending more on their existing employees, very likely driven by above-inflation salary increases. Ekurhuleni's employee costs increased by 23%, while the number of employees declined by 3%. eThekwini increased its workforce by 23% but increased its spending on employee costs by just 20%. Nelson Mandela Bay has done something similar – reducing employee costs by 22% and holding employee numbers constant. Both these shifts indicates changes in the composition of the respective cities' workforces, away from highly paid to lower paid positions. This is important from an employment creation perspective, as long as the municipality is maintaining its skills base. Nelson Mandela Bay (and to lesser extent Msunduzi) appears to have adopted deliberate strategies to reduce employee costs.

In addition, certain cities appear to be struggling to fill vacant posts. Cape Town (City of Cape Town, 2014: 57), Mangaung (Mangaung Metroplitan Municipality, 2014: 117) and Ekurhuleni (EMM, 2014: 99) are experiencing difficulties in filling vacant posts, which resulted in underspent salary budgets. However, Ekurhuleni explained its overspending on the overtime budget (by 26%) by the shortage of capacity in its different departments, while Mangaung referred to the underspending as a favourable variance (i.e. a saving). That cities struggling to fill vacancies, when the country has high and increasing levels of unemployment, could possibly be because of poorly managed recruitment processes (i.e. the problem is internal to the city), or because cities are unable to find suitable candidates, suggesting a mismatch between skills required and skills of those applying for posts.

Repairs and maintenance

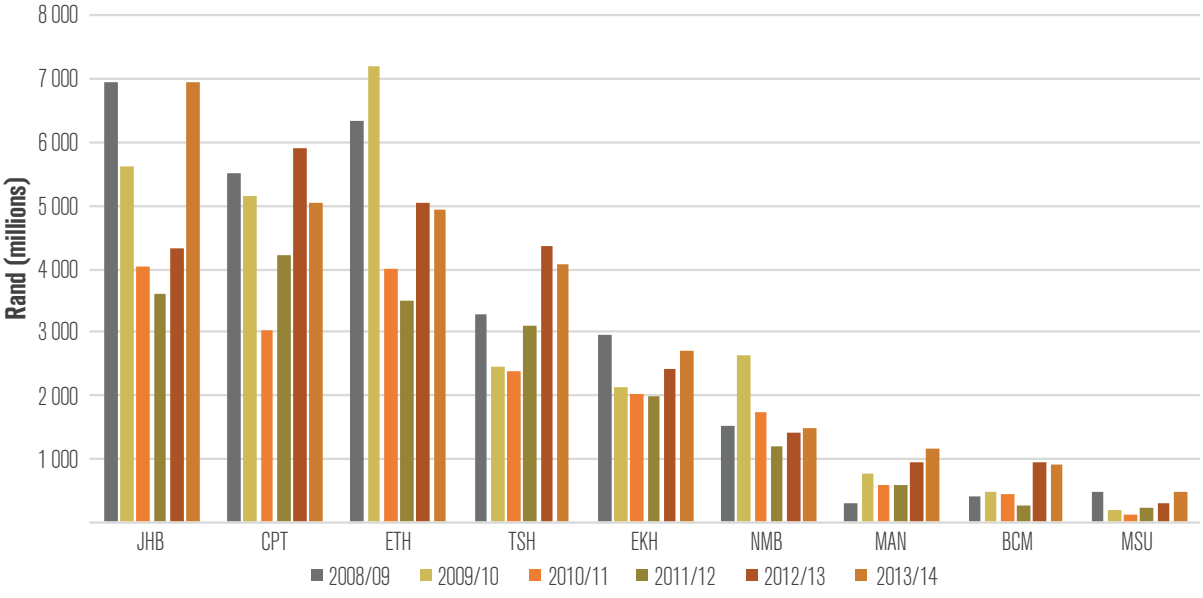
As Tables 11 and 12 show, actual spending on repairs and maintenance has increased but at a lower rate than for other items. This suggests that cities find it easier to de-emphasise spending on repairs and maintenance than other more politically visible items such as employee costs because the effects are not immediately apparent. For instance, Tshwane attributed the underspending of 10.8% of its repairs and maintenance budget to 'savings by departments' (City of Tshwane, 2014: 170).

Although cities should be looking for ways to save, saving on repairs and maintenance budgets will only cost the city more in the medium-term.

Capital Expenditure

Capital infrastructure spending increased in the period leading up to the Soccer World Cup in 2010, as preparations were made for the event. In cities that were hosting matches, this spending reached a high in either 2008/09 or 2009/10. Thereafter, capital expenditure in most cities declined, until 2012/13 when it began to increase again. However, only in Tshwane and Johannesburg has capital expenditure recovered to the levels seen in the run-up to the World Cup. Some of the smaller cities (Mangaung, Buffalo City and Msunduzi) have also shown significant increases in capital expenditure from 2013/14.

Figure 11: City capital expenditure (2008/09–2013/14)



Source: SACN database (2014)

Note: The 2008/09 figures have been included to depict the change in capital spending in 2009/10 specifically because the FIFA Soccer World Cup 2010 had such a major impact on capital expenditure in many of the cities. Amounts are in constant 2012 rands.

Areas of capital spending

Between 2009/10 and 2013/14, cities spent a combined R117-billion on capital-related projects. This is a significant level of investment and emphasises the important role that cities play in driving econominc development. Table 13 shows aggregate capital spending for the period 2009/10 to 2013/14 by category of capital spending in constant 2012 rands, to remove the effect of inflation. The percentages reflect each category's share of the particular city's total capital spending.

Table 13: Aggregate capital expenditure (2009/10–2013/14)

R 000	Roads	% of total	Electricity	% of total	Water	% of total	Sanitation	% of total	Other	% of total	Total
JHB	3 686 024	15%	5 235 866	21%	2 903 849	12%	565 164	2%	12 137 947	49%	24 528 852
CPT	5 427 813	23%	3 851 209	16%	1 152 613	5%	1 860 362	8%	11 078 543	47%	23 370 539
ETH	4 267 422	17%	2 678 711	11%	4 583 720	19%	2 117 895	9%	11 031 007	45%	24 678 756
TSH	4 369 076	27%	2 764 193	17%	424 089	3%	1 794 512	11%	7 009 074	43%	16 360 944
EKU	2 761 781	24%	1 826 411	16%	776 566	7%	580 079	5%	5 351 354	47%	11 296 190
NMB	2 770 623	33%	952 106	11%	1 168 658	14%	798 699	9%	2 781 812	33%	8 471 898
MAN	1 075 957	27%	635 250	16%	561 483	14%	671 352	17%	1 108 475	27%	4 052 519
BCM	859 190	29%	309 158	10%	288 408	10%	598 124	20%	948 020	32%	3 002 900
MSU	359 152	28%	259 818	20%	133 155	10%	192 489	15%	356 329	27%	1 300 944
TOTAL	25 577 040	22%	18 512 722	16%	11 992 541	10%	9 178 675	8%	51 802 561	44%	117 063 544

Source: SACN database (2014)

- Between 2009/10 and 2013/14, eThekwini spent the most on capital projects, despite not being the largest city.
- For most cities, the largest area of capital spending is 'other', which covers social housing, community facilities, municipal buildings and smaller items, such as vehicles, fire engines, computers and other equipment. Capital expenditure on 'other' ranged from 49% for Johannesburg to 27% for Mangaung and Msunduzi.
- Cities spent a total of R25-billion on road infrastructure, with Cape Town spending R5-billion, which was more than any of the other cities. Spending on road infrastructure accounted for between 15% and 33% of total capital expenditure across the cities.
- Cities spent a total of R18-billion on electricity infrastructure. Johannesburg spent the highest percentage (21%), while Buffalo City (10%) spent the lowest percentage of its capital spending on electricity infrastructure.
- Spending on water infrastructure varied greatly between cities. Tshwane allocated only 3% of its capital budget to water infrastructure, compared to 19% spent by eThekwini.
- Similarly, spending on sanitation infrastructure varied greatly between cities. Johannesburg at 2% is an outlier at the low end of spending. The next lowest is Ekurhuleni at 5%, while the highest is Buffalo City 20%.

The differences in infrastructure spending across the cities reflect the priority being given to refurbishing and extending the different types of infrastructure, which is linked to the extent of backlogs in the respective services across the cities, the aging of existing networks and the current (and past) low maintenance spending.

The significant backlogs in electricity and water infrastructure spending are generally acknowledged. Both services are essential, and very often residents' unhappiness and protests revolve around the quality of these services. Tables 14 and 15 show cities' capital spending on electricity and water infrastructure in constant 2012 rands.

Table 14: Electricity capital expenditure (2009/10–2013/14)

R 000s	2009/10	2010/11	2011/12	2012/13	2013/14	Ave annual growth
JHB	839 040	1 152 743	647 058	1 041 117	1 555 908	17%
CPT	578 154	660 789	765 041	889 804	957 421	13%
ETH	634 052	507 346	560 232	564 427	412 654	-10%
TSH	591 969	599 895	606 232	574 460	391 637	-10%
EKU	406 916	360 355	367 934	362 720	328 485	-5%
NMB	369 380	180 187	91 489	118 764	192 286	-15%
MAN	117 530	41 103	130 637	184 392	161 588	8%
BCM	50 965	52 582	29 416	80 391	95 805	17%
MSU	23 768	13 011	24 011	66 595	132 432	54%
TOTAL	3 613 786	3 570 022	3 224 062	3 884 682	4 230 230	4%

Source: SACN database (2014)

Since 2009/10, the combined city expenditure on electricity infrastructure has grown by an average of 4%. Allocations for electricity capital expenditure declined in eThekwini, Tshwane, Ekurhuleni and Nelson Mandela Bay, while these cities' contribution to repairs and maintenance also proportionally declined (Table 11). The combination of these trends is cause for concern.

Table 15: Water capital expenditure (2009/10–2013/14)

R 000s	2009/10	2010/11	2011/12	2012/13	2013/14	Ave annual growth
JHB	346 147	709 578	205 771	723 180	919 174	28%
CPT	192 149	147 375	179 304	258 949	374 835	18%
ETH	1 853 175	1 462 792	77 400	555 862	634 492	-24%
TSH	424 089	366 157	330 930	499 166	480 823	3%
EKU	60 490	139 357	128 096	237 139	211 484	37%
NMB	238 595	153 122	371 638	243 455	161 847	-9%
MAN	26 950	23 153	79 831	170 439	261 111	76%
BCM	76 654	68 849	19 616	55 664	67 624	-3%
MSU	16 515	17 525	24 952	40 483	33 680	20%
TOTAL	3 234 763	3 087 907	1 417 538	2 784 339	3 145 070	-1%

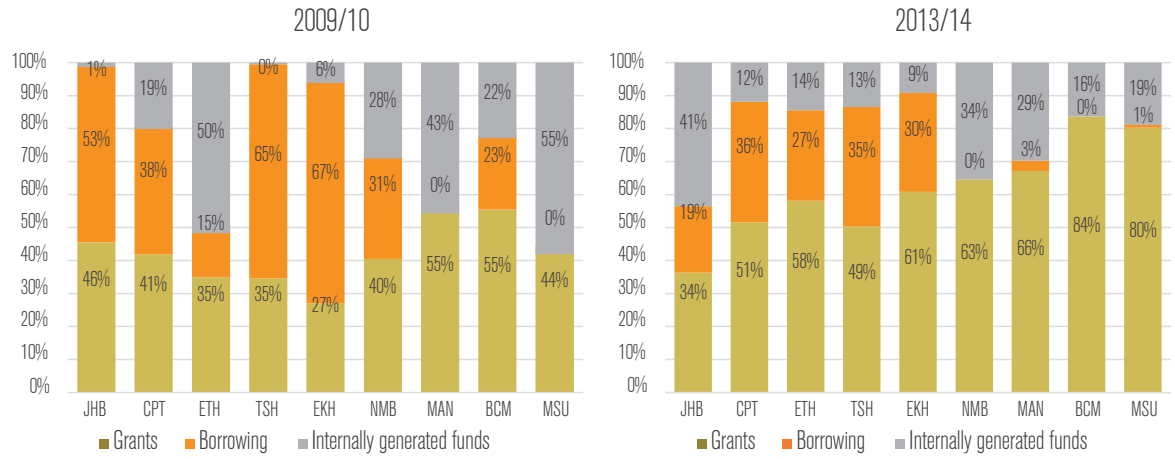
Source: SACN database (2014)

Between 2009/10 and 2013/14, overall spending on water infrastructure declined by 1% in real terms. In 2011/12 spending declined to only R1.4-billion, before picking up to R3.1-billion in 2013/14. While certain cities are clearly prioritising spending on water infrastructure, others are not.

Funding capital expenditure

Cities typically fund their capital budgets from: grants from national and provincial government, borrowing and internally generated funds. Some capital spending may be funded by donations, but this is usually neglible. Leading up to the 2010 World Cup, much of cities' capital spending was funded by grants from national government.

Figure 12: Capital funding breakdown (2009/10 and 2013/14)



Source: National Treasury database

- Over the five years, the level of grant dependency increased significantly. All cities apart from Johannesburg saw an increase in the share of capital spending funded by national or provincial grants. The biggest increases were in Musduzi (from 44% to 80%), Ekurhuleni (from 27% to 61%), Buffalo City (from 55% to 84%), Nelson Mandela Bay (from 40% to 63%) and eThekwini (from 35% to 58%).
- Johannesburg, the only city that is less grant dependent, increased its internally generated funds to fund capital from about 1% in 2009/10 to over 41% in 2013/14.
- In 2009/10 Tshwane relied on borrowing to fund 65% of its capital budget, with virtually no funds coming from internally generated funds. In 2013/14 Tshwane funded 13% of its capital budget from internally generated funds.
- In 2009/10, both Mangaung and Msunduzi did not borrow any funds to fund capital. In 2013/14, they only borrowed very small amounts, and Nelson Mandela Bay and Buffalo City did not borrow at all for capital spending. The smaller cities appear reluctant to enter the financial markets and further research is required to understand the reasons.

Since 2009/10, and despite the economic pressures, cities have increased the amount of capital funding drawn from internally generated funds. This means cities have been able to generate surpluses on their annual operating budgets, which is then allocated to funding capital.

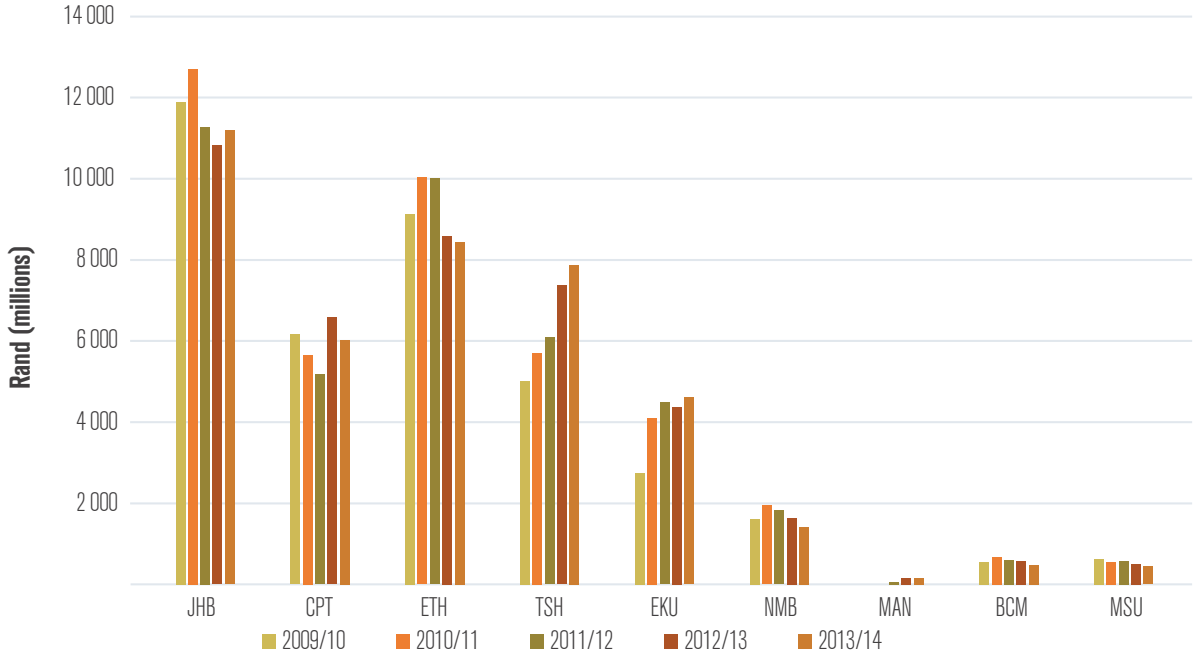
City Borrowing

Since 2009/10 long-term liabilities across the nine cities have grown by an average of 6% per year in real terms. In 2013/14, long-term liabilities of the cities totalled R40.6-billion in constant 2012 rands.

In 2013/14, the five larger cities accounted for 94% of the total long-term liabilities held by the cities. Since 2008/09, Mangaung's long-term liabilities grew at an average real rate of 59% per year, although this growth was from a very low base – the city's long-term liabilities as a percentage of operating revenue remain relatively low, at 38% in 2013/14.

Since 2009/10, the level of borrowing has steadily declined in six of the nine cities: Johannesburg, Cape Town, eThekwini, Nelson Mandela Bay, Buffalo City and Msunduzi. To understand what is driving this trend requires more detailed analysis of the funding status of the different cities. However, given current economic circumstances, this more prudent approach to borrowing is probably not misplaced. Overall, the greater reliance on internally generated funds is a positive development, especially for social infrastructure. Nevertheless, cities should continue to seek to leverage borrowing to fund economic infrastructure, to ensure intergenerational equity in contributing to the development of the city.

Figure 13: City long-term liabilities (2009/10–2013/14)

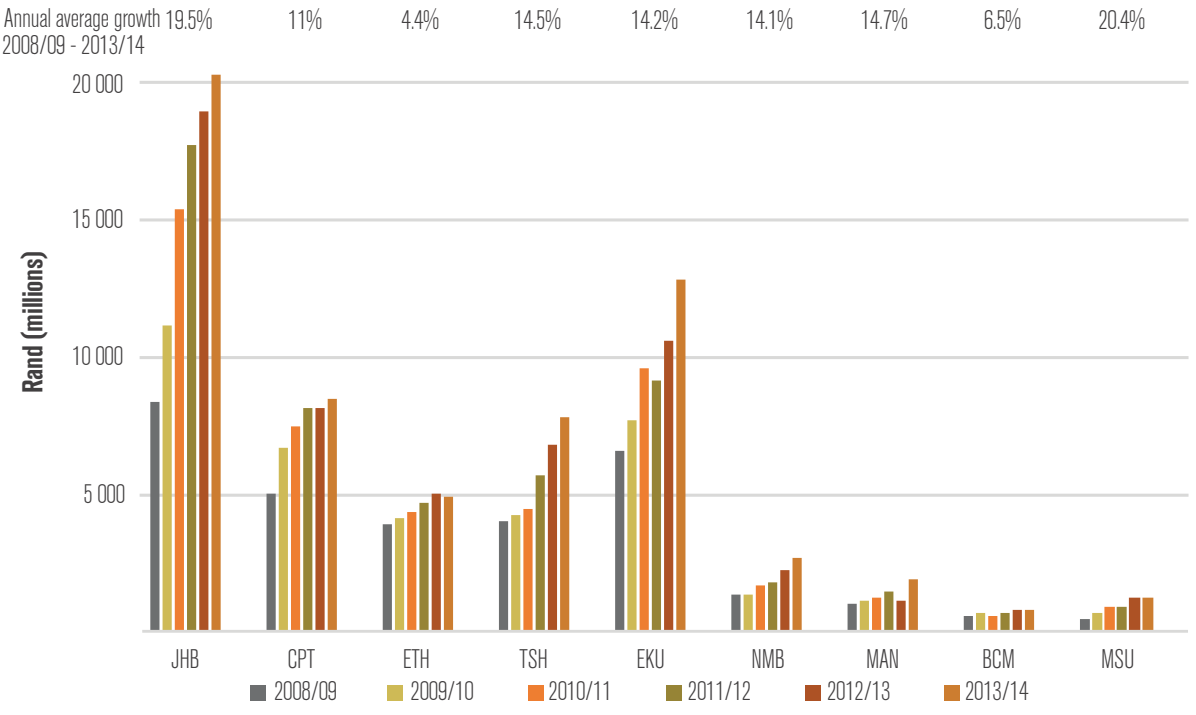


Source: SACN database (2014)

Debtors

The debtors' figures indicate the amounts that institutions and residents owe the municipality. The majority of cities' revenue come from ratepayers, and when they do not pay, the result is increasing debts. A high debtor figure may indicate poor debt management or the inability of households and businesses to pay owing to increasing poverty, unemployment or dififcult business circumstances. It may also point to a growing non-payment culture. An increase in debtors could also result from a city consistently writing off bad debts as and when they are deemed irrecoverable. Figure 14 shows the cities' gross debtors in 2012 rands.

Figure 14: City gross debtors (2008/09–2013/14)



Source: SACN database (2014)

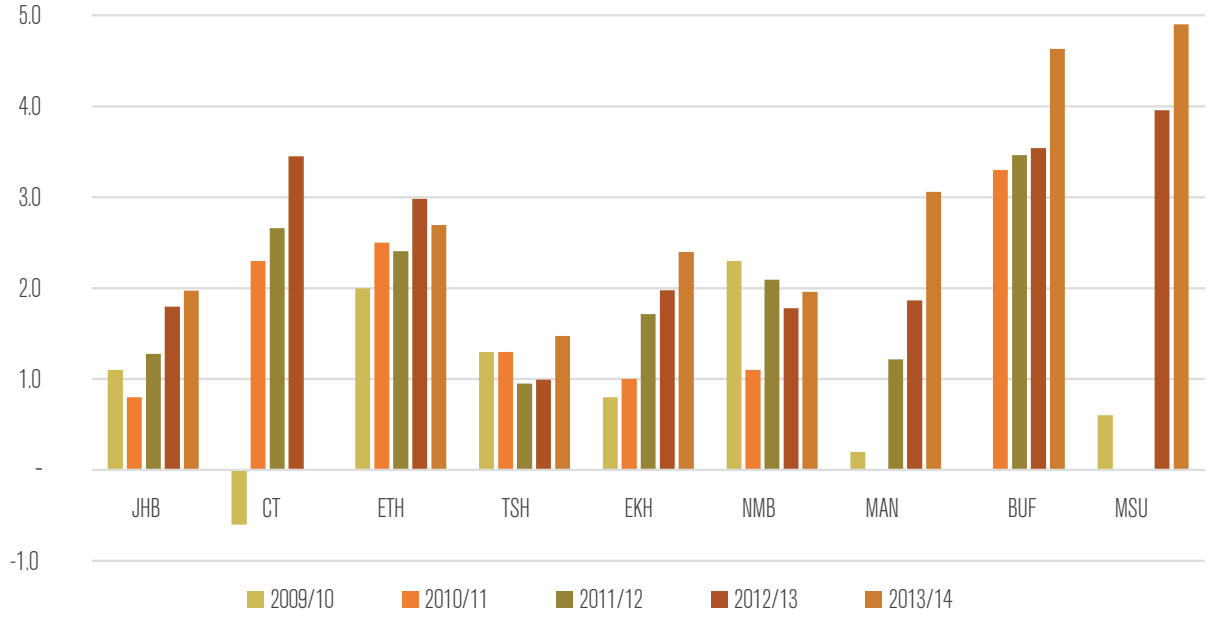
All cities have been recording increasing levels of debtors over the past five years. On average, gross debtors have grown by 14% annually since 2008/09:

- Johannesburg and Msunduzi's gross debtors are nearly 2.5 times higher in 2013/14 than in 2009/10, compared to 1.9 times higher averaged for the nine cities.
- Johannesburg attributes an overexpenditure of R1.4-billion in 'Allowance for impairment of current receivables' to an increase in the provision for bad debts, which is mainly attributed to the poor economic climate.
- eThekwini shows the lowest growth in debtors over the period, at just 4%.

Cash Management

A good measure of a city's ability to meet its financial commitments is the number of months of cash coverage. This is determined by dividing the monthly cash expenditure requirement into the total cash and cash equivalents available. Year-end figures are used in this analysis.

Figure 15: Cash and cash equivalents as a percentage of average monthly expenditure



Source: National Treasury (2014b)

At the end of 2013/14, cities had between 1.5 and 4.9 months' cash. Over the five years, eThekwini has consistently maintained the most healthy cashflow. The most cash-flush cities were the three medium cities, Mangaung, Buffalo City and Msunduzi. This may indicate that these cities are having difficulties actually spending capital budgets.

Audit Outcomes

Cities audit outcomes continue to improve. In 2013/14, only two cities (Nelson Mandela Bay and Buffalo City) received qualified audits. Mangaung, with a history of qualified and disclaimed audits, eventually received an unqualified audit in 2014, which is a significant achievement.

Table 16: City audit outcomes (2010–2014)

	2010	2011	2012	2013	2014
JHB	Qualified	Qualified	Qualified	Unqualified	Unqualified
CPT	Unqualified	Unqualified	Unqualified	Unqualified	Unqualified
ETH	Unqualified	Unqualified	Unqualified	Unqualified	Unqualified
TSH	Qualified	Unqualified	Unqualified	Unqualified	Unqualified
EKU	Unqualified	Unqualified	Unqualified	Unqualified	Unqualified
NMB	Unqualified	Adverse	Qualified	Qualified	Qualified
MAN	Disclaimed	Disclaimed	Outstanding	Qualified	Unqualified
BCM	Qualified	Adverse	Qualified	Qualified	Qualified
MSU	Qualified	Unqualified	Unqualified	Unqualified	Unqualified

An unqualified audit does not indicate that all the municipality's expenditure was well spent. It simply means that the AFS prepared by the municipality for audit fairly represent the financial position and transactions of the municipality. This explains why a municipality can receive an unqualified audit but still have high fruitless and wasteful and irregular expenditure. A municipality that reports accurately and transparently on all transactions will receive an unqualified audit opinion from the Auditor-General. So, while the audit outcome is very important, incidents of irregular expenditure, unauthorised expenditure and fruitless and wasteful expenditure should also be considered.

- In 2009/10, Mangaung paid a final settlement to the previous CEO of its entity Centlec (SOC) Ltd of R12.6-million, which was written off by Council during the 2013/14 financial year (Mangaung, 2014: 112).
- In 2011/12, Mangaung paid R27-million in interest on overdue accounts and penalties at SARS, Telkom and Eskom (among others). However, by 2013/14, this figure had improved to R225,791 (Mangaung, 2014: 111).
- In 2012/13, Msunduzi reported a total of R269-million worth of irregular expenditure, as a result of officials not following supply chain management processes (Msunduzi, 2014: 113).
- In 2013/14, Tshwane awarded R9-million worth of contracts to spouses of municipal officials. Of this amount, R5.8-million went to one official's spouse. The capacity of this official is labelled as "worker" by the municipality (City of Tshwane, 2014: 159).

Irregular expenditure and unauthorised expenditure is mostly because proper supply chain management processes were not followed. In most such cases, the cities are very likely to have still received value for the expenditure – so there is no actual loss. However, the city suffers a loss when there is fruitless and wasteful expenditure. These incidents highlight the need for ongoing vigilance over the management of city finances by municipal councils, the executive and managers of municipalities, the media and city residents. In particular, questions need to be asked about measures cities' are taking to recover such funds from the responsible officials as required by the MFMA.

Conclusion

Since 2008, cities have been operating in an environment that was often volatile and challenging, putting pressure on government revenues and expenditure, and directly affecting households' ability to pay municipal bills. Since the 2008 economic downturn, most cities' revenues have held up or recovered remarkably well. There have been years when certain cities saw a real decline in revenues, but these instances have generally been related to internal management issues rather than external factors. However, certain cities had very low own-revenue growth rates, suggesting that cities are encountering specific revenue-raising challenges in addition to the pressures in the economic environment. Cities should not lose sight of their 'less significant' revenue sources because enforcing payment of smaller income streams (e.g. traffic fines, development charges, fees and rentals) all contribute to developing a culture of payment. This payment culture flows through to other services that constitute larger portions of city budgets. Also, these revenue sources probably show the greatest potential for future growth because of being neglected by cities in the past.

In 2013/14, city expenditure increased sharply, driven primarily by increases in bulk purchases and employee costs. In order to absorb the high increases in bulk purchases, cities have not been able to prioritise spending on repairs and maintenance. Although cities should be looking for ways to save, they need to find responsible ways of doing so. Saving on repairs and maintenance budget will only cost the city more in the medium term.

Since 2009/10, only three of the nine cities have increased the amount of capital funding drawn from internally generated funds. This means these cities have been able to generate surpluses on their annual operating budgets, which is then allocated to funding capital. However, eight of the nine cities became more dependent on grant funding to fund their capital budgets in 2013/14 than they were in 2009/10. It also remains important that cities seek to leverage borrowing to fund economic infrastructure – so as to ensure intergenerational equity in contributing to the development of the city.

Finally, cities' audit outcomes continue to improve. However, while the audit outcome is very important, it is also important to look beyond the audit opinion at the number and scale of incidents of irregular expenditure, unauthorised expenditure and fruitless and wasteful expenditure. Cities need to continually explore ways to prevent the misuse of public funds so as to ensure efficient and effective spending and thereby build public confidence.

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Waldi Vester

3

Assessing the Financial Management of Cities

written by Phil Sinnett

Assessing the Financial Management of Cities

South Africa uses the same method to evaluate the public financial management (PFM) system across all government spheres. This is unique among countries with multiple tiers of government. The method used is the performance measurement framework developed by the Public Expenditure and Financial Accountability (PEFA) programme.[14] The PEFA Framework is an internationally recognised, evidence-based diagnostic tool that addresses three key questions about a government's ability to effectively manage its public finances:

- Are there effective controls over budget totals, and the management of fiscal risks?
- Are budgets planned and executed in line with stated strategic priorities?
- Are resources managed to improve service delivery and value for money?

The PEFA Framework provides a common understanding of the 'state of play' of all aspects of the PFM system operating at the time of the assessment, rated against 'generally accepted good practices'. Since being launched in 2005, it has been used for more than 400 assessments in 140+ countries. Many of these assessments have been repeats, intended to identify changes in a country's performance over the years. Although initially focused on central government, increasingly the framework is being used to assess the subnational level of government. To date, South Africa is the only country to have had assessments at the national, provincial (all nine provinces) and municipal level (the three metropolitan municipalities in Gauteng). These evaluations all took place at around the same time, and the three municipalities are all in the same province. This chapter reports on the outcomes of the assessments and the lessons that can be learned across the three spheres of government.

The PFM Landscape in South Africa

With the 1994 transition to a democratic government came the realisation that the budget management system needed to be overhauled, not only to fulfil the demands of the new constitutional framework, but also as a tool to bring about improved fiscal sustainability and aligned spending with new national priorities, and maximised use of existing resources towards these priorities.

The Constitution provides for three 'distinctive, interdependent and interrelated' spheres of government – national, provincial and local – that each have specific roles and responsibilities in the management of public finances. Since the mid-1990s, South Africa's public financial arrangements have been substantially overhauled. The early reforms focused on ensuring macroeconomic stability, while the emphasis more recently has been on efficient resource allocation and effective service delivery. Underlying the reforms were the following principles:

- *Comprehensiveness and integration.* The main national budget framework coordinates, integrates and disciplines policy and budget processes for the country at national, provincial and, increasingly, at local level.
- *Political oversight and a focus on policy priorities.* The arrangements recognise that choices between priorities are ultimately political. The integration of political and administrative practices is structured to ensure that funding choices align with the priorities of government, and that political oversight is reinforced.
- *Using information strategically.* The reform process systematically sets out to improve the timeliness, quality and usefulness of information on the allocation and use of funds, both internally and externally, to improve public policy and funding choices and to enable accountability.
- *Changing behaviour by changing incentives.* Responsibility for spending choices is devolved to spending departments, and funds are used within approved ceilings and against policy commitments.

[14] The PEFA programme was established in 2001 by the World Bank, the European Commission, the IMF and the governments of France, Norway, Switzerland and the UK, to assess the condition of a country's PFM systems and, where necessary, develops a practical sequence of reform and capacity-building actions. The information (and data) in this chapter comes from the PEFA assessment reports on South Africa, Gauteng and the three metropolitan municipalities.

[15] In the budget process, a 'rolling baseline' means that forecasts are made for some (normally three) years ahead: i.e. at the start, the totals are for Y1, Y2, & Y3; then in the next budget process, Y2 becomes Y1, Y3, becomes Y2, and a new 'Y4' is added, as Y3. Changes in plans policies are mapped as variations from these baselines.

- *Ensuring budget stability and predictability.* The budget process includes various mechanisms to manage uncertainty and maximise funding and policy predictability over the medium term. It also promotes alignment with policies, through the use of rolling baselines, a contingency reserve and a disciplined budget process.
- *Collaboration.* The budget process involves key departments at the centre of government informing allocation decisions, based on high-level government priorities.

National Treasury and the Presidency drive the reform agenda, which focuses on processes to improve planning, budgeting, and monitoring and evaluation systems through increased capacity building. Relevant legislation is in place, and the oversight and control functions of Parliament and the Office of the Auditor-General are considered to be mature and independent.

The legal and institutional framework for PFM

The Constitution

The Constitution (1996) provides the foundation for all legislation, which must conform to its requirements. Several sections deal with public financial management and specify the roles and responsibilities of each role player (including provincial governments and municipalities). For example:

- General guidelines for the regulation of financial affairs in all spheres of government (Chapter 13).
- The establishment of a national revenue fund, into which all government revenues must be deposited (section 213).
- The sharing of resources between the three spheres of government (section 214).
- The powers assigned to the National Treasury to prescribe measures to ensure transparency and expenditure control in all spheres (section 216).
- Requirements that public procurement be undertaken in a fair, equitable, transparent, competitive and cost-effective manner (section 217).
- Guidance on issuing government loan guarantees and on disclosure of this information (section 218).
- The role of the Office of the Auditor-General (section 188).
- The establishment of an independent Financial and Fiscal Commission (FFC) to advise Parliament and other authorities on the division of nationally collected revenues and other fiscal matters (section 220).

Public Finance Management Act

The Public Finance Management Act (PFMA) (No. 1 of 1999, as amended by Act No. 29 of 1999 and its regulations) is the main legislation governing the management of public finances in the national and provincial spheres of government. The PFMA outlines the financial management duties of national and provincial government, and public entities. It makes provision for different types of financial reporting at specific intervals by both national and provincial government.

Municipal Finance Management Act

The Municipal Finance Management Act (MFMA) (No. 56 of 2003) and its regulations govern the management of public finances in municipalities. The Act prescribes requirements for the management of municipal finances and budgets. It sets out reporting timeframes and content requirements, and governs municipal procurement processes.

Intergovernmental Fiscal Relations Act and the annual Division of Revenue Act

The Intergovernmental Fiscal Relations Act (No. 97 of 1997) provides for stakeholder consultations in determining the division of nationally collected revenues among the three spheres of government. This division of revenue is enacted each year in the annual Division of Revenue Act (DORA). Prior to passing the DORA, the FFC (a constitutional body) advises Parliament on the revenue division according to different constitutional criteria, such as geographical location, population and needs of the community. The DORA requires recipients of public money to comply with all prescribed requirements and includes sanctions for non-compliance, which may mean that funds are withheld.

Procurement

The PFMA and MFMA, together with the Treasury Regulations, and the Supply Chain Management Regulations and Circulars, set out the regime for government procurement. These are complemented by the Preferential Procurement Policy Framework Act (No. 5 of 2001), the Broad Based Black Economic Empowerment Act (No. 53 of 2003) and the Revised Preferential Regulations of June 2011.

Public Audit Act (No. 25 of 2004)

The Public Audit Act lays out the specific powers and duties of the Office of the Auditor-General (a constitutional body), including auditing all state organs and public entities at least annually. The President appoints the Auditor-General, subject to parliamentary approval. The Act provides for the independence of the Auditor-General and his/her staff. It empowers the Auditor-General (or his/her authorised representative) to carry out an audit of financial systems, information technology and performance of all government departments, agencies and public entities, and to report the findings to the National Assembly and the relevant provincial legislature and municipal council.

Legislation relating to municipalities

As is the case around the world, local governments are created by statute, and the powers, duties and financial arrangements of municipalities are defined in various pieces of national legislation, supplemented by detailed regulations. In addition to the legislation listed above, the following Acts have an impact on the financial arrangements of municipalities:

- Local Government: Municipal Structures Act (No. 117 of 1998), as amended
- Local Government: Municipal Systems Act (No. 32 of 2000), as amended
- Municipal Property Rates Act (No. 6 of 2004), as amended
- Water Services Act (No. 108 of 1997), as amended
- The Electricity Regulation Act (No. 4 of 2006)

The Municipal Structures Act defines the different structures of local government and the demarcation of municipalities. The Municipal and Budget Reporting Regulations (2009) issued in terms of the MFMA governs the format and content of municipal budgets and the processes for passing them.

National government

Parliament

Parliament derives its powers from the 1996 Constitution and has two chambers: the National Assembly consisting of 400 seats, and the National Council of Provinces (NCOP) comprising 90 seats. The NCOP has slightly enhanced powers when it comes to enacting national legislation affecting the provinces. The National Assembly also has established a number of committees to exercise oversight of national finances, including:

- Standing Committee on Public Accounts (SCOPA)
- Portfolio Committee on Finance
- Joint Budget Committee
- Standing Committee on the Auditor-General

National executive

The national executive runs the national government machinery, which currently comprises 38 national departments. The head of the national executive is the President, who is elected for a five-year term (limited to two terms). The President appoints political heads to national departments, who are also members of

efficient use of public funds and reporting regularly to the executive and Parliament. Within the national executive, a number of structures are concerned with fiscal matters:

- The Minister's Committee on the Budget (MinComBud)
- The Medium Term Expenditure Committee (MTEC)
- The Ministers and Members of the Executive Council (MinMEC)
- The Budget Council and Budget Forum

The National Treasury

The National Treasury provides leadership in all matters relating to the management of public finances.

Provincial government – Gauteng

Provincial legislatures play similar roles to Parliament but in relation to the province and the provincial executive. The provincial executive is headed by an elected premier, who appoints the political heads of the provincial departments. These appointees are members of the executive council (MECs) which is the 'cabinet' within the provincial government.

The nine provinces are responsible for delivering services such as health and education. The provincial government interfaces, supports and exercises oversight of the functions and operations of the municipalities within its boundaries. The devolution of service delivery functions has increased the demands on the capacity of the provincial and municipal institutions, systems, and processes.

As provincial governments have a low revenue base, a transfer system exists to address fiscal imbalances and to enable them to meet service demands of their local populations. The provincial discussion focuses on Gauteng, as the municipal PEFA assessments were carried out in this province. The main categories of transfers from the national fiscus for Gauteng are:

- An 'equitable share' of nationally raised revenues, primarily intended to enable the government sphere to provide the services assigned to it. Gauteng receives approximately 80% of its revenue through the equitable share.
- Conditional grants, to fund specific programmes or projects, as well as to supplement the funding from provincial budgets of programmes or functions. Gauteng receives about 16% of its revenue in the form of conditional grants. The balance of about 4% 'own revenue' is generated from internal revenue streams.

In 2014, Gauteng contributed almost one-third of the country's GDP, had an estimated population of 12.27 million (of which 25% are unemployed) and a poverty level of 16%. In recent years, the population growth rate has been over 3%, largely due to migration of people from elsewhere in the country and beyond, who are seeking employment. In Gauteng 26% of households have no access to electricity, 14% have no access to refuse removal, 4% have no access to water and 17% have no access to sanitation services. However, in all these areas of service delivery, Gauteng is either the top performing province or performs significantly better than the national average.

Of South Africa's nine provinces, Gauteng is the second largest (after KwaZulu-Natal) in terms of fiscal resources and budget, accounting for 19% of the total budget. More than 20% of the combined provincial budgets for education, health and social development was spent in Gauteng. In 2014/15, Gauteng's budget exceeded R87-billion. The fiscal challenges facing the province are linked to institutional weaknesses, as well as previous policy gaps and national economic conditions.

Municipalities

The local sphere of government came into being with the 1996 Constitution – previously the country did not have 'wall-to-wall' local government. There followed a period of creating and then amalgamating local councils which ended in 2003. Since then, some additional amalgamations and re-demarcations have occurred, resulting in the present number of 278 municipalities that make up the local sphere of government in South Africa.

Of the 278 municipalities, eight are designated as 'metropolitan' (in the major urban areas) and are generally better capacitated than 'district' or 'local' municipalities. The three metropolitan municipalities involved in the PEFA assessments – the City of Tshwane (TSH), City of Johannesburg (JHB) and Ekurhuleni Metropolitan Municipality (EKU) – came into existence through the merging of existing, smaller local government units. The merger process has been drawn-out and difficult. For example, Ekurhuleni and Tshwane are still restructuring their staff establishments:

- In Ekurhuleni, the restructure has only been completed for the most senior levels, leaving other grades in abeyance. This has created uncertainty among the majority of staff. A further complication is that Ekurhuleni was created through amalgamating nine former local authorities, which were mostly well-established medium-sized towns with distinct identities, systems and procedures; several of them are still not fully integrated.
- In Tshwane, the restructuring process has resulted in a moratorium on hiring, again with an impact on staff morale.

Given the robust local government framework legislation, it is unsurprising that many of the ratings generated by the PEFA methodology are consistent across the three metros. For example, all three are relatively well capacitated in terms of IT systems and competent personnel, and are thus able to meet the quality and timeliness requirements for accounting and reporting specified in the Treasury Regulations, which many smaller municipalities are unable to do.

Key Elements of the PEFA Framework

The Framework uses a standard set of performance indicators to provide an overview of the performance of the PFM system at a specific time. Of these indicators, 28 relate to the operation of government systems and three to the interactions with donors (where this is significant). Each indicator has been developed based on well-established standards and allocates a rating.

- An 'A' rating is when there is evidence that 'generally accepted good practice' has been followed (for example: reconciling all government bank accounts within four weeks of month end).
- 'B' and 'C' ratings reflect increased divergence from 'good practice'.
- A 'D' rating usually suggests areas of concern.

The standardised Performance Report then draws from the individual indicator ratings.

The overall objective of a PEFA assessment is to enable all stakeholders to examine the status of six key PFM areas:

- Is the budget credible and realistic?
- Does it cover all aspects of government activity, and is full information provided to the public concerning those activities?
- Is the budget policy-driven?
- Has the budget been effectively controlled, and has there been effective stewardship of public funds?
- Is appropriate information produced to enable key decision-makers to make meaningful decisions?
- Are the systems of external scrutiny and audit effective?

Credibility of the budget

Indicator		National	GP	Metros		
				TSH	JHB	EKU
HLG-1	Predictability of transfer from higher level of government	N/A	A	B+	D+	C+
PI-1	Actual aggregate expenditure compared to original approved budget	A	A	A	A	B
PI-2	Composition of actual expenditure compared to original approved budget	A	A	B+	B+	B+
PI-3	Actual aggregate revenue compared to original approved budget	A	D	B	B	C
PI-4	Stock and monitoring of expenditure payment arrears[16]	B+	B+	D	D	D

At national level, budget credibility is good. The very small variances between original expenditure budgets and actual expenditure show that budgets are realistic and that discipline is good, reflecting a strong link between budget formulation and execution. This is also true on the revenue side, where the technical expertise and experience of three separate revenue-forecast models (South African Reserve Bank (SARB), South African Revenue Service (SARS) and the Tax Policy Unit of the National Treasury) provide predictable revenue forecasts, which form part of the three-year projections of the Medium Term Budget Policy Statement submitted to the National Assembly. The PFMA allows for budget adjustments mid-year, so revenue can be reprioritised and reallocated to committed expenditure. Over the years reviewed, the final actual budget did not vary significantly from the original estimates. Stock and monitoring of expenditure arrears could not be rated because of a lack of data, although officials intimated this was possible. Extra-budgetary expenditure tends to undermine budget credibility. In South Africa the only known off-budget expenditures are those from donor-funded projects and are insignificant (below 1% of total government expenditure).

In Gauteng, budget credibility is strong. Revenue forecasting is generally good, as the majority of revenue is transferred from national government. The forecasts of 'own revenue' are generally underestimated, leading to over-performance, which suggests the potential to improve over time. Arrears (commonly referred to as 'accruals') do undermine credibility because overdue payments have to be cleared from future budgets. However, measures are being taken to prepare and record consolidated expenditure payment arrears. While some departments recorded large deviations, the overall impact was insignificant.

In all three metros, budget credibility is reasonable. However, some variances are found at the aggregate and individual vote levels. These variances may reflect in-year reprioritisations because of an under-collection of revenues from both property rates and service charges. Overall, expenditure budgets are realistic and budget discipline is good, reflecting a strong link between budget formulation and execution. However, expenditure arrears show a continuous increase and are well in excess of 10% over the period. In both Johannesburg and Ekurhuleni, trade creditors have risen by over one-third in three years – such a large increase is usually only witnessed in situations of severe cash rationing.

In brief:

Budgets appear credible in national government, Gauteng and the three metros, with only minor concerns about the forecasting of revenue. However, the significant payment arrears suggest underlying problems that do not seem to be receiving appropriate attention.

[16] Expenditure payment arrears are expenditure obligations incurred by government, for which payment to the employee, supplier, contractor or loan creditor is overdue

Comprehensiveness and transparency

Indicator		National	GP	Metros		
				TSH	JHB	EKU
PI-5	Classification of the budget	A	A	D	D	D
PI-6	Comprehensiveness of information included in budget documentation	A	A	A	A	A
PI-7	Extent of unreported government operations	A	B+	B+	A	A
PI-8	Transparency of intergovernmental fiscal relations	A	A	N/A	N/A	N/A
PI-9	Oversight of aggregate fiscal risk from other public sector entities	A	A	B	A	A
PI-10	Public access to key fiscal information	A	A	A	A	A

At national level, budget comprehensiveness and transparency is very good. The budget follows international classification standards and the budget documentation is comprehensive, providing complete coverage of central government operations. Donor expenditure, while not fully accounted for in the budget, is insignificant in relation to aggregate expenditure. Intergovernmental fiscal relations are transparent, and provinces and municipalities receive sufficiently reliable data to be able to plan and budget efficiently. Rule-based horizontal allocations are used for both block grants and conditional grants to provinces and municipalities.

National Treasury reports annually on the risk profile of all public entities and central government, including guarantees provided by the government; publishes monthly total government borrowings, revenue and expenditure; and monitors and publishes quarterly provincial and municipal fiscal risk reports. As at May 2014, public-private partnership exposure stood at R6-billion, while total government guarantees were R400-billion. The fiscal information available to the public covers the entire budget cycle, i.e. budget formulation and planning, budget execution,[17] and external scrutiny and audit. Public access to key fiscal information is transparent, generally comprehensive, user-friendly and timely.

In Gauteng, budget comprehensiveness and transparency is generally very good. Strengths include the preparation, consultation, processing and approval of the budget. The budget presented to the provincial legislature includes data about the economy, underlying assumptions, issues, development plans, and outstanding and contingent liabilities. An integrated approach to development expenditure has been adopted and is reflected in the infrastructure financing and budgeting, which is part of the annual and Medium Term Expenditure Framework (MTEF) budgets. The budget follows international classification standards and is accessible to the public, available on the province's website, and also widely reported and discussed in the media when presented to the legislature. Monitoring of aggregate fiscal risks takes place in the Provincial Treasury. However, reporting for the public entities, which provide individual financial reports annually, is considered weak.

In the three metros, budget comprehensiveness and transparency is good for most areas. The budget documentation is comprehensive, but the classification system in place does not accord with international standards. However, a (national) process is underway to reform and standardise the municipal chart of accounts.[18] Fiscal risks arising from municipal entities are monitored, and their financial performance is reported monthly to their council and to National Treasury. The fiscal information available to citizens covers the entire budget cycle i.e. formulation and planning, execution, and external scrutiny and audit. Public access to key fiscal information is transparent, generally comprehensive, user-friendly and timely.

[17] Budget execution refers to the process of monitoring, adjusting, and reporting on the current year's budget.

[18] Currently municipalities record revenue and expenditure differently. A Standard Chart of Accounts will ensure that municipalities record and classify their financial information in a uniform manner, which will allow for better transparency, reliability and accuracy.

In brief:
Budget comprehensiveness and transparency is generally good at national and provincial level, as well as for most areas at municipal level. A process is underway to address the weaknesses at municipal level related to budget classification. At all levels of government the fiscal information available to citizens is generally comprehensive, user-friendly and timely.

Policy-based budgeting

Indicator		National	GP	Metros		
				TSH	JHB	EKU
PI-11	Orderliness and participation in the annual budget process	B	A	A	A	A
PI-12	Multi-year perspective in fiscal planning, expenditure policy and budgeting	B	A	B	B+	B+

At national level, policy-based budgeting is generally good. A clear annual budget calendar, which is generally adhered to, allows 6–8 weeks for departments to complete their detailed estimates of revenue and expenditure. National Treasury issues comprehensive and clear budget circulars for an integrated recurrent and capital budget process. Three-year forecasts of fiscal aggregates are prepared, including the budget year. The forecasts are directly linked to subsequent budget ceilings and include functional/sector classifications. Sector strategies are prepared but are not fully costed to reflect both investment cost and forward-linked recurrent expenditure. The previous MTEF allocations serve as firm budget guidelines but may be subject to (usually) relatively minor adjustments through a bid process, which requires approval by Cabinet. Once finalised ceilings are approved, departments have about four weeks to incorporate any amendments. The budget usually gets signed into law 3-4 months after the start of the fiscal year.

All line departments prepare Annual Performance Plans (APPs) which are linked to the Medium Term Fiscal Policy Strategy and to the National Development Plan. Each year, both National Treasury and the SARB conduct Debt Sustainability Analyses for external and domestic debt. At the end of 2012/13, the debt-to-GDP ratio was 43%. The SARB publishes quarterly bulletins on the financial market functionalities and central government economic performance.

In Gauteng, policy-based budgeting is very good. The budget cycle is well defined, and clear guidelines are issued that provide a sound context for the budget process, which encompasses policy input both at the beginning – through (provincial) cabinet-approved departmental ceilings (for the MTEF key spending departments) – and at the end, with a debate in the provincial legislature before the beginning of the fiscal year in April. The multi-year budget framework is well developed, and the MTEF clearly articulates policy objectives and forecasts fiscal aggregates on a three-year rolling basis. Separate sector strategies have been developed for the education, infrastructure and health sectors, while for other sectors, the strategies provide foundations for the MTEF, supported by extensive costing for investment and recurring expenses. The Debt Sustainability Analysis includes the Gautrain debt, the servicing of which was assigned by national government to the province.

In the three metros, policy-based budgeting is generally good. The three metros issue comprehensive and clear budget guidelines, which allow for an integrated recurrent and capital budget process. Clear annual budget calendars exist and are followed, allowing individual departments to complete their detailed estimates of revenue and expenditure. The Medium Term Revenue and Expenditure Budget allocations serve as firm budget guidelines but may be subject to (usually) relatively minor adjustments through a bid process over and above these guidelines. Each mayoral committee approves allocations in time to allow departments almost a month to incorporate amendments. In the three years reviewed, each council approved the budget before the start of the fiscal year (as required by the MFMA). Forecasts of fiscal aggregates are prepared for three years, including the budget year, and are directly linked to subsequent budget ceilings based on functional/sector classifications. Sector strategies are prepared in Johannesburg and Ekurhuleni, but delays in implementing capital projects reduce the usefulness of recurrent expenditure projections.

In brief:
The 'upstream' budget process is working well in national government, Gauteng and the three metros.

Predictability and control in budget execution

Indicator		National	GP	Metros		
				TSH	JHB	EKU
PI-13	Transparency of taxpayer obligations and liabilities	A	B	B	B	B
PI-14	Effectiveness of measures for taxpayer registration and tax assessment	A	C+	D+	D+	D+
PI-15	Effectiveness in collecting tax payments	D+	B+	NR	NR	NR
PI-16	Predictability in the availability of funds for expenditure commitments	A	A	C+	B+	B+
PI-17	Recording and management of cash balances, debt and guarantees	A	A	A	A	A
PI-18	Effectiveness of payroll controls	A	B+	D+	D+	D+
PI-19	Competition, value for money and controls in procurement	D	C+	D+	D+	D+
PI-20	Effectiveness of internal controls for non-salary expenditure	C+	C	C+	C+	B+
PI-21	Effectiveness of internal audit	C+	B+	NR	C+	C+

At national level, predictability and control in budget execution are generally good. SARS has built on earlier strengths in ensuring transparent taxpayer obligations and liabilities, and effective taxpayer registration, tax assessment and tax collections; the exception is poor tax arrears. The budget process provides departments with 12 months to spend the committed expenditure. Cash flows are prepared and updated monthly on a rolling basis. While preparing procurement plans is not a pre-requisite to preparing cash flow and budget releases, departments are required to prepare APPs to guide their activities.

A sound system is in place for determining government cash balances, through the SARB's daily update on the government's cash position. Monthly statements on government debt and the net cash position are published on the National Treasury website. Controls in personnel and payroll administration are strong. The personnel and payroll software used is PERSAL, which provides a direct link between the various databases (i.e. posts, personnel and payroll databases). Audit trails exist for any changes to personnel and payroll records, and updating changes to personnel and payroll records takes a maximum of one month. Monthly payrolls are reconciled, with the head of each unit signing off on a physical head count prior to the salaries being paid. However, the departments of defence and police (15% to 20% of total government personnel) are not on the PERSAL personnel and payroll system – they use separate systems.

Internal controls for non-salary expenditure are weak because rules and procedures are not always understood. This is possibly as a consequence of the fast pace of reforms and more complex procedures, as well as a general decline in staff discipline, combined with the high turnover rate. An Office of the Chief Procurement Officer was recently created. The departmental accounting officers remain responsible for justifying the use of procurement methods other than open competition. While internal audit effectiveness is limited by the extent of management responses, the internal audit reports are copied to the National Treasury. Here, the Office of the Accountant General reviews the reports and provides technical support to the affected department, in collaboration with the audit committees.

In Gauteng, predictability and control in budget execution are variable. Treasury functions (payroll and internal controls, cash flow and debt management) are managed competently, but weaknesses remain in procurement, internal audit, tax and revenue systems (especially forecasting). The procurement system is adequately provided for in the structures and systems, but weaknesses have been noted in enforcing competitive bidding and in the lack of an independent complaints mechanism. The effectiveness of tax administration, a necessary condition for the predictable availability of funds, is confined to the individual tax collection agencies. There were no recorded tax arrears during the last three fiscal years, as whatever is taxed is collected. However, records and databases are not regularly or independently audited.

In the three metros, predictability and control in budget execution are variable. Taxpayer (i.e. ratepayer) obligations and liabilities are reasonably transparent, and the collection of tax payments effective. All three metros have comprehensive registers of properties used to assess and levy rates. However, measures to control ratepayer registration (e.g. when a property is sold) are less effective and are not systematically followed up. Also, while the collection of rates appears fairly effective, the percentage of arrears to total debit exceeds 10% in both Johannesburg and Ekurhuleni, although this percentage has been more or less constant over the last three years. Departments have 12 months to spend their budgeted expenditure commitment. Cash flows are prepared and updated monthly, on a rolling basis. Preparing procurement plans is a pre-requisite to preparing cash flows and budget releases. Departments are also required to prepare APPs to guide their activities.

In all three metros, controls in personnel and payroll administration are weak, despite direct links between the posts, personnel and payroll databases. The manual reconciliation process is a cause for concern, although the head of each unit signs off on a physical head count before salaries are paid. There are audit trails for changes to personnel and payroll records, but updating changes to records takes too long.

Reforms to supply chain management are ongoing. The Preferential Procurement Policy Framework Act provides the legal framework, supported by Treasury Regulations, and fairness, equitable, transparent, competitive and cost-effective procurement practices are prescribed. However, none of the metros could provide data to demonstrate that practices matched these requirements. Internal controls over non-salary expenditure are generally effective, although both the internal audit services and the Auditor-General reports instances of failures to adhere to the specified procedures – despite these being adequately documented – with a consequent impact on the quality of financial data. Internal audit plans are approved by each Audit Committee as well as the Accounting Officer, and the majority of (audit) staff time is spent on ensuring that systems are functional. However, the quality of audit work could not be ascertained, and it should be noted that the Auditor-General does not rely on work of the internal audit services. Quarterly reports are distributed to the Audit Committee, the Accounting Officer, and the Auditor-General.

In brief:

The 'downstream' aspects of budget execution are less impressive, with concerns about internal control, particularly the payroll (with the exception of staff on the PERSAL system) and procurement, which are the two major expenditures. On the revenue side, the significant arrears at both the national and municipal levels have largely been provided for but are still of concern.

Accounting, recording and reporting

Indicator		National	GP	Metros		
				TSH	JHB	EKU
PI-22	Timeliness and regularity of accounts reconciliation	B+	A	A	A	A
PI-23	Availability of information on resources received by service delivery units	A	A	A	A	A
PI-24	Quality and timeliness of in-year budget reports	C+	B+	C+	C+	C+
PI-25	Quality and timeliness of annual financial statements	A	A	A	A	A

At national level, accounting, recording and reporting are generally good. Treasury bank and suspense accounts are reconciled, and cash advances to staff for official duties are acquitted regularly and in a timely manner. Some donor-assisted government project bank accounts held in commercial banks do not form part of central government reconciliation mechanisms. The Standard Chart of Accounts provides adequate financial information on resources received (cash and kind) by front-line service delivery units. In-year budget execution reports are produced and published in a timely manner. Annual financial statements are prepared by each department and consolidated by the National Treasury in a timely manner, and submitted to the Auditor-General for annual audit. However, the annual audit reports note a marginal decline in the quality of financial information. Donor reports on actual cash flows for projects and programmes are not submitted to government or included in the aggregated government financial reporting. Some (very insignificant) donations in kind are reported. Approximately R2-billion of development assistance (about 31% of Overseas Development Aid (ODA)) is routed through the Reconstruction and Development Programme Fund[19], hence 69% of ODA does not use country systems.

The Office of the Accountant General continues to make progress in the transition to comprehensive financial reporting in accordance with national and international standards. However, achieving full consolidation of government finances will not be possible until all government departments and entities use accrual accounting[20] – which is not currently on the reform agenda.

In Gauteng, sound accounting, recording and reporting procedures are in place. Regular reconciliation of accounts is carried out on a monthly basis, and quarterly and annual financial statements are produced. In-year budget reports are prepared in a timely manner and are accurate. However, an area of concern remains the absence of an integrated commitment and control system founded on an automated general ledger system. Audited financial statements are comprehensive and submitted to the Auditor-General for external scrutiny in a timely manner.

In the three metros, accounting, recording and reporting are generally good. All three metros reconcile their bank accounts every day, regularly clear suspense accounts, and acquit routinely and in a timely manner cash advanced to staff for official duties. The charts of accounts provide adequate financial information on resources received by front-line service delivery units. In-year budget execution reports (Section 71) and annual financial statements are produced and published in a timely manner, and submitted to the Auditor-General for audit within the prescribed timescales. However, the Auditor-General's reports note some decline in the quality of financial information over the fiscal years reviewed.

In brief:
Accounting, recording and reporting arrangements are generally sound – despite some concerns about the accuracy of data – and the most significant weakness, a lack of control over commitments, is being addressed.

[19] The Reconstruction and Development Programme Fund (RDP Fund) was established on 1 November 1994 in terms of the Reconstruction and Development Programme Fund Act (No. 7 of 1994) (RDP Act). An amended Act was promulgated on 28 October 1998 (Act No. 79 of 1998). The income of the RDP Fund consists of government grants and donations.

[20] Under accrual accounting, revenues and expenses are reported when the action giving rise to the revenue or expense occurs. Currently national and provincial government departments use cash accounting, whereby revenues and expenses are reported when the cash is received or paid.

External scrutiny and audit

Indicator		National	GP	Metros		
				TSH	JHB	EKU
PI-26	Scope, nature and follow-up of external audit	B+	B+	C+	B+	A
PI-27	Legislative scrutiny of the annual budget law	A	B+	A	A	A
PI-28	Legislative scrutiny of external audit reports	B+	B+	C+	B+	B+

At national level, external scrutiny and audit is fairly good. Parliament has five months to review budgets, both during the main budget process (February–July) and the adjusted budget (October), and the rules are well respected by both the executive and the legislature. The reviews involve detailed analysis of the macro fiscal framework, the economic outlook and the budget estimates. The Standing Committee on Appropriations tables for debate the submissions and recommendations received from the various portfolio committees. The Money Bills Amendment Act (No. 9 of 2009) strengthens the role of Parliament in amending budget estimates presented by the executive, although this power has yet to be exercised. A Parliamentary Budget Office has also been created to provide technical and professional advice to the legislature on budget matters. The Auditor-General has complete administrative and financial independence, in accordance with international standards, and can charge fees for professional audit work, which allows competent and professional expertise to be recruited. External audits are carried out in accordance with international standards, and the Auditor-General's reports are timely, covering the financial, systems and performance audit. The SCOPA conducts extensive public hearings on all departmental audit reports with adverse or qualified audit opinion, and requires Accounting Officers and political heads to attend for further questioning. The delay in completing the review of audit reports is 2–5 months from the date of receipt. Once adopted by the plenary, SCOPA recommendations become legally binding and require full executive implementation (but some actions remain unimplemented).

In Gauteng, external scrutiny and audit is fair. The provincial legislature has an effective system in place to scrutinise the annual budget, including fiscal policies, medium-term fiscal framework and priorities, and detailed expenditure and revenues. The Auditor-General's external audit is planned, executed and completed expeditiously, but the reports may not be subject to timely legislative scrutiny. The legislature reviews almost all the external audit reports by SCOPA. Despite some delays in publishing reports online and communicating the work to the public, the legislature makes every effort to complete the review and audit.

In the three metros, external scrutiny and audit is fair. The metro councils have three months to review all budget-related documents tabled by their mayor, applying the rules (standing orders) governing council procedure. These procedures apply equally during the main budget process from March to July and the adjustment budget in December, and the rules are well respected by both executive and the council. The Auditor-General has complete administrative and financial independence, and audits are conducted in accordance with international standards. The Auditor-General's reports are timely, covering the financial, systems and performance audit. However, the management response to the audit reports is not yet timely and systematic. Audited reports are submitted on time to each council for scrutiny in accordance with the timeframe prescribed in the MFMA.

In brief:

Oversight arrangements are in place but are not always operated in a timely manner, which reduces their effectiveness.

Summary of PEFA Assessments in South Africa

The assessment presented in the previous section suggests that the overall PFM system is functional, certainly in the 'upstream' aspects of budget formulation. As mentioned at the beginning of this chapter, assessing the government's ability to effectively manage public finances requires addressing three areas:

- **Aggregate fiscal discipline:** are there effective controls over budget totals, and the management of fiscal risks?
- **Strategic allocation of resources:** are budgets planned and executed in line with stated strategic priorities?
- **Efficient delivery of services:** are resources managed to improve service delivery and value for money?

National Government		
Aggregate fiscal discipline	▪ Credible three-year revenue, expenditure and debt service forecasts, which provide the top-down discipline for expenditure commitment. ▪ Forecasts are the result of well-administered budget release and cash management system. ▪ Comprehensive and transparent debt management framework provides businesses with confidence in the economy.	▪ Weak procurement management. ▪ The accrual of expenditure arrears not rated due to lack of data.
Strategic allocation of resources	▪ Budget classification orderliness and participation in budget process and multi-year fiscal planning and expenditure policy. ▪ The National Development Plan 2030 (adopted in 2011) serves as the global long-term policy framework of government, out of which five-year plans are developed and linked to annual budgets. ▪ Current chart of account and the accounting software provide sufficient and reliable information on resources (cash and kind) received by primary schools and clinics (via the provincial reports prepared quarterly and consolidated annually).	▪ Preparation of fully costed sector strategies, although efforts to improve are ongoing. ▪ Donor influence is insignificant in terms of budget support, but donors are not currently aligned to national strategies (alignment would have a positive impact).
Efficient service delivery	▪ Responsibility is shared between spheres of government: provinces and municipalities undertake most service delivery to communities, while central government's main role is to ensure prompt transfer of grants needed to provide services at local level. ▪ The Intergovernmental Fiscal Relations Unit within National Treasury monitors transfers and evaluates both performance and financial reports. ▪ SARS has been successful in collecting from known taxpayers the revenue needed to enable government to deliver the needed services. ▪ Good cash and debt management, which reduces government borrowing and interest payments, thereby providing considerable confidence in the financial market.	▪ Room for improvement in widening the tax net. ▪ Areas of major concern remain procurement and control of non-salary expenditure.

Provincial: Gauteng		
Aggregate fiscal discipline	▪ Comprehensive budget presented to the provincial legislature. ▪ Strong budget preparation, consultation, processing and approval processes.	▪ Arrears ('accruals') that are cleared in future years. ▪ Intra-departmental arrears from the Department of Health. ▪ Poor forecasting of own revenue
Strategic allocation of resources	▪ An integrated approach to development expenditure is reflected in the infrastructure financing and budgeting, which is part of the annual and MTEF budget. ▪ Well-structured budgeting process, and effective and full utilisation of MTEF. ▪ Well-defined budget cycle that encompasses policy input both at the beginning (through cabinet-approved departmental ceilings) and at the end (debate in the provincial legislature before the start of the fiscal year). ▪ The multi-year framework clearly articulates the medium-term policy objectives and forecasts fiscal aggregates on a three-year rolling basis with all departments implementing the MTEF. ▪ Separate sector strategies have been developed for education, infrastructure and health sectors, while MTEF provides the foundation for other sectors.	▪ Weak monitoring of aggregate financial risk of the provincial entities.
Efficient service delivery	▪ Competently managed treasury functions. ▪ The procurement system has adequate structures. ▪ Sound accounting, recording and reporting procedures are in place. ▪ Regular reconciliation of accounts carried out monthly, quarterly and annually and included in financial statements. ▪ In-year budget reports prepared are timely and accurate. ▪ Financial statements are comprehensive and submitted to Auditor-General for external scrutiny in a timely manner. ▪ Effective system for the legislature to scrutinise the annual budget.	▪ Room for improvement in widening the tax net. ▪ Areas of major concern remain procurement and control of non-salary expenditure.

Metro Municipalities		
Agregate fiscal discipline	▪ Fiscal discipline is reasonable. ▪ Councils have adequate opportunity to scrutinise budget proposals. ▪ Budget execution is adequately supported by PFM systems: in-year reporting on budget execution is timely, and data integrity and completeness are reasonable.	▪ Concerns around variances because of the inability to collect budgeted revenues. ▪ Very significant level of rate and customer arrears, although this is managed through making appropriate provisions. ▪ Projections of realisable revenue could be more accurate.
Strategic allocation of resources	▪ Tshwane: budget is executed in line with Council policies. Over the last three years, spending patterns have shifted, but in-year re-allocations have been relatively minor (except for the common problem of spending on capital projects, which has been uneven). ▪ Johannesburg: significant shift of expenditure away from the operating budget towards capital expenditure.	▪ In theory, the strategic allocation of resources is guided by the 12 outcomes defined by the National Planning Commission (NPC). However, Tshwane's policies do not appear to fully reflect the NPC priorities. ▪ Ekurhuleni: in-year re-allocations do not suggest that the budget is executed in line with stated Council policies.
Efficient service delivery	▪ Overall, budget planning, accounting and reporting systems work reasonably well. ▪ Good quality management information on how resources have been used for service delivery is available in a timely manner. ▪ Internal control systems are sound.	▪ Weak internal control systems as shown in audit reports. ▪ Poor ratings for procurement and the payroll system. ▪ Need to respond more rapidly to issues raised in the Auditor-General's reports.

Conclusion – Possible Areas for Reforms

The PFM reform strategy initially emphasised the need to achieve fiscal discipline, which has been achieved – at least at national level. Successful decentralisation requires an equal level of expertise at the subnational level, not only to achieve fiscal discipline but, more importantly, to move towards efficient service delivery, which is the primary responsibility of provinces and municipalities. This remains a challenge, despite national efforts to build the capacity and capability of subnational staff, including the establishment of the Government Technical Assistance Centre (GTAC) within National Treasury in 2012. The GTAC provides technical support to government departments, provinces, municipalities and public entities.

The three metros have been involved in PFM reforms for a considerable time (and all show signs of 'reform fatigue'). They have adopted different approaches, as set out in medium- to long-term strategic visions, and faced different challenges. For example, Johannesburg has adopted a structural approach, shifting various functions into 'entities', which – while wholly owned by the Council – are afforded a measure of operational freedom outside the 'core' municipality. Johannesburg has also begun to implement a policy decision to shift resources from the operating budget to capital expenditure. These features are not seen to the same extent in the other two metros, where other issues may be more pressing. For example in Ekurhuleni, the process to integrate (incompatible) information systems across the nine former local government units is far from complete. In addition, neither Ekurhuleni nor Tshwane have completed organisational reviews of staffing, and each is operating with a considerable number of vacant positions.

As previously noted, the financial management arrangements of the three metros are heavily regulated both by law and by the numerous requirements specified in the Treasury Regulations. Also, each metro is relatively well capacitated in terms of both staff and systems and, in most cases, is able to meet these prescripts. Hence many of the PEFA ratings are consistent across the three metros and most show a level of performance above basic functionality. Nevertheless, the analysis reveals a number of areas of weakness that seem not to be given high priority in the current reform efforts. These are summarised below.

Performance indicator		
PI-4	Stock and monitoring of expenditure payment arrears	There is no evidence that any of the metros are taking action to address this problem, despite the fact that, if unresolved, it may well damage credit worthiness and lead to higher costs in the future.
PI-14	Effectiveness of measures for taxpayer registration and tax assessment	Given that property rates are a substantial source of 'own revenue' for each metro, it is perhaps surprising that this area of weakness is not being addressed.
PI-18	Effectiveness of payroll controls	There is no evidence that addressing the weaknesses inherent in a manual system is a priority.
PI-19	Competition, value for money and controls in procurement	While each metro is in the process of establishing an Ombud who will, among other things, adjudicate procurement disputes, other weaknesses are not being addressed.
PI-21	Effectiveness of internal audit	This weakness may be addressed, as the (relatively newly-established) Audit Committees become more effective.
PI-24	Quality and timeliness of in-year budget reports	There is no evidence that addressing the limitations of the accounting systems is a priority.

PEFA was initially designed to assess financial management practices at a national government level but is increasingly being used at a subnational level, as a tool to identify potential areas for reform. While it does not provide all the answers, it does offer an opportunity for reflection on how public financial management systems are performing relative to internationally accepted good practice. The chapter highlights that the metropolitan governments assessed in South Africa are performing relatively well and display evidence of a level of functionality across all of the indicators with clear areas for considering improvements. It is recommended that discussions take place with the relevant authorities in each metropolitan council about the extent to which the matters identified above represent priorities to be addressed, and the potential support that might be available to do so.

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4

Cities' Core Income: Managing Property Rates

Written by Carmen Abdoll

Cities' Core Income: Managing Property Rates

Redesigning the funding framework of local government, in particular for cities, is a common topic of discussion among local government circles. However, not much has been said about how municipalities currently use the funding sources assigned to them. The Constitution provides municipalities with taxing powers, of which the most important is the power to levy rates on property. Property rates have a stable base and good revenue potential, and so are a good tax to assign to local government. Although a greater proportion of city revenue comes from electricity and water service charges, most of this revenue goes towards paying for bulk supply and the costs associated with providing these services. In contrast, revenue from property rates is available to the municipality to allocate according to its priorities. It is therefore a core source of revenue for the municipality. This chapter looks at whether cities are using their power to levy property rates optimally.

Municipal Property Rates Act (MPRA)

The Municipal Property Rates Act (No. 6 of 2004) gives significant powers to municipalities to craft property rates policies to meet their particular circumstances while ensuring the rates system remains fair and equitable. The Act regulates all key aspects of a municipality's power to levy rates on property, including the content of rates policies, the liability for rates and the preparation of property valuation rolls.

Rates are levied, using a cent amount in the rand, on the market value of different defined categories of property in a municipality. The value of a property for rating purposes is determined by a prescribed periodic valuation process, and the results are published in a General Valuation Roll and in subsequent Supplementary Valuations – this amendment came into force on 1 July 2015 via the Municipal Property Rates Amendment Act (No. 29 of 2014). The rates are determined each year following a period of community participation and must be tabled and promulgated together with the annual municipal budget. If a municipality fails to comply with the promulgation process, the cent amount in the rand is unenforceable for the relevant financial year.

Key terms in the MPRA

Exemption – in relation to the payment of a rate, means an exemption granted by a municipality in terms of section 15.
Market value – in relation to a property, means the value of the property determined in accordance with section 46.
Rate – means a municipal rate on property envisaged in section 229(1)(a) of the Constitution.
Rateable property – means property on which a municipality may in terms of section 2 levy a rate, excluding property fully excluded from the levying of rates in terms of section 17.
Rebate – in relation to a rate payable on a property, means a discount granted in terms of section 15 on the amount of the rate payable on the property.
Reduction – in relation to a rate payable on a property, means the lowering in terms of section 15 of the amount for which the property was valued and the rating of the property at that lower amount.

Figure 16 illustrates the basic structure of property rates.

Figure 16: Basic Structure of property rates.

Generally, the Act adopts a framework-type approach, which gives municipalities substantial discretion and control over most aspects of property rates. However, the Municipal Property Rates Amendment Act has severely curbed some of this discretion. For instance, before the amendment municipalities were only guided as to the categories of property they could rate, but now the Act (in section 8[21]) sets out a prescribed list of rates categories:

8(2) A municipality must determine the following categories of rateable property in terms of subsection (1):
Provided such property category exists within the municipal jurisdiction:

a. residential properties
b. industrial properties
c. business and commercial properties
d. agricultural properties
e. mining properties
f. properties owned by an organ of state and used for public service purposes
g. public service infrastructure properties
h. properties owned by public benefit organisations and used for specified public benefit activities
i. properties used for multiple purposes, subject to section 9 or
j. any other category of property as may be determined by the Minister, with the concurrence of the Minister of Finance, by notice in the Gazette.

A municipality may create additional property categories, provided that such categories do not circumvent the categories that must be determined in terms of section 8(2) of the Act. In addition, a municipality must now apply to the Minister in order to create a sub-category to the prescribed categories.

A municipality can also determine an area within the municipality as a special rating area (SRA), where an additional levy can be charged on properties in that area for the purpose of raising funds for improving or upgrading that area (section 22). This is a very important section in the Act that enables municipalities to work with property owners in defined areas. To date, only Johannesburg, Cape Town, Tshwane and eThekwini have implemented SRAs (more commonly known as City Improvement Districts).

State properties used for public service purposes

A controversial addition to the newly prescribed categories of properties is 'properties owned by an organ of state and used for public service purposes'. Here, public service purposes are defined as:

hospitals or clinics
schools, pre-schools, early childhood development centres or further education and training colleges
national and provincial libraries and archives
police stations
correctional facilities; or courts of law,

but excludes public service infrastructure.

This category deviates from section 8(1) of the MPRA, which allows a municipality to levy rates according to the type of property, i.e. (a) the use of the property, (b) the permitted use of the property, or (c) a combination of (a) and (b). However, the wording – 'properties owned by an organ of state and used for public service purposes' introduces a deviation in that the category is determined by a combination of ownership and use. This change is aimed at protecting the financial interests of national and provincial government. Having this clearly defined category enables the Minister to issue regulations in terms of section 16(2) prescribing a rates ratio, thus effectively limiting the extent of national and provincial government's liability for property rates. In effect, limiting municipalities' rates revenue from this category of property forces local government to subsidise the services of national and provincial government because all the activities carried out at state properties used for these public purposes consume municipal services that are financed through rates, e.g. road infrastructure, street cleaning, public safety etc. The negative financial impact of this on municipalities will be significant, particularly on those municipalities where a significant proportion of its rateable property portfolio falls within this category.

21 Municipalities have seven years to implement section 8 of the Amendment Act.

The Act also places limitations on the rating of certain kinds of property.

- on the first 30% of the market value of ***certain*** public service infrastructure (section 17(1)(a))
- on a property belonging to land reform beneficiaries or their heirs for a period of ten years (section 17(1)(g)(i)) or upon alienation of the property by the land reform beneficiary or his or her heirs, dependants or spouse (section (17(1)(g)(ii))[22]
- on the first R15,000 of the market value of residential properties (section 17(1)(h)) – which may be increased by the Minister from time to time;
- on a property used primarily as a place of public worship and the official residence of the office-bearer who officiates at services (section 17(1)(i)).

In addition, the Act provides that the Minister responsible for local government may issue regulations that further limit municipalities' rating powers as follows:

- The Minister (after notifying the Minister of Finance) may limit the rates on any categories of property, if such rates are materially and unreasonably prejudicing national economic policies, economic activities across boundaries or the national mobility of goods, services, capital or labour (section 16).
- The Minister (with the concurrence of the Minister of Finance) may prescribe that the rates for non-residential properties may not exceed specific ratios to the rate on residential properties (section 19(1)(b)).
- The Minister (with the concurrence of the Minister of Finance) may set an upper limit on the percentage by which rates on properties may be increased (section 20).

Impact of MPRA restrictions on municipalities' rates revenue

To date, the Minister of Cooperative Governance and Traditional Affairs has issued MPRA regulations that prescribe rate ratios for public service infrastructure, agricultural land and certain public benefit organisations. The limitations set out in section 17, and the rates ratio regulations, support national policies or national redistribution goals, without much consideration of the financial interests of municipalities. In some cases, the limitations may effectively undermine the financial sustainability of municipalities:

- The first 30% of the market value of public service infrastructure is exempt from rates. This works in favour of national and provincial government at the expense of municipalities. In effect, municipalities are subsidising national and provincial government.
- Property belonging to land reform beneficiaries is exempted from rates. This supports the national government's land redistribution policy, and the impact is concentrated in those municipalities where land claims and land redistribution initiatives are most prevalent. A more equitable alternative might be for national government to provide this benefit by paying the rates on behalf of land reform beneficiaries, rather than requiring the local ratepayers to cross-subsidise this loss of rates.
- Places of worship and official residences are exempted from rates, which is a leftover from the past, when South Africa had an official state religion. Such properties should not be exempt, as wealthy churches, mosques and temples make extensive use of municipal infrastructure and services. Rather rates could be limited, based on the justification that places of worship contribute to the public good. In addition, there is no reasonable justification for exempting office bearers who occupy these official residences, as their incomes are often higher than the average incomes of their congregants.[23]
- Agricultural land has a prescribed rates ratio, which affects the rates base of the more rural municipalities.
- Certain public benefit organisations are rated at a maximum of 25% of the residential rate. However, this is done without taking into account the performance of the organisation and whether the bulk of funds are indeed used for the public good. Improved monitoring of these organisations could inform a differentiated rating based on performance.

Section 18 of the MPRA allows a municipality to apply for exemption from the limitations set out in sections 17 and 20. However, the granting of such exemptions is entirely at the discretion of the Minister responsible for local government. There is no record of any such applications to date.

The implementation of the Act has imposed significant costs on municipalities, not least the requirement that property valuations must be market-based and revised every four (for metropolitan municipalities) or five (for local municipalities) years, according to prescribed processes. The Municipal Systems Improvement Grant from 2004 to 2008 was partly intended to assist municipalities with these initial costs. However, concerns have been raised about the cost to smaller municipalities of updating their valuation rolls every five years.

[23] The median salary for 79 senior pastors in South Africa is R290,000 per year, with about 90% earning over R600,000 (http://www.payscale.com/research/ZA/Job=Senior_Pastor/Salary), which is much higher than the average salary in South Africa.
[22] Total exclusion.

While municipalities have significant latitude to craft rates policies that suit their particular circumstances, the framework is very complex. This complexity heightens the risk of non-compliance, and provides fertile ground for individual ratepayers and ratepayer associations to challenge the legality of municipal rates policies. In the SAPOA case[24], the Supreme Court of Appeal found that the City of Johannesburg had 'failed to comply with the prescribed statutory requirements and procedures in arriving at the decision on 21 May 2009 to impose a rate of R 0.0154 in the rand on the value of business, industrial and commercial properties' but (for various practical reasons) chose not to set the rate aside. However, the Court noted that:

> *If it becomes clear that the Council has not rectified or is not willing to deal with the shortcomings in the valuation roll, an application to court for a mandatory interdict would be warranted in advance of the budgetary process. If it becomes clear that the Council intends to continue denying its constituent ratepayers meaningful participation in the budgetary process and that it is resorting to irrational means in the process of determining rates a timeous application to court might well result in a proposed budget or even an adopted one being set aside. It is not inconceivable given the history that offending officials could be ordered to pay litigation costs personally.*

Property Rates from a City Perspective

To understand whether cities are raising property rates optimally requires first understanding the role that revenue from property rates plays in city budgets. Currently, all properties are rateable unless specifically excluded by the MPRA or a municipality's rates and/or indigent policy.

Revenue from property rates

As expected, the big five cities dominate the property rates revenue collection table, accounting for 89% of total rates revenue collected by the nine cities. The smaller cities each contribute between 2% and 4% of the total rates collected by the cities.

Table 17: Property rates revenue (2009/10–2013/14)

R000	2009/10	2010/11	2011/12	2012/13	2013/14	Average annual growth	Average annual growth of operating revenue	% of total Cities (2014)
JHB	5 203 555	4 485 953	5 412 614	5 725 755	6 801 314	11%	7%	25%
CPT	4 250 970	4 771 638	4 712 098	4 897 061	4 992 976	4%	6%	19%
ETH	4 399 357	4 293 287	4 332 441	4 709 347	4 773 788	2%	4%	18%
TSH	2 990 229	3 074 973	3 357 775	3 794 674	3 993 100	7%	8%	15%
EKH	2 359 147	2 563 118	2 589 322	2 657 920	3 088 026	7%	8%	12%
NMB	837 916	884 702	881 915	1 004 291	1 086 059	7%	6%	4%
MAN	374 935	418 532	463 256	487 834	873 407	24%	15%	3%
BCM	473 007	478 081	522 515	550 380	606 268	6%	10%	2%
MSU	465 235	472 756	536 554	593 415	543 201	4%	2%	2%
TOTAL	20 636 748	22 160 642	22 808 490	24 420 676	26 758 138	6%		100%

Source: SACN database (2014)
Note: All figures are in constant 2012 rands

Between 2012/13 and 2013/14, property rates revenue nearly doubled in Mangaung. The city attributes this high growth rate to 'higher values following implementation of the new valuation roll as of 1 July 2013 and the outstanding finalisation of the objection process thereof'.[25]

[24] South African Property Owners Association v Johannesburg Metropolitan Municipality and others 2013 (1) SA 420 (SCA)
[25] Mangaung Consolidated Annual Financial Statements ending 2013/14

Rates revenue as a share of total revenue

The contribution of property rates to operating revenue gives a sense of how important property rates are to city budgets.

Table 18: Property rates revenue as a percentage of total operating revenue (2009/10–2013/14)

	2009/10	2010/11	2011/12	2012/13	2013/14
JHB	18.20%	18.60%	17.30%	18.60%	20.80%
CPT	24.30%	24.50%	22.90%	22.10%	22.50%
ETH	24.10%	22.50%	21.80%	22.70%	22.60%
TSH	21.60%	20.40%	19.60%	21.60%	21.10%
EKH	16.30%	15.30%	13.50%	13.70%	15.50%
NMB	16.70%	14.30%	14.10%	15.50%	16.90%
MAN	15.10%	14.30%	13.00%	12.20%	20.10%
BCM	17.90%	17.10%	15.80%	14.90%	15.60%
MSU	17.00%	19.40%	20.30%	20.30%	18.60%

Source: SACN database (2014) (own calculations)

As Table 18 shows, in 2013/14 property rates revenue accounted for between 15.5% and 22.6% of city operating revenue. Between 2009/10 and 2013/14, property rates share of operating revenue declined or stayed the same in all but three of the nine cities: Johannesburg, Mangaung and Msunduzi.

Mangaung once again stands out. After declining from 15.1% in 2010 to 12.2% in 2013, its rates revenue as a percentage of operating revenue increased to 20.1%. The decline was because other sources of revenue contributed a greater portion to operating revenue. For instance, electricity revenue contributed 46%, whereas property rates revenue contributed only 9% to the change in operating revenue during this period. In 2014, property rates revenue contributes 33% to the change in operating revenue since 2010 compared to 34% for electricity.

Contribution of property rates to changes in affordability in municipal bills

Between 2010 and 2014, increases in property rates contributed very little to the growth in household municipal bills. Many municipalities adopted higher rates rebates, which resulted in a saving for lower income households.

- In 2011, Johannesburg introduced a rebate of R150,000 for residential properties (increased to R200,000 in 2013). Together with the changes in the actual rates, the result was that property rates held steady for the more affluent households and reduced for lower income households.
- In 2013, Mangaung increased its residential rebate from R40,000 to R70,000 and significantly reduced residential property rates. The result for households was that the cost of their municipal bills reduced by around 5%.
- In 2013, Tshwane converted its rebate policy from a R50,000 + 35% rebate applied to all residential properties to a simple R75,000 rebate. This change reduced the cost for lower income households by about 3%.

[25] Mangaung Consolidated Annual Financial Statements ending 2013/14

Current levels of collections

An important part of any revenue discussion is a municipality's management of a particular revenue source. Assessing the effective collection of property rates revenue is difficult because of the vast differences in city property registers and rates policies.

Table 19 gives an indication of city rates revenue collection efforts since 2010/11. The table compares the budgeted rates revenue to the actual audited collected rates for that particular year. Although cities probably include a factor for non-collection when compiling their budgets, this comparison still gives a good indication of the effort put into collecting projected revenues.

Table 19: City property rates revenue collection levels (2010/11–2012/13)

R 000	2010/11 Budget projection	2010/11 Audit outcome	Outcome as a % of projection	2011/12 Budget projection	2011/12 Audit outcome	Outcome as a % of projection	2012/13 Budget projection	2012/13 Audit outcome	Outcome as a % of projection
JHB	4 769 272	4 933 897	103%	4 979 582	5 412 614	109%	5 875 942	6 034 946	103%
CPT	5 104 617	4 402 415	86%	5 568 774	4 588 111	82%	6 107 143	5 076 445	83%
ETH	4 062 100	4 070 801	100%	4 470 000	4 332 441	97%	4 711 969	4 963 652	105%
TSH	3 021 875	2 915 622	96%	3 461 000	3 357 657	97%	3 737 900	3 999 445	107%
EKH	3 037 977	2 431 047	80%	3 238 484	2 590 399	80%	3 639 360	2 802 871	77%
NMB	862 387	838 855	97%	961 565	881 915	92%	1 074 628	1 058 523	99%
MAN	394 830	396 843	101%	445 409	463 256	104%	506 433	514 177	102%
BCM	487 055	453 306	93%	521 747	522 514	100%	583 999	580 100	99%
MSU	453 162	448 257	99%	488 358	505 310	103%	576 402	585 864	102%

Source: Compiled from the National Treasury Local Government Database

Between 2010/11 and 2012/13, Cape Town and Ekurhuleni had a continuous 'under-collection' or 'over-projection'. What this under-collection shows is that either the cities are not good at projecting future rates revenue or they are not very good at collecting the expected revenue. What is also possible is that the two cities have not allowed for revenue foregone (i.e. rates not collected) in their projected total revenue and bring this revenue in later as an expense. Whether they have done this or not is unclear from the available data.

Factors that Influence Rates Revenue Collected

A range of factors influence how much rates revenue a city collects. The most important factors are the size, composition and value of its rates base, i.e. the properties that are rated, followed by the structure and level of rates charged. Other factors include the completeness of a municipality's property register and billing processes, whether the valuation roll is up-to-date, the level of rebates and other discounts offered (including the management of the indigents register), payment processes and bad debtors management.

The ability of cities to influence revenue raised from property rates is governed by:

- **The base on which revenue is raised.** Properties are rated on their market value. Market fluctuations in the property sector are not significant and, in most cases, lag behind real economic indicators in the short run. This stable rates base hampers the extent to which cities can raise additional revenue from this source. Mangaung provides a good example of how the rates base influences revenue collection. Following its 2013 valuation (see Table 17), rates revenue nearly doubled in 2014 simply by updating property values. According to National Treasury, during the five-year valuation cycle, 'the municipality must track the plans approved for property development', and the issuing of a 'certificate of occupation should trigger a supplementary valuation and an update of the billing records.[26]

[26] National Treasury 2012, MFMA Circular No. 64, page 7

- **The rate applied to raise revenue**. Every year, National Treasury advises municipalities on the inflation-related adjustment and cost recovery for tariffs on services as well as property rates. However, cities are free to adjust their rates and tariffs as they see fit, so long as they follow the correct process. With this freedom to adjust rates comes the responsibility of keeping municipal bills as a whole affordable to consumers. If rates increase to unaffordable levels, bad debts are likely to increase.

The MPRA affords municipalities the opportunity to actively manage their income from property rates. Many municipalities focus on the level of rates, which is important. However, probably more important is ensuring the rates base is properly managed. For instance, that all properties are listed and rated and that, when rezoning leads to a change in land use, processes are in place to ensure the new applicable rates are applied. A municipality should also be watching the property market. If property values are increasing, the municipality might consider shortening the time period between general valuation processes; alternatively, if property prices are decreasing, such processes could be delayed to the full five years. In addition, a municipality should actively manage the net effect on revenues of the interaction between rates increases, any changes in rebates and changes in property valuations.

The demographics and mix of economic activities are different for each city, and so too is the make-up of their property stock. For instance, Ekurhuleni has a lot of industrial economic activity, and so its property stock will be skewed towards industrial or commercial properties. In contrast, Tshwane is South Africa's administrative capital and will have more public service infrastructure and state-owned properties than other cities. As cities can apply different rates to different categories of property, each city has to design its own city-specific rates packages in order to optimise the revenue-raising opportunities of its property rates base. A city with proportionately more commercial properties than agricultural properties will have a higher rates revenue potential because commercial properties are rated at higher levels, whereas agricultural property is subject to a prescribed rates ratio. Cities with more public infrastructure properties will have to levy higher rates on the remaining property owners because of the double reductions in rates levied. If properties used for public service purposes are also given preferential treatment, the city's rates base will erode further

Values of properties and rates charged

Table 20 compares the composition of the property rates base of four cities for which data was available.

Table 20: Property value comparison

	Value of residential properties	Value as % of total	Value of commercial properties	Value as % of total	Value of agricultural properties	Value as % of total
CPT (GV 2012)	634 429 250 233	70%	253 705 413 705	28%	14 853 700 499	1.60%
ETH (GV 2012)	268 526 485 863	61%	93 712 806 500	21%	2 896 549 050	0.70%
TSH (GV 2013)	274 051 350 673	69%	54 635 436 605	14%	21 273 406 211	5.40%
NMB (GV 2013)	87 675 849 000	62%	32 619 216 000	23%	1 449 409 000	1.00%

Source: Compiled from the National Treasury Local Government Database

Table 20 highlights the reliance of most cities on the payment of residential municipal bills, as residential properties comprise the largest portion (61%–70%) of the value of their property stock. The table also shows how the structure of a city's property portfolio affects its revenue-raising potential.

Regulations on rates ratios affect cities differently:

- The value of Tshwane's residential property stock is three times higher than that of Nelson Mandela Bay, but Tshwane also has 14 times more agricultural properties than Nelson Mandela Bay.
- The ratio of agricultural properties to residential properties is 60:1 in Nelson Mandela Bay compared to 12:1 in Tshwane. This means that for every R1 of agricultural property value, Nelson Mandela Bay has R60 in residential property value, compared to Tshwane's R12. Therefore the regulation limiting the rates on agricultural properties to 25% of the rates on residential properties will have a far greater impact on Tshwane than on Nelson Mandela Bay.
- Consequently, for these categories of properties, Nelson Mandela Bay has a higher rates revenue potential (rand for rand) than Tshwane.

Some cities have greater scope to reduce their reliance on residential property than others:

- Although Tshwane and eThekwini have residential property portfolios of similar value, eThekwini has nearly double the number of commercial properties compared to Tshwane.
- eThekwini has a higher rates revenue potential (rand for rand) than Tshwane because its portfolio contains a higher proportion of commercial properties, and cities charge much higher rates on commercial property (Table 21).
- Mangaung has the lowest rates on residential property followed by Johannesburg and then Cape Town. eThekwini has the highest residential property rates: 68% higher than in Mangaung, 58% more than Johannesburg and 56% more than Cape Town.
- Tshwane has the highest rate, whereas Cape Town has the lowest rate (56% less than Tshwane) on business and commercial properties. Mangaung rate on business and commercial property is 432% higher than its rate on residential property, whereas for all other cities this difference is between 200% and 300%,
- Ekurhuleni, Nelson Mandela Bay and Cape Town treat farming property more favourably than required by the rates regulation (the Minister of Cooperative Governance and Traditional Affairs prescribes that the rate on farming property may not be more than 25% of the rate on residential property.)

Table 21: Cent amount in the rand for residential, agricultural and commercial properties (2013/14)

Rands	Rate on residential property	Rate on bona fide farming property	Rate on business and commercial property	Farming as a % of residential	Commercial as % of residential
JHB	0.00616	0.00154	0.01725	25%	280%
CPT	0.00625	0.00125	0.01251	20%	200%
ETH	0.00976	0.00261	0.02366	25%	242%
TSH	0.00938	0.00235	0.0283	25%	302%
EKH	0.00796	0.00154	0.01591	19%	200%
NMB	0.00812	0.00162	0.01624	20%	200%
MAN	0.00578	0.00145	0.02501	25%	432%
BCM	0.00823	0.00206	0.02056	25%	250%
MSU	0.0086	0.0029	0.0186	34%	216%
Average	0.00788	0.00192	0.01772		

Source: City rates policies

Notes:

1) The rates excludes the rebates and exemptions provided by cities to residential properties.

2) The valuation date of the General Validation will affect the level of the rates charged: the older the date of valuation, the higher the rates (tariffs) while a more recent valuation date should result in lower rates tariffs.

However, the cent amount in the rand does not give a good indication of the revenue effort of a city's rates policy. For that, it is necessary to look at the combined effect of the rates and any value rebates given. This is shown in Table 22, which compares cities' rates bills for different valued residential properties.

Table 22: Property rates bill comparison

			Annual rates bill for residential properties valued at			Deviation from average		
Rands	Rebate on residential properties	Rate on residential properties	R 250,000	R 500,000	R1 million	R 250,000	R 500,000	R1 million
JHB	200 000	0.006161	308	1 848	4 929	-74%	-41%	-30%
CPT	200 000	0.006254	313	1 876	5 003	-73%	-40%	-29%
ETH	185 000	0.00976	634	3 074	7 954	-46%	-2%	13%
TSH	75 000	0.00938	1 642	3 987	8 677	39%	27%	23%
EKH	150 000	0.00796	796	2 786	6 766	-32%	-11%	-4%
NMB	15 000	0.008121	1 908	3 939	7 999	62%	26%	14%
MAN	70 000	0.005784	1 041	2 487	5 379	-12%	-21%	-23%
BCM	15 000	0.008225	1 933	3 989	8 102	64%	28%	15%
MSU	15 000	0.0086	2 021	4 171	8 471	72%	33%	20%
Average	102 778	0.007805	1 177	3 129	7 031			

- Johannesburg and Cape Town have generous rebate values coupled with low rates, whereas Tshwane and Msunduzi have low rebate values but the second and third highest rates respectively.
- Higher rate rebate values have a progressive impact, as they benefit the owners of lower value residential properties who are very often households with lower incomes.
- Rates bills for residential properties valued at R250,000 vary significantly across the cities: the lowest is Johannesburg (R308 per year) and the highest is Msunduzi (R2,021 per year). The range between the lowest and highest bills decreases with the increasing value of residential properties, reflecting the declining impact of the rebate value.
- An interesting comparison is Msunduzi and neighbouring eThekwini. eThekwini has the highest and Msunduzi has the third-highest cent in the rand rates. However, the rebate for residential property is R185,000 in eThekwini and R15,000 (i.e. the legislated minimum rebate) in Msunduzi. As a result, the annual rates payable on residential properties valued at R250,000 are R634 in eThekwini but R2,021 in Msunduzi. The annual rates payable on residential properties valued at R1-million are R7.954 in eThekwini and R8,471 in Msunduzi. This shows that eThekwini has a more equitable rates system, as the city's higher cent-in-the-rand rate only affects properties with higher values.

The different rates levels shown in Table 22 also suggest very different levels of revenue effort among the cities.

Kamohelo Mabote

Doing Business in South Africa 2015

Cities gain a higher return on commercial properties (Table 21) and can improve the demand for such properties by creating a more conducive business environment, thereby making doing business easier.

The World Bank's Doing Business project compares business environments across economies and publishes detailed subnational reports that look at business regulation and reform in different cities and regions within a country.

Doing Business in South Africa 2015 is the first subnational report in South Africa. It measures business regulations and their enforcement in the nine SACN member cities, including four major ports. The cities are compared against each other, and with 188 other weconomies worldwide.

A globally standardised scenario is used to compare economies. This is described as a warehouse in a peri-urban area of the city (i.e. not in a special economic or industrial zone) that will be used for general storage of non-hazardous materials such as books. The area is already connected to water and electricity networks and is zoned for the correct use. Six different areas are benchmarked: starting a business, dealing with construction permits, getting electricity, registering property, enforcing contracts and trading across borders.

The study found that entrepreneurs in South Africa face different regulatory hurdles according to where they are established. This is because of different local regulations, efficiency levels within municipalities and interpretations of national legislation.

Doing Business in South Africa 2015: where is it easier?

Municipality Municipal seat	Starting a business*		Dealing with construction permits		Getting electricity		Registering property		Enforcing contracts	
		DTF score (100=Best Result)	Ranking (1-9)	DTF score (100=Best Result)	Ranking (1-9)	DTF score (100=Best Result)	Ranking (1-9)	DTF score (100=Best Result)	Ranking (1-9)	DTF score (100=Best Result)
Buffalo City	4	78.67	3	77.50	4	75.32	4	62.84	9	62.54
Cape Town	4	78.67	1	78.08	2	81.81	8	59.23	6	67.53
Ekurhuleni	1	81.18	4	76.84	5	71.83	3	64.23	4	68.26
eThekwini	4	78.67	5	76.15	3	75.73	6	62.05	3	69.27
Johannesburg	1	81.18	8	68.52	8	55.74	1	65.82	8	66.14
Mangaung	4	78.67	9	68.22	1	83.88	9	58.41	1	71.04
Msunduzi	4	78.67	6	74.07	7	63.00	7	59.49	2	70.81
Nelson Mandela Bay	4	78.67	2	78.05	9	53.14	5	62.69	7	66.89
Tshwane	1	81.18	7	69.88	6	68.51	2	64.71	5	68.17

- The cost of starting a business is low (0.3% of income per capital) compared to global benchmarks.
- The best cities for starting a business are Ekurhuleni, Johannesburg and Tshwane, where it takes 46 days compared to 56 days in the other cities. However, even this is longer than the average OECD high-income (10 days) and BRIC (40 days) countries.
- Cape Town scores the highest for dealing with construction permits. The cost of dealing with construction permits varies from 0.68% of the warehouse value in Mangaung to double this in Nelson Mandela Bay. On average, two-thirds of the total cost is the building permit fee, which is established by municipal authorities.
- Getting an electricity connection across South African cities takes on average the same number of procedures as across OECD high-income countries but cost more and takes twice as long. It's easier to get an electricity connection in Mangaung than in the other eight cities.
- Despite the shared legislative framework, the time taken to register property varies from seven days (in Ekurhuleni, Johannesburg and Tshwane) to 24 days in Buffalo City and 52 days in Mangaung.

Local policy makers can achieve tangible improvements by replicating good practices already successfully implemented in other cities in South Africa. Small administrative improvements not requiring legislative changes can make a difference for a small or medium-size firm.

If a city were to adopt the good practices found across the nine cities in dealing with construction permits, getting electricity and enforcing contracts, it would surpass the average performance of the OECD high-income economies in all three areas.

City finances benefit from reducing the cost, time and energy required to start a business, as it encourages investment and economic activities, which potentially boost employment and arguably strengthen the ability of property owners and households to pay municipal bills.

For more information on the study, visit http://www.doingbusiness.org/Reports/Subnational-Reports/south-africa

Revenue effort

A number of factors affect the revenue that a city can raise from property rates. While certain factors are outside a city's control (e.g. MPRA restrictions), other factors are within the city's control (e.g. accurate billing, management of debtors, etc.). More information would be required for an in-depth analysis of each city's revenue collection effort. However, using what is available in the public domain, some interesting inferences can be drawn. Table 23 shows property value compared to the revenue raised from rates, i.e. the revenue-to-value ratio, which shows what cities achieve with their current rates base.

Table 23: Property value vs rates revenue collected

	Total value of properties within municipality	Rates revenue collected 2012/13	Revenue to value ratio
CPT (GV 2012)	909 172 110 431	5 076 445 086	R1 in revenue to R179.10 property value
ETH (GV 2012)	442 041 009 722	4 963 651 771	R1 in revenue to R89.06 property value
TSH (GV 2013)	396 752 443 521	3 999 445 336	R1 in revenue to R99.20 property value
NMB (GV 2013)	141 096 593 000	1 058 523 375	R1 in revenue to R133.30 property value

Note:

1) Data available only for these four cities: Cape Town, eThekwini, Tshwane and Nelson Mandela Bay.

2) The rates revenue collected for Tshwane and Nelson Mandela Bay is probably based on the previous general valuation, not the general valuation of 2013 (used in this analysis), but 2013/14 is the latest audited data available.

- Tshwane collects R1 in rates for each R89.51 of property value, whereas Nelson Mandela Bay only collects R1 for R117.04 of property value. However, compared to Tshwane, Nelson Mandela Bay has fewer agricultural properties and so a higher rates revenue potential.
- Cape Town has the lowest revenue collection on the highest property value compared to the other three cities. It raises R1 for every R164.05 of property values, about half that of eThekwini, which collected R1 for every R83.43 of property value. This is a reflection of Cape Town having the lowest commercial property rates and third lowest residential property rates among the nine cities. In contrast, eThekwini has the highest residential and agricultural property rates and the third highest commercial property rates among the nine cities.
- Both Nelson Mandela Bay and Cape Town have the high revenue-to-value ratios and comparatively low rates levels, which suggests a lower revenue effort than the other two cities. This may be further exacerbated by their generous rates rebates and indigents policies. The municipalities' submissions to National Treasury show that, in 2012/13, Nelson Mandela Bay gave away approximately 1% and Cape Town nearly 5% of their operating revenue.

Measuring revenue effort is very difficult, but a relative impression of the revenue effort can be obtained by applying one city's rates policy and collection strategies to another city's property stock. Table 24 shows the outcome of this analysis: each city's total property stock value (from Table 23) was multiplied by the other cities' revenue-to-value ratios. However, it should be noted that each city's property stock is made up of different categories of properties in varying proportions.

Table 24: City property stock swop analysis

	CPT	ETH	TSH	NMB
CPT	5 542 203 000	10 898 573 969	10 156 864 531	7 767 938 865
ETH	2 694 628 423	5 298 905 000	4 938 284 623	3 776 784 945
TSH	2 418 554 812	4 756 014 624	4 432 341 000	3 389 840 813
NMB	860 107 731	1 691 375 745	1 576 268 084	1 205 525 000

- If Cape Town applied its rates policy and collection strategy to the property stock of the other three cities, it would generate less revenue than the three cities currently do, i.e. R0.86-billion compared to R1.21-billion in Nelson Mandela Bay, R2.42-billion compared to R4.43-billion in Tshwane, and R2.69-billion compared to R5.30-billion in eThekwini.
- All three cities would collect more revenue from Cape Town's property portfolio than the R5.5-billion that Cape Town currently collects: eThekwini would generate nearly R11-billion (nearly 50% more), Tshwane would generate R10-billion and Nelson Mandela Bay would collect R7.7-billion.

This exercise is intended to give a rough, relative ranking of the cities' revenue policy and effort. It is not to encourage cities to adopt another cities' rates approach, but rather to highlight the differences that a shift in revenue effort might yield.

Rates revenue and indigents' policies and registers

When developing their indigents' policies, cities have to be sensitive to the genuine needs of households but also recognise that overly generous policies can affect their rates revenue. The key features of an indigent policy are:

- Criteria to define which households qualify for indigent support
- Specification of the kinds and extent/level of support to indigent households
- Description of the methodology used to provide or distribute indigent support
- Process to register indigent households
- Actions to prevent false information and other malpractices
- Procedures for exiting the indigent register

A municipality that effectively manages indigent policies includes in its budget a break-down of the transfers and grants to indigent households, with a description of how they are funded. In order to be sustainable, indigent policies are tailored to the specific needs in the community and the financial standing of the municipality (for example, not all groups may receive 100% rate rebates). The municipality also evaluates the indigent status of households after a prescribed time period.

A concern is that municipalities may be providing rates rebates, tax exemptions and free services to non-poor households. To get a measure of this, the MFMA Municipal Budget and Reporting Regulations require municipalities to disclose revenue foregone[27] and donations to individuals, as well as the revenue cost of all free services. Table 25 summarises each city's revenue foregone for property rates. This includes the mandatory R15,000 exemption and any other exemption provided by the city related to property rates.[28]

[27] Revenue foregone means that the revenue was never there to be collected because of a rates rebate, and so should not be considered to be revenue.
[28] This data was drawn from the National Treasury database as completed by cities themselves. It is therefore not clear whether this information is accurate or comparable across cities.

Table 25: Property rates revenue foregone

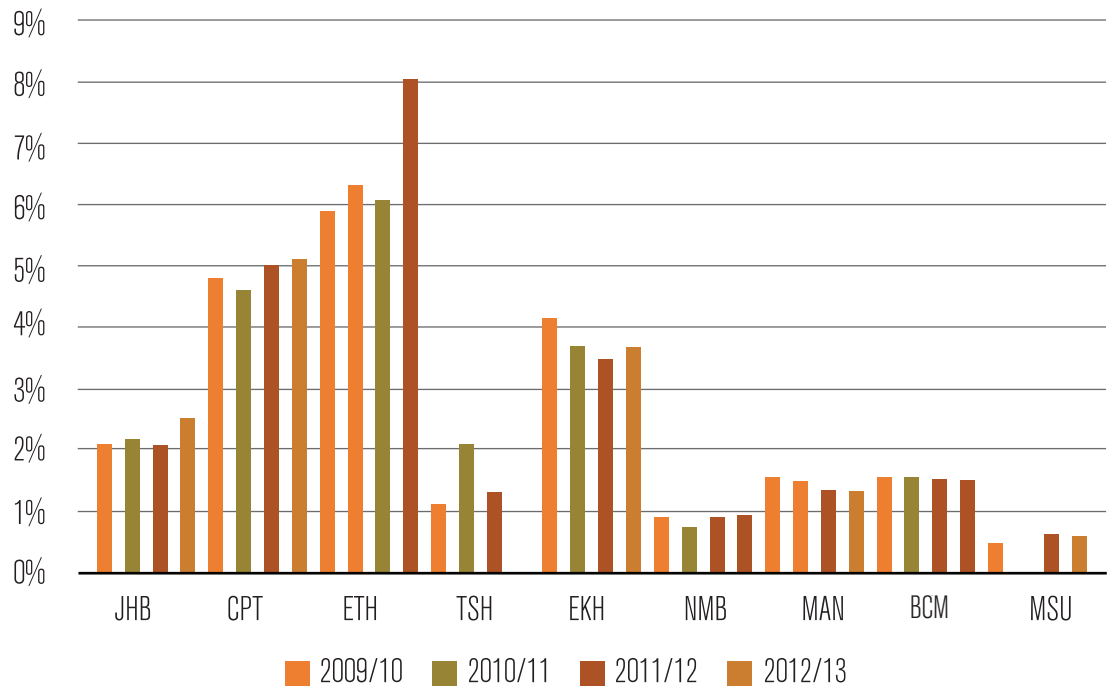
	2010	2011	2012	2013	Ave annual growth
JHB	515 974 000	607 261 000	649 089 000	773 073 000	14%
CPT	841 943 000	897 260 000	1 029 244 540	1 129 876 083	10%
ETH	1 068 973 000	1 205 698 000	1 205 698 000	1 585 842 000	14%
TSH	151 065 000	163 215 000	223 410 000	166 335 000	3%
EKH	599 557 186	619 596 394	664 602 146	715 204 862	6%
NMB	45 003 618	46 369 644	55 825 727	59 209 398	10%
MAN	38 925 224	43 594 301	47 519 738	53 009 495	11%
BCM	40 061 274	44 387 892	49 847 602	55 779 576	12%
MSU	12 955 025	-	16 430 848	17 623 468	11%

Source: National Treasury database

What is interesting is the vast difference in revenue foregone among the five big cities. In 2013, revenue foregone in eThekwini (R1.5-billion) was nine times higher than in Tshwane (R166-million). This could be because cities report differently on revenues foregone or simply indicate different indigent policies.

Providing relief indirectly assists municipalities with debt collection efforts, as those who cannot afford to pay are not included in debt collection. Figure 7 compares each city's rates revenue foregone as a result of rebates to operating revenue.

Figure 17: Property rates rebates vs. operating revenue



Source: Own calculations

In six of the nine cities, rebates represent less than 3% of operating revenue. For the other three cities, rebates as a percentage of operating revenue range from just under 4% (Ekurhuleni) to 7.5% (eThekwini). Whether 3% of operating revenue is a good threshold for providing enough relief can be questioned. However, it does provide municipalities with a benchmark against which to compare their own rebates policy.

Looking at the value exemption of residential property shows how much potential revenue cities 'give away'. The exemption value is obtained by applying the city's cents-in-rand rate to its rates rebate value.

Table 26: Potential revenue 'given away'

	2014	Rates rebate value	Exemption value
JHB	0.00616	R 200 000	R 1 232
CPT	0.00625	R 200 000	R 1 251
ETH	0.00976	R 185 000	R 1 806
TSH	0.00938	R 75 000	R 704
EKH	0.00796	R 150 000	R 1 194
NMB	0.00812	R 15 000	R 122
MAN	0.00578	R 70 000	R 405
BCM	0.00823	R 15 000	R 123
MSU	0.0086	R 15 000	R 129

Source: Cities' rates policies

As Table 26 shows, cities give away between R122 and R1806 in potential revenue per property per year. eThekwini gives away the largest amount, closely followed by Cape Town and Johannesburg.

The case of the pensioner

Cities have standard rates for each category of property. In order to bring relief to indigent households, cities provide rebates and exemptions. One particular category of relief is exemptions to pensioners, which recognise that many pensioners' incomes are reduced in retirement. Table 27 applies the rates and indigent policy of six cities to three different scenarios: where the pensioner's household has an income equivalent to two state pensions, an income of R50,000 per year, or an income of R100,000 per year. All households live in a property valued at R700,000.

Table 27: Comparative municipal bills for pensioners in different income bands

Total household income (property value R700,000)			
	Two state pensions	R50,000 per year	R100,000 per year
JHB	-	-	256.71
CPT	-	13.03	104.23
ETH	-	-	-
TSH	244.27	293.13	293.13
EKH	-	54.73	218.9
NMB	-	139.07	463.57

Taking into consideration any other rebates that may be applicable in a particular city, the following is found:

- Of the six cities, only in Tshwane do households with an income of two state pensions pay property rates.[29] This is mainly because of the low exemption for the first R75,000 value of property compared to other cities. It could be that the city neglected to change their indigent policy when the rating policy was changed in 2013/14, leading to the situation where low-income pensioners are harder hit than in the other five cities.
- Nelson Mandela Bay also has a low exemption value (the first R15,000) but pensioners are charged based on their income, according to a sliding scale. However, the rebate is only beneficial for those with an income lower than R100,000 (Cape Town's sliding scale assists pensioners earning less than R144,000 per year). Therefore, Nelson Mandela Bay has the highest charge for pensioners in the third scenario and could indicate that the city's rates policy is not keeping trend with income levels.
- eThekwini's indigent policy is structured in such a way that households in these three categories don't pay rates.

[29] A maximum/total rebate of 50% (on the remaining property tax, after the applicable residential rebates have been granted) will be granted to owners of rateable property subject to total gross income of the applicant and/or his/her spouse, if any, not to exceed the amount equal to twice the annual state pension (2 x R1350 or 2 x R1370 if older than 75), as approved by the National Government for a financial year (2014/15 Medium-term Revenue and Expenditure Framework for the City of Tshwane page 814)

Management of Property Rates

Managing property rates is about billing correctly and collecting what has been billed.

Billing systems

The limited research[30] that has been done on the completeness and correctness of municipal billing systems indicates that collectively municipalities are probably failing to collect as much as 15% of their own revenue each year due to incomplete billing. Problems that arise are generally related to the accuracy of municipal valuation rolls and billing systems. The cases that come to light usually relate to excessive billing – where customers have a clear incentive to complain – but instances of under-billing are likely. Billing problems can stem from inaccuracies in:

- The property valuation roll, which does not reflect the market value of all properties across the municipality.
- How properties are classified for the purposes of rating.
- The property ownership details, which are not checked against the Deeds Register.
- The administrative systems and processes used to compile and send out municipal accounts.
- The capturing of payments received and reconciled.

Guarding against fraud, often disguised as administrative errors, is important. For example, a seemingly 'innocent' misclassification of a residential property as an agricultural property can 'save' the ratepayer 75% on his or her rates bill.

Getting the property rates billing accurate takes a collective effort by all role-players in the property and revenue value chain, i.e. the Planning and Building Control Department, the Revenue Management function, the Valuations unit and the Deeds Registry within the municipality. When the information between these functions do not match, it is likely that the municipality's billing records do not reflect the correct property information or ownership information or both. The utility services data is also available to compare with the rates data to identify inconsistent categories. Most cities conduct reconciliation exercises on a regular basis. But this varies between municipalities depending on capacity.

Title deeds and ratepayers

As a direct consequence of the 1913 Land Act, many black households do not own the title deeds to the homes they occupy. In addition, certain of the RDP housing schemes have not transferred title deeds to the beneficiaries. In both instances, the land is very likely owned by the municipality or provincial/national government, and is very unlikely to be registered for rates.

Recently, the Free Market Foundation initiated the Khaya Lam (my house) land reform pilot project, which targets apartheid-era properties in which black families have occupation rights but not ownership. The project is a partnership with the Ngwathe Municipal Council to carry out the conversion of all municipal rental housing into ownership, through the granting of title deeds to registered tenants of these properties. Local farmers have also joined the initiative in relation to tenants on farms. The result is that about 490 households will receive title deeds to their homes. A similar initiative within metros could potentially expand the municipalities' rates bases. Although many of the households may be indigent and qualify for rates rebates, many would become ratepayers.

See, Transformation through Ownership: ending 100 years of property deprivation http://www.freemarketfoundation.com/issues/

[30] This research is conducted for municipalities in revenue enhancement projects and is very rarely placed in the public domain.

Management of bad debtors

One of the key challenges facing most municipalities is the payment of bills. The difference between revenue and cash is that cash can fund expenditure, but revenue cannot. A municipality can send out as many bills as it likes, but they mean nothing or very little unless it can enforce payment.

Consumer debtors as a percentage of own revenue provides a useful indicator of the state of municipal debtor management capabilities (National Treasury, 2014: 21).

Table 28: Consumer debtors as a percentage of own revenue

	2009	2010	2011	2012	2013	2014
JHB	48%	55%	66%	66%	71%	73%
CPT	35%	40%	41%	42%	39%	41%
ETH	27%	25%	25%	26%	27%	26%
TSH	39%	36%	35%	38%	45%	48%
EKU	68%	65%	70%	53%	61%	72%
NMB	35%	31%	32%	35%	42%	50%
MAN	45%	58%	40%	32%	35%	3%
BCM	34%	35%	26%	25%	25%	26%
MSU	25%	27%	42%	39%	48%	50%

Source: SACN Database (2014)

The previous State of Cities Report compared debtors to billed revenue. In this edition, consumer debt is compared to own revenue because National Treasury assesses municipalities' debtors in this way. It is a measure of financial distress because not collecting a large proportion of own revenue suggests that the municipality has serious financial problems.

At the end of 2013/14, six cities had debtors standing at over 30% of own revenue. However, it should be noted that Table 28 shows all debtors, not just debtors for rates. Compared to the other cities, eThekwini and Buffalo City have a consistently low ratio of debtors to own revenue, whereas Johannesburg and Ekurhuleni have had consistently high ratios since 2009.

Municipalities should consider the following in relation to billed revenue.

Willingness to enforce

The willingness to enforce can be categorised into three main areas: (1) A lack of political backing of revenue-enhancement programmes, and in some instances municipal councillors may be in arrears with their own municipal account payments.[31] (2) Inadequate capacity for collecting revenue, which may compromise the implementation of policies to enhance revenue. (3) Insufficient thought when designing the revenue management, indigent and debtor policies, which may have a detrimental impact on municipal revenue collection efforts.

Willingness to pay

Certain communities resist paying for certain types of services for various reasons, which will vary from community to community. Common reasons include the supposed culture of non-payment and ratepayer boycotts, which may be caused by the deteriorating service delivery or the perception that the municipality is unresponsive to community concerns.

Ability to pay

A household's ability to pay is affected by high increases in electricity charges, the economic slowdown and unemployment. The consumptive services introduced by municipalities can help households to make their total municipal account more affordable.

[31] National Treasury 2014: State of Local Government Finances Report

The scope for improving own revenues by enforcing payment of current bills and collecting outstanding debtors is large. Cities should therefore pay attention to ensuring that mechanisms are in place to carry out these functions effectively. The Metro CFO Revenue Working Group of the Institute of Municipal Finance Officers (IMFO) created the platform for the exchange of best practices between metros and other interested municipalities.

Conclusion

As this chapter illustrates, cities choose different strategies to rating properties, within the limits imposed by national legislation and regulations. To a certain extent, a city's strategy will be influenced by the composition of its property portfolio. Nevertheless, cities have the potential to increase the revenue from property rates, Property rates account for up to 22% of city operating revenue and represent one of the most important revenue sources because cities can allocate it according to its priorities.

A range of factors influence how much rates revenue a city collects. First, the base on which property rates are levied, i.e. the market value, which is a stable base but is also influenced by the prescribed five-year revaluation period. This stable base hampers the extent to which cities can raise additional revenue from this source. The make-up of a city's property stock also varies, which means that some cities are harder hit by certain of the MPRA regulations than others, while others can rely more strongly on revenue from commercial properties.

Nevertheless, while cities can do little to change the make-up of their property stock in the short term, they can:

- Influence property stock by creating a more conducive business environment, thereby improving the demand for commercial properties, from which cities can gain a higher return.
- Encourage more development in strategically located areas by reviewing the ease with which new developments are assisted through the rezoning and development applications.
- Improve infrastructure and services in strategically located areas, which increases the value of properties and result in higher rates bills in the future. These higher returns can be used to address backlogs in other areas where the city may not receive rates revenue.

The structure and level of rates charged also influence the city's revenue from its property portfolio. Cities treat properties very differently, even within the respective property categories. For example, rates on residential property in cities range between 0.00578 and 0.01043 cents in the rand, whereas commercial properties range between 0.0125 and 0.0283. Cities also provide different rebates and exemptions. Rebates and exemptions provide needed relief to individuals and assist with debt collection efforts, but need to be balanced with their impact on full-paying individuals. Revenue forgone through rebates and exemptions also needs to be recouped from somewhere, which in most instance is through higher rates to paying households. Therefore, cities need to regularly assess their rates policy and its impact on paying and non-paying ratepayers as well as on the city budget.

Other factors influencing revenue collection include the completeness of a municipality's property register and billing processes, and the management of payment processes and bad debtors. The scope for improving own revenues by enforcing payment of current bills and collecting outstanding debtors is large. The willingness of municipalities to enforce is a concept that needs to be explored and emphasised more rigorously across local government as a whole.

To conclude, cities have the power to generate more revenue than they currently do through property rates. Each city could benefit from re-evaluating their existing property rating strategy, to assess whether it is maximising revenue potential in an equitable and affordable way. National government needs also to be mindful of municipal fiscal space when placing further restrictions on cities' revenue-raising powers through regulations.

5

Affordability of Domestic Rates and Service Charges

written by Conrad Barberton with Vailet Mukotsanjera- Kowayi

Affordability of Domestic Rates and Service Charges

The focus of this chapter is on the affordability of domestic rates and service charges of the cities. As such it speaks directly to the ability-to-pay principle. It extends the analysis presented in Chapter 2 of the State of City Finances 2013 Report (SACN, 2013) to cover 2013 and 2014. Like the 2013 study, this chapter asks whether cities are 'pricing themselves out of the market', by imposing increasingly unaffordable municipal service charges on households. One of the key aims of this chapter is to explore whether cities' rates and service charges result in municipal bills that are progressive or regressive relative to households' incomes. A municipal bill is considered progressive if households earning higher incomes pay proportionately higher municipal bills than those earning less income, whereas regressive is when poorer households are paying a greater percentage of their incomes than wealthier households. Exploring this involves looking at how cities have applied the ability-to-pay principle, particularly the concept of vertical equity, when setting their rates and service charges. As the authors of the 2013 study noted, affordability is not a straightforward concept, especially when dealing with city services. For example, households may quite reasonably be expected to react to some price increases by curtailing their consumption, thereby preserving affordability. However, this is not really an option where household incomes and per capita consumption levels are already low.

The 2013 study examined 'the affordability of metropolitan taxes and service charges to households' between 2009 and 2012, using data for SACN member cities. Information on the actual service charges and property taxes imposed by the cities was combined with a variety of other data in order to specify more closely the nature and extent of the increases, assess their affordability to households, compare across cities, and examine the implications for future city finances. This chapter uses the same methodology and supporting data as the previous study, so the results are fully complementary.

Key Taxation Principles

In providing services, cities incur costs that need to be covered from the income they receive from the local government equitable share and other grants, rates, taxes, services charges and other fees. According to the National Treasury (2011: 39) when setting property rates, service charges and other fees, municipalities need to consider two key principles of taxation:

- **The benefit principle** captures the idea that payments should be related to benefits. Customers need to have the sense that they are getting 'value for money' for the taxes and charges they pay. In this regard, one needs to distinguish between individual benefit and general benefit. Individual benefit means that the amount an individual is required to pay for a public service should be more or less equal to the benefit that the individual derives from consuming that service. General benefit refers to a situation where beneficiaries of a particular public service do not necessarily derive individual benefits equal to individual costs, but the benefits of all beneficiaries are equated with the cost to all beneficiaries.
- **The ability-to-pay principle** captures the idea that beneficiaries pay taxes according to their income-generating capacity, so as to foster greater social equity. It is customary to distinguish between horizontal equity and vertical equity. Horizontal equity is generally accepted to mean that those with the same incomes should pay the same amount of tax, while vertical equity means that those earning higher incomes should pay proportionately higher taxes than those earning less income, i.e. the taxes should be progressive.

Evaluating whether the customers of the different cities feel they are getting 'value for money' for the taxes and charges they pay lies beyond the scope of this study. However, it is an important question because it directly affects customers' willingness to pay. If the general sense is that the city is delivering services effectively and efficiently, customers are more likely to be willing to pay their municipal bills. However, if the lived experience is that the city is failing to provide reliable, quality services, this invariably translates into an unwillingness to pay, making it harder for the city to collect its income. It may also lead to other actions such as payment boycotts and service delivery protests.

Standard Packages of Services

To compare like with like, the methodology followed is the same as in the 2013 report. The charges imposed for four standard 'baskets of services' (Types A to D) are traced for each city across 2010 to 2014. These standard baskets are specified in terms of a property value, a monthly electricity consumption in kilowatt hours (kWh), a monthly water consumption in kilolitres (kl) and a weekly solid waste service (removal of a 240 litre bin). A 'total municipal bill' can be calculated by looking up charges for sanitation and other monthly charges added to household bills in the cities' annual tariff tables, and adding value added tax (VAT) as required. The characteristics of the standard baskets of services used in the analysis are as follows:

TYPE A is a household that lives in a property with an assessed value of R100,000, consumes 400 kWh of electricity and 20 kl of water per month, and has a 240 litre bin removed weekly.

TYPE B is a household that lives in a property with an assessed value of R250,000, consumes 500 kWh of electricity and 25 kl of water per month, and has a 240 litre bin removed weekly.

TYPE C is a household that lives in a property with an assessed value of R500,000, consumes 800 kWh of electricity and 30 kl of water per month, and has a 240 litre bin removed weekly.

TYPE D is a household that lives in a property with an assessed value of R1,000,000, consumes 1500 kWh of electricity and 40 kl of water per month, and has a 240 litre bin removed weekly.

Table 29 summarises the standard packages.

Table 29: Standard service packages

Service packages	Property value (R)	Electricity consumption (KWH/Month)	Water consumption (KL/Month)	Solid Waste (weekly removal of a 240l bin)
TYPE A	100 000	400	20	1
TYPE B	250 000	500	25	1
TYPE C	500 000	800	30	1
TYPE D	1 000 000	1500	40	1

The following charges are added to these standard packages:

- Sanitation (the charging methodology varies across municipalities but is generally linked to water consumption).
- Other standard monthly service charges added to household bills.
- VAT on service charges (i.e. excluding rates).

When calculating the municipal bill for each type of household, the following additional assumptions applied:

i) The rates and service charges are residential tariffs applicable to formal settlements.

ii) The rates and service charges are for 'normal' households and so do not take into consideration household characteristics such as pensioners, child-headed households and indigent households.

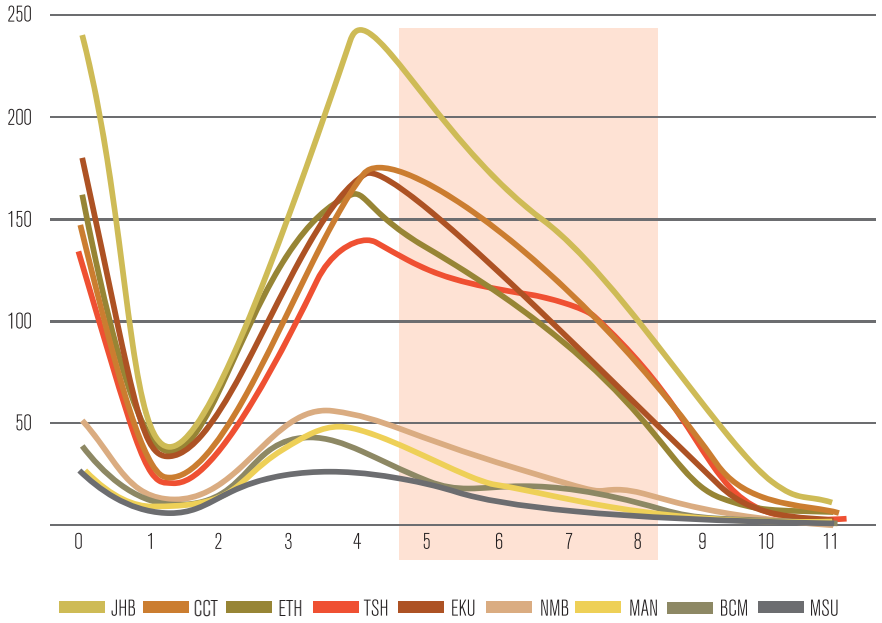
iii) The water charges are for direct metered connections to the municipal water reticulation system, with no flow restriction or water consumption management meter.

iv) The electricity charges are for residential customers with single-phase 230V or multi-phase 400/230V connections with a capacity of up to 80A per phase. Types A and B are assumed to have pre-payment meters, while Types C and D are assumed to have credit meter arrangements.

Benchmark Household Incomes

The affordability of service charges can only be measured in relation to household income. The 2011 Census data is used for the distribution of household incomes, to create benchmark household income categories. The households in these income categories are presumed to consume the corresponding service packages. It is important to note that the different distribution of household incomes in each city may inform the tariff-setting strategies of the municipalities. Figure 18 illustrates the distribution of household incomes per city.

Figure 18: Household income profiles of the cities (2011 rands)



Income bands – monthly income	
0	0
1	1–400
2	401–800
3	801–1600
4	1601–3200
5	3201–6400
6	6401–12 800
7	12 801–25 600
8	25 601–51 200
9	51 201–102 400
10	102 401–204 800
11	240 801+

Source: Stats SA (2011)

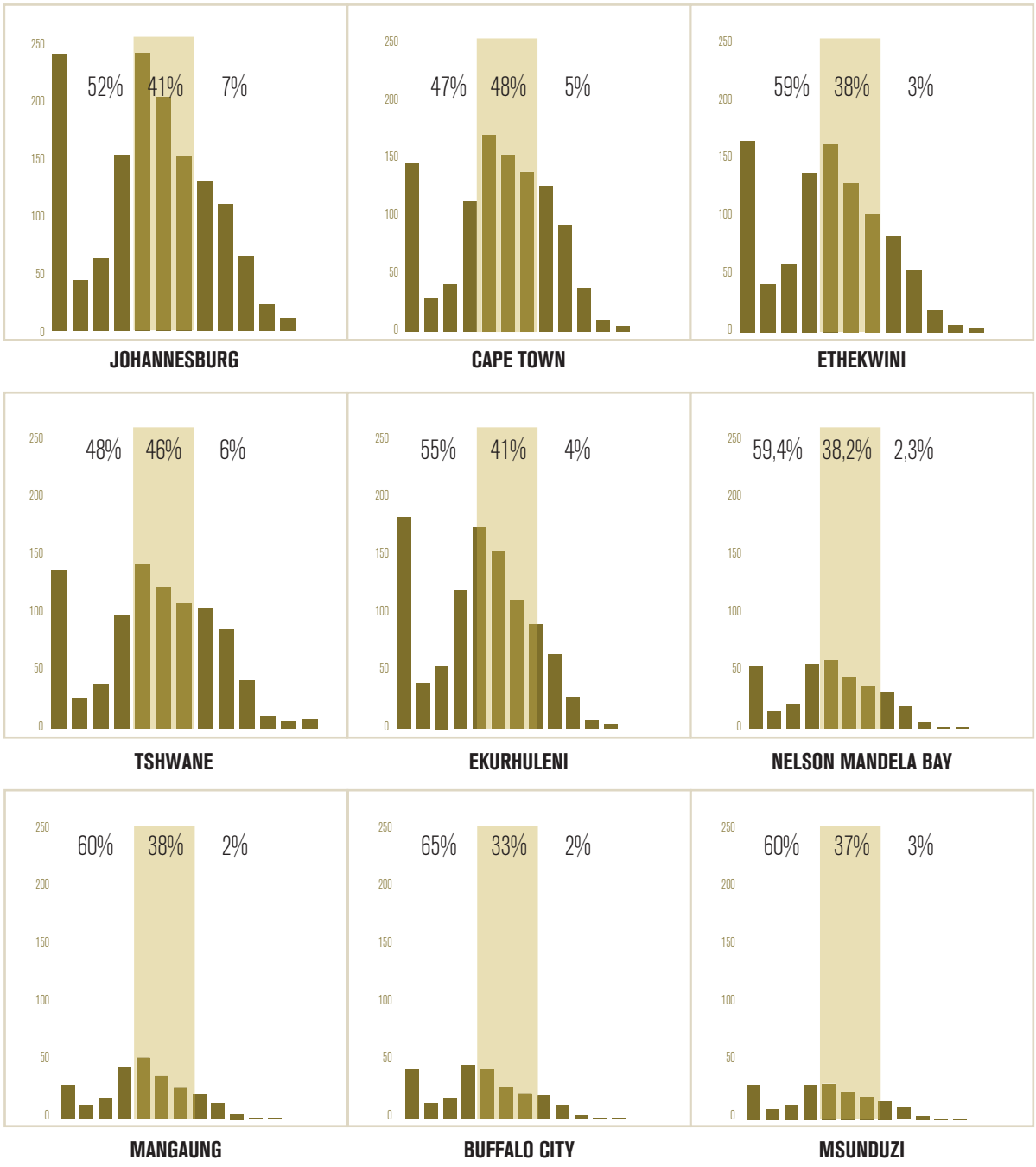
Figure 18 highlights three broad groups of household incomes:

- **Income bands 0 to 4** (households with incomes below R3200 per month) make up around 53% of all city households. Most of these households should not be liable for any municipal taxes and service charges in terms of the indigent policies of the cities, provided they manage to keep within specified consumption limits.[32]
- **Income bands 5 to 8** (households with incomes between R3200 and R51,200 per month) make up 42% of all city households. These households are liable for rates and service charges.[33]
- **Income bands 9 to 11** (households with incomes of above R51,201 per month) constitute only 5% of all city households and can certainly afford to pay their municipal bills.

[32] In addition, many of these households are likely to be in settlement types that do not receive formal municipal services.
[33] Although some households with incomes at the upper end of Band 4 may be liable for municipal taxes and service charges, it was felt best to avoid analytical complications by starting with Band 5.

Figure 19 provides more detail on individual city household income distributions, also highlighting bands 5–8.

Figure 19: Household income profiles by city



Source: Stats SA (2011)

As Figure 19 shows, the distribution of household incomes differs widely across cities and, therefore, each municipality needs to adopt revenue-raising strategies tailored to its particular circumstances. Buffalo City faces the greatest revenue-raising challenges, as 65% of its households fall within the income bands 0 to 4.

A benchmark household income for each of the income bands 5–8 is associated with the appropriate service package. Table 30 shows the 2012 benchmark incomes associated with each service package (SACN, 2013). For 2010 and 2014, the 2012 benchmark incomes were adjusted for inflation using the average metropolitan inflation rate.

Table 30: Monthly income distribution and benchmark household incomes (2010, 2012, 2014)

Income band	Income range (2011 rands/month)	2010 Benchmark (rands/month)	2012 Benchmark (rands/month)	2014 Benchmark (rands/month)	Associated service package
0	0				
1	1–400				
2	401–800				
3	801–1600				
4	1601–3200				
5	3201–6400	5403	6000	6742	Type A
6	6401–12 800	10 805	12 000	13 484	Type B
7	12 801–25 600	21 610	24 000	26 968	Type C
8	25,601–51,200	43,221	48,000	53,936	Type D
9	51,201–102,400				
10	102,401–204,800				
11	204,801+				

Composition of Municipal Bills

The composition of household municipal bills depends on the structure of the rates and services charges, and the relative prices and quality of the different services consumed by the households. Table 31 shows the average composition of the municipal bill for each of the service packages based on the bills charged in the nine cities.

Table 31: Average composition of municipal bill by package type (2014)

	Average cost in nominal Rands				Cost of item as % of total			
Taxes and service charges	Type A	Type B	Type C	Type D	Type A	Type B	Type C	Type D
Property taxes	19	106	269	594	2%	7%	11%	13%
Electricity basic levy	81	81	81	81	7%	5%	3%	2%
Electricity charges	451	590	1100	2284	41%	39%	45%	51%
Water basic levy	10	10	10	10	0.90%	0.70%	0.40%	0.20%
Water charges	227	313	391	614	20%	20%	16%	14%
Sanitation	119	163	210	262	11%	11%	9%	6%
Solid waste removal	56	80	90	110	5%	5%	4%	2%
Other	10	10	10	10	0.90%	0.70%	0.40%	0.20%
VAT on services	134	175	265	472	12%	11%	11%	11%
Total	1106	1528	2428	4437	100%	100%	100%	100%

- Electricity charges (including the basic levy) account for the largest percentage of cities' municipal bills for all packages, ranging from 48% for Type A to 53% for Type D. Water charges (including the basic levy) are the second largest item, accounting for between 15% for Type D and 21% for Type A. Property taxes as a percentage of municipal bills increase across the packages, from 2% for Type A to 13% for Type D. This confirms that property rates are generally structured as a progressive tax.
- In 2014, only Johannesburg and Msunduzi still charged electricity basic levies, and only Nelson Mandela Bay and Msunduzi still charged water basic levies. These basic levies are uniform connection charges that are charged to all households and (as Table 30 illustrates) are regressive, i.e. represent a larger percentage of poorer households' bills compared to wealthier households' bills.
- Sanitation and solid waste removal charges as a percentage of the municipal bill tend to decline from Type A to Type D. The way cities structure these charges varies widely: some have progressive tariff structures, while others use flat rate tariffs or fixed charges, which are regressive.

These average bills hide significant variations between cities, as Table 32 illustrates. The table shows the composition of the municipal bills for each service package for Johannesburg and Nelson Mandela Bay (to present all cities would occupy too much space).

Table 32: Composition of municipal bill by package type for Johannesburg and Nelson Mandela Bay (2014)

	Johannesburg – 2014				Nelson Mandela Bay – 2014			
Taxes and service charges	Type A	Type B	Type C	Type D	Type A	Type B	Type C	Type D
Property taxes	0%	1%	6%	10%	6%	12%	14%	17%
Electricity basic levy	31%	22%	16%	10%	0%	0%	0%	0%
Electricity charges	33%	29%	37%	45%	38%	38%	48%	52%
Water basic levy	0%	0%	0%	0%	3%	2%	1%	1%
Water charges	14%	15%	15%	14%	19%	18%	13%	11%
Sanitation	9%	13%	9%	6%	16%	14%	10%	8%
Solid waste removal	0%	6%	6%	5%	7%	5%	3%	2%
Other	0%	0%	0%	0%	0%	0%	0%	0%
VAT on services	12%	12%	12%	11%	12%	11%	11%	10%
Total	100%	100%	100%	100%	100%	100%	100%	100%
Total bill (2014 Rands)	1269	1772	2524	4126	986	1361	2345	4011
Progressive-ness of bill	31%	43%	61%	100%	25%	34%	58%	100%

** Progressiveness of the bill shows the total bill for Type A, B and C as a percentage of Type D*

- **Property taxes.** These taxes make up significantly more of the municipal bill in Nelson Mandela Bay than in Johannesburg. Johannesburg gives all households a rebate of R200,000 on their property rates valuation, whereas Nelson Mandela Bay only gives the R15,000 rebate required by statute. The impact is that the rates tariff structure in Johannesburg is more progressive.
- **Electricity basic levy.** Johannesburg charges all households an electricity basic levy of R398, which represents 31% of the Type A bill but just 10% of the Type D bill, showing the highly regressive nature of this charge. Electricity charges make up 64% of the Type A package in Johannesburg but only 38% in Nelson Mandela Bay, which does not have an electricity basic levy.
- **Water basic levy.** Nelson Mandela charges all households a water basic levy of R30 in 2014. Although this charge is regressive in nature, its impact is relatively insignificant, as it represents only 3% of the Type A package. Johannesburg does not charge a water basic levy.
- **Sanitation.** Johannesburg charges a fixed fee for sanitation of R118 to Type A households and R230 to Type, B, C and D households. Nelson Mandela Bay charges all households a flat rate of R12.79 per kilolitre based on 60% of the household's water consumption. Both approaches are regressive in their impact, but Johannesburg's approach is more so.

- **Solid waste.** Johannesburg has a progressive solid waste removal tariff: Type A – R0, Type B – R110, Type C – R147 and Type D – R194. By contrast Nelson Mandela Bay charges a fixed tariff of R70 to all households. As a result, solid waste removal declines from 7% of the Type A package to 2% of the Type D package.

The cities' approach to setting tariffs for property rates and services differs, and understanding the impact of each approach across different types of packages is a complex task. However, from the household's perspective what matters *is the bottom line of the municipal bill*. The comparison in Table 31 finds that all the package types are cheaper in Nelson Mandela Bay than in Johannesburg, and that Nelson Mandela Bay's bills for all package types show a more progressive structure than those of Johannesburg, i.e. more pro-poor.

Increasing Cost of Municipal Bills

After the very rapid increases in electricity tariffs in 2009 and 2010, the rate of growth in property taxes and service charges has stabilised but has been consistently above the inflation rate across all cities. In certain cities, the rate of increase varies across service packages, suggesting deliberate restructuring of the city's revenue collection strategy.

Comparative costs of service packages

Table 33 compares the real cost (in 2012 rands) of the different service packages charged by the nine cities in 2010 and 2014, ranking them from lowest cost to highest cost. Table 34 then ranks the cities based on the percentage variation from the average price for each service package in 2010 and 2014.

Table 33: Monthly cost of packages A to D (2010 and 2014)

Cost in 2010 (2012 Rands)							
Type A		Type B		Type C		Type D	
CPT	516	EKU	766	EKU	1 388	EKU	2 591
EKU	550	ETH	903	ETH	1 473	NMB	2 616
ETH	591	MAN	982	NMB	1 538	MSU	2 742
MAN	618	NMB	999	AVE	1 684	JHB	2 856
NMB	762	CPT	1 041	CPT	1 693	BCM	2 888
AVE	786	AVE	1 114	BCM	1 778	AVE	2 925
BCM	885	BCM	1 142	MSU	1 796	ETH	3 016
TSH	943	TSH	1 247	MAN	1 803	CPT	3 025
JHB	978	JHB	1 383	TSH	1 841	TSH	3 119
MSU	1 230	MSU	1 564	JHB	1 841	MAN	3 472
Highest as % of lowest	238%		204%		133%		134%

Cost in 2014 (2012 Rands)							
Type A		Type B		Type C		Type D	
EKU	620	EKU	897	EKU	1 574	MSU	3 380
MAN	739	MAN	1 198	TSH	2 063	MAN	3 575
NMB	891	NMB	1 226	ETH	2 072	NMB	3 595
ETH	906	ETH	1 330	MAN	2 076	TSH	3 610
CPT	913	AVE	1 358	NMB	2 105	JHB	3 684
AVE	979	TSH	1 366	AVE	2 134	AVE	3 834
TSH	1 030	CPT	1 381	MSU	2 223	ETH	3 863
JHB	1 134	BCM	1 511	JHB	2 254	EKU	4 121
BCM	1 167	JHB	1 582	CPT	2 398	BCM	4 270
MSU	1 409	MSU	1 728	BCM	2 439	CPT	4 409
Highest as % of lowest	227%		193%		155%		130%

Table 34: Percentage variation from average cost of packages A to D (2010 and 2014)

Deviation in 2010							
Type A		Type B		Type C		Type D	
CPT	-34%	EKU	-31%	EKU	-18%	EKU	-11%
EKU	-30%	ETH	-19%	ETH	-12%	NMB	-11%
ETH	-25%	MAN	-12%	NMB	-9%	MSU	-6%
MAN	-21%	NMB	-10%	AVE	0%	JHB	-2%
NMB	-3%	CPT	-7%	CPT	1%	BCM	-1%
AVE	0%	AVE	0%	BCM	6%	AVE	0%
BCM	13%	BCM	2%	MSU	7%	ETH	3%
TSH	20%	TSH	12%	MAN	7%	CPT	3%
JHB	24%	JHB	24%	TSH	9%	TSH	7%
MSU	57%	MSU	40%	JHB	9%	MAN	19%
Spread	91%		72%		27%		30%

Deviation in 2014							
Type A		Type B		Type C		Type D	
EKU	-37%	EKU	-34%	EKU	-26%	MSU	-12%
MAN	-24%	MAN	-12%	TSH	-3%	MAN	-7%
NMB	-9%	NMB	-10%	ETH	-3%	NMB	-6%
ETH	-7%	ETH	-2%	MAN	-3%	TSH	-6%
CPT	-7%	AVE	0%	NMB	-1%	JHB	-4%
AVE	0%	TSH	1%	AVE	0%	AVE	0%
TSH	5%	CPT	2%	MSU	4%	ETH	1%
JHB	16%	BCM	11%	JHB	6%	EKU	7%
BCM	19%	JHB	17%	CPT	12%	BCM	11%
MSU	44%	MSU	27%	BCM	14%	CPT	15%
Spread	81%		61%		41%		27%

The cost of the service packages varies considerably, especially at the lower end. These variations reflect the cities' different approaches to the property tax policy and to pricing services (especially at lower levels of consumption).

- **Spread around the average.** In 2010, the Type A packages varied by 91% around the average, compared to 30% for Type D packages; Types B and C varied by 72% and 27% respectively. The 2014 data shows that the spread around the average for three of the four package types is narrowing.
- **Type A package.** In 2010, households in Cape Town were paying R516 for this package, while households in Msunduzi were paying R1230, i.e. 238% more. In 2014, households in Msunduzi were paying 154% more than households in Cape Town. The narrowing of the gap is explained by the different cost increases among cities, with Cape Town and eThekwini moving closer to the average. Between 2010 and 2014, Type A package increased by 77% in Cape Town (to R913) and 53% in eThekwini (to R906). In 2014, the average cost of the Type A service package was R979 per month, with Ekurhuleni the cheapest (37% below average) and Msunduzi the most expensive (44% above average).
- **Type B package.** In 2014, the average cost of the Type B service package was R1358 per month. Msunduzi was the most expensive (27% above average), and Ekurhuleni was the cheapest (34% below average). eThekwini moved from 19% below the average in 2010 to just 2% below in 2014, while Cape Town moved from 7% below the average in 2010 to 2% above the average in 2014.
- **Type C package.** In 2014, the average cost of the Type C service package was R2134 per month. Buffalo City was the most expensive (14% above average), and Ekurhuleni was the cheapest (26% below average). Between 2010 and 2014, Tshwane moved from 9% to just 1% above the average, while Mangaung moved from 7% above average to 3% below average.
- **Type D package.** In 2014, the average cost of the Type D service package was R3834 per month. Cape Town was the most expensive (15% above average), and Msunduzi was the cheapest (12% below average). Between 2010 and 2014, Ekurhuleni moved from being the cheapest in 2010 (11% below average) to being the third most expensive (7% above average) in 2014.

Probably the most striking feature of Tables 33 and 34 is the contrast between the tariff-setting strategies of Ekurhuleni and Msunduzi:

- In 2014 Ekurhuleni is the cheapest for Types A, B and C service packages (37%, 34% and 26% below average respectively), and the third most expensive for Type D packages (7% above average). This points to a deliberate policy of favouring poorer households and taxing wealthier households.
- In 2014 Msunduzi was the most expensive for Types A and B service packages (44% and 27% above the average respectively) and the cheapest for Type D packages (12% below average). In other words, Msunduzi is favouring wealthier households and taxing the poorer households.

JDA/SACN

Growth in the cost of service packages

The affordability of municipal services needs to be considered over time, taking into consideration the real growth in cost. To get real growth numbers, the nominal cost of the service packages in each city were deflated using the Consumer Price Index (CPI) Urban Series (2012 = 100). This CPI series gives the inflation rate in each city, which is a better measure than the national CPI of the inflation experienced by households in the different cities.

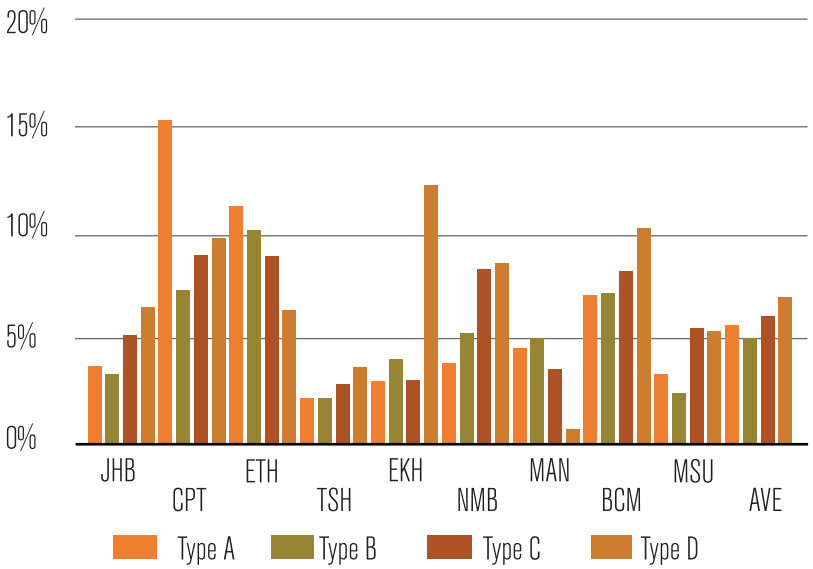
Table 35 and Figure 20 show the average annual real growth in the cost of the four types of services packages between 2010 and 2014. Adding the average annual CPI to the relevant real growth rate gives an idea of the average cost increase in the service packages that households actually saw on their municipal bills. For example, in Cape Town the cost of the Type A package grew at an annual average real rate of 15.3%. However, households would have seen a 20.7% nominal increase (15.3% + 5.4%) in their municipal bills each year between 2010 and 2014. In fairness, it should be noted that this growth was off a low base, as Cape Town's Type A package was the cheapest in 2010.

The highlighted cells in Table 35 show where the growth was greater than the average annual growth for that particular service package.

Table 35: Average annual real growth in the cost of service packages (2010–2014)

City	Type A	Type B	Type C	Type D	Average annual CPI (2010 to 2014)
JHB	3.80%	3.40%	5.20%	6.60%	5.30%
CPT	15.30%	7.30%	9.10%	9.90%	5.40%
ETH	11.30%	10.20%	8.90%	6.40%	5.50%
TSH	2.20%	2.30%	2.90%	3.70%	5.70%
EKU	3.00%	4.00%	3.20%	12.30%	5.90%
NMB	4.00%	5.30%	8.20%	8.30%	5.60%
MAN	4.60%	5.10%	3.60%	0.70%	6.10%
BCM	7.20%	7.30%	8.20%	10.30%	5.80%
MSU	3.40%	2.50%	5.50%	5.40%	5.90%
Average	5.60%	5.10%	6.10%	7.00%	5.60%

Figure 20: Average annual real growth in the cost of service packages (2010–2014)



Between 2010 and 2014, the cost of the four service packages in all cities increased faster than the CPI Urban Series, i.e. households' municipal bills became more expensive relative to most other goods and services. Cities with the highest rates of growth were Cape Town, eThekwini, Buffalo City and Nelson Mandela Bay.

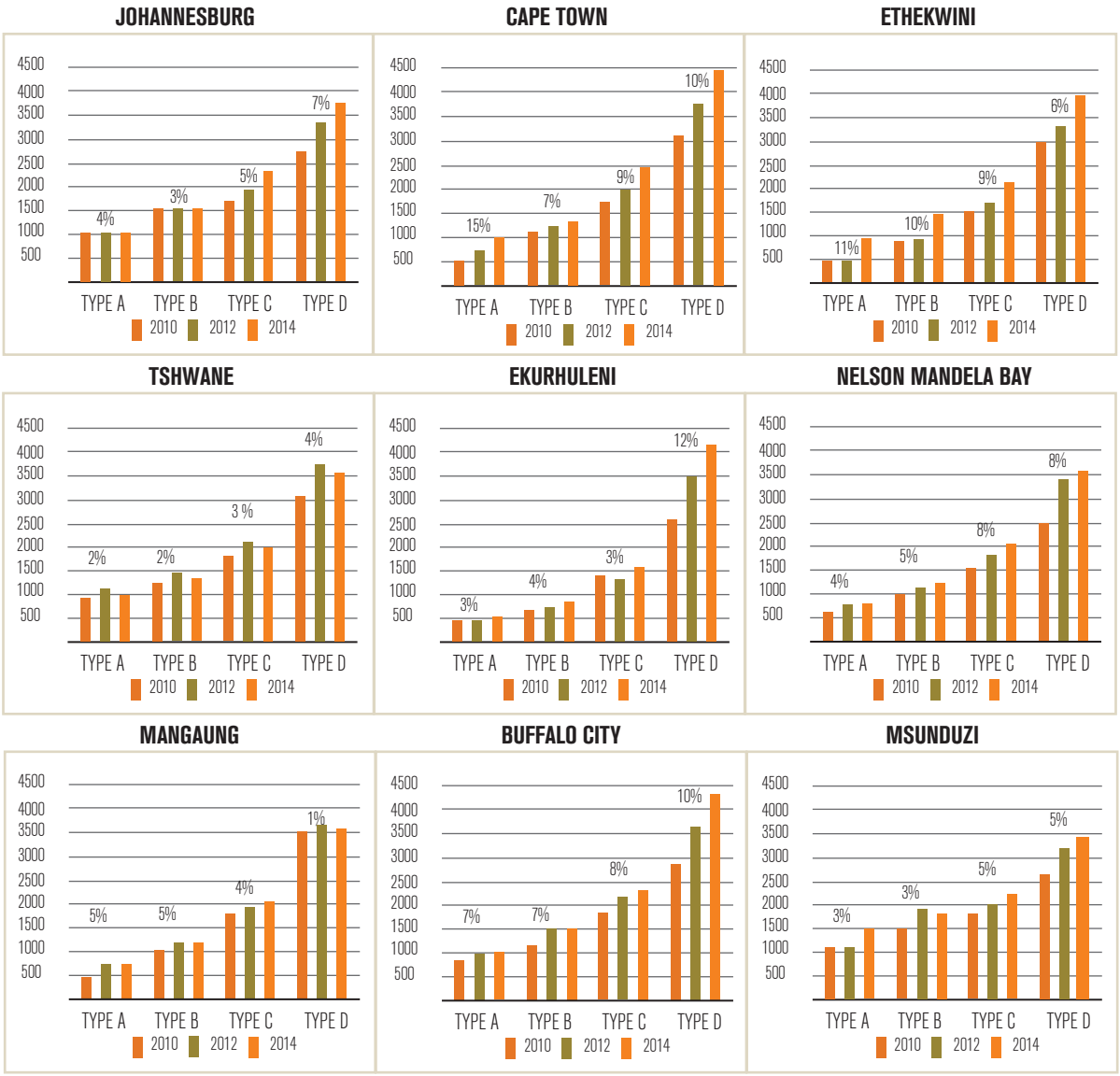
Most cities adopted tariff strategies that increased the progressivity of their rates and services charges, as the cost of the Type C and D packages grew faster than the Type A and B packages. Exceptions to this general trend are:

- **eThekwini** appears to have adopted a deliberate strategy to reduce the progressivity of its tariff structure. In 2010, eThekwini had some of the lowest cost Type A, B and C packages, and so the growth in these packages has been off a low base. This strategy seems to be aimed at ensuring effective cost recovery at the lower end of the tariff structure in line with the benefit principle (described on page 78).
- **In Mangaung,** the cost of the Type D service package grew at an average annual rate of 0.7%. This is the lowest growth rate of all service packages across all cities and well below the growth rate of the other packages in Mangaung: Type A, B and C packages grew at 4.6%, 5.1% and 3.6% respectively. This very slow growth rate resulted in Mangaung's Type D package moving from being the most expensive (19% above the average) in 2010 to being the second cheapest (7% below average) in 2014.
- **Cape Town** saw the cost of the Type A service package grow at an average annual rate of 15.3%, which is the fastest growth rate of all service packages across all cities and more than 5% above the growth of any of the city's other service packages. This rapid growth has been off a low base, as in 2010 Cape Town's Type A package (at R516) was the cheapest of all services packages across all cities and 34% below the average. In 2014, Cape Town's Type A service package was still 7% below the average cost of Type A packages.
- **Tshwane** shows the lowest growth across three of the four service packages between 2010 and 2014. However, in 2010 Tshwane was charging well above average for all its service packages (20%, 12%, 9% and 7% above average for Types A, B, C and D respectively), and so essentially the city is 'maintaining' tariff levels at their already high rates.
- Between 2010 and 2014, **Ekurhuleni** increased the cost of its Type D package by an annual average rate of 12.3%, while the cost of its other packages grew by 4% or less. In 2014, Ekurhuleni's Type A package cost 15% of its Type D package, which is the greatest gap between these two packages across all the cities. For the other cities, the gap between Type A and Type D varies from around 20% in Cape Town to 39% in Mangaung.

Figure 21 shows graphically the trends and the relative cost of the services packages across the cities.

Kamohelo Mabote

Figure 21: Real growth in the cost of service packages by city (2012 rands)



Sources of growth in the cost of service packages

To understand what is driving increases in households' municipal bills requires analysing the changes in the cost of each item on the bill, and the relative importance of that item. In Table 36, the bottom line shows the real increase in cost (2012 rands) of each package between 2010 and 2014, while the other lines show each item's contribution to that increase. The shading highlights the numbers that contributed the most to the increase in cost. Negative numbers show that the item's contribution has declined.

Table 36: Sources of growth in the cost of service packages between 2010 and 2014

Type A	JHB	CPT	ETH	TSH	EKU	NMB	MAN	BCM	MSU	Average
Property taxes	-11%	0%	0%	-3%	0%	7%	-6%	9%	0%	0%
Electricity (basic levy)	33%	0%	0%	0%	0%	0%	0%	0%	32%	8%
Electricity charges	41%	60%	58%	47%	55%	24%	50%	56%	-2%	43%
Water (basic levy)	0%	0%	0%	-22%	0%	4%	0%	0%	7%	-1%
Water charges	13%	15%	10%	19%	13%	23%	25%	15%	46%	20%
Sanitation	11%	12%	20%	13%	12%	26%	6%	5%	9%	12%
Solid waste removal	0%	0%	0%	17%	8%	5%	12%	8%	-3%	4%
Other	0%	0%	0%	17%	0%	0%	0%	-4%	0%	1%
VAT on services	14%	12%	12%	13%	12%	11%	13%	11%	12%	12%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Real increase in cost (2012 Rands)	156	397	315	87	70	125	121	282	179	192
Type B	**JHB**	**CPT**	**ETH**	**TSH**	**EKU**	**NMB**	**MAN**	**BCM**	**MSU**	**Average**
Property taxes	-15%	1%	2%	4%	4%	12%	-5%	15%	1%	2%
Electricity (basic levy)	24%	0%	0%	0%	0%	0%	0%	0%	28%	6%
Electricity charges	38%	50%	52%	45%	48%	30%	51%	54%	0%	41%
Water (basic levy)	0%	0%	0%	-17%	0%	2%	0%	0%	6%	-1%
Water charges	16%	19%	24%	20%	14%	21%	19%	17%	47%	22%
Sanitation	16%	16%	10%	11%	11%	21%	13%	1%	8%	11%
Solid waste removal	7%	2%	0%	13%	11%	3%	9%	6%	-3%	5%
Other	0%	0%	0%	13%	0%	0%	0%	-3%	0%	1%
VAT on services	14%	12%	12%	12%	12%	11%	13%	10%	12%	12%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Real increase in cost (2012 Rands)	199	340	427	119	131	232	216	369	164	244
Type C	**JHB**	**CPT**	**ETH**	**TSH**	**EKU**	**NMB**	**MAN**	**BCM**	**MSU**	**Average**
Property taxes	-6%	2%	4%	9%	6%	12%	-5%	17%	2%	5%
Electricity (basic levy)	15%	0%	0%	0%	0%	0%	0%	-2%	17%	3%
Electricity charges	48%	65%	56%	50%	62%	54%	59%	50%	30%	53%
Water (basic levy)	0%	0%	0%	-10%	0%	1%	0%	0%	4%	0%
Water charges	13%	13%	19%	16%	8%	9%	15%	14%	33%	15%
Sanitation	10%	11%	7%	8%	5%	12%	12%	9%	5%	9%
Solid waste removal	7%	-2%	2%	8%	8%	1%	6%	4%	-2%	3%
Other	0%	0%	0%	8%	0%	0%	0%	-2%	0%	0%
VAT on services	13%	12%	12%	11%	12%	11%	13%	10%	12%	12%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Real increase in cost (2012 Rands)	413	705	599	222	185	586	272	662	428	452
Type D	**JHB**	**CPT**	**ETH**	**TSH**	**EKU**	**NMB**	**MAN**	**BCM**	**MSU**	**Average**
Property taxes	0%	3%	6%	12%	3%	14%	-6%	17%	2%	6%
Electricity (basic levy)	8%	0%	0%	0%	0%	0%	0%	-1%	11%	2%
Electricity charges	58%	64%	65%	57%	79%	56%	54%	49%	40%	61%
Water (basic levy)	0%	0%	0%	-6%	0%	1%	0%	0%	2%	0%
Water charges	12%	11%	20%	13%	3%	9%	17%	18%	29%	13%
Sanitation	5%	10%	-4%	4%	2%	9%	14%	6%	3%	5%
Solid waste removal	4%	1%	2%	4%	2%	1%	8%	2%	-1%	2%
Other	0%	0%	0%	4%	0%	0%	0%	-1%	0%	0%
VAT on services	12%	12%	12%	11%	12%	11%	13%	10%	12%	12%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Real increase in cost (2012 Rands)	828	1384	847	491	1530	1026	103	1382	638	914

Not unexpectedly, between 2010 and 2014 the increase in **electricity charges** accounted for the largest percentage of the increase in municipal bills across all packages for all cities.

- In Ekurhuleni, electricity charges accounted for 79% of the increase in the Type D package. This can be attributed to the city adopting a very steeply increasing block tariff for electricity in 2013 (which became even steeper in 2014).
- In Johannesburg, the electricity basic levy contributed 33% of the increase in the Type A package. Combined with the 41% increase in electricity charges, this means that electricity contributed to 74% of the increase in the Type A package in Johannesburg.
- In Msunduzi, the electricity basic levy contributed 32% to the increase in the Type A package, while electricity charges contributed a reduction of 2%. This followed the introduction of 70kWh free electricity for all households in 2013.

Increases in **water charges** accounted for the second highest share of the increase in bills, ranging from an average of 20% for Type A packages to 13% for Type D packages.

- Msunduzi decreased the cost of electricity but increased the cost of water significantly between 2010 and 2014. Increases in the water basic levy and water charges accounted for 53% of the increase in the cost of both the Type A and B packages.
- Tshwane discontinued its water basic levy in 2013, which explains the cost reductions for this item.

Increases in **sanitation charges** contributed the third highest share of the increase in the cost of Type A packages, but contributed a declining share to the other packages.

- Nelson Mandela Bay increased its flat rate charge for sanitation very significantly over the period, resulting in sanitation contributing 27% of the cost increase in the Type A, 22% in the Type B, 13% in the Type C and 10% in the Type D package.
- In 2013, eThekwini converted its sanitation tariff from a fixed rate charge to a uniform fixed charge, which had a large impact on the cost of the Type A package and a progressively smaller impact on the other package types.

Increases in **property rates** contributed very little to the growth in municipal bills between 2010 and 2014. In many municipalities, the adoption of higher rates rebates resulted in a saving for the Type A packages.

- Johannesburg introduced a rebate of R150,000 in 2011, increased to R200,000 in 2013. Together with the changes in the actual rates, this resulted in property rates being held steady for the Type D package, and reducing for all the other package types.
- In 2013, Mangaung increased its rebate from R40,000 to R70,000 and significantly reduced its property rate for residential customers. This resulted in municipal bills for all package types reducing by around 5%.
- In 2013, Tshwane converted its rebate policy from a R50,000 + 35% of value rebate applied to all residential properties to a simple R75,000 rebate. This change reduced the cost of the Type A package by 3%.

VAT contributed between 10% and 14% to the increase in municipal bills of all package types. This is because 14% VAT is charged on all increases in service charges. Property rates do not incur VAT because they are a tax (not a service), and so VAT does not increase when property rates increase. This explains why VAT's contribution to the increase in the bill is less than 14% for some service packages.

Affordability of Municipal Bills

The affordability of municipal bills depends in part upon the rates and charges themselves (as discussed above) and in part upon household incomes. As Figure 19 on page 81 shows, the household income profiles of each city are different, but cities also have different compositions of ratepayers and customers (including households). This means that each city faces unique challenges in structuring its tariffs to ensure the municipality is funded, while keeping municipal bills affordable for the full spectrum of ratepayers and customers.

The economic circumstances of cities' customers are also not static. Economic growth rates differ across cities, so incomes may grow in one city and decline in another over the same period of time. Consequently, mana ging a city's tariff structures to ensure municipal bills remain affordable is a dynamic process. Each year, when reviewing its tariff structures, a city needs to take into account what has been happening to its customers' incomes, what other charges they are expected to pay (such as rising fuel prices and e-tolls) and the impact of national tax increases on their disposable income. This makes setting tariffs within the municipal context a complex and complicated exercise.

The affordability of municipal bills cannot be viewed in isolation. If the revenue-raising activities of national and provincial government do not leave enough room for municipalities to raise their fair share of revenue, then the responsibility for municipal bills being unaffordable should not lie solely at the door of municipalities. This issue is particularly pertinent within the current environment, given developments related to e-tolls, rising bulk tariffs for electricity and national government's raising of personal income taxes.

Cost of service packages relative to household incomes

To assess changes in the affordability of municipal bills, the cost of service packages Types A to D in each city are compared with the benchmark household real incomes (2012 rands) for each type.

Table 37: Cost of packages A to D in 2010 and 2014 as a percentage of benchmark incomes, ranked by city

2010							
Type A		Type B		Type C		Type D	
CPT	10%	EKU	7%	EKU	6%	EKU	6%
EKU	10%	ETH	8%	ETH	7%	NMB	6%
ETH	11%	MAN	9%	NMB	7%	MSU	6%
MAN	11%	NMB	9%	AVE	8%	JHB	7%
NMB	14%	CPT	10%	CPT	8%	BCM	7%
AVE	15%	AVE	10%	BCM	8%	AVE	7%
BCM	16%	BCM	11%	MSU	8%	ETH	7%
TSH	17%	TSH	12%	MAN	8%	CPT	7%
JHB	18%	JHB	13%	TSH	9%	TSH	7%
MSU	23%	MSU	14%	JHB	9%	MAN	8%
Benchmark incomes (2012 Rands)							
54027		10805		21610		43220	

2014							
Type A		Type B		Type C		Type D	
EKU	9%	EKU	7%	EKU	6%	MSU	6%
MAN	11%	MAN	9%	TSH	8%	MAN	7%
NMB	13%	NMB	9%	ETH	8%	NMB	7%
ETH	13%	ETH	10%	MAN	8%	TSH	7%
CPT	14%	AVE	10%	NMB	8%	JHB	7%
AVE	15%	TSH	10%	AVE	8%	AVE	7%
TSH	15%	CPT	10%	MSU	8%	ETH	7%
JHB	17%	BCM	11%	JHB	8%	EKU	8%
BCM	17%	JHB	12%	CPT	9%	BCM	8%
MSU	21%	MSU	13%	BCM	9%	CPT	8%
6741		13483		26967		53935	

The ordering of the cities in Table 37 is exactly the same as in Table 33, which shows the cost of each package type in each city. Although the cost of the service packages as a percentage of income varies considerably (especially at the lower end), between 2010 and 2014 the spread around the average narrowed for Types A, B and D.

- **Type A:** In 2010, the Type A package was equivalent to 9.6% of the household benchmark income in Cape Town but 22.8% in Msunduzi. By 2014, the spread had narrowed to between 9.2% (Ekurhuleni) and 20.9% (Msunduzi). The average level of income spent on Type A packages held steady at 14.5% between 2010 and 2014. This can be attributed to cities above the average becoming slightly more affordable, and those below the average moving up. The strong shift by Cape Town between 2010 and 2014 towards the average should be noted.
- **Types B and C:** Between 2010 and 2014, the average level of income spent on municipal bills reduced slightly for Type B but increased slightly for Type C. In 2014, Ekurhuleni had the most affordable Type B package (6.7% of benchmark income) and Type C package (5.8% of benchmark income). Msunduzi had the least affordable Type B package (12.8% of benchmark income), while Buffalo City had the least affordable Type C package (9% of benchmark income).
- **Type D:** In 2010, the Type D package was equivalent to 6% of the household benchmark income in Ekurhuleni and 8% in Mangaung. By 2014, the spread had narrowed to between 6.3% (Msunduzi) and 8.2% (Cape Town). Between 2010 and 2014, the average share of income spent on Type D packages increased from 6.8% to 7.1%. In Cape Town, the cost of a Type D package increased from 7% of benchmark incomes in 2010 to 8.2% in 2014. Households in Buffalo City saw a similar increase in the percentage of income spent on Type D packages, from 6.7% in 2010 to 7.9% of benchmark income in 2014.
- Tshwane is the only city where all the service packages became more affordable between 2010 and 2014. Until 2012, the cost of service packages as a percentage of benchmark incomes was increasing but, since the restructuring of tariffs in 2013, all packages have become more affordable than in 2010.

As with Table 33, the most striking feature of the Table 37 is the contrast between the tariff-setting strategies of Ekurhuleni and Msunduzi:

- In 2014, Ekurhuleni was the most affordable for Types A, B and C packages (9.2%, 6.7% and 5.8% of benchmark income), and the third most expensive for Type D packages (7.6% of benchmark income). As noted, this points to a deliberate policy to favour poorer households and tax wealthier households.
- In 2014, Msunduzi was the least affordable for Types A and B service packages (20.9% and 12.8% of benchmark income respectively) and the most affordable for the Type D package (6.3% of benchmark income). As noted, Msunduzi is favouring wealthier households and taxing the poorer households.

Progressive/regressive nature of cities' municipal bills

As explained at the beginning of the chapter, the *ability-to-pay principle* captures the idea that households should pay taxes and tariffs[34] according to their income-generating capacity, so as to foster greater social equity. Integral to the *ability-to-pay principle* are the notions of horizontal equity and vertical equity. Horizontal equity is when those with the same incomes pay the same amount of tax, whereas vertical equity is when those earning higher incomes pay proportionately higher taxes than those earning less income. Here the focus is on vertical equity, i.e. the municipal tax and tariff structures should be designed to have a *progressive* impact, so households earning higher incomes should pay proportionately higher municipal bills than those earning less income. Tax and tariff structures are said to be *regressive* if they result in poorer households paying a greater percentage of their incomes than wealthier households.

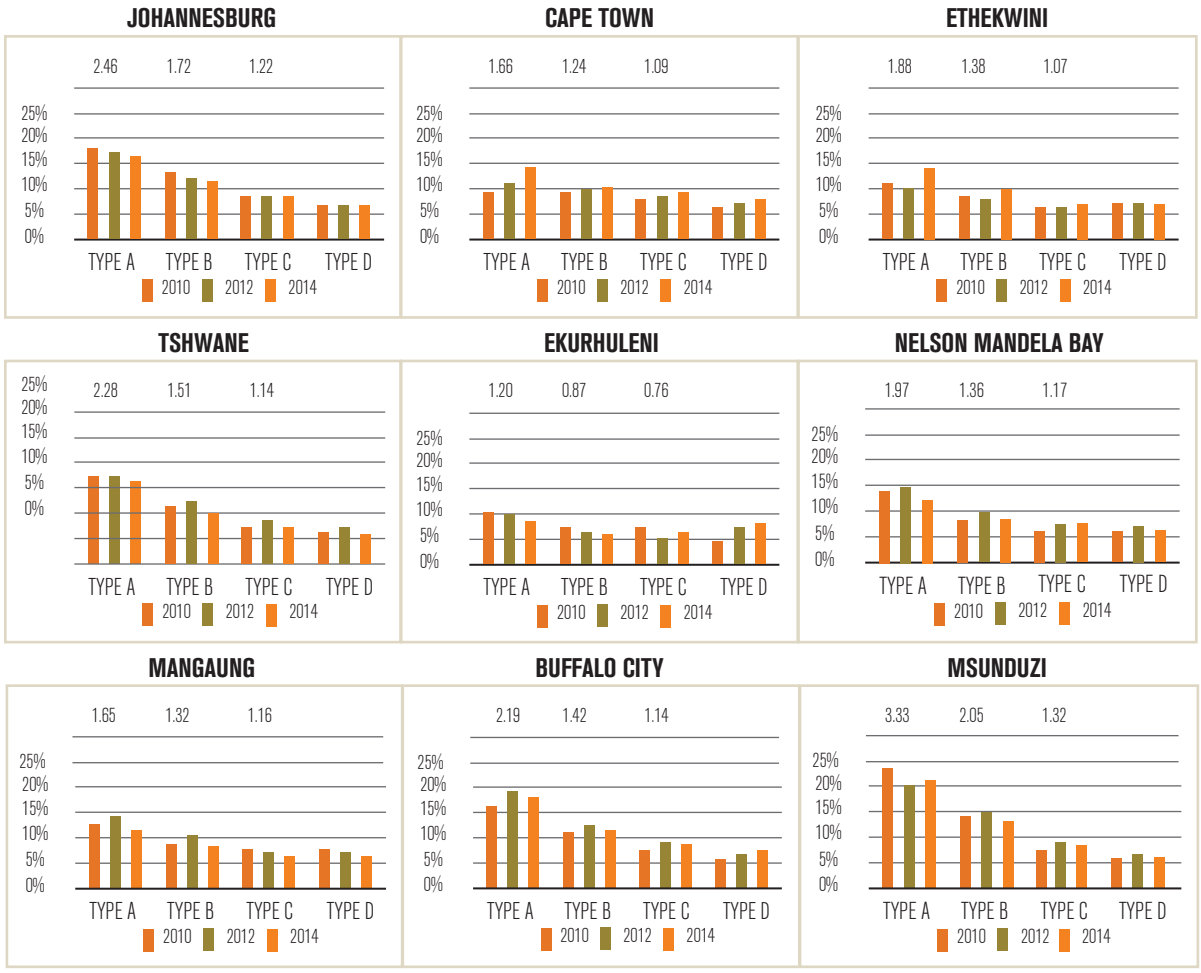
Figure 22 shows the progressive/regressive nature of each of the cities' municipal bills, as well as the trends in the affordability of the four packages. The numbers above the Type A, B and C packages indicate the income–payment ratio in 2014, i.e. the difference between what households with Types A, B and C packages spent on their municipal bills (as a percentage of income) compared to Type D households. This ratio gives an indication of whether the relevant city's 2014 municipal bills (and therefore their applicable tax and tariff structures) are progressive or regressive in nature.

The municipal bills are regressive, to a greater or lesser extent, in all cities.

- Ekurhuleni is the only city that comes close to having progressive municipal bills, with an income–payment ratio of 1.2 for its Type A package, 0.87 for Type B and 0.76 for Type C. In other words, in Ekurhuleni households consuming Type B and C packages pay a lower percentage of their income on their municipal bill than households consuming the Type D package.
- Msunduzi has the most regressive municipal bills of all the cities, with income–payment ratios of 3.33, 2.05 and 1.32 for Types A, B and C respectively. It is followed by Johannesburg, Tshwane and Buffalo City, all of whom have income–payment ratios above 2 for households consuming the Type A package.
- Mangaung, Cape Town and eThekwini have less regressive municipal bills, with income–payment ratios of 1.65, 1.66 and 1.88 respectively for households consuming the Type A package.

[34] The idea is extended to tariffs based on the principles set out in section 74(2) of the Municipal Systems Act (2000), and specifically the first principle that 'users of municipal services should be treated equitably in the application of tariffs'.

Figure 22: Cost of packages Type A to D as a percentage of benchmark household incomes and 'income–payment ratio' (2014)*



** The 'income–payment ratio' is calculated by dividing the percentage of income paid that households consuming the Type A, B and C packages pay on their municipal bills by the percentage of income that households consuming the Type D package pay on their municipal bills.*

Identifying municipal bills that are unaffordable

The point at which a municipal bill becomes unaffordable depends on the particular financial circumstances of each household, as well as their willingness to prioritise the payment of municipal bills over other expenditures. As already discussed in chapter 4 this introduces a complex debate around the interaction between households' willingness-to-pay, perceptions about whether they are receiving value for money from the municipality and the willingness-to-enforce payments by the municipal leadership.

As far as can be determined, to date no-one has ventured to propose an affordability threshold above which **a typical, standard household municipal bill** can be considered unaffordable. Reasons for this include:

- For municipalities, such a threshold could constrain their tax and tariff policies, and revenue collection, depending on the threshold level set.
- For national and provincial government, introducing an affordability threshold would bring to the fore the debate about defining the tax room that needs to be left free for local government, which would affect their own revenue-raising needs.
- Households with excessive municipal bills (because of not managing efficiently their consumption of municipal services) are very likely to use the affordability threshold to argue that their bills are unfair and, therefore, they should not be expected to pay – not appreciating that the threshold applies to a typical, standard household municipal bill and not to their case. This could possibly complicate municipalities' revenue collection.

However, the absence of an objective affordability threshold for a typical, standard household municipal bill works against the interests of poorer households. It means that there is no objective standard against which to measure the equity of municipal tax and tariff structures and the resultant municipal bills. This places poorer households in an invidious situation: the municipality can impose unreasonable bills and enforce them by implementing service cut-offs, while the households' only recourse is through the ballot box, which is a rather blunt accountability instrument at the best of times.

Taking the analysis presented in Table 37 and Figure 22 into account, a proposed affordability threshold is *10% of household income* for **a typical, standard household municipal bill** as defined by the four services packages in relation to the specified benchmark incomes. This affordability threshold is intended to be applied within the specific context of this study, not generally, but hopefully the idea will encourage a robust debate of the issue.

Using an affordability threshold of 10% of household income, Figure 23 identifies which Type A, B, C and D service packages are affordable or unaffordable relative to the applicable benchmark incomes. It also shows the affordability trend since 2010 of each municipal bill: if the red arrow points down, the municipal bill for that package in the respective city has become less affordable since 2010; if the green arrow points up, the municipal bill for that package in the respective city has become more affordable since 2010.

However, the absence of an objective affordability threshold for a typical, standard household municipal bill works against the interests of poorer households. It means that there is no objective standard against which to measure the equity of municipal tax and tariff structures and the resultant municipal bills. This places poorer households in an invidious situation: the municipality can impose unreasonable bills and enforce them by implementing service cut-offs, while the households' only recourse is through the ballot box, which is a rather blunt accountability instrument at the best of times.

Taking the analysis presented in Table 37 and Figure 22 into account, a proposed affordability threshold is 10% of household income for a typical, standard household municipal bill as defined by the four services packages in relation to the specified benchmark incomes. This affordability threshold is intended to be applied within the specific context of this study, not generally, but hopefully the idea will encourage a robust debate of the issue.

Brendon Wainwright

Figure 23: Affordability of municipal bills by city (2014)

City	Package Type	2014 Municipal Bill (2012 Rands)	2014 Benchmark income (2012 Rands)	Municipal bill as % of benchmark income	Change in affordability since 2010
MSU	Type A	1 409	6 742	20.9%	-1.88% ▲
BCM	Type A	1 167	6 742	17.3%	0.93% ▼
JHB	Type A	1 134	6 742	16.8%	-1.28% ▲
TSH	Type A	1 030	6 742	15.3%	-2.18% ▲
CPT	Type A	913	6 742	13.5%	3.99% ▼
ETH	Type A	906	6 742	13.4%	2.50% ▼
NMB	Type A	887	6 742	13.2%	-0.95% ▲
MSU	Type B	1 728	13 484	12.8%	-1.66% ▲
JHB	Type B	1 582	13 484	11.7%	-1.07% ▲
BCM	Type B	1 511	13 484	11.2%	0.64% ▼
MAN	Type A	739	6 742	11.0%	-0.47% ▲
CPT	Type B	1 381	13 484	10.2%	0.61% ▼
TSH	Type B	1 366	13 484	10.1%	-1.41% ▲
Affordability threshold = municipal bill for Type A, B, C or D packages greater than 10% of benchmark household income					
ETH	Type B	1 330	13 484	9.9%	1.50% ▼
EKU	Type A	620	6 742	9.2%	-0.99% ▲
NMB	Type B	1 231	13 484	9.1%	-0.12% ▲
BCM	Type C	2 439	26 968	9.0%	0.82% ▼
CPT	Type C	2 398	26 968	8.9%	1.06% ▼
MAN	Type B	1 198	13 484	8.9%	-0.20% ▲
JHB	Type C	2 254	26 968	8.4%	-0.16% ▲
MSU	Type C	2 223	26 968	8.2%	-0.07% ▲
CPT	Type D	4 409	53 936	8.2%	1.18% ▼
BCM	Type D	4 270	53 936	7.9%	1.23% ▼
NMB	Type C	2 124	26 968	7.9%	0.76% ▼
MAN	Type C	2 076	26 968	7.7%	-0.65% ▲
ETH	Type C	2 072	26 968	7.7%	0.87% ▼
TSH	Type C	2 063	26 968	7.6%	-0.87% ▲
EKU	Type D	4 121	53 936	7.6%	1.65% ▼
ETH	Type D	3 863	53 936	7.2%	0.18% ▼
JHB	Type D	3 684	53 936	6.8%	0.22% ▼
NMB	Type D	3 643	53 936	6.8%	0.70% ▼
TSH	Type D	3 610	53 936	6.7%	-0.52% ▲
EKU	Type B	897	13 484	6.7%	-0.44% ▲
MAN	Type D	3 575	53 936	6.6%	-1.40% ▲
MSU	Type D	3 380	53 936	6.3%	-0.08% ▲
EKU	Type C	1 574	26 968	5.8%	-0.59% ▲

As Figure 23 shows, in 2014, over a third (36%, or 13 of the 36) of the municipal bills calculated across the nine cities were unaffordable – 12 of the 36 municipal bills were unaffordable in 2010, which suggests little change in the overall situation. Since 2010, of the 14 unaffordable municipal bills, eight (green arrows) have moved closer to the affordability threshold and five (red arrows) have become more unaffordable.

- Ekurhuleni is the only city whose municipal bills for the four packages fall below the affordability threshold, i.e. they are affordable. The city's municipal bills for Type A, B and C are the most affordable within each of these categories. Its municipal bill for the Type C package is the most affordable of all.
- All the other cities' municipal bills for the Type A package and five of the other cities' municipal bills for the Type B package are above the affordability threshold, i.e. they are unaffordable.
- Msunduzi's municipal bill for the Type A package is the most unaffordable of all, and its municipal bill for the Type B package is the most unaffordable of all the Type B packages. Yet Msunduzi's municipal bill for the Type D package is the second most affordable bill of all.

Conclusion

Each city has adopted different tax and tariff strategies in response to the different mixes of business and domestic customers, and of low, middle and high income households. Despite this diversity, a number of general conclusions can be drawn from the preceding analysis:

Charges for services dominate municipal bills, particularly electricity (on average 44% to 53%), water (on average 14% to 20%) and sanitation (on average 6% to 11%). In addition, VAT on services adds between 11% and 12% to the average municipal bill. Property rates only make up between 2% and 13% of the average municipal bill. Since 2010, property rates' share of the average municipal bill has declined by as much as 10% in certain cities, generally pushed back by a growing share for electricity.

Some municipal bills are becoming less affordable. Between 2010 and 2014, the average annual real growth in the cost of Type A, B, C and D packages was 5.6%, 5.1%, 6.1% and 7% respectively, which is above inflation growth. However, there is wide variation between the package types and between cities, with 20 of the calculated municipal bills becoming more affordable and 16 becoming less affordable between 2010 and 2014. So it is inaccurate to claim that all municipal bills are becoming unaffordable, as the picture is more nuanced.

The growth in electricity and water tariffs, together with the VAT on those services, is squeezing the space available for municipalities to increase property rates. Increases in electricity tariffs contributed the most to real growth in municipal bills. Between 2010 and 2014, increases in electricity tariffs contributed to more than 50% of the real growth in municipal bills for Type A service packages and 63% for Type D packages. Increases in water and sanitation tariffs contributed a further 13–22% and 5–15% of the growth respectively. VAT on services contributed about 12%. On average, property rates did not contribute to the growth in municipal bills for Type A service packages, and only 2%, 5% and 6% for Type B, C and D packages respectively.

All cities have regressive tax and tariff structures. With the partial exception of Ekurhuleni, in 2014 cities' tax and tariff structures resulted in municipal bills that are regressive in nature, i.e. poorer households pay a greater percentage of their income than wealthier households. Msundusi has the most regressive municipal bills followed by Johannesburg, Tshwane and Buffalo City. Contributing most to the regressive nature of municipal bills are uniform fixed charges such as basic levies (connection fees) for electricity and water, fixed fees for sanitation and for solid waste removal. However, most cities have replaced these types of charges with tariffs that are either progressive or have a less regressive impact.

If an affordability threshold for **a typical, standard household municipal bill is set at a level where the municipal bill** equals 10% of household income, then in 2014 eight of the nine cities' municipal bills for the Type A package were unaffordable, and five of the nine cities' municipal bills for the Type B package were unaffordable. All the cities' municipal bills for the Type C and D packages were affordable when assessed against this threshold.

As noted in the previous study, the unaffordability of municipal bills especially at the lower end of the consumption profile threatens city financial sustainability in a number of ways.

- Household collection rates can be expected to remain under pressure, and indeed to decline further, unless cities make extra efforts to collect uncollected revenues and save on areas of waste and inefficiency.
- Willingness to pay is likely to weaken, as tax morality is hard to sustain when essential services are unaffordable.
- Funding other city services from rates revenues is under pressure.
- Cities that are financially weaker, as a result of charging unaffordable taxes and tariffs, will be a weaker platform on which to add substantial new spending responsibilities, especially public transport and housing.

The above highlights the need for a national debate on whether national and provincial government are leaving sufficient tax room to enable local government to raise property rates revenues required to fund those services that do not appear on the municipal bill, such as roads, public transport, environmental health and safety, stormwater management and public parks. The analysis shows that increases in bulk tariffs for electricity and water, which are controlled by national government, are driving most of the increase in municipal bills. There is thus a direct link between national government pushing up these bulk tariffs and the unaffordability of municipal bills.

References

National Treasury. 2011. Local Government Budgets and Expenditure Review 2006/07 – 2012/13. Pretoria: National Treasury, p. 39

Stats SA (Statistics South Africa). 2011. Census. Pretoria: Stats SA.

Data Sources

a. Taxes and service charges: Tariff tables of the various financial years accessed through individual city websites (the characteristics of the standard packages of services are summarised in Table 31). Tariffs and charges were collected on the following standard assumptions and basis:

i. These are residential tariffs to formal settlements.
ii. They are the charges for taxes and for services consumed and, therefore, do not take household type into consideration, such as pensioners, childheaded and indigent households, except where this is built into the service charges themselves. They also do not take account of any additional rebates based on income levels of pensioners.
iii. Water consumption refers to direct metered connections to the Council's water reticulation system, with no flow restriction or water consumption management meter.
iv. Waste refers to a 240 litre bin removed once a week.
v. Electricity refers to residential customers with single-phase 230 V or multi-phase 400/230 V connections with a capacity of up to 80 A per phase. TYPES A and B are assumed to have pre-payment meters, while TYPES C and D are assumed to have conventional credit arrangements.

b. Data on income distribution per city is calculated from Census 2011 data.

Annexure 1: Cost of Service Packages A-D 2010–2014

Table 38: Total cost of packages of services by city, 2009 and 2012 (2012 R values)

JOHANNESBURG				
	A	B	C	D
2010	978	1 383	1 841	2 856
2012	1 036	1 465	2 037	3 245
2014	1 134	1 582	2 254	3 684
% annual increase	3.8%	3.4%	5.2%	6.6%

CAPE TOWN			
A	B	C	D
516	1 041	1 693	3 025
655	1 191	1 965	3 712
913	1 381	2 398	4 409
15.3%	7.3%	9.1%	9.9%

ETHEKWINI			
A	B	C	D
591	903	1 473	3 016
605	986	1 643	3 260
906	1 330	2 072	3 863
11.3%	10.2%	8.9%	6.4%

TSHWANE				
	A	B	C	D
2010	943	1 247	1 841	3 119
2012	1 124	1 468	2 182	3 761
2014	1 030	1 366	2 063	3 610
% annual increase	2.2%	2.3%	2.9%	3.7%

EKURHULENI			
A	B	C	D
550	766	1 388	2 591
598	791	1 293	3 504
620	897	1 574	4 121
3.0%	4.0%	3.2%	12.3%

NELSON MANDELA BAY			
A	B	C	D
762	999	1 538	2 616
872	1 194	1 879	3 409
887	1 231	2 124	3 643
3.9%	5.3%	8.4%	8.6%

MANGAUNG				
	A	B	C	D
2010	618	982	1 803	3 472
2012	764	1 205	1 927	3 603
2014	739	1 198	2 076	3 575
% annual increase	4.6%	5.1%	3.6%	0.7%

BUFFALO CITY			
A	B	C	D
885	1 142	1 778	2 888
1 142	1 458	2 225	3 648
1 167	1 511	2 439	4 270
7.2%	7.3%	8.2%	10.3%

MSUNDUZI			
A	B	C	D
1 230	1 564	1 796	2 742
1 228	1 849	2 080	3 150
1 409	1 728	2 223	3 380
3.4%	2.5%	5.5%	5.4%

AVERAGE FOR THE CITIES				
	A	B	C	D
2010	786	1 114	1 684	2 925
2012	892	1 290	1 915	3 477
2014	978	1 358	2 136	3 839
% annual increase	5.6%	5.1%	6.1%	7.0%

Table 39: Detailed composition of services charges by city and service package type in 2014 R Values

2014 Type A	JHB	CPT	ETH	TSH	EKU	NMB	MAN	BCM	MSU	Average
Property Taxes	-	-	-	20	0	63	14	69	-	18
Electricity	814	538	594	500	332	373	402	636	603	532
Water	182	211	115	202	143.8245614	219	232	217	606	237
Sanitation	118	148	182	117	91.98	153	56	64	139	119
Solid waste removal	-	-	-	93	82.93	70	34	178	45	56
Other	-	-	-	93	0	-	-	-	-	10
VAT on services	156	125	125	141	91.1028386	114	101	153	195	134
Total	1 269	1 022	1 016	1 166	741.8374	992	840	1 317	1 589	1 106

2014 Type B	JHB	CPT	ETH	TSH	EKU	NMB	MAN	BCM	MSU	Average
Property Taxes	26	26	106	137	66.33333333	174	87	171	168	107
Electricity	918	768	742	629	415	515	574	795	686	671
Water	274	304	262	278	202.0701754	278	305	309	692	323
Sanitation	230	213	182	143	109.53	192	196	64	139	163
Solid waste removal	110	48	29	93	97.57	70	45	178	45	80
Other	-	-	-	93	0	-	-	-	-	10
VAT on services	214	187	170	173	115.3838246	148	157	188	219	175
Total	1 772	1 545	1 491	1 547	1005.887333	1 377	1 364	1 705	1 949	1 528

2014 Type C	JHB	CPT	ETH	TSH	EKU	NMB	MAN	BCM	MSU	Average
Property Taxes	154	156	309	332	232.1666667	359	207	343	348	271
Electricity	1 336	1 494	1 188	1 043	1040	1 132	1 194	1 272	933	1 181
Water	367	397	334	362	260.3157895	337	377	400	778	401
Water charges	367	397	334	362	260.3157895	307	377	400	718	391
Sanitation	230	278	182	165	127.08	230	280	263	139	210
Solid waste removal	147	48	64	93	120.36	70	45	178	45	90
Other	-	-	-	93	0	-	-	-	-	10
VAT on services	291	310	248	246	216.6858105	248	266	296	265	265
Total	1 772	1 545	1 491	1 547	1005.887333	1 377	1 364	1 705	1 949	1 528

2014 Type D	JHB	CPT	ETH	TSH	EKU	NMB	MAN	BCM	MSU	Average
Property Taxes	411	417	716	723	563.8333333	730	448	685	706	600
Electricity	2 272	2 802	2 227	2 045	3840	2 079	2 124	2 385	1 509	2 365
Water	563	626	650	545	405.3157895	478	538	777	1 031	624
Sanitation	230	438	182	174	159.38	307	448	284	139	262
Solid waste removal	194	96	114	93	120.36	70	79	178	45	110
Other	-	-	-	93	0	-	-	-	-	10
VAT on services	456	555	444	413	633.5078105	411	447	507	381	472
Total	4 126	4 934	4 334	4 087	5722.396933	4 074	4 085	4 817	3 811	4 443

Table 40: Percentage composition of service charges by city and service package type, 2014

2014 Type A	JHB	CPT	ETH	TSH	EKU	NMB	MAN	BCM	MSU	Average
Property taxes	0%	0%	0%	2%	0%	6%	2%	5%	0%	2%
Electricity	64%	53%	58%	43%	45%	38%	48%	48%	38%	48%
Water	14%	21%	11%	17%	19%	22%	28%	17%	38%	21%
Sanitation	9%	14%	18%	10%	12%	15%	7%	5%	9%	11%
Solid waste removal	0%	0%	0%	8%	11%	7%	4%	14%	3%	5%
Other	0%	0%	0%	8%	0%	0%	0%	0%	0%	1%
VAT on services	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

2014 Type B	JHB	CPT	ETH	TSH	EKU	NMB	MAN	BCM	MSU	Average
Property taxes	1%	2%	7%	9%	7%	13%	6%	10%	9%	7%
Electricity	52%	50%	50%	41%	41%	37%	42%	47%	35%	44%
Water	15%	20%	18%	18%	20%	20%	22%	18%	36%	21%
Sanitation	13%	14%	12%	9%	11%	14%	14%	4%	7%	11%
Solid waste removal	6%	3%	2%	6%	10%	5%	3%	10%	2%	5%
Other	0%	0%	0%	6%	0%	0%	0%	0%	0%	1%
VAT on services	12%	12%	11%	11%	11%	11%	11%	11%	11%	11%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

2014 Type C	JHB	CPT	ETH	TSH	EKU	NMB	MAN	BCM	MSU	Average
Property taxes	6%	6%	13%	14%	12%	15%	9%	12%	14%	11%
Electricity	53%	56%	51%	45%	52%	48%	50%	46%	37%	49%
Water	15%	15%	14%	16%	13%	14%	16%	15%	31%	17%
Sanitation	9%	10%	8%	7%	6%	10%	12%	10%	6%	9%
Solid waste removal	6%	2%	3%	4%	6%	3%	2%	6%	2%	4%
Other	0%	0%	0%	4%	0%	0%	0%	0%	0%	0%
VAT on services	12%	12%	11%	11%	11%	10%	11%	11%	11%	11%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

2014 Type D	JHB	CPT	ETH	TSH	EKU	NMB	MAN	BCM	MSU	Average
Property taxes	10%	8%	17%	18%	10%	18%	11%	14%	19%	14%
Electricity	55%	57%	51%	50%	67%	51%	52%	50%	40%	53%
Water	14%	13%	15%	13%	7%	12%	13%	16%	27%	14%
Sanitation	6%	9%	4%	4%	3%	8%	11%	6%	4%	6%
Solid waste removal	5%	2%	3%	2%	2%	2%	2%	4%	1%	2%
Other	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%
VAT on services	11%	11%	10%	10%	11%	10%	11%	11%	10%	11%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Wayne Robertson

6

Cities' Use of Tariffs to Promote Efficient Resource Use

written by Jonathan Carter

Cities' Use of Tariffs to Promote Efficient Resource Use

Cities can use a wide range of interventions to promote the efficient use of environmental resources, as well as make investments that leverage environmental resources to reduce and/or prevent costs. The 2013 State of City Finances (SACN, 2013) recognised the importance of green issues in two chapters: Chapter 5 presented the case for the green economy in cities, and Chapter 6 examined the financial implications of demand-side management for electricity and water. Tariffs are just one of the instruments at a city's disposal and are usually more effective when coupled with other mechanisms, such as regulations that enforce the use of environmentally efficient technologies and/or design. This chapter focuses on how cities can use tariffs to shift production and consumption to be more resource efficient. Two challenges to using tariffs to encourage resource efficiency in South African cities are an emphasis on equitable access to services and the cities' role in promoting developmental objectives of government. The chapter explores the direct costs to a city of implementing tariffs, charges and rebates aimed at encouraging the use of solar and wind technologies, rain water collection, effluent disposal, air pollution charges, run-off management and recycling, as well as the revenue loss and potential cost savings that can come from improved operational efficiencies.

The Green Economy

The Department of Environmental Affairs (DEA) defines a green economy as a 'system of economic activities related to the production, distribution and consumption of goods and services that result in improved human well-being over the long term, while not exposing future generations to significant environmental risks or ecological scarcities'.[35] Two inter-linked outcomes of such an economy are growing economic activity (which leads to investment, jobs and competitiveness) in the green industry sector and a shift in the economy as a whole towards cleaner industries and sectors.

The need for action to protect our natural resources is especially important in metropolitan and large urban areas where the concentration of people and industries is putting pressure on the environment. Cities are also well placed to be incubators of new green technologies (UNEP, 2011).

- The proximity, density and variety intrinsic to cities deliver productivity benefits for firms and helps stimulate innovation.
- Green industries are dominated by service activities (e.g. public transport, energy provision, installation and repair) that tend to be concentrated in urban areas where consumer markets are largest.
- Some cities develop high-tech green manufacturing clusters in or close to urban cores, drawing on knowledge spill-overs from universities and research labs.

Cities have an important role to play in leading the move towards greater environmental efficiency, through promoting and setting incentives to stimulate transformation processes that involve all sectors of society, and setting the regulatory framework and monitoring compliance to enforce sustainable use and management of natural capital.

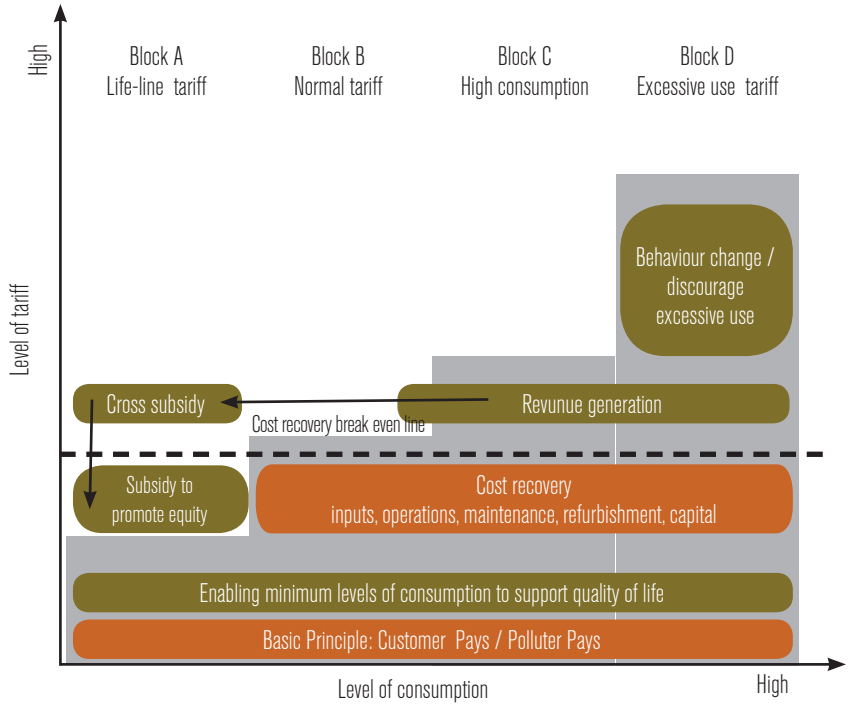
South African cities appreciate the strategic need to improve resource efficiency. A few cities have developed, or are in the process of developing, green economy strategies. eThekwini's green economy strategy (EMM, 2013b) identifies three pillars: shifting existing consumption and behaviours to greener ways, making public investments in the green economy, and promoting and marketing the green economy. Gauteng, Cape Town and Tshwane have published green strategies, while the tariff policies of Ekurhuleni and Msunduzi make references to greening the economy (City of Cape Town, 2014; City of Tshwane, 2013; Spencer et al., 2011). Green economy objectives that feature strongly include improving resource and energy efficiency, reducing emissions, increasing the use of renewable energy, and generating energy from waste or buying power from residents who generate electricity from solar (embedded generation). However, the green economy objectives are not explicitly linked to tariffs. For example, encouraging households to install solar water heaters and more efficient lighting does not include any discussion of how electricity tariffs could be used to support this objective. Another example is Tshwane's framework for transitioning to a green economy, which makes no mention of the volumetric-based charges for solid waste recently introduced by the city (City of Tshwane, 2013).

[35] https://www.environment.gov.za/projectsprogrammes/greeneconomy/about

Structuring Municipal Tariffs

South African cities have the mandate to raise revenues through a specific set of taxes, tariffs and surcharges. Various policies also require cities to provide free or subsidised basic services to indigent households, to promote the efficient use of services and to ensure that tariffs are structured to recover costs. Taxes and tariffs need to be carefully designed in order to achieve these different objectives. Figure 24 shows how a block tariff structure for, say, electricity or water seeks to reconcile these objectives.

Figure 24: The structure and purpose of tariffs



All cities use flat rate and/or inclining block tariffs for electricity and water. The tariffs are structured so that consuming more costs more. Therefore, existing tariffs for these services technically encourage resource efficiency, even if not explicitly stated as an objective underpinning the design of the tariff structures.

In theory, user charges and taxes can be used to improve resource efficiency, as increasing the cost reduces the consumption of a service or a good. Consumption can also be reduced if households take steps to eliminate wastage (e.g. fix water leaks) and/or implement more efficient technologies (e.g. solar geysers, water-flow control technology). However, in practice, the complex interaction of a range of cost, social, behavioural and other factors can lead to unintended and more harmful consequences.

- Many municipal services are price inelastic, and so price increases will not bring about a comparative reduction in consumption. Electricity and water at low levels of consumption are cases in point.
- People can take time to realise the impact of tariff changes and take even longer to act on the realisation. Thus there are often delays between the price increase, the behaviour change and/or the adoption of new technologies.
- People may not change their behaviour, as the cost of implementing measures to avoid a tax or punitive tariff is too high, although cities will receive increased revenues from these taxes/tariffs.
- Structuring charges for some services to influence behaviour change can be counterproductive and create incentives for non-compliance. For example, if the cost of solid waste removal is too high, illegal dumping may result.
- Not all tariffs and taxes make financial sense for a city because the direct financial costs of collection may exceed the revenue generated by the tariffs and taxes.

Historically cities have estimated the capital costs of services and made rough estimates of recovery costs, and combined them to come up with tariffs for specific services. These tariffs have been used to estimate total revenues, which are then compared to the operational expenditure requirements of the city. Cities make up any shortage from property rates. However, if using tariffs to encourage resource efficiency, cities need to adopt a more sophisticated approach to tariff setting. Tariffs need to capture the costs (of the service, of externalities, and management and monitoring) and be set at levels that encourage resource efficiency but not non-compliance and/or illegal activities. Getting the balance right is a significant challenge and requires careful analysis and experimentation.

Tariffs and cost recovery

To remain financially viable, municipalities must price tariffs at a level that ensures cost recovery. Cost recovery means that consumers are charged the full cost (or almost full cost) of the services provided. The provision of services involves fixed and variable costs. Essentially, tariffs are priced at the low-run marginal cost of supplying one additional unit of consumption (Deloitte, 2012: 48). The most equitable approach to estimating these marginal costs differs according to the service provided. For instance, the fixed costs of ensuring water is available for consumption are significant, whereas the marginal costs of delivering an extra unit of water to households is very small (Eberhard et al., 1999). There are also fixed costs associated with electricity distribution, but the marginal cost of providing an additional unit of electricity is greater than for water. If tariffs are analysed purely from a cost recovery perspective, a significant portion of the tariff should be a fixed 'access' charge, with the balance of charges based on the marginal cost of consumption. However, this does not encourage the efficient use of resources because most services show declining marginal costs, i.e. the higher the consumption, the cheaper it becomes to deliver the additional unit of consumption.

In addition to fixed and variable costs, tariffs should also seek to capture or internalise the cost of externalities. Externalities can be negative or positive. Examples of negative externalities include the pollution emitted by a factory and the exhaust fumes from cars (both affect the quality of air negatively). Positive externalities include increasing the amount of vegetative ground cover to reduce water run-off, which reduces the stress on storm water drainage systems (PMSEIC 2003; Meinzen, 2009). In some cities, covering buildings with plants is encouraged, as the vegetation creates an insulation layer that reduces the need for cooling and heating, and increases the density of vegetation in a city, contributing to cleaner air (UNEP, 2013).

Tariffs do not need to reflect precisely the cost structure of a service, and in fact accurately estimating fixed or variable unit costs is very difficult. Cities take a more holistic view to tariff setting and use historical consumption patterns in addition to the factors mentioned above. For some services, South African cities charge fixed tariffs, which differ by type of consumer. For other services, the fixed and variable costs are priced into the unit price without the need for an access fee.

Tariffs and equitable access

National legislation requires cities to give priority to enabling equitable access to municipal services. Consumers have the right to a basic level of service, and some consumers have the right to a free basic level of some services. Raising tariffs can be inequitable because they make services unaffordable for lower-income households. To address this issue, cities can use inclining block tariffs, particular for water and electricity. Below a certain consumption level, the service is provided for free or at very low cost (Figure 24). Cities can set tariffs for 'normal' consumption at a level that strikes a balance between cost recovery and a reasonable consumption level. Then, as consumption increases, the tariff structure can start to punish high consumption with very high rates in the next blocks.

On the surface, inclining block tariffs appear fair and equitable. However, they also penalise large poor households simply because lots of people live in a single house and so drive up consumption (Eberhard et al., 1999). Similarly, wealthy households with few residents may regularly consume less than the free block and so receive free services. Managing these anomalies poses a major challenge to municipalities, and one strategy is to require poor households to register in order to get preferential tariffs.

Tariffs and competitiveness

Cities also need to maintain tariff prices that ensure the city remains economically competitive (City of Cape Town, 2014). This is essential to a city's survival and growth, as economic activity enables residents to pay tariffs and taxes. Generally, tariffs that are designed to encourage resource efficiency will punish companies that consume large volumes of electricity or water, and other resources (Deloitte, 2012). Over time, increasing the price of electricity and water will lead to a shift from lower-value use to higher-value use. An economy that is able to shift the use of water and electricity to higher-value use will be resilient to rising prices. The economies of cities are increasingly dominated by the services sector and so becoming increasingly resilient to changes in the price of water and electricity (Deloitte, 2012).

Charging tariffs at the right point on the chain of delivery

Governments can encourage resource efficiency and/or the reduction in environment-damaging products at different points on the delivery chain. Tariffs and taxes need to be levied at the point most likely to bring about behaviour change at the least cost. Many of the taxes that can change resource-use patterns upstream (e.g. a tax on coal production will increase the cost of electricity and discourage its use higher up the delivery chain) are not available to cities. However, cities can use building regulations and development charges to mitigate environmental impacts. For example, building regulations can require new buildings to be equipped with energy and water efficient technologies. Cities are required to monitor compliance with the SANS 10400–XA Energy Usage in Buildings Regulations, which were introduced in 2011 with the aim of improving the energy efficiency of buildings (Sustainability Institute, 2011).

Tariff costs vs. revenue generated

Cities need to compare the cost of imposing a tariff or tax with the revenue generated and impacts achieved. The simplest tariffs to implement are those that are supported by existing billing systems. These include fixed charges and flat-rate consumption tariffs, and inclining block tariffs. Other tariffs may be too costly for cities to implement efficiently. For example, solid waste tariffs that are structured around the volume and type of waste produced by a household would require cities to purchase and use costly equipment. In addition, the monitoring and enforcing of certain tariffs and rebates may cost more than the revenue raised. Technology can reduce the operational costs of monitoring but means that cities have to employ people with the appropriate skills. Therefore, the more sophisticated a tariff structure, the more skilled staff the city needs to employ, and generally increased skill levels come with increased salary costs.

Tariffs and innovation

Raising tariffs to reduce negative impacts on the environment can and has stimulated a number of innovations. Households can make use of simple technologies to reduce the amount of water consumed (e.g. by reducing a tap's flow rate). More noteworthy innovations have emerged from industries under pressure to reduce consumption and/or the amount of waste, effluent or emissions produced. Companies have adopted new waste treatment processes or cleaner production processes that use green inputs and/or reduce certain inputs. These new processes are often more efficient and so more profitable than the dirtier methods (EPRI, 2001).

The Green Economy in South Africa's Policy Environment

Although the current policy environment is fluid, existing municipal legislation does not preclude cities from using tax and tariff instruments to support green economy objectives. However, additional legislation or regulations are required to enable the use of these instruments in certain areas.

The municipal legislative framework

Most municipal legislation is either neutral or supports the use of tariff instruments to promote the more efficient use of environmental resources:

- The Municipal Systems Act (No. 32 of 2000) requires municipal services to be 'provided in a manner that is conducive to the prudent, economic, efficient and effective use of available resources' and to be environmentally sustainable. The Act encourages municipalities to implement tariffs that reflect the cost of services and promote financial sustainability. It also allows for cross-subsidisation and differentiated tariffs across categories of users, and encourages the 'economical, efficient and effective use of resources, the recycling of waste and other appropriate environmental objectives'.
- Investors in green technologies, especially green energy, are likely to want to enter into long term contracts with municipalities. The Municipal Finance Management Act (No. 56 of 2003) allows municipalities to enter into contracts longer than three years only after they have followed certain processes. These include public consultation, soliciting the views and recommendations of National Treasury, COGTA and the relevant national department if the capital investment involves the provision of a service. The municipality is required to consider (but is not bound by) these views and recommendations. These processes for concluding such long-term contracts are there to safeguard both parties. A number of waste-to-energy contracts longer than three years are already in place.
- The Municipal Property Rates Act (No. 6 of 2004) governs how municipalities can charge property rates and provide rebates on these rates. Municipalities may classify properties according to the use of the property, permitted use of the property, or the geographical area in which the property is situated. The Act explicitly prohibits applying differential rates within the same categories, except to deal with transitional issues. It allows municipalities to provide rebates and reductions, as a means of relief for indigent residents or residents in financial distress, but provides no obvious support for tariffs that encourage resource efficiency.

- The Municipal Fiscal Powers and Functions Act (No. 12 of 2007) deals with the process and procedures for authorising taxes, levies and duties that cities may impose. This Act is neutral towards taxes that aim to achieve environmental goals. However, applying for a new municipal tax involves potentially considerable costs.
- The Electricity Regulation Act (No. 4 of 2006) sets out the policy for the electricity supply industry, and details the legislative requirements for the generation, transmission, distribution, reticulation, import, export, dispatch and trading of electricity. Its objectives include facilitating investment in the electricity supply industry and promoting diversity in energy sources and energy efficiency. The Act establishes the National Energy Regulator of South Africa (NERSA), as the custodian and enforcer of the national regulatory framework, and responsible for issuing various licences, setting the framework for electricity tariffs, and approving proposed tariffs.
- The Water Services Act (No. 108 of 1997) requires municipalities that are water services authorities to establish bylaws related to water services and effluent disposal. The National Water Act (No. 36 of 1998) instructs the Minister to establish a pricing strategy for water use charges, including discharging of waste (or water containing waste) into a water resource through a pipe, canal, sewer, sea outfall or other conduit.
- At the beginning of 2015, the DEA released the National Pricing Strategy for Waste Management, which identifies a number of options for pricing waste management and considers the opportunities and risks of various approaches (DEA, 2015). It is non-prescriptive and acknowledges that no single approach will work for all cities.

Intergovernmental policy context

No national department is taking the lead, as the responsibility for the green economy is spread across a number of departments and state entities. The institutional arrangements are complex and involve a number of role-players (Montmasson-Clair, 2012: 6):

> *The National Strategy for Sustainable Development and Action Plan (NSSD) is the responsibility of the Department of Environmental Affairs (DEA), but the National Planning Commission (NPC), a department of sustainable development in all but name, resides in the Presidency (it however has advisory powers only). The Economic Development Department (EDD) includes the green economy under its formulation of a New Growth Path (NGP) for the country, but EDD only has direct control over the two main state-run development finance institutions: the Development Bank of Southern Africa (DBSA) and the Industrial Development Corporation (IDC). Support for green industry falls under the Department of Trade and Industry (the dti), but the dti has to rely on other departments to implement measures aimed at green industries. Environmental fiscal reform (green taxes and subsidies which supports both green industries and the greening of the economy as a whole) is under the mandate of the National Treasury (NT). The DEA is responsible for the protection and restoration of ecosystems and the setting of environmental standards (e.g. for pollution or emissions). The Department of Energy (DoE) is in charge of issues relating to fossil fuels and renewable energy. The Department of Water Affairs (which falls under the same ministry as the DEA) is responsible for issues relating to water, and technology policy and research and development (R&D) are under the Department of Science and Technology (DST).*

Perhaps the most specific direction comes from the Industrial Policy Action Plan (IPAP), which contains growth targets for green industries, including solar water heaters, other solar and wind energy, biofuels, electric vehicles and organic farming. The IPAP suggests that agriculture should be transformed by the greening of the economy, noting that organic agriculture has the potential to create 20 000 jobs over a ten-year period.

The National Development Plan (NDP) says nothing explicit about the green economy but does identify ways in which South Africa can reduce greenhouse gas emissions, as explained in a policy paper from National Treasury, (2013: 26):

> *96. The NDP argues that actions such as these would need to take place within the context of an agreed international framework for mitigation that imposes an absolute constraint on GHGs internationally during 2030–50.*
>
> *97. The achievement of a decline in South Africa's GHG emissions from 2035 onwards will require a structural transformation of the economy, which is currently dominated by energy and carbon-intensive activities. It will also involve technological and infrastructural innovation and development. The NDP recognises the need to delink economic activity from environmental degradation and the use of carbon-intensive energy, while remaining competitive and reducing unemployment, poverty and inequality. It guards against locking South Africa's economy into an emission-intensive growth path.*

The policy paper proposes regulating GHGs by placing a price on carbon emissions using a carbon tax. Such a tax should be set at a level that 'encourage[s] a shift in production patterns towards low-carbon and more energy-efficient technologies by altering the relative prices of goods and services based on their

emissions intensity, and by encouraging the uptake of cost-effective, low-carbon alternatives' (National Treasury, 2013: 8). Cities have identified similar objectives, i.e. changing the structure of the economy and consumption, in their green economy strategies.

The lack of clear national leadership creates the space for cities to seize the initiative and be proactive within their areas of jurisdiction and forge strategies that fit their needs.

Compensating cities for revenue losses

For cities, a 'green' tax or tariff can either generate additional revenue or put a substantial portion of revenue at risk. This depends on how the resource or service is consumed, the autonomy cities have over setting the rate and tariff, and the cost to the city of implementing the tax or tariff and of enforcing compliance.

Although cities may lose revenues through implementing resource-efficiency measures, no fiscal mechanism is in place to compensate them. For example, cities are required to issue and monitor compliance with atmospheric emission licences but cannot link the cost of the licence to the cost of managing them. Municipalities can use the Municipal Energy Efficiency and Demand Side Management Grant to implement energy-efficiency initiatives within municipal infrastructure, but the grant does not compensate cities for losses that may arise from promoting the green economy. One suggestion, from Bischof-Niemz (2015), is to have a Central Power Purchasing Agency that would buy excess energy generated by households from solar panels and sell it to Eskom, and then compensate the municipality for the loss of revenue.

Using Tariffs to Promote Environmental Sustainability and Resource Efficiency

This section explores how tariffs can be used in five areas to promote resource efficiency. Some instruments could be incorporated in a property rates tariff, either as an add-on or a rebate. Unfortunately, as the Property Rates Act does not allow municipalities to use property rates in this way, some of the instruments discussed would need to be introduced as new taxes. This would require cities to go through a process of applying to the Minister of Finance to introduce the new taxes, as required by the Municipal Fiscal Powers and Functions Act.

Electricity

Promoting the efficient use of electricity is full of tensions and contradictions for cities.

- **Efficient electricity use can result in significant environment gains.** South Africa's electricity generation is predominantly coal based, and about 44% of electricity in South Africa is consumed in cities (Urban Earth, 2012). Therefore, shifting electricity consumption in cities to renewable sources will bring environmental benefits. Cities can promote the shift by increasing electricity tariffs and providing incentives to residents to use renewable energy.
- **Renewable energy, especially solar energy, can address energy constraints.** National Treasury (2014) cites electricity supply as one of the top constraints to economic growth. Tapping additional sources through renewable energy can help unlock this constraint.
- **However, lower consumption of electricity will reduce city revenues.** Sales of electricity from Eskom represent cities' largest source of revenue and so reduced consumption poses a threat to their financial viability. In addition, increasing tariffs could affect the competitiveness of a city and influence where businesses decide to locate. Fewer businesses in a city translate into fewer jobs, which translate into fewer people that can pay municipal bills and therefore lower municipal revenues.

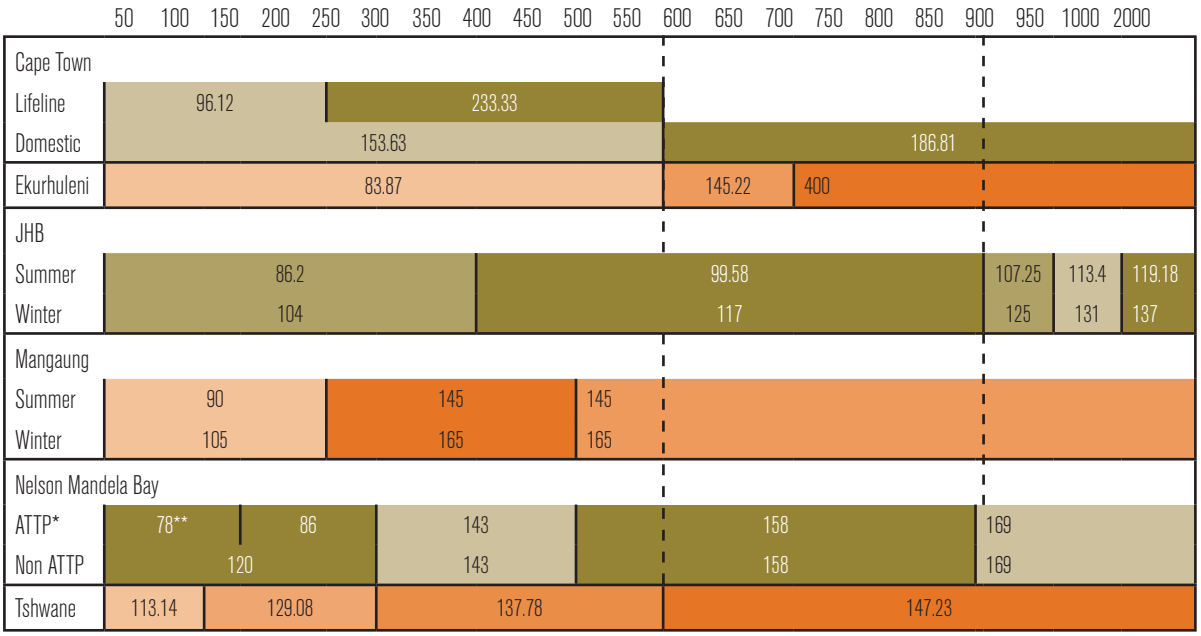
Electricity consumption is complex, and the electricity consumed per capita and per Rand GDP varies in each city. Therefore, the impact of rising electricity prices differs by sector, depending on the sector's reliance on electricity. The least vulnerable industries to rising electricity prices are the finance and business services sector, the community social and personal services sector and construction (Deloitte, 2012).

In South Africa, the recent electricity price increases have had an impact on consumption (SEA 2015). Between 2006 and 2007, electricity per capita consumption grew by 7.5% but then decreased by 10.5% between 2007 and 2011. These decreases coincide with the blackouts of 2008 and steep electricity price increases from 2008. These changes to consumption levels indicate that there is some elasticity of demand for electricity (SEA, 2015). The instruments that cities can use to promote energy efficiency are described below.

Block and time of use tariffs

South African cities offer a range of electricity tariffs and packages. Most offer residential consumers a choice between block tariffs, a basic charge with block tariffs, or a basic charge with time of use (TOU) charges. Industrial consumers have similar choices, but with very different service and energy charges. Block tariffs jump from a low tariff for the first amount of electricity consumed to higher tariffs per subsequent blocks of energy consumed. Figure 25 shows how block tariffs for residential consumers are structured in the five metros that use them.

Figure 25: Electricty block tariffs (cents/kWh)

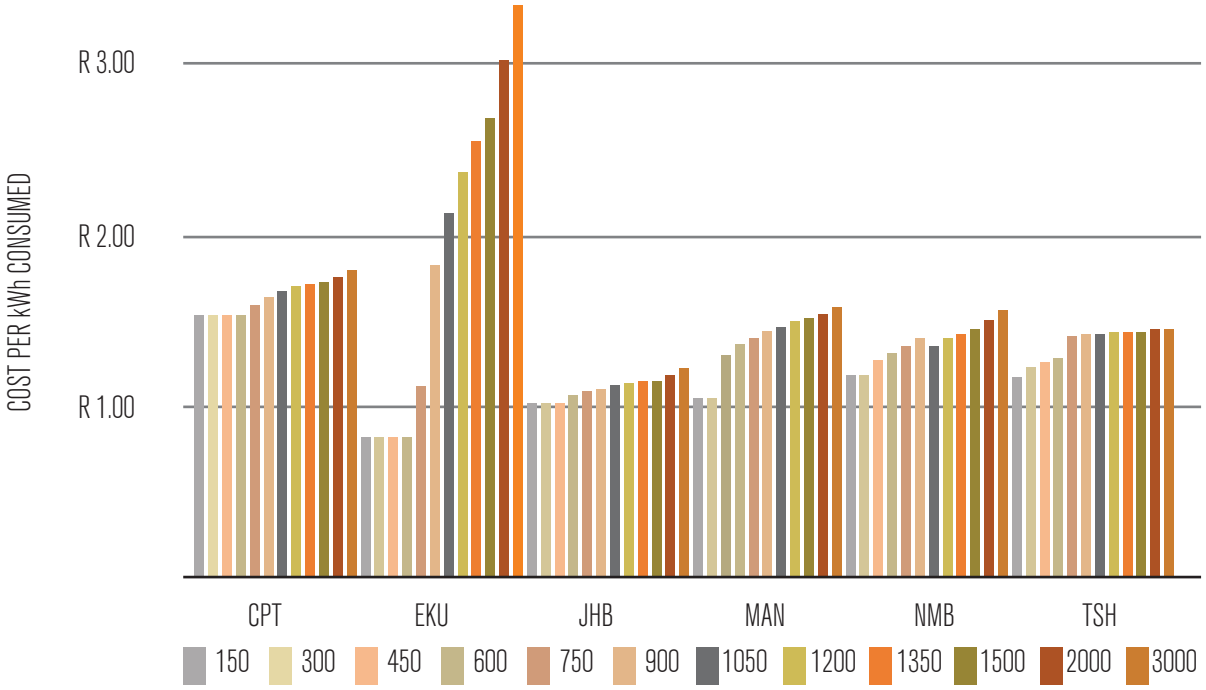


**ATTP = Assistance to the poor domestic, ** this step 0-75zvz*
Source: 2014/15 City tariff documents

South African cities offer a range of electricity tariffs and packages. Most offer residential consumers a choice between block tariffs, a basic charge with block tariffs, or a basic charge with time of use (TOU) charges. Industrial consumers have similar choices, but with very different service and energy charges. Block tariffs jump from a low tariff for the first amount of electricity consumed to higher tariffs per subsequent blocks of energy consumed. Figure 25 shows how block tariffs for residential consumers are structured in the five metros that use them.

A change in the shading indicates a change in the tariff. In general, as consumption increases, the cost per unit of electricity increases. All the cities have quite different arrangements and blocks. For instance, Ekurhuleni charges one tariff for up to 450 kWh, whereas Cape Town has a 'lifeline' tariff for consumers who receive less than 450 kWh per month (based on a 12-month average), but the cost increases sharply if consumption is more than 350 kWh. The cost implications of these block tariffs are shown in Figure 26.

Figure 26: Cost of increasing electricity consumption per month per kWh



Ekurhuleni (EKU) is the only city whose tariffs incline at a rate that is clearly aimed at discouraging increased consumption. The inclines in the other cities are less aggressive. Research suggests that consumers respond to the cost of the total municipal bill, not the cost of the block tariffs, and so inclining block tariffs may have minimal impact on electricity consumption compared to consumption under flat rates (Jooste and Palmer, 2013).

The aim of TOU tariffs is to reduce the load on the electricity network during specific times of the day or year, and to encourage businesses to consume electricity when the network is under the least pressure. These tariffs create an incentive to change the time of day when electricity is consumed but do not necessarily encourage energy efficiency. Most cities offer TOU to business and industrial customers but, as Table 41 shows, only three of the nine cities offer TOU tariffs to residential customers.

Table 41: Residential TOU tarrifs

Time of Use Tarrifs (cents per kWh)				
	Peak	Standard	Off-Peak	Peak/Off-Peak
Ethekweni	192.66	96.25	71.3	2.7
Johannesburg				
Summer	109.89	86.93	68.9	1.6
Winter	262.09	104.65	73.38	3.6
Msunduzi				
Summer	89.3	64.4	44.3	2.0
Winter	254	83.7	49.7	5.1

The last column shows the peak/off-peak ratio, which varies across cities. For instance, the winter peak rate is 5.1 times more than the off-peak rates in Msunduzi but 3.6 more in Johannesburg.

Cities can use block tariffs to give consumers a reasonable amount of electricity, including some free electricity, but then penalise them for excessive or inefficient consumption. As Table 41 and Figures 25 and 26 show, the greater the jump between tariffs and the smaller the size of each block, the greater the incentive to become energy efficient. Steep increases in tariffs are likely to increase a municipality's revenue overall because of society's dependence on electricity. Total consumption is likely to fall but not in direct proportion to the price increase. Furthermore, the city pays Eskom one rate and, therefore, will make larger profits from consumers who are paying higher tariffs.

Billing for block tariffs is relatively simple. Ordinary meters can be used. Therefore the cost of imposing block tariffs is relatively low.

Renewable energy

The policy frameworks affecting how cities can use tariffs to encourage the adoption of renewable energy are still being developed. NERSA is responsible for setting and approving tariffs, and issuing licences to generators of electricity (EMM, 2013a). In 2011, NERSA (2011) released the conditions for small-scale embedded generation (SSEG) within municipalities. An SSEG is a household or firm that generates energy from solar or wind (e.g. rooftop solar panels). These conditions apply to a standard (NRS 097-2-1:2010) for which the cut-off capacity of the SSEG is 100 kWh, thereby creating an environment in which municipalities can allow residents to feed into the grid, if less than 100 kWh (Fritz, 2013).

Some important features of the standard conditions are:

- Classical net-metering: SSEGs cannot sell more energy to municipalities than they purchase.
- Municipalities must charge a fixed service charge to SSEGs they buy energy from.
- Households that export to the grid must install smart metering.

In December 2014, NERSA (2014) released a draft discussion document on small-scale renewable energy generation (SSREG) that introduced new conditions (NRS 097-2-3:2014) and included generators that can produce 1 Mega Volt Amp (MVA). It also clarified that only net metering will be permitted, which effectively rules out the possibility of cities being able to buy excess energy from an individual producer. In February 2015, NERSA issued a further consultation document on SSEG regulatory rules (NERSA, 2015), listing items that it would like feedback from stakeholders on. This highlights how emergent the current policy debate is.

Rates for renewable energy

NERSA (2011) allows municipalities to set the net-metering cycle but requires that, over a calendar year, an SSREG cannot export more than it imports. So far, only Cape Town, eThekwini and Nelson Mandela Bay have published application forms for residential embedded generation. Billing in all three cities is on a monthly basis, and so excess energy generated during a month cannot be carried over to months when less energy is produced. This is an incentive for SSREGs to use as much of their generated electricity as possible. Cities can also earn more during months when SSREGs do not produce enough electricity to meet their own needs and so have to buy electricity.

Each city is responding to the policy framework differently. Nelson Mandela Bay has not put in place a revenue-protecting tariff. Energy imported is reduced by the amount exported, to a minimum of zero. If an SSREG imports more than it exports, then step tariffs are applied to the balance. If an SSREG exports more than it imports, the balance is set to zero and a fixed service charge is applied. The city believes that the related economic stimulus is worth the immediate revenue loss to the city (SEA, 2014).

The Cape Town and eThekwini energy rates for renewable energy generation are as follows:

	Import	Export (energy generated)	Service Fee
Cape Town	R109.17	R49.72	R13.03 per day
eThekwini	R131.46	R72.96	R114 per month, but only if consumer imports less than 300kWh in the month

According to its 2014/15 tariff policies, Johannesburg will apply a grid connection charge of R0.50 per kW capacity installed per day and offer consumers a negotiated price. Mangaung has a section for net metering in its 2014/15 schedule of tariffs but only shows rates for generation. No application forms for SSREGs could be found for either city, and so when these policies will be implemented is unclear.

Cost implications of SSREGs

There are five main cost issues cities need to address with respect to SSREGs.

1. **The fixed cost of making electricity available to embedded generators.** The cost to a city of maintaining the connection to an embedded generator's building is the same as for any other customer, but the embedded generator will buy less electricity from the municipality. The grid maintenance costs are included in the unit cost, and so embedded generators that consume only a few units do not pay their fair share of the maintenance costs. Service charges will address this shortfall, which is why they are a feature of NERSA's discussion documents. However, cities cannot make up this shortfall from residents who install solar systems but do not export. These residents are likely to cover most of their electricity consumption with solar and so will only be liable to pay the lowest block tariff, and will be able to connect to the grid whenever they need to.
2. **Technical skills required to support SSEGs.** To deal with the technical challenges associated with embedded generation, cities will need to invest in their staff. Staff will need to understand the new technical standards, and be able to process applications and inspect installations (SEA, 2014).
3. **Updating their billing systems.** Cities will need to accommodate net generation in their billing system (SEA, 2014). In the past, the billing system only had to deal with the flow of energy to customers, but now will need to be able to account for the export of energy from consumers.
4. **Installing smart meters.** The metering technology is central to managing the reverse feed of energy onto the municipal grid. However, the standard prepayment and spinning disc meters are not appropriate. Most prepayment meters increment no matter which way power flows, and spinning disc meters are not designed to reverse accurately. Therefore, specific bi-directional meters are required (SEA, 2014). Cities are approaching this issue differently: Cape Town places the responsibility to purchase the equipment on the SSREG, whereas Nelson Mandela Bay will share the cost with the SSREG. It appears that in eThekwini the onus to install appropriate meters is placed on the SSREG.
5. **Updating bylaws and regulations.** Existing bylaws were written when Eskom held a monopoly over power generation and so need to be adapted to accommodate decentralised generation (EMM, 2013a) – the rewriting of bylaws will incur costs for cities. A completely new way of thinking about electricity distribution is needed, as it is no longer just about distributing power but also about creating and managing flexible demand.[36]

Water systems in South Africa

All cities are responsible for managing the distribution of water to residents, the treatment of water before discharge into water courses, and the maintenance of storm water systems. Cape Town and Nelson Mandela Bay manage their own dams and water treatment facilities, while the rest of the cities buy potable water from water boards. Therefore the rationale for preserving water is different in Cape Town and Nelson Mandela Bay compared to the rest of the cities. Cities need to price water, so that the cost of buying and distributing water to residents is covered. In addition to these costs, Cape Town and Nelson Mandela need to consider scheduling pricing and other interventions that will ensure water is available all year round. South Africa has comparatively low rainfall, with 80% of rain falling during five months of the year (Mwaka 2013, Claasen 2010, Wessa 2013). Therefore, these two cities, and the water boards, need to carefully plan their management and pricing of water across the year.

[36] Feedback given by Megan Euston-Brown from Sustainable Energy Africa

Internationally, volumetric charging has proven to be effective in incentivising efficient water use (Grafton et al., 2009). Where volumetric water charges are not applied, households consume about a third more water than similar households where the charges are applied (EEA, 2013). As with other services, cities face the tensions of relying on revenue from water to cover the cost of providing the service, subsidising free basic services, pricing water high enough to ensure its efficient use and maintain competitiveness.

Inclining block tariffs for water

All cities use inclining block tariffs for water. Table 42 shows the level of consumption at which the inclining block tariffs apply in the SACN member cities.

Table 42: Inclining blocks for residential water consumption

	Steps	0-6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	25	30	35	40	45	50	55	60
Buffalo City	5	9.9	10.14				14.078										18.25		22.9					
Cape Town	6	0	9.98				14.3										21.18			26.16			34.5	
Ekurhuleni	5	0	10.84								13.28								16.53		20.8			
Ethekweni	5	0				10.49												14.36	31.62			34.79		
Johannesburg	7	0	6.18				9.97				14.06						18.46		19.67		24.21			
Mangaung	5	6.04	13.74								14.5								16.1					18.08
Msunduzi	4	16.7*	15.04																22.2					25.91
Nelson Mandela Bay	4	13.5																17.556				27.2688		**
Tshwane	3	5.06	6.83						8.81															

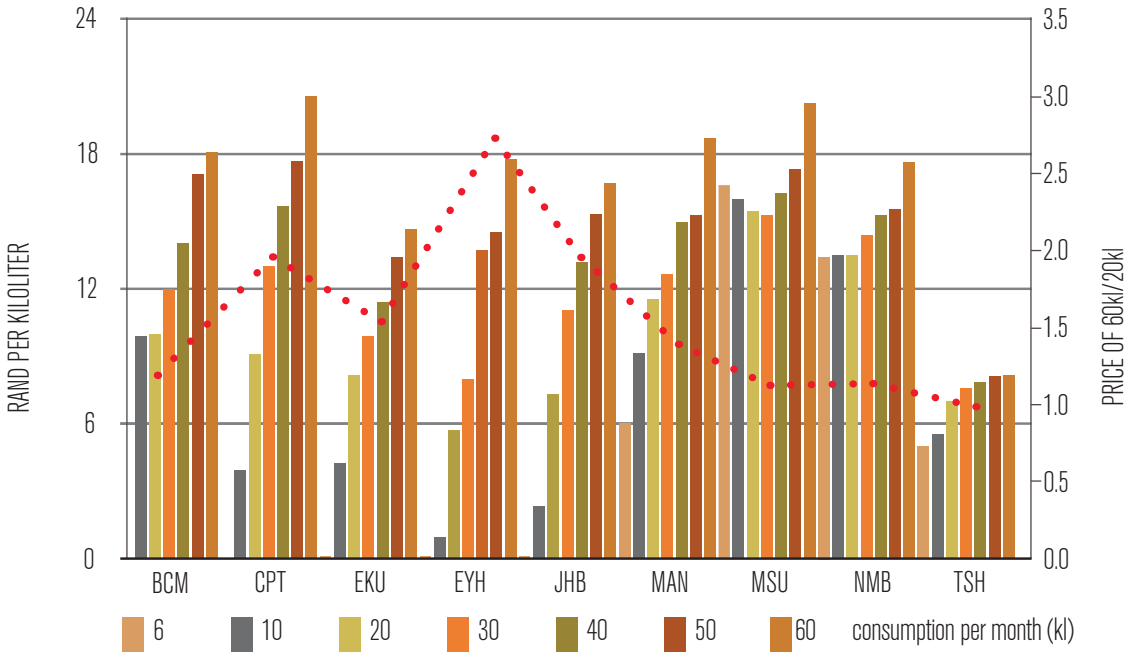
**This is according to the prices in the Msunduzi documents*

***Nelson Mandela Bay steps are: Step 1 and 2: 0.8k/d, Step 3: 1kl/d, Step 4 starts at 78kl and is R35.35/kl*

A change from a light shade to a darker shade indicates an increase in price. The white blocks mean water is free up to the specified level of consumption. The fourth block for Nelson Mandela is not shown, because it begins at 78 kl per month. Johannesburg has the most number of steps and Tshwane the least, even though both cities buy water from the same water board.

Figure 27 shows how the cost of water per kilolitre for a household increases with consumption within a month.

Figure 27: Cost implications of increasing residential monthly water consumption



The rate at which the price increases between each block depends on the city's water conservation strategies and objectives. The dotted red line shows the ratio between the price per kl of consuming 60 kl/month and consuming 20 kl/month. The higher the ratio, the more the tariff structure discourages consumption above 20 kl. eThekwini has the highest ratio and the lowest cost for consuming 20 kl/month. The cost of increasing consumption in Tshwane is sharply different from the rest of the cities, and yet Tshwane, Ekurhuleni and Johannesburg all buy their water from Rand Water. Msunduzi and Nelson Mandela Bay discourage excess water consumption by having uniformly high tariffs across the consumption range. Tshwane's water is the cheapest of all the cities, followed by Ekurhuleni. Water consumption over 50 kl/month is most expensive in Cape Town and Msunduzi.

Financial implications of volumetric charges

Research has established that water is price inelastic, i.e. raising its price will decrease consumption, but not by as much as the cost increases (Arcus GIBB, 2010; EEA, 2013; Renzetti, 2009). Therefore, inclining block tariffs should result in a net increase in revenue for a city. Another financial benefit is that imposing these tariffs is cost effective. Although the billing system needs to be able to charge different rates for different levels of consumption, these can be applied to the total volume of water consumed, which is relatively simple to implement.

Non-tariff mechanisms that can reduce water consumption

At the individual household level, consumption can be reduced by ensuring water pipes, taps and toilets are not leaking, and by using water efficiency products such as flow reducers.

Cities can promote water efficiency standards for buildings. For instance, Savewater in Australia* has rebates that encourage water conservation, including rebates on water tanks, showerheads, garden products, greywater systems and dual flush toilets. Victoria State offers similar rebates for water meters, flow control devices and hot water recirculators (Living Victoria, 2012).

Cities could introduce 'water clearance certificates' that customers can use to earn rebates. The certificate, or level of rebate, could depend on no taps or toilets leaking, grey water-harvesting and rainwater-harvesting systems installed, dual flush toilets and smart water meters installed.

*See http://www.savewater.com.au/products/rebates-incentives

Sewerage treatment

Cities should try to reduce the volume of sewerage discharged in their water treatment systems because reducing volumes can lead to lower operational costs, and the Department of Water Affairs is testing a waste discharge charge system (WDCS). Under this system, municipalities will be charged according to the content and volume of treated effluent discharged into water courses. As household sewerage contributes significantly to this volume, and so reducing this volume potentially reduces the charges that are likely to be imposed in future. Most cities link sewerage and sanitation charges to water consumption. This is logical, as the majority of water consumed in a house is discharged into the sewer system via toilets, baths and showers. Generally this charge is a fixed proportion of the water charge,

Industrial effluent

The proper management of industrial effluent is crucial to preventing environmental damage. The costs of not controlling effluent properly are potentially massive. The illegal discharge of effluent into river courses or the sea has significant risks. Chemical deposits from effluent can destroy ecosystems, with expensive knock-on costs. High concentrations of certain chemicals corrode concrete, eventually leading to structural damage of wastewater treatment plants and storm water drainage systems.[37]

[37] http://en.wikipedia.org/wiki/Concrete_degradation

The cities' tariff and rates policies outline how firms are charged for discharging industrial effluent into the sewers, based on the volume of effluent discharged. Most cities also have a schedule of permitted concentrations of chemical substances. If effluent is found to contain a higher than permitted concentration, a charge is levied according to the substance and the concentration. Wastewater and effluent is treated at a city's wastewater treatment works, and the final effluent is then discharged into an adjacent water resource. The effluent's chemical make-up must not be detrimental to the water resource it is discharged into. The higher the chemical concentration of effluent discharged by firms, the more costly it is for municipalities to treat (Bailey, 2004). Therefore, reducing the volume and concentration of effluent means reduced costs for the cities.

Cities need to structure their effluent discharge charges in a way that encourages cleaner production. The charges should make it financially worthwhile for firms to implement efficient production processes and/or treat their waste on site. Either approach should lead to reductions in both volume and concentration of effluents.

Costs for cities. Different business processes use different chemicals, which are converted into different types of effluent. Cities need people with the skills to design effluent tariffs that are reasonable for firms to comply with, but that also force them to clean their effluent in a way that doesn't harm the municipal treatment plants. For instance, in eThekwini, firms with on-site treatment facilities are able to reduce the chemical oxygen demand (COD)[38] in their effluent, but the remaining COD is more costly to treat using existing treatment techniques (Bailey, 2004). Effluent from firms needs to be measured regularly to ensure compliance with requirements and/or ensure appropriate charges and penalties are levied.

Financial benefits from effluent charges. Cities can raise substantial revenues from effluent charges. The costs of implementing effluent charges are easy to isolate, and cities should ensure revenue covers monitoring and other costs related to the treatment and discharge of the effluent. Stricter controls over effluent force factories to become more efficient, through reduced consumption of chemicals, improved processes and new ways to recycle or upcycle their waste. In most industries, these efficiency gains lead to improved profits, which benefit the local economy.

Reducing run-off

Cities are responsible for constructing and maintaining storm water drainage systems, so the less runoff into these systems, the less cities need to spend on both building and maintaining them (Meinzen, 2009). Properties with large impervious surface areas increase the water runoff into storm water systems, and excess urban storm water can cause the degradation of urban waterways and adjacent coastal waters (PMSEIC, 2003). Excessive storm water also raises the risk of drains getting blocked, resulting in flooding, which is disruptive and causes costly damage. Rain that falls on permeable surfaces, such as lawns, flower beds and vegetable gardens, infiltrates the ground and becomes a resource where it falls. Therefore, it makes sense for municipalities to reduce runoff into storm water drains.

Cities can use taxes that incentivise property owners to reduce impervious surface areas, such as roof areas and hard ground covers such as concrete or tar. In Germany, the rain tax is based on the amount of impervious surface cover on a property that leads to runoff into the local storm sewer.[39] In April 2013, the State of Maryland in the United States also introduced a similar tax, or 'storm water management fee' (John, 2013, McMillan, 2013) that is levied on the amount of impervious surface on a property. Satellite imagery is used to measure the impervious surfaces of properties for purposes of imposing the levy (Greenfield, 2013).

South African cities could copy this tax, which would need to be introduced as a new tax and would be a new revenue source. Like in Maryland, satellite imagery could be used to calculate the charges per household, which is not expensive. The costs would be in establishing the systems and capacity required to deal with queries (which are likely, as the satellite images can be outdated by a few months).

In cities with a large base of property owners, the revenue yield from a rain tax should more than cover the administrative costs of the tax. The tax can be justified, as residents with more impervious surface area impose greater costs on the municipality. Such a rain tax would not significantly alter the current stock of impervious ground covers, as the cost of reducing impervious surfaces is likely to be more than the resulting reduction in the rain tax. However, such a tax could influence future behaviour, by discouraging people from paving areas where it is not necessary. Cities could link rebates on the rain tax to compliance with the water efficiency standards and water clearance certificates (see box about non-tariff mechanisms that can reduce water consumption).

[38] The chemical oxygen demand is a test to determine the amount of organic pollutants in water
[39] http://www.harvestingrainwater.com/rainwater-harvesting-inforesources/water-harvesting-tax-credits/

Buildings

The design of a building affects its impact on the environment. For cities, the best way to influence these designs is through regulations. In addition, there is a strong environmental case for cities to incentivise property owners to make changes to their buildings, given the impact of environmentally unfriendly building designs. To do so, a city could introduce an 'ungreen building tax' that is levied on buildings not compliant with the 2011 South African National Building Regulations (specifically the SANS 10400–XA standards) or the city's own stricter green building standards. The standards can be used to create a number of levels of compliance. The less compliant a house or building is, the higher the tax.

However, it is questionable how effective such a tax will be at bringing about changes to existing buildings and so the tax will be largely punitive. Resistance to the tax could be mitigated, if cities created opportunities for property owners to earn rebates or be exempted from the tax if they make 'green investments' in their properties which lead to compliance with the SANS10400-XA standards. These investments can include:

- Water-saving technology: installing rainwater tanks, achieving water clearance certification and associated water-saving technologies.
- Energy efficiency investments: solar geysers or heat pumps, solar energy (photovoltaic) installations, energy-efficient lighting, removing underfloor heating.
- Investments that improve the insulation of the house: ceiling insulation, aluminium windows, double-glazed windows.

The financial implications are that the tax will be a new form of revenue for the city and its implementation will come with costs. Cities will need to apply to the Minister of Finance for permission to impose a new municipal tax and will need to draft, consult and obtain buy-in on building specifications, as well as invest in human resources. Procedures such as initial assessments could be performed during property rates evaluations. Better building designs will bring operational efficiencies, which for cities may come at a cost: if the designs reduce electricity and water use, municipal revenues will be reduced.

Freiburg, in Germany, introduced the 'low-energy housing construction' law, which obliges contractors to build according to low-energy guidelines, to orient buildings so that their capacity to use passive solar energy is maximised, and to make roofing available for solar collectors. (C40Cities, 2011). LEED, the United States Green Building Council, is a similar building standard.

Solid waste and refuse removal

Waste is collected at source and transported to landfill sites, where it might be processed before being buried. Therefore, reducing the amount of waste produced in cities can lead to both transport and operational cost savings (Cobbinah, 2012). Tariffs can be used to influence the volume of waste produced in various ways:

- In South Korea, residents purchase volume based waste fee (VBWF) bags, which are available for different types of waste. The local government factors in the cost of waste management into the price of the bag (KEI, 2012).
- Tshwane has a solid waste tariff based on the volume of waste collected every week, i.e. 85-litre, 240-litre, and 1100-litre containers. There is also a rate for collecting waste from 85 litre bins twice a week.
- The volume of waste can be measured at the point of collection and the household charged accordingly. However, this approach is administratively intensive and requires expensive equipment. Research has shown that South African municipalities do not currently have the capacity to implement a system of this nature (DEA, 2015).

Using tariffs to influence volumes of waste produced is not straightforward. A tipping point is reached when the tariff charged creates an incentive for residents to dump waste illegally rather than the use the municipal system. Addressing this is potentially much more costly for the city. In addition, the VBWF approach used in South Korea must be supported with monitoring and enforcement, the costs of which can easily exceed the financial benefits of the system.

Currently, refuse charges in most cities are linked to property rates, and this simple fee structure may be the most efficient approach, given existing skill levels in cities. While this approach may not result in reduced waste, a number of cities are implementing measures (or are developing strategies) to process and recycle waste so that less reaches landfill sites (DEA, 2015). These measures are implemented after refuse has already been collected.

Reducing emissions through taxes and tariffs

Cities are responsible for 25% of energy-related pollution emissions (SEA, 2015). In Johannesburg, 38% of emissions are from the transport sector and 28% from industries In the Cape Town city centre, this figure is estimated to be 44% (City of Cape Town, 2014). By targeting industrial and transport emissions with appropriately designed tariffs cities could reduce pollution.

Parking taxes

Increasing the cost of parking and/or reducing the supply of parking spaces are disincentives to travelling by private vehicle and so reduce emissions. There are two methods for taxing parking bays:

- **A commercial parking tax is a tax** on all parking transactions and is used in the United States, in San Francisco, Pittsburgh and Miami.
- **A per-space parking tax** is a tax on the number of parking bays or the surface area of the parking lot, and is used in Australia, in Sydney, Perth and Melbourne.

In South Africa, city regulations prescribe the number of parking bays for new buildings, which means the tax base is completely within the city's control. A parking bay tax would, therefore, create a conflict of interest. The city would have an incentive to increase the number of parking bays required, so as to increase revenue from the tax. However, increasing the number of bays available increases the amount of traffic into the city. A mechanism is needed to resolve this conflict.

Congestion charges

Congestion charges can reduce emissions in two ways. The revenues generated can be invested in public transport systems, thereby shifting commuters from emission-intensive private transport to using less emission-intensive forms of public transport (Martino 2012; Transport for London 2014). Alternatively, the charge itself reduces the number of private cars on roads, resulting in lower emissions. The two types of these road-based charges that cities can consider are (Ueckermann and Venter, 2008):

- **Corridor charges,** where a toll or similar charge is be applied to users of a road, bridge or tunnel. Generally these are used to raise revenues to recoup the costs of building the particular corridor. The e-tolls in Gauteng fall into this category of charge.
- **Congestion charges** levied on vehicles each time they enter a zone within a city. The purpose of the charge is to discourage vehicle owners from using a vehicle within the zone.

International experiences with congestion charges have found that congestion charges generate surplus revenues and are profitable for cities, despite the high capital investment and operational costs. This capital investment does not need to affect a city's cash flow, as the future revenues of a congestion zone can be used as collateral to raise finance needed to set up the congestion charges (Börjesson et al., 2012; FHWA 2010). Congestion zones also have the potential to reduce travel times in a city, which has the effect of increasing the city's population density, thereby increasing the pool of labour available in the city. A larger labour pool ordinarily translates into increased economic activity in the city.

Edna Peres

International examples of congestion charges

London: The congestion zone was launched in 2003 and is managed by Transport for London. Cars that enter the zone between 07h00 and 18h00 are charged a daily charge (£11.50 in January 2015). In 2008, a low emissions zone was launched, which is larger than the congestion zone. Cars that do not meet emission requirements are charged when entering this zone, and increasingly strict requirements have been introduced. Cameras with number plate recognition technology are used. The congestion charges create an operating surplus that is invested back into the London transport system (Komanoff, 2013; Timms, 2013; Transport for London, 2008, 2014).

Milan: In 2008, the zone a traffico limitato (ZTL) was introduced, with a charge on vehicles with high-polluting engines. It became permanent in 2013. The charge is now applied to all vehicles entering the ZTL, except for electric vehicles, motorcycles, scooters and public transport vehicles. Cameras with number plate recognition technology are used. The zone generates surplus revenues that are invested into public transport systems (European Commission, 2013; ITF, 2014).

Stockholm: Congestion charges were introduced on a trial basis for the first six months in 2006, then re-introduced as a permanent charge in August 2007. Different rates are charged depending on the time of travel into or out of the city, and a maximum daily charge applies. The charges apply to the whole city. Cameras with number plate recognition technology are used. Surplus revenues generated are earmarked for road improvements (Börjesson et al., 2012; Expert Group Summary, 2007).

Singapore: The aim of electronic road pricing (ERP) system is to optimise the use of transport infrastructure through a range of road use charges that are recalculated four times a year. The Singapore Land and Transport Authority bases its calculations on an optimal speed range of 20–30 km/h on arterial roads, and 45–65 km/h on expressways. Vehicle owners must install electronic identification units in their vehicles that are recognised by gantries. The ERP generates surplus revenues, which form part of the city's general revenues (IBM, 2006).

It is doubtful that congestion charges will be feasible in South Africa, at least in the medium term, for the following reasons.

- While on paper the size of the economies and populations in Johannesburg, Cape Town, eThekwini and Tshwane are probably large enough to support a viable congestion cordon, the extent of income inequality makes developing an equitable charging structure difficult, i.e. does not impose an unfair burden on poorer households.
- Congestion charges cannot work without the willing compliance of commuters. Toll gates that require vehicles to stop and pay will increase congestion. The recent experience with e-tolls in Gauteng suggests that congestion charges are likely to encounter considerable opposition, rather than willing compliance.
- Cities with a few entry points into the congestion zone (i.e. city centre) can implement these systems quite cheaply (Kamonoff, 2013). Most cities in South Africa have multiple entry points into the city centres, which would raise the cost of implementing and maintaining the systems.

Industrial emission charges

Cities are home to factories that emit harmful gases into the atmosphere. These gases create health problems for residents and also damage the environment. Cities need to put measures in place to control the volume of harmful gases emitted. In South Africa, the control of emissions is governed by the National Environmental Management: Air Quality Act (No. 39 of 2004). Companies are required to apply for an Atmospheric Emission Licence (AEL) if they emit gases that have an adverse impact on ambient air quality. The AELs are issued by district municipalities and cities (Western Cape Government, 2012).

Cities can charge a processing fee for the licence and may charge polluters who do not comply with the Act fines of up to R5-million. However, even though cities are responsible for the administering the licences, the DEA set the licence fees at a rate that is intended to cover only the AEL application and administrative costs. The fees do not cover other direct costs associated with the administration of the licences, such as qualified staff, vehicles and equipment used for monitoring and enforcement.

Cities also need to invest in the expertise to manage the inherently conflictual relationship with polluting industries – including lobbying and court processes. This requires both intellectual and legal resources, which come at a significant cost. Unless the fee structure changes, charges are unlikely to become important revenue sources for cities. The current system also does not create appropriate financial incentives for cities to enforce emission standards and reduce industrial emissions.

International examples of emission charges

In South Korea firms are charged according to their emission levels. Local governments use a smokestack tele-metering system to monitor emissions levels. Data is collected and analysed to determine whether permissible emissions standards have been exceeded and to calculate the level of the emissions charges to be billed (MOE, 2011). If permitted levels are exceeded, then the polluter is liable to a fine or even imprisonment.

The United States Environmental Protection Agency (EPA) has a similar system, whereby polluters must pay a permit fee. Permitting authorities must ensure polluters do not exceed minimum permitted levels of emissions, which can be set at more stringent levels than the national standard. The EPA issues a presumptive minimum emissions fee, which is a fee authorities charge per year per ton of emissions. In 2014 (year ending August), this fee was $48.52. Authorities can choose to set their fee above or below this level, but must set it at a level that can cover operating costs (EPRI, 2001).

Conclusion

Despite a lot of work being done by cities to develop green economy strategies, cities do not view tariffs as an important component in these strategies. Yet, this chapter has highlighted a number of ways in which cities can use tariffs to encourage resource use efficiency. Some can be implemented within existing rates and tariffs policies, whereas others would require municipalities to apply for a new tax, as required by the Municipal Fiscal Powers and Functions Act. In most cases, cities have the power to act, but their hands are tied by existing legal framework in certain cases, most notably emission charges and electricity. Nevertheless, a number of key points have emerged.

- **Cities have an obligation to take the initiative and lead the transition to the green economy.** Cities are home to dense concentrations of large populations, which means that small changes can lead to disproportionate gain. Cities are also hotbeds of innovation and fertile testing grounds for new approaches.
- **Tariffs and taxes are one of many instrument cities can use to reduce environmental degradation and/or decouple economic and other activity from environmental impacts.** Tariffs need to be supported by other mechanisms, especially a comprehensive legal framework that is rigorously enforced. Compliance monitoring and enforcement are crucial. Cities also need to make ongoing strategic and intelligent investments that enable residents and businesses to make green choices.
- **Cities run the risk of losing revenues if they implement an aggressive energy-efficiency strategy.** The rate of technological change in solar photovoltaic panels and, importantly, battery storage, is making solar generation increasingly more affordable. The appeal to move off-grid becomes even more attractive, when the rising costs of electricity and problems with the reliability of supply in South Africa are considered. The possibility of a mass migration of people off the electricity grid is quite plausible. Therefore, cities in South Africa are at 'risk' due to factors largely not of their making and need to explore strategies to work with, rather than ignoring or trying to fight this trend.

- **Cities need to find the level at which tariffs bring about behaviour change but do not damage competitiveness or encourage non-compliance.** Using tariffs and taxes to encourage resource use efficiency brings a number of complexities. Priced right, the charges can generate revenue and reduce and/or prevent operational costs for cities, and improve living conditions for residents. Priced too high, the charges can lead to costly unintended consequences and loss of revenues.
- **Cities must first have the technical capacity to implement innovative tariffs and taxes.** Skilled people are needed to design, implement and sustain the instruments discussed in this chapter. If this capacity is not present, the results can be very costly on city resources.
- **The financial viability of a green tariff or tax should not be the only measure of its value.** New tariffs or taxes introduce many changes that are long lasting and/or have a wider impact than a direct response to the charge. For instance, companies respond to emission and effluent charges by introducing cleaner and more efficient, and more profitable, business processes.

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Mike Barwood

7

Financing the Human Settlements Mandate

Written by Nick Graham and Kevin Foster

Financing the Human Settlements Mandate

'Human settlements' is a contested term that is widely used but poorly defined. The term was first introduced into mainstream discourse in the Comprehensive Plan for the Development of Sustainable Integrated Human Settlements policy, commonly referred to as the Breaking New Ground (BNG) policy (DoH, 2004). Its prominence was cemented through the subsequent change in the name of the national Department of Housing to the Department of Human Settlements (DHS) in 2009. The 'shift' from housing to human settlements is characterised by a greater focus on the quality of neighbourhoods and public space, as opposed to houses on individual properties (SACN, 2014). However, there is a tension between this broader, spatially based concept, and the narrower, sector-based functional mandates of the three spheres of government as provided by the Constitution. Because of the way functions are allocated, human settlements are everybody's business, but nobody is responsible for everything.

Chapter 3 of the 2013 State of City Finances Report (Coovadia, 2013) dealt with the specific institutional, planning and financial implications of the assignment of the housing function. This chapter examines what the broader human settlements mandate means for cities' functional responsibilities, how these functions are currently funded, associated problems with funding, and potential alternative funding arrangements to address some of the problems identified.

Defining the Human Settlements Mandate

Sustainable human settlements are defined in the BNG policy as:

> *well-managed entities in which economic growth and social development are in balance with the carrying capacity of the natural systems on which they depend for their existence and result in sustainable development, wealth creation, poverty alleviation and equity. (DoH, 2004: 11)*

This definition is further expanded by a footnote that defines the vision of sustainable human settlements:

> *The present and future inhabitants of sustainable human settlements, located both in urban and rural areas, live in a safe and a secure environment and have adequate access to economic opportunities, a mix of safe and secure housing and tenure types, reliable and affordable basic services, educational, entertainment and cultural activities and health, welfare and police services. Land utilization is well planned, managed and monitored to ensure the development of compact, mixed land-use, diverse, life-enhancing environments with maximum possibilities for pedestrian movement and transit via safe and efficient public transport in cases where motorized means of movement is imperative. Specific attention is paid to ensuring that low-income housing is provided in close proximity to areas of opportunity. Investment in a house becomes a crucial injection in the second economy, and a desirable asset that grows in value and acts as a generator and holder of wealth. Sustainable human settlements are supportive of the communities which reside their [sic], thus contributing towards greater social cohesion, social crime prevention, moral regeneration, support for national heritage, recognition and support of indigenous knowledge systems, and the ongoing extension of land rights.* (DoH, 2004: 11)

These definitions imply that the concept of human settlements is broad and encompasses multiple systems in the built environment. The term 'human settlements' may refer only to the residential areas in a city or to the non-residential areas as well, in which case 'human settlements' is synonymous with 'cities'. Given that much of the discourse around human settlements relates to land and housing, this chapter restricts the definition to residential areas and associated facilities at the settlement (neighbourhood) level.

In addition to narrowing the definition of human settlements, the tangible elements that comprise human settlements need to be distilled. In other words, what assets do the public sector, and municipalities specifically, need to provide? [40] There are four categories of capital items at a settlement level that need to be financed:

- Land, on which to build houses, engineering services and social infrastructure.
- Housing, including the various shelter typologies that are considered 'adequate'.
- Engineering services, including water supply, sanitation, electricity, solid waste, stormwater, roads and public transport to support human settlement development.
- Social infrastructure, including provincial social facilities (health and education facilities) and municipal community facilities (community halls, sports and recreation facilities, parks, libraries, clinics, cemeteries).

Any discussion on public finance must consider the respective powers and functions of the three spheres of government. Table 43 illustrates in which sphere of government the legal mandate for each of the sub-components of human settlements lies.

Table 43: Legal mandates for human settlements functions[41]

Component	National	Provincial	Local	Notes
Land	x	x	X	National responsible for land registration. Local responsible for land-use management and spatial planning. Complicated by the existence of traditional land.
Housing	X	X		Concurrent national/provincial function, but local government has to be accredited to perform aspects of the housing function, and can be assigned the function as a whole.
Potable water supply			X	National responsible for water resources and non-potable water supply. Local responsible for potable water supply systems.
Sanitation			X	Exclusive municipal responsibility for domestic wastewater and sewage disposal systems.
Electricity distribution			X	National responsible for electricity generation and transmission. Local responsible for distribution and reticulation.
Solid Waste			X	Exclusive municipal responsibility. Private sector plays a role in non-residential waste collection.
Storm-water			X	Exclusive municipal responsibility.
Municipal roads			X	National and provincial roads are not particularly relevant with regards to human settlements.
Public Transport	X	X	X	Concurrent national/provincial function, but local government responsible for municipal public transport. Passenger Rail Agency of South Africa (PRASA) operates passenger rail.
Health	X	X		Concurrent national/provincial function, but local government responsible for many clinics.
Education	X	X		Concurrent national/provincial function.
Community facilities		x	X	Provinces have exclusive competence for libraries and museums, but many of these are run by municipalities. Other functions are municipal responsibility, such as parks, sports facilities, public art, and community halls.
Police	X	X	x	Concurrent national/provincial function, but local government enforces municipal bylaws and manages metro police.

Table 43 indicates two important things. First, municipalities have a role in all components but do not have primary (or associated funding) responsibility for many of the services. Second, there are functional overlaps between spheres for many of the human settlements functions. These arrangements of powers and functions for the various components of human settlements 'contribute to a fragmented and complex funding framework for these functions' (Tshangana, 2014/15). From a municipal perspective, the human settlements mandate is core to the local government mandate and covers most of what municipalities do. Therefore, the financing of the human settlements mandate is in large part the financing of municipalities, but also funding that is external to the municipality.

[40] Excluding private land, buildings and services, as these are not within the municipal human settlement mandate.
[41] Large X denotes primary responsibility for the function at a human settlement (neighbourhood) level in terms of the Constitution, while small x denotes some, but lesser, responsibility.

Provincial government assumes primary responsibility for health, but the responsibility for primary health facilities (clinics) is shared by local and provincial government, although some provinces are in the process of transferring this responsibility to the local sphere. Cities play a major role in providing libraries, in many cases without the assistance of the province, and require transfers to fund the function. However, these transfers do not cover the full cost of running these facilities, resulting in an unfunded mandate.[42]

Section 156(4) of the Constitution of South Africa (Act 108 of 1996) incorporates the principle of subsidiarity: national and provincial government must assign to local government functions that would be most effectively administered locally, provided the municipality has the necessary capacity. In this respect, responsibility for the housing and public transport functions are in the process of being assigned to local government: housing through the accreditation and assignment process laid out in the Housing Act (No. 107 of 1997) and the National Framework for Assignment and Accreditation (DHS, 2012); public transport through the National Land Transport Act (NTLA) (No. 5 of 2009). While cities are beginning to assume all the responsibilities provided for them in the NLTA, a MinMEC[43] decision has delayed the assignment of the housing function to metros until national and provincial concerns around capacity issues have been addressed. The fact that housing has not been integrated with other built environment functions in metros and other large cities is problematic (Coovadia, 2013; Graham et al., 2014; Zitumene, 2014).

The analysis that follows focuses on the funding of functions that currently (fully or partially) reside within the municipal mandate, as well as the integration of these funding streams with each other and with external funding. The focus will be on sources of capital finance, except where they are dependent on operating revenue or where investment decisions affect municipal financial viability.

Current City Finance Mechanisms for Human Settlements

The four main sources of capital revenue for municipal infrastructure are national government grants, internal capital reserves, borrowing, and private sector contributions.

Grant finance for human settlements

Several capital grants fund different components of human settlements.

Table 44 analyses the current national grants available to municipalities and other spheres of government to fund the human settlement mandate, as well as their quantum (in descending order) and their potential use. Many of the grants, particularly those with a higher value, are administered by parties external to the municipality.

Tshangana (2014) traces the cyclical history of the rationalisation and proliferation of grant funding in the built environment. The Municipal Infrastructure Grant (MIG) and the Urban Settlements Development Grant (USDG) result from periods of grant consolidation, but a number of sector-based grants remain that have an impact on human settlements. Excluding the PRASA capital grant and the education and health grants, in which the municipality has no role, the three grants with the greatest value to municipalities, and with the widest application, are the Human Settlements Development Grant (HSDG), the Urban Settlement Development Grant (USDG) and the Public Transport Network Grant (PTNG).[44]

[42] An unfunded mandate is when 'cities perform the functions of other spheres of government and bear significant costs out of their own revenue sources' (SACN, 2007: 78).
[43] Minister and Members of Executive Council
[44] Formerly the Public Transport Infrastructure and Systems Grant, and more recently the Public Transport Infrastructure Grant.

Table 44: Capital grants for human settlements in cities

	Land	Housing	Water	Sanitation	Electricity	Solid Waste	Stormwater	Roads and Transport	Community facilities	Health	Education	R million (2015/16)	Comment
Municipal capital grants													
Urban Settlements Development Grant (USDG)	X		X	X	?	X	X	X	X	X		10,554	Use for electricity is under debate. Only for current metros
Public Transport Network Grant (PTNG)								X				3,995	
Neighbourhood Development Partnership Grant (Capital) (NDPG)	X								X			390	Primarily funds public space and buildings
Integrated National Electrification Programme Grant (INEP)					X							265	
Integrated City Development Grant (ICDG)	X	X	X	X	X	?	?	X	?			251	Catalytic projects in integration zones
Municipal Infrastructure Grant (MIG)			X	X	X	X	X	X	X			192	Only applies to Msunduzi
Sub-total												15,647	
External capital grants													
Housing subsidies	X	X	?	?			?	?	X			7,624	Can fund internal services as a last resort. Electricity funded through INEP
PRASA Capital Grant								X				3,527	Estimate for cities
Education Infrastructure Grant											X	2,952	Estimate based on population
Health Facility Revitalisation Grant										X		1,598	Estimate based on population
Integrated National Electrification Programme (Eskom) Grant					X							269	
RBIG ex Dora(District allocation)			X	X								30	Project specific
Sub-total												15,999	
Total												31,647	

Sources: Division of Revenue Bill (No. 5 of 2015); PRASA Annual Report; author's own calculations

Urban Settlement Development Grant

The USDG replaced the MIG (Cities) in 2011/12 by combining the MIG (Cities) fund with the portion of the HSDG (estimated at 15% of the metro allocation) allocated to internal infrastructure for housing projects in metros, and some additional funding. While the MIG (Cities) was a supplementary capital grant primarily for bulk infrastructure provision to serve the poor, the merger of the funds with the portion of the HSDG focused the use of the new grant, unlocking constraints hindering human settlement projects. The original purpose and rationale for the USDG is set out in the Division of Revenue Bill (DORB No. 4 of 2011: 93–94) from 2011 – the year in which it was introduced. The grant was created to enable metros:

> *To better leverage their resources to develop sustainable human settlements. The grant funds the provision of basic municipal services to new housing projects and will allow municipalities to plan and budget for both services and the construction of housing as they attain authorisation for the human settlements function.*

The grant purpose, as stated in the DORB (No. 5 of 2015: 43),[45] is to supplement 'the capital revenues of metropolitan municipalities in order to support the national human settlements development programme, focusing on poor households'. The grant is, therefore, directly aimed at financing the human settlements mandate and covers all the components of human settlements mentioned in Table 43, with the exception of housing top structures and education. In practice, the DHS, as the transferring department, has encouraged cities to prioritise bulk infrastructure for new housing developments rather than address infrastructure backlogs or renewal of infrastructure assets. The grant is a supplementary grant to municipal capital budgets and, as such, is highly flexible but is intended to be used for infrastructure that supports low-income housing. Its use for electricity supply to housing is currently a matter of debate between metros and the DHS. Projects selected for funding from the USDG – as well as the HSDG, Integrated National Electrification Programme Grant (INEP), Integrated City Development Grant (ICDG) and Neighbourhood Development Partnership Grant (Capital) (NDPG) – must form part of the metro Built Environment Performance Plan (BEPPs).

An evaluation of the USDG found that it has been positively received by metros due to the scale and flexibility of the funding (DHS, 2015a). However, there are criticisms from both national and provincial government that the grant is not sufficiently targeted at human settlements but is spent on too broad a range of outputs (DHS, 2015a). One of the main reasons for the conversion of the MIG (Cities) grant into the USDG was to introduce the ability to purchase land and to accelerate the housing delivery programme. The evaluation found that the USDG is not being implemented according to its original design, but suggests that this is because of an inadequate definition of human settlements, as well as a disagreement between the DHS, National Treasury and the metros about the scope of the grant, largely because the monitoring framework is inappropriate for a supplementary, outcomes-focused grant.

Human Settlements Development Grant

In 2005, the Housing Subsidy Grant was merged with the Human Settlement Redevelopment Grant to form the Integrated Housing and Human Settlement Development Grant, which funded national housing programmes. In 2010 the name of the grant was changed to the Human Settlements Development Grant (HSDG), with the only notable change in the policy being the inclusion of basic social and economic infrastructure in the grant outcome statement. As it currently stands, the purpose of the grant is '[t]o provide funding for the creation of sustainable and integrated human settlements' (DORB No. 5 of 2015: 154), and the outcomes are:

i. the facilitation and provision of adequate housing and improved quality living environments;
ii. a functionally equitable residential property market; and
iii. enhanced institutional capabilities for effective coordination of spatial investment decisions.

Although the title implies that this grant is intended to fund all aspects of human settlements, it is still primarily a housing grant used to fund the various housing programmes described in the Housing Code (DHS, 2009).

With the creation of the USDG, the implication was that the HSDG in metros would fund top structures only, and the municipality would use the USDG to provide land and internal infrastructure, although this is not made explicit in the Division of Revenue Act (DORA) grant framework or any policy document. It is uncertain whether or not provinces should still contribute, where necessary, for land and internal reticulation if metros cannot fund these items. The formula for the allocation of HSDG from provinces to cities is not published, and provincial DHS do not gazette these amounts annually (although required to do so in terms of the DORA). The only way to determine this allocation is either to analyse historical transfers to the cities (which would exclude any direct expenditure by provinces in the cities) or to look at the provisions made in the 2013 and 2014 DORBs in anticipation of the metros being assigned the housing function.[46] These provisions have been removed in the 2015 DORA. For cities with Level 2 accreditation[47] the only HSDG funds transferred to cities are for approved housing projects on a payment milestone basis.

The format and quantum of the housing subsidies funded through the HSDG vary from programme to programme. A range of housing programmes, including the Integrated Residential Development Programme, are aimed at households earning less than R3500 per month. A Finance-Linked Subsidy Programme caters for the 'gap' market, i.e. households earning between R3500 and R15,000 per month. Although the subsidy amount has increased annually to keep up with inflation, the qualifying threshold has not. The R3500 per month threshold in 1994 is equivalent to approximately R12,200 per month in 2015.[48] While the

[45] At the time of writing, the 2015 Division of Revenue Act had not been gazetted
[46] Buffalo City and Mangaung were not included in the DORB, as they were not being considered for assignment of the housing function at the time.

state continues to subsidise the poorest households, the proportion of total households able to access the subsidy is declining as a result of inflation, while the proportion of households in the 'gap' market is increasing.

Despite the HSDG specifying social and economic amenities, there is no evidence of such a programme being applied in cities. Many projects funded through the HSDG include the provision of internal engineering services, but as of 2007 the cost for internal municipal engineering services was to be financed from 'alternative sources', and the housing subsidy used as an 'option of last resort' (DHS, 2009, Part 3 Vol 4: 6). Similarly, the land associated with housing development can be purchased using the HSDG but, preferably, should be donated by the municipality, province or developer. Municipalities have highlighted the fact that, although the housing subsidy quantum has steadily increased, it is often inadequate to cover the cost of land and services, which is then covered using grant funding (USDG or MIG) or internal reserves.

Public Transport Network Grant

The Public Transport Network Grant (PTNG) to cities initially took the form of a consolidated infrastructure and operation grant to fund projects related to the 2010 FIFA World Cup and subsequent large-scale public transport projects in cities (mostly bus rapid transit systems). The grant was split into separate capital and operating grants between 2013 and 2014, but was re-consolidated in the 2015 DORB, to provide incentives for cities to design financially sustainable systems over the long term (DORB No. 5 of 2015). The PTNG can be used for any aspect of the integrated public transport network, including new public transport infrastructure and upgrades to existing transport infrastructure. The grant is administered by the Department of Transport, and relies on the Integrated Public Transport plans of the participating cities. As a result, the grant's informants are largely limited to technical criteria, but it does require alignment with other sectoral plans and integration with other grants through the municipal BEPP, the Integrated Transport Plan and the Spatial Development Framework (SDF).

Internal reserves

Municipalities are free to determine how their capital reserves are allocated, which may include investing in any of the various components of human settlements. However, the availability of internal reserves depends on cash surpluses generated by the municipality. In theory, depreciating assets will generate operating surpluses that can be used for asset renewal. Municipal reserves tend to be the capital finance source of last resort and are used to fund infrastructure that cannot be financed through grants or debt, or provided by private developers. Community facilities tend to fall into this category. Although they can be financed by the USDG, these funds are usually prioritised for costly network infrastructure. This constrains municipalities in their ability to refurbish existing facilities and meet community facilities requirements for low-income areas.

Borrowing

Borrowing is not a funding 'source' but rather a mechanism of amortising capital costs onto the operating account to recover these over time. Therefore borrowing, together with internal reserves, is considered to be 'own source' funding. Borrowing is most suitable for financing assets that generate a revenue stream, which can then be used to repay the loan. In the context of human settlements, this would apply to non-poor households and non-residential consumers. Municipalities typically use loans for bulk and distribution electricity, and water and sanitation infrastructure, as these have the most reliable income streams. Loans could also conceivably be raised for solid waste and road infrastructure. Debt finance is not typically used for internal infrastructure because developers provide high income and non-residential infrastructure, while grant funding is used to provide residential infrastructure for the poor, which does not generate reliable revenue streams. Loans are also not used for community facilities, as these typically do not generate revenue streams. One potential application of borrowing for human settlements would be if municipalities were in the business of developing medium- and high-income housing for rental and profit generation. However, as this is not the case, using borrowing to finance low-income human settlements is limited.

Private sector contributions

The form of private sector contributions to financing human settlements is different for the different components of human settlements.

[47] According to the Accreditation and Assignment Framework for Municipalities to Administer National Human Settlements Programmes (DHS, 2012), there are two levels of housing accreditation (Level 1 and Level 2) before full assignment of the housing function (replacing what was previously known as Level 3 accreditation).
[48] CPI inflation. Stats SA. 2012 = base year. Calculated up to February 2015.

Housing

The private sector develops almost all housing. At the lower end of the market, the state may finance the housing, but the private sector delivers the houses. At the higher end, the private sector both finances and builds the housing. There are cases of the private sector funding low-income housing through internal cross-subsidisation in private sector-driven integrated developments, comprising a mix of low- medium- and high-income properties, and even commercial and industrial development in some cases. A study undertaken by Urban Landmark showed that, in three out of four case studies of integrated housing projects, internal cross-subsidisation occurred – from higher-income residential, commercial and industrial land uses to low-income housing – in order to make the project viable for the developer (PDG, 2011). However, this process can create undesirable cross-subsidisation from the middle- to low-income households (as opposed to broader cross-subsidisation from wealthier households), placing an unreasonable burden on middle-income households and possibly resulting in the displacement of the intended beneficiaries of a particular project (PDG, 2011). In addition, the number of bonded housing units needs to be higher than the number of gap or subsidised housing units in order to make the development financially viable for the developer (PDG, 2011). Given that the demand for housing is the inverse, i.e. the demand at the lower end of the market is far higher than at the upper end, integrated developments cannot hope to solve the issue of housing provision.

Infrastructure

Conventional practice is for developers to finance and construct internal infrastructure to municipal-determined norms and standards, and then donate this infrastructure to the municipality. The municipality is then responsible for operating and maintaining the infrastructure. In addition, most municipalities require developers to make some form of development contribution to bulk and connector infrastructure, either through paying a development charge or by constructing bulk infrastructure. This contribution has historically been made under the various provincial planning ordinances but will now be governed by the Spatial Planning and Land Use Management Act (No. 16 of 2013) (SPLUMA). Development charges are applied inconsistently across South African cities and could be better used for funding infrastructure if structured appropriately (Savage, 2009). Development charges ensure that developers contribute a fair share to the cost of expanding city infrastructure to cater for their needs, or to the cost of replacing the spare capacity of existing infrastructure that their development has "used up" so that such infrastructure can be expanded in future (City of Cape Town, 2013). In 2009/10, National Treasury estimated the potential value of this finance source to be between R9.6-billion and R19.3-billion for cities, but only a fraction of this is currently being raised. National Treasury has a draft policy framework on development charges, and national legislation to standardise its application is expected in due course (National Treasury, 2011a).

Community facilities

Community facilities may be provided by the private sector as a donation, or as a privately run facility, usually run by a non-profit organisation (e.g. a crèche or a library).

Social services

The private sector also commonly provides private education and health facilities, at both the settlement and city scale. These services include an element of profit and, therefore, may not be accessible to all residents. However, in the case of health, this is likely to change somewhat with the introduction of National Health Insurance.

Non-residential property

Non-residential property is not included in this chapter's definition of human settlements but is important because of its impact on access to amenities and economic opportunities. Recent government policy has strongly emphasised the importance of private sector development along transport corridors (e.g. City Support Programme (CSP) emphasis on Integration Zones in BEPPs, Johannesburg's Corridors of Freedom) and in urban hubs (e.g. NDPG). Stimulating private sector investment is intended to be achieved through clear spatial plans, helpful zoning schemes, streamlined land-use management processes, and catalytic public sector investment. In addition, land value capture (LVC) is a potential mechanism for transferring some of the value created from servicing non-residential and high-income residential property development to the municipality in order to cross-subsidise infrastructure provision to low-income areas.

Comparison of available finance against need

Assessing the capital finance available to cities for human settlements against the finance need is difficult because:

i. The unclear definition of human settlements makes it difficult to separate out the capital needs for human settlements from other municipal responsibilities.
ii. The funding available for the various human settlement components is often not allocated by component, and so identifying the proportion of any particular source (e.g. a single grant) that is allocated to a particular function is difficult. This means that assessing funding against need can only be done across all municipal functions, which is still worthwhile because the human settlement functions form the core of municipal responsibilities.

An analysis conducted by PDG (2013) of municipal infrastructure funding requirements showed that, for all metros, the municipal capital funding gap (difference between required investment and all possible revenue sources, including maximum borrowing capacity) was an average of R10.5-billion per year, and the housing funding gap[49] was an average of R1.1-billion per year. This indicates that, while housing top structure funding may be constrained, the capital shortages for municipal infrastructure are far more severe.

Even where capital funding may be available, some cities are reluctant to spend capital on services for which they do not have an operating budget. Cape Town recently placed a moratorium on the construction of new community facilities, and the Buffalo City Integrated Development Plan (IDP) mentions the challenges in securing funds for the coordinated supply of social infrastructure, such as schools, clinic, sports and recreational facilities, and operational costs associated with managing the services (BCM, 2015).

Human Settlement Financing Challenges for Cities

Administrative burden of multiple grants

The gradual proliferation of sector-specific grants are the result of national sector departments feeling that existing funding was not resulting in adequate achievement of sector priorities (Tshangana, 2014). This trend counteracts the consolidation achieved through the introduction of the MIG and the USDG. Furthermore, the principles of fiscal autonomy and decentralisation, which were introduced with these two grants, follow international trends for funding cities (Bahl, 2013; UN-Habitat, 2009). One of the many reasons for grant consolidation is to reduce the administrative reporting burden placed on cities and was one of the reasons behind the recent review of local government infrastructure grants (National Treasury et al., 2014). In addition, a plethora of conditional grants makes capital budgeting unnecessarily complex (FFC, 2012a)

Problematic funding of land purchases

The availability of urban land is a constant issue in the development of human settlements and an underlying cause of the current housing programme's structural problems. Although the USDG was intended to solve the issue of purchasing well-located land, indications are that the use of this instrument has been poor (DHS, 2015a). Some of the reasons for this include (DHS, 2015a:100):

- Shortage of land to purchase in suitable areas.
- The high price of well-located land, which means that land purchase costs take up too much of the available USDG.
- Delays with state land release.
- Difficulty in budgeting for land purchases because of the unpredictable timing of land sale agreements being concluded.

There is land to develop, but it is currently not available to cities for various reasons, including:

i. The land is privately owned (and the price is too high).
ii. The land is owned by another public entity that will not release the land (or the price is too high).
iii. Using the land for low-cost housing development raises NIMBY[50] problems.

[49] The housing funding gap being the difference between the value of the housing required (i.e. cost of a housing product multiplied by the target delivery) and the available subsidy amount.
[50] Not-in-my-backyard.

Land owned by the state and state-owned entities (SOEs) is difficult for municipalities to access (SACN and HDA, 2014). A specific issue related to the release of land by SOEs is that the Public Finance Management Act (No. 1 of 1999, as amended by Act No. 29 of 1999) requires that land be disposed of at market value. The Government Immovable Asset Management Act (No. 19 of 2007) does provide a broader interpretation of 'best value for money', which includes social return, but is disregarded by SOEs (SACN and HDA, 2014).

The HDA has been mandated to assist provinces and metros with land assembly and to facilitate state land release. However, its work is somewhat hampered by the lack of a budget for purchasing land – it has to rely on land transfers between state institutions or on finance available from cities. Addressing the issue of land release will require a number of legal and intergovernmental reforms, but this is beyond the scope of this chapter. To counteract the anti-developmental trend of state organs selling land to others at market value, the provision of land should be part of a collective agenda for all three spheres of government and SOEs. This would help reduce land costs and increase the funding available to provide infrastructure and services to human settlements.

These challenges indicate that land purchase is not easily addressed through existing capital grants, and that an alternative approach may be required. The NDPG and ICDG can be used to purchase land but are not large enough to address this issue adequately. The only other significant funding source is the HSDG, but the DHS discourages its use for land purchase, particularly where the USDG is available. Furthermore, municipal-owned land may not be optimally used, both in terms of land use and density, which ultimately affects the funding.

National Treasury has raised a concern that well-located municipal land is being sold as a financial stop-gap measure that undermines the municipal asset base (National Treasury, 2011b). This loss of strategic assets not only reduces future options for leveraging and generating revenue through leasing, but also reduces municipal control over the land development process and exacerbates the challenges of assembling land for low-income housing.

Integration and coordination of spending by stakeholders

The problems of silo-based planning and budgeting in municipalities have been clearly identified in policy documents and in the literature (Graham et al., 2014; National Treasury, 2014; NPC, 2012; Tshangana, 2014). This was one of the primary motivations for the introduction of the CSP and the subsequent roll-out of BEPPs in metros:

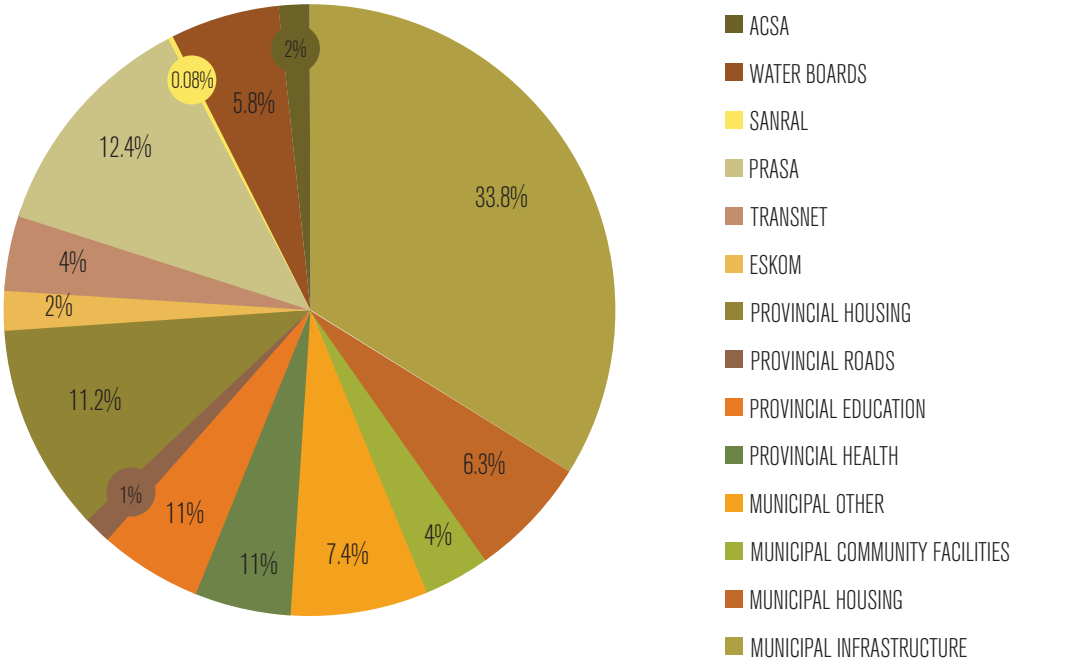
> *Individual investments and activities seldom amount to more than the sum of their constituent parts. Institutional and fiscal fragmentation continues to drive the lack of integrated planning and budgeting at city level, which is reinforced by very little national oversight of programmes and outcomes. (National Treasury, 2014: 2).*

Municipalities have to coordinate not only their own investments but also their responsibility for spatial planning. This means that they also need to coordinate investments with other spheres of government (including public entities) and the private sector. Municipalities plan and provide bulk, connector, internal and social infrastructure through the USDG for housing projects funded via the HSDG, and still have provincial involvement. Therefore, one of the most important areas of coordination is between the HSDG and the USDG. However, this coordination is poor and has in fact worsened since the introduction of the USDG and the stalling of the housing accreditation process (DHS, 2015a).[51] Provinces invest in schools and health facilities at settlement level, while PRASA invests in passenger rail infrastructure, which is important for human settlement development in certain areas. Therefore, as a human settlements grant, the USDG should be aligned not only to the HSDG, but also to other provincial grants, such as the health and education grants, and to the PRASA investments. The BEPP was introduced to try and achieve this type of alignment.

[51] The final phase of accreditation i.e. assignment was meant to be concluded by 2014. However, following numerous engagements as well as the submission of business and capacity plans by the metros, the national Department of Human Settlements indicated that it will be evaluating and reassessing the accreditation before assigning the function to the metros. To date, there has been no further developments or progress on this issue.

Figure 28 provides an overview of the total capital investment in the eight metros and Msunduzi in 2013/14. Of the approximately R60-billion spent on capital investment (including bulk infrastructure), about half was by municipalities (mostly engineering infrastructure), while the remainder of investment is evenly split between the provinces and public entities.

Figure 28: Estimated capital investment in the nine cities (2013/14)



Source: Author's own calculations[52]

Despite having greater power over the planning of human settlements, municipalities control less than half of the public sector funds spent within their physical area. The coordination of all these different investments, most of which have an impact on human settlements, is an intergovernmental planning and coordination challenge. SPLUMA, which gives municipalities greater power over land-use decisions, presents an opportunity for municipalities to better influence where provincial and private sector projects are located. All metros, except Buffalo City, currently have Level 2 housing accreditation which allows them to undertake full programme management and project identification and administration. However, their options regarding the location of these projects are limited. Municipal own projects are often poorly located, indicating that land-use regulations is often over-ridden by other factors, such as land availability and the way complementary infrastructure is planned and funded.

The role of the Master Spatial Plan (MSP), recently developed by the HDA on behalf of the national DHS, and how it relates to existing human settlement plans (HSPs) and BEPPs developed by the metros, is unclear. The intention of SPLUMA was to devolve all municipal spatial planning to municipalities, but the MSP appears to try to recentralise planning decisions. The potential of the MSP and the identified 'catalytic interventions' to divert conditional grant funding from existing municipal human settlement projects should be of major concern to cities. Unless the catalytic interventions are selected from those already in the municipal HSPs and BEPPs, the MSP threatens to undermine the autonomy of municipalities, by promoting projects that may not be in the best interest of local government, and may be unaffordable to the city in the long run.

[52] Municipal capital expenditure obtained from National Treasury local government database. Municipal housing comprises land and internal infrastructure for housing projects, but not the capital subsidy for top structures. Provincial expenditure is obtained from capital budgets per sector and allocated to the cities based the on percentage of the provincial population (health, education and housing) or provincial area (roads). Eskom revenue is estimated from the Eskom proportion of municipal investment (DBSA, 2010). Transnet data is from ports and freight investment from their annual report. PRASA expenditure from Rail Investment Programme presentation – July 2013 – is assumed to all take place in cities. Water boards' data is from DWA Water Utility Modelling undertaken by PDG. ACSA data is from their 2013 Annual Report.

Private sector investment in low-income human settlements

The private sector is active in high-income human settlements (and needs no further incentive to participate in this market) but not in low-income settlements, where the greatest proportion of private investment is from households themselves. There is little or no room for the private sector, as the public sector provides most low-income human settlements infrastructure and social facilities. It can be argued that a fully-subsidised house crowds out the private sector, distorting the choices of the household and incentivising an over-consumption of the goods provided by the state. Both the NDPG and the ICDG seek to catalyse private sector investment in specific locations, but this is largely aimed at locating private services and employment opportunities closer to where people live rather than promoting private sector investment in public infrastructure provision.

However, one area where large-scale private sector involvement is encouraged, but not forthcoming, is in the provision of affordable and gap housing. The Affordable Land & Housing Data Centre (AL&HDC, 2013) notes the disincentives to participation in this market:

- Market distortions caused by state subsidies, which crowd out affordable housing.
- Administrative and procedural delays that undermine the margin.
- Failed housing developments undermine enthusiasm: the affordability ceiling narrows the space for success and demands greater market precision.
- Lack of credit for low-income earners depresses effective demand.

The reluctance of banks to lend to this market is well-documented (FFC, 2013; NPC, 2012; Rust, 2012), and supply is constrained because the high standards of subsidised housing create a lower ceiling to the type of housing product the private sector is willing to supply to the market just above the subsidy level (Cross, 2010).

Strategy for addressing backyard residents

Until recently, backyarding has been seen as a negative symptom of the under-supply of low cost accommodation. While this may be the case, backyarding also provides an affordable interim solution to the housing crisis, in many instances, and an opportunity for an alternative approach to human settlement interventions. Backyard shacks increase density in well-located areas, thus reducing transport costs and increasing public transport viability, provide revenue sources to informal landlords (in some, but not all, cases), and shelter in areas with existing access to engineering and social services. However, the policy vacuum around backyarding and lack of a clear financing mechanism means that 'backyarding is generally considered a "municipal consideration" which municipalities are required to manage from their own resources with little or no support from national and provincial housing and infrastructure funding and subsidy budgets' (Rubin and Gardner, 2013: 5).

While cities like Cape Town have piloted innovative ways of providing services to backyards using the USDG (Rubin and Gardner, 2013), there have been restrictions on this use for the funding (e.g. for electricity or top structure).

The Minister of Human Settlements recently announced that backyarders would be prioritised in the human settlement policy.[53] A revised draft policy on the USDG states that the grant can be used for the servicing of backyard rental accommodation (DHS, 2015b), but this condition has not yet made its way into the DORA grant framework. While the scale of backyarding in cities varies (Johannesburg has the highest number of households, at 124 075 or 8.6% of the total; Msunduzi has the lowest proportion at 2.6%), it is a major feature of all South African cities.

Link between the location of human settlements and municipal operating costs

Much has been written about the unintended consequences of the housing subsidy programme perpetuating spatial fragmentation through the location of greenfield housing projects on the urban periphery (Charlton and Kihato, 2006; Lalloo, 1999; Pithouse, 2009). Charlton and Kihato (2006) ascribe this to the gradual increase in the norms and standards set for subsidised housing since 1994, with a resultant decrease in finance available for infrastructure and land. The cheapest available land is generally on the edges of cities and has resulted in urban sprawl and the marginalisation of the poor (ibid). The financial impact of sprawl has been well-researched in North America (see, for example: Bartholomew et al., 2009; Smart Growth America;[54] the Victoria Transport Planning

[53] Sisulu L. 2015. Speech By L N Sisulu, Minister of Human Settlements on the occasion of the Budget Vote of the Ministry of Human Settlements. 7 May 2015, National Assembly Chamber, Parliament. Available at: http://www.dhs.gov.za/sites/default/files/speeches/Minister_Sisulu_Budget_Vote_Speech_7_May_15.pdf. Accessed on 24 May 2015.
[54] www.smartgrowthamerica.org

Institute[55]), but in South Africa sprawl has a more profound socioeconomic impact. Biermann and Van Ryneveld (2007) researched the cost implications of the location of low-cost housing in South Africa, while the Social Housing Foundation (SHF, 2009) highlighted the longer term costs of poorly located housing.

The Financial and Fiscal Commission (FFC) quantified in a theoretical manner the broader fiscal implications of sprawl to a range of actors, including municipalities (FFC, 2012b). The study showed that a sprawling and a compact spatial growth pattern may have equivalent capital costs, but the sprawling scenario has a 7% operating cost difference over 10 years that is most keenly felt by low-income households. The sprawling scenario also has a greater environmental impact caused by carbon emissions from transport. Using a case study approach, PDG and City Think Space (2013) found that the cost of sprawl in the Western Cape equates to a 20% increase in operating costs over 10 years, with low-income households having the largest increase in transport costs – up to 18% more in the case of Cape Town. However, the non-financial impacts were found to be more significant, with loss of agricultural value and biodiversity, increased carbon emissions from transport and increased socioeconomic segregation. The reasons the spatial growth status quo persists (from a financial perspective) are (PDG and City Think Space, 2013):

- Land on the periphery is cheap.
- The operating cost burden is externalised (from developers to municipalities or households).
- The environmental impact is not quantified.
- Land on the periphery is available.
- Development on the periphery is easier.

The studies referred to above illustrate that poor spatial planning and land-use management decisions, often driven by short-term capital savings or private developer interests, may have long-term negative impacts on municipal financial sustainability, the environment, and low-income households. However, the impact on longer term operating costs are seldom factored into human settlement decisions and, if they are, are not adequately quantified.

The fiscal implications of increased municipal operating costs depend on whether the settlement being developed serves low-income or higher income households. Low-income households are defined as those generally covered by housing subsidies and municipal indigent policies, and so are not required to pay rates or tariffs: municipalities cross-subsidise these households. If location increases the costs, then the amount of Equitable Share subsidy, or cross-subsidy from other land uses, needs to be higher. Therefore, for municipal financial sustainability, as well as social equity, low-income settlement development needs to be as efficient as possible and minimise life-cycle costs. The limited quantitative research conducted on this topic indicates that this is not the case in reality.

For the development of settlements serving higher income households, the assumption is that property rates and tariffs will cover costs as well as provide some cross-subsidy. However, this is only the case if rates and tariffs are truly cost reflective and provide the required level of cross-subsidy. The problem is that the marginal cost of services to a new area may be higher (or lower) than the average costs. As municipalities charge average tariffs that are not generally geographically differentiated, they are faced with two options.

1. As a spatially differentiated tariff is not administratively viable or desirable, the municipality can either approve higher-than-inflation tariff increases to fund sprawling growth, or not approve developments that increase the average cost of service provision. (PDG and City Think Space, 2013: 58)
2. If the municipality approves developments with higher-than-average marginal operating costs without increasing rates and tariffs, then the rates base will decrease. As a result, the municipality will face operating deficits or reductions in surpluses that have a knock-on effect on the ability to fund further capital investment. The larger the development, the more pressing this problem becomes. Municipalities face political resistance to the increase of rates and tariffs and so are vulnerable to changes in expenditure, and inefficient settlement patterns. Developments that increase municipal operating costs over the long term, as a result of incremental planning decisions (or lack of enforcement), insidiously decrease municipal financial sustainability further.

[55] www.vtpi.org

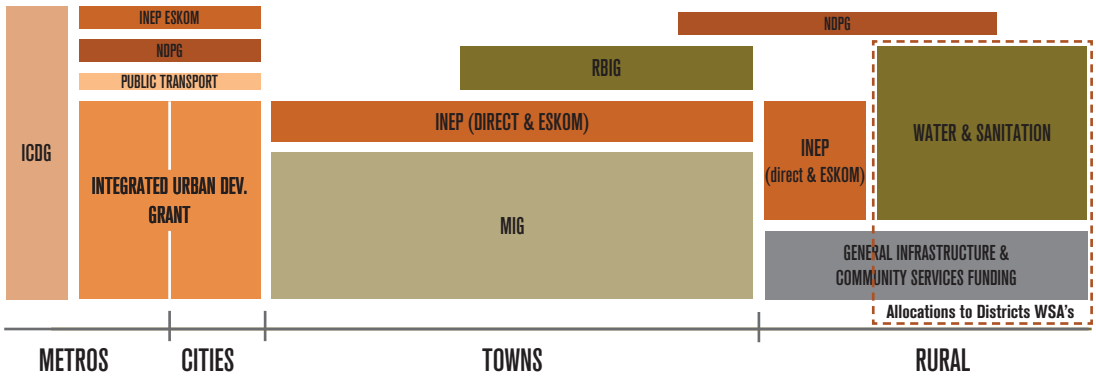
Alternative Options for Financing Human Settlements

The challenges associated with financing the human settlement mandate relate not only to the amount of capital available, but also to the form and conditions of the capital grants, and the institutional fragmentation of responsibility. The powers and functions debate, as well as the problems with integrating the municipal and intergovernmental planning frameworks, is beyond the scope of this chapter. However, it is important to recognise that resolving these issues are pre-requisites to introducing alternative options for financing the human settlements mandate. This section discusses a range of interventions aimed at improving the ability of cities to fund their multiple responsibilities relating to human settlements.

Consolidate capital grant funding to cities

Grants used by cities to fund the various components of human settlements need to be consolidated, in order to address the challenges of sector-based planning, reduce the burden of administering and reporting on multiple capital grants, and provide flexibility to metros in determining the grant outputs. This is the recommendation of the recent local government infrastructure grants review, which proposes greater differentiation in the way metros and cities are funded in relation to other municipalities (National Treasury et al., 2014). The short-term proposal involves replacing MIG and USDG in metros[56] and cities[57] with a new Integrated Urban Development Grant (IUDG), a supplementary (Schedule 4) grant in metros and a specific purpose (Schedule 5) grant in cities (Figure 29). The report also proposes that the new IUDG be administered by COGTA, mainly to avoid sector bias.

Figure 29: Short-term proposal for capital grant re-structuring



Source: National Treasury et al. (2014: 23)

The longer term proposal is to consolidate the IUDG, ICDG, NDPG and INEP into a single Consolidated Urban Grant (Figure 30). Tshangana (2014) takes the grant proposals a step further and suggests that, once the housing function is assigned to metros, then the HSDG and USDG should be merged for those metros.

Figure 30: Long-term proposal for capital grant re-structuring

Source: National Treasury et al. (2014: 18)

[56] Defined as the Category A municipalities, as classified by the Municipal Demarcation Board.
[57] Vaguely defined in the document as 'Category B municipalities but with growth and scale that means they have many similar challenges to metros, especially in future' (National Treasury et al, 2014:23), but without providing a definitive list.

The implications are that the consolidation and flexibility for municipalities, introduced with the USDG, are likely to continue. The move towards greater fiscal autonomy for cities is supported by the draft Integrated Urban Development Framework (COGTA, 2014) and the National Development Plan (NPC, 2012), and is in line with international best practice for public finance (Bahl, 2013). The Constitution gives local government the responsibility for ensuring sustainable provision of services to communities, and the transfer of conditional grants from national departments must not undermine the municipalities' role in deciding their priorities in providing these services. However, municipalities still need to be accountable for the outcomes of the grant spending, which in turn need to align to national human settlement priorities. This is problematic, since there is no clear national policy on human settlements. It is difficult to determine if municipalities are spending efficiently, when the human settlement outcomes attached to a consolidated grant are so diverse within and between cities.

The DHS has a specific mandate for housing in terms of the Housing Act, which is effected through the (outdated) Housing Code, and is also responsible for the Outcome 8 delivery agreement. However, as the responsibility for implementation lies across departments and spheres, Outcome 8 cannot be considered to be the human settlements 'policy'. This leaves national sector departments holding municipalities accountable for their individual sector priorities, with DHS having an understandable housing, as opposed to human settlements, bias. An adequate and appropriate monitoring framework is needed, to assess the impact of spending the consolidated supplementary grant funding across multiple sectoral areas of responsibility, in the absence of a national policy on human settlements, or alternatively, a national mandate for cities.

Introduce matching and incentive grants

There is a risk that a consolidated capital grant for cities could become their main source of capital funding. Grant funding is appropriate for filling a fiscal gap for service provision to the poor but should not displace other sources of funding (internal reserves and borrowing) required to fund economic infrastructure. A key finding of the USDG review was that the USDG possibly displaced internal funds, particularly in smaller metros (DHS, 2015a). To incentivise municipalities not to rely too heavily on grant funding, two mechanisms are available: incentive grants and matching grants, which differ slightly in intent but have similar outcomes.

Incentive grants encourage improved municipal spending of available resources against certain performance criteria. The ICDG has already to some extent introduced this concept, although the only incentive is qualification criteria, which are currently set relatively low. A more extreme method is a performance-based allocation formula – or 'tournament grants' – where cities compete for specified funds. This type of grant encourages cities to spend existing funds (grant and internal) in a particular way. For human settlements, performance criteria can be linked to city spatial efficiency (e.g. average commuting times) or to basic servicing (e.g. reduction in backlogs). The inherent risk in incentive grants of 'racing to the bottom' (whereby cities compete to access the additional funding at all costs, without appropriate planning of the spending of the funds) can be managed through appropriate regulation.

Matching grants incentivise municipalities to contribute their own funds in some proportion relative to grant funding. This ensures that municipalities maximise capital funding opportunities, and that internal funding is available for economic infrastructure, so that grant funding is directed at land, infrastructure and social facility provision for the poor.

Radically change how urban land is financed and released

There is currently no dedicated municipal funding source for land. The USDG, which is the obvious source of funding for land for cities, is not functioning as intended. In theory, it is possible to borrow funds for land purchase and repay this loan through pledging the future allocations of the USDG for the subsequent two years.[58] However, cities do not appear to use this mechanism for land purchase because either the process is too cumbersome, or the implications for the USDG allocation would be too significant, or the issue may not be the quantum of available funds at all. A similar mechanism to pledging, which does not rely on external borrowing, would be to allow the USDG funding to accumulate for the purpose of purchasing land, or to provide flexibility around when this money is spent. However, the USDG monitoring framework would need to be altered, so as not to penalise metros if the land purchase allocation is unspent in any particular year. Alternatively, a portion of the USDG could be ring-fenced for land acquisition and retained by DHS for use by metros as and when required, subject to caps

[58] See section 8(4)a of the 2015 Division of Revenue Bill and National Treasury MFMA Circular No. 51.

on the total allocation to each metro over a three-year period. The HDA could administer the 'USDG land fund', which would fit well with its mandate. Any such land fund for municipalities should be premised on an inventory of municipal land that details the intention for current municipal and other state-owned land, and guidelines for the purchase and sale of land for various investment purposes.

A final option is for municipalities to use their own legal and regulatory powers to intervene in the use of land that is not municipal-owned. SPLUMA provides municipalities with additional powers to determine the zoning and use of land parcels. Municipalities can also use a range of tax instruments (primarily property rates, but other economic incentives as well) to incentivise or disincentivise a particular land use or development. Finally, as a last resort, municipalities have the option of expropriating land. The process is governed by the Expropriation Act (No. 63 of 1975) and section 25 of the Constitution. Market value is only one of the factors to be considered in the determination of compensation. Other factors include the current use of the land and the purpose of expropriation. The need to consider the purpose of expropriation suggests a favourable approach to using expropriation for social redress, which may result in municipalities obtaining private land below market value (Berrisford personal communication, 2015)[59] Muncipalities and the HDA acting on their behalf, do expropriate private land, however there is still hesitancy to do so because of the political sensitivities around land rights. There is no known case of municipalities expropriating land from SoEs (ibid), but this is an option that municipalities could explore in order to unblock the release of state-owned land.

Explore the range of LVC instruments

LVC is defined (Suzuki et al., 2015) as a public financing method by which governments:

a) Trigger an increase in land values via regulatory decisions (e.g. change in land use or floor area ratio) and/or infrastructure investments (e.g., transit).
b) Institute a process to share this land value increment by capturing part or all of the change.
c) Use LVC proceeds to finance infrastructure investments (e.g. investments in transit), any other improvements required to offset impacts related to the changes (e.g. densification), and/or implement public policies to promote equity (e.g. provision of affordable housing to alleviate shortages and offset potential gentrification).

LVC is therefore a mechanism for generating finance from the private sector, through the sharing of additional value created, for the purposes of reinvesting in public infrastructure. A range of value capture instruments exist (Petersen, 2007; Suzuki et al., 2015) for financing human settlements. These instruments or mechanisms are listed hereafter hierarchically, from the simplest mechanisms applicable to undeveloped property, to the most complex mechanisms suitable for developed property (from Petersen, 2007):

Developer contributions in kind

Developers install internal and settlement-scale public infrastructure at their own expense. This is commonly undertaken as payment in kind instead of development charges.

Development charges

Developers pay a proportional contribution to the bulk infrastructure used by their development. Development charges are commonly applied in South Africa but are contentious and difficult to calculate accurately. They are not widely or consistently applied in South African cities, and municipalities have a tendency to grant exemptions. Yet such charges represent a large potential revenue stream that could be applied to all engineering services, as well as transport infrastructure and social services. The proposed national legislation and regulations would assist in ensuring uniform application in cities (see page 132).

Land sale or land lease

Public land is sold and the proceeds are used for infrastructure investment. While commonly used in South African cities, the proceeds from the land sales are not ring-fenced for particular applications. Maximum benefit can be extracted if land is bought up around future public investment locations (e.g. transport interchanges) and sold for a profit once the value has increased. However, the lack of available municipal or state land for human settlements means that land sales need to be done cautiously and strategically. Land lease is less commonly used and is a good option to encourage private sector location and investment, as well as to generate municipal revenue for investment. An international example of land sales and leases to finance infrastructure development in Mumbai, India is provided in the Box on page 142.

[59] Personal communication with Stephen Berrisford, Consultant, 2 April 2015, by email.

Betterment levies

An additional tax applied on an area or portion of land that benefits from public investment. Special levies are commonly applied for Special Rating Areas (e.g. City Improvement Districts), but these charges are used for operational funding or upgrading of the contributing area, not for investment elsewhere. A true betterment levy is a tax applied to a specific area that benefits from an intervention, to generate funds that can be applied elsewhere. Betterment levies have been mooted for the financing of the next phase of the Gautrain.

Tax increment financing

Tax increment financing is a surtax on an area that has been improved through public investment. The property value is measured before the improvement, and the difference between that and the improved value is taxed in addition to normal property tax. The revenue is used to re-coup the costs of the original investment. This is a relatively sophisticated instrument not currently used in South Africa.

Property rates or rates surcharges

A common assumption is that property rates already capture value through the linking of the rate to property value: as property values increase, revenue increases, provided regular valuations are undertaken. However, property rates are usually calculated to cover those operating expenses of a municipality not covered by other funding sources. Property rates only become an LVC instrument if the revenue exceeds expenditure on that property, and if that additional revenue is used to invest in infrastructure in other areas of the city. This does happen indirectly in South Africa, where operating surpluses (only partly due to property rates revenue) are used, via the Capital Replacement Reserve, for investing in infrastructure. Using property rates as an LVC mechanism would, therefore, require regular and accurate valuations, and the ring-fencing of a portion of the rate (as is done for other services) for investing in human settlements infrastructure. The Municipal Property Rates Act also allows municipalities to charge differential rates, or rates surcharges on Special Ratings Areas, in which case they are similar to a betterment levy.

One could argue that capturing value that would have otherwise been kept by the private sector is in opposition to the incentives for private sector investment in catalytic projects funded by the ICDG and NDPG. However, these two interventions are not mutually exclusive, since any private sector investment stimulated through public spending is still captured to some extent through property rates revenue or one of the other higher order LVC mechanisms.

Given that human settlement interventions are focused on poor households, the suggestion is not that value should be captured in the process of land, housing and infrastructure provision for the poor. Instead, LVC is proposed as an alternative source of finance that can be extracted elsewhere for investment in poor areas. Once provided with basic services, incomes in poor areas may increase over time, in which case residents should progress to paying rates and tariffs that recover costs and, ultimately, to contributing to the revenue surplus to fund city growth. The important implication of this assumed income progression is that property rates and services charges should not be determined on a geographical basis, but rather on a household income basis, to avoid subsidising wealthier households.

Human settlement financing through land sales and leases: Mumbai Metropolitan Regional Development Agency, India

India struggles with a low rate of urban infrastructure investment and a relatively constraining fiscal system for municipal authorities. At state level, political conflicts between rural and urban interests have resulted in limited resources being available from state budgets for urban infrastructure, and thus created the need to find alternative means of finance. Urban local bodies have low revenue-generating capacity, with no authority to initiate taxes and only very limited authority to modify tax rates on their own. Land in India is not generally owned by the public sector, but by urban development authorities (UDAs). UDAs have the responsibility for much of the urban infrastructure investment, and often have extensive land holdings. They use land development sales, rentals and leases as an infrastructure financing strategy (Peterson, 2007).

This strategy works in the following way. UDAs can identify land for new development and acquire it under a public purpose regulation, develop internal infrastructure networks, sell or rent the land to developers and end users, and turn over responsibility for maintaining and operating the infrastructure to local government. UDAs can use the proceeds from the improved land's higher value to finance general urban infrastructure network improvements as well as infrastructure specific to the re-development area (Peterson, 2007).

In Mumbai, the Mumbai Metropolitan Regional Development Authority (MMRDA) developed a 224 hectare commercial centre from marshland, called the Bandra Kurla complex. The MMRDA changed the finance model, from the original collection of annual rents and development fees to the auction of 80-year leases on 13 hectare sites. Through this switch, the MMRDA has been able to raise $1.2-billion for infrastructure projects (Suzuki, 2015).The revenue was placed in a capital fund (that can be used for infrastructure support to the complex as well as other projects) and a revolving fund for subsidised infrastructure lending to other municipalities (Peterson, 2007). The complex has been used to finance large infrastructure projects in Mumbai, including a new metro-rail system, a trans-harbour link (a 23 kilometre bridge spanning the harbour), and to co-finance road construction in the greater Mumbai area. To create space for the infrastructure, these projects have required the resettlement of slums. The MMRDA has financed housing projects, including physical infrastructure (water, sewerage, stormwater, roads and recreational facilities) and social infrastructure, for the resettlement of 350 000 slum dwellers, constructing over 50 000 tenements (Chandrashekhar, 2005). Each household receives a 21 m2 tenement in a multi-story building.

The Mumbai model is not fiscal decentralisation to the local authority, as revenue from land sales, rentals and leases accrues to the MMRDA, an agency of the state. However, nothing prevents a local government applying the model, although a concern is the volatility of land prices, and the revenue dependence on land prices.

Introduce finance mechanisms for backyarding

The SALGA study into backyarding (Rubin and Gardner, 2013) provides various ways of responding to backyarding as a viable human settlement strategy, which provides serviced accommodation at scale, including regulatory, planning, servicing, financing and technical interventions. The financial interventions can be divided into two main categories: financial support to land owners to develop better backyard structures; and municipal financing of bulk, connector and internal infrastructure upgrades to increase infrastructure capacity.

The first category of interventions are largely private sector financial products to support building construction, and include: equity participation, institutional finance, bridging finance, new financial products such as commercial 'buy to let' or 'instalment sale' products, a modified form of end-user mortgage finance, and end-user unsecured credit (Rubin and Gardner, 2013: 10). These interventions present an opportunity for the formal banking sector to participate in a previously 'informal' market, thereby removing the credit barrier at the lower end of the housing market.

The second category of intervention implies that the municipality funds the infrastructure upgrades, although the study does not provide guidance on how this can be achieved. The indications are that the USDG policy may be amended to allow the USDG to be used for this purpose. However, this raises equity considerations, as people who may have benefited from a housing subsidy may then be further subsidised to service a backyard ('double-dipping') at the expense of using the USDG to service unserviced areas (Rubin and Gardner, 2013). Yet the positive aspects of backyarding may warrant municipalities investing in infrastructure capacity upgrades, as it may be more cost-effective than other alternative service provision options, such as greenfields development (ibid). There remains a

possibility that backyard landlords can repay the municipality through special tariffs or other regulatory charges, given that the state investment (in some, but not all, cases) is enabling the landlords to generate income from their properties. In this way, subsidised provision of infrastructure to service backyard dwellings could be linked to the inclusion of these households into the formal rates base of the property (for example, by insisting that all service connections are legal and metered, and that households have up-to-date property rates accounts as pre-requisites for receiving additional service capacity). However, this is a complex urban management challenge fraught with legal, planning and capacity issues. This option is therefore unlikely, but if municipalities were to take it seriously, then a full regulatory impact assessment would need to be undertaken to establish whether the effort required to collect the potentially recoverable cost of the infrastructure investment is justified.

Quantify the link between spatial planning, human settlement development and municipal finance

Planning decisions have the potential to increase municipal operating costs in the long term, and this link needs to be better understood. For example, there is a trade-off between providing housing on expensive land in well-located areas and a consequent reduction in public transport costs. However, the extent of this trade-off is not often quantified. This is partly because funding sources for transport and housing are fragmented (dealt with above), but also because municipalities do not often quantify the broader financial impacts of spatial decisions on multiple actors. In recent times, the historic chasm between municipal spatial planning and financial planning has narrowed, through the introduction of the capital investment frameworks required as part of the SDF and the BEPPs that aim to integrate investment in space.

However, while these plans exemplify what the output of integrated human settlement investment planning in space should look like, how cities come up with this result is unclear. As a result, cities are undertaking various initiatives to try and quantify the costs of longer term planning decisions:

- Nelson Mandela Bay and Tshwane are using UrbanSim to model spatial growth and to produce a Long Term Financial Sustainability Plan and Integrated Infrastructure Masterplan respectively.
- eThekwini has used the Municipal Services Financial Model to undertake long-term strategic infrastructure planning.
- Johannesburg is currently developing its Consolidated Infrastructure Plan.
- Cape Town has begun a process to develop a Medium-Term Integrated Infrastructure Plan.

Prescribing the specific tools employed by cities to develop the Capital Investment Frameworks and the BEPP is not necessary. However, some consistency is required in the timeframes used and the scope of services included, as well as the financial impacts evaluated, in order to introduce a degree of rationality and objectivity into the politically charged context of human settlement development decisions. To this end, the Cities Support Programme in the National Treasury is developing a Fiscal Impact Tool that may assist in developing a uniform approach to the long-term costing of human settlement development. In addition, ultimately a feedback loop is needed, between the outputs of such long-term financial planning (e.g. in the BEPP) and the revision of the IDP and its component plans (e.g. the SDF and the HSP).

Conclusion

The human settlements mandate is essentially about integrating multiple functions in space to create conducive living environments, but the division of these functions among spheres of government creates unnecessary complexity in the way they are planned and funded. The conversion of the Department of Housing into the DHS was not accompanied by adequate policy guidance around what human settlements comprise and what the role of municipalities, and specifically metros, should be. Municipalities have some responsibility for all aspects of human settlements: it is central to what municipalities do. However, this is not a shared understanding between the spheres of government, and the association between human settlements and centralised housing programmes is proving difficult to break.

An extension to the maxim that 'form follows function' is that 'form follows funding, follows function'. In other words, the allocation of functions needs to precede the allocation of funding (Bahl, 2002), which will then dictate how that funding manifests in space. A key principle of public finance is that resources should only be assigned to spheres of government once their functional mandates are clear. In the case of human settlements, this is not the case. Therefore, before implementing any interventions to resolve the funding problems, the functional framework must be resolved. Moves are underway to realign the functional

allocation through assigning the public transport and housing functions, but delays in this process have meant that changes to the fiscal framework are moving ahead of the functions.

It is necessary to recognise that the financing of human settlements in cities is no longer about financing housing: 'Fiscal instruments [for sustainable human settlements] have to be designed to target predominantly space, rather than exclusively housing units' (Narsoo, 2014: 195). The HSDG is still primarily a housing grant and does not complement the other human settlement expenditure in cities because of the prescripts of the Housing Code and the continued control of provinces over its application. If human settlements were understood to be the mandate of municipalities (as the custodians of municipal space and the delivery agent for services and housing), then the logical allocation of grant funding would be to cities through consolidated grant funding, with appropriate regulatory oversight from the national and provincial spheres. The consolidation of grant funding sources is already being addressed through the local government infrastructure grants review, and the recommendations made would provide cities with the flexibility in funding required to ensure integrated service delivery. The simplification of funding to municipalities would also help to reduce the complexity of human settlement planning. However, cities currently receive a minority of the funds allocated for human settlements, compared to other spheres of government.

One of the largest challenges facing cities in relation to human settlements is the inadequate amounts of capital finance (for all aspects of human settlements, not just housing), which will persist for some time to come. Financing of settlement-level infrastructure for medium- and high-income properties is adequately covered by the private sector, and even bulk infrastructure to this market is being progressively covered through changes to Development Charges policy. The financing challenge, therefore, relates mainly to the development of low-income settlements, and grant funding to cities may not be adequate to fill this funding gap. However, a number of measures can be introduced to either incentivise municipalities to raise additional capital finance, or direct what is available towards human settlements. While the private sector's role in this market is small, the various LVC mechanisms offer possible alternatives to extract financial gains. Cities need to break away from a sector-based approach to funding allocation in favour of a portfolio approach, which brings together an optimal combination of internal revenue, borrowing, grants and private sector investment in space to fund human settlements.

The modification of policy and funding towards the formalisation of backyard dwellings also presents two opportunities for financing human settlements.

1. To offer innovative commercial financial products for small-scale landlords to use to develop backyard accommodation, thereby helping to bridge the divide between the formal and informal housing markets.
2. To shift grant funding policy to allow for servicing backyard dwellings, which may result in improved human settlement living conditions at scale, and potentially at lower cost. This provided that the potential inequities of this action are outweighed by the advantages, and mitigated by the opportunity to bring small-scale landlords into the formal property rates system.

Current funding mechanisms do not deliver integrated human settlements. Fragmented funding sources and institutional responsibilities still encourage disparate planning and investment on a sector or institutional basis. Cities, the actual implementers of the human settlements mandate, do not always hold all the financial tools to execute this mandate effectively, relying on many different stakeholders and spheres of government. This implies that the status quo should be urgently reviewed. While many of the hindrances to integrated human settlement are not a result of the fiscal framework but relate to institutional and planning constraints, the fiscal framework can be improved. This chapter has proposed a range of options. Because of the long-term financial implications of poor settlement planning, one of the crucial and urgent actions is to bring municipal financial and spatial planning closer together. This requires proper life-cycle financial analysis of the planning decisions that together constitute integrated human settlement planning.

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8

Financing the Transport Function

written by Andrew Marsay

Financing the Transport Function

Today, South Africa's cities are facing a public transport funding crisis. The financial picture is not encouraging now that plans, which have committed cities to major investments in modern public transport systems, are turning into operational reality. At a time when National Treasury has had to reduce funding allocations for public transport because of a general squeeze on public finances, operating costs are, in many cases, proving to be much higher than expected:

- Johannesburg's Rea Vaya bus rapid transit (BRT) system is currently costing the city around R500-million per year in operating support; this is in addition to the fare receipts and grant funding from central government appropriations to the Department of Transport (DoT).
- Cape Town's MyCiTi is having to tailor its operating regime to match reduced city funding because fare receipts cover less than 40% of the system's running costs.
- eThekwini and Tshwane have yet to feel the full funding implications of their BRT operating agreements.

The problem of how to square the circle of public transport funding is not going to go away any time soon, and both cities and other government spheres will need to grapple with it over the long term. This chapter first describes the funding of the different elements of public transport currently operating in South Africa, including those that are potentially assigned to cities. The public transport policy is then explained, together with the economic rationale for state funding of public transport and the socio-political conditions for effective implementation. This is followed by case studies of three very different examples of how cities are locally assigned transport: Johannesburg's Rea Vaya BRT service; George's much smaller integrated conventional bus service, 'GO GEORGE', and eThekwini Municipality's current consideration of the case for being assigned the Passenger Rail Agency of South Africa (PRASA) commuter rail subsidy. Estimates are made of future operating cost and subsidy requirements, and then conclusions drawn and recommendations offered.

The Emerging Funding Crisis

Public transport in South Africa includes: metropolitan bus services, commuter bus services provided by the provinces, the semi-regulated minibus-taxi industry, commuter rail services in the metros, Gautrain and its network of feeder buses in Gauteng and – most recently – more formalised, integrated public transport networks in major cities. All of these services receive, or have received, different types of public financial support.

Metropolitan bus services are either operated by municipal operating agencies (e.g. Johannesburg's Metrobus or City of Tshwane's bus services) or outsourced to several operators (e.g. in eThekwini). Cities support these as public services from city funds because fares do not cover costs.

Commuter bus services (e.g. Western Cape's Golden Arrow Buses, Gauteng's Public Utility Transport Corporation and North West Star, Nelson Mandela's Algoa Bus Company) are supported by the Public Transport Operations Grant (PTOG) from the DoT, channelled through provincial transport departments. Some municipalities are currently discussing assigning these services, whereby the cities would take responsibility for planning, with the aim of integrating the bus schedules with other transport services.

The minibus-taxi industry (MBT) is not formally subsidised, although for several years capital grants were available from the DoT to help owners recapitalise their fleets with newer, safer vehicles. Parts of the industry are currently involved in integrated public transport networks (IPTNs) in some cities and, within this context, become eligible for assigned state funding.

Commuter rail services (in Gauteng, the Western Cape, eThekwini, Port Elizabeth and East London) are provided by the state-owned PRASA, and are supported by annual operating subsidies and capital grants paid via the DoT. The possibility of assigning this function to metro level is currently being explored through a study in eThekwini (see page 173).

Gautrain is operated by a private concessionaire, Bombela, under the auspices of the Gauteng provincial government's Gautrain Management Agency. Most of its capital cost was state funded, and it also receives operating revenue support from Gauteng Province. This service is not subject to assignment in the short term, as its operation and maintenance concession runs until 2025.

The new IPTNs, which are at the forefront of the discussion about assigning the transport function to cities, are supported by national capital and operating subsidies. The grants, which are conditional upon having an approved Integrated Transport Plan in place, include the Public Transport Infrastructure and Systems Grant (PTIS) and the Public Transport Network Operating Grants (PTNOG).

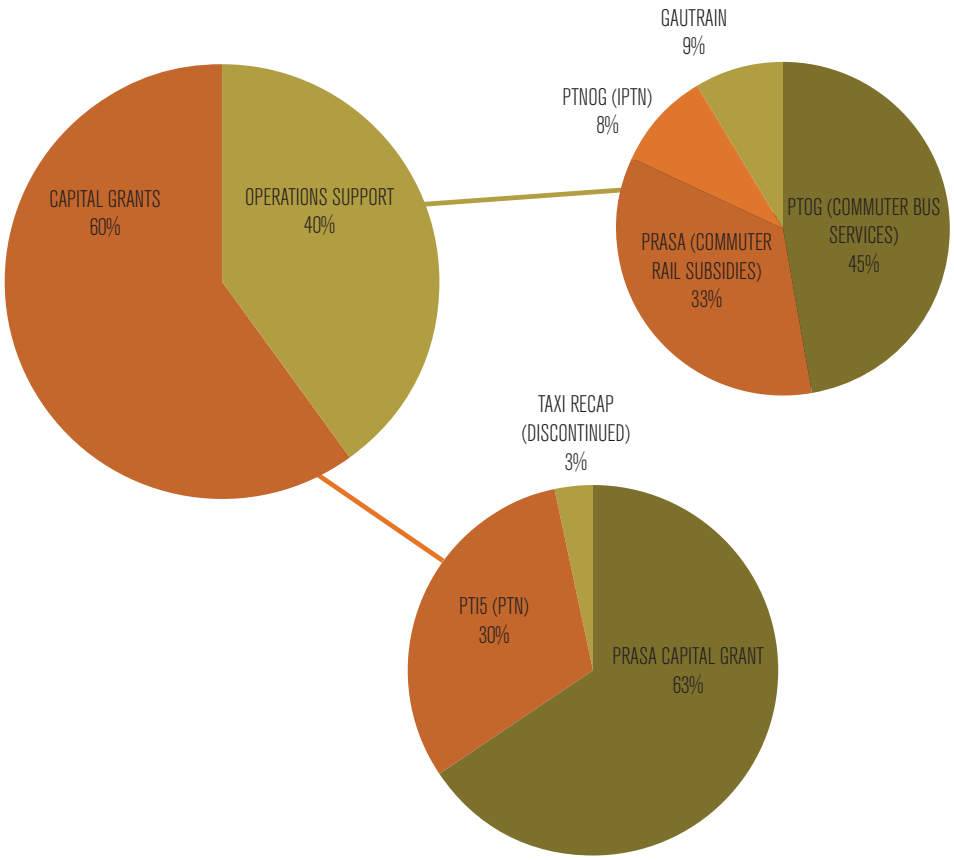
Table 45 summarises the various transport grants and subsidies.

Table 45: Analysis of national transport subsidies (2014/15)

Grant / subsidy[1]	Amounts R-billion	Shares	
Capital grants			
PRASA capital subsidy (including network renewal generally and itemisation of the new rolling stock programme and Shosholoza Meyl long distance rail)	11	67%	41%
Public Transport Infrastructure & Systems Grant (PTISG/PTIS)[2] – infrastructure, vehicles and equipment for new integrated transport systems	4.97	30%	18%
Taxi recapitalisation programme (now ended)	0.42	3%	2%
Total annual capital subsidies	16.39		60%
Operating subsidies		% of operating grants	% of all grants
Public Transport Operations Grant (PTOG) – provincially administered commuter bus services	4.83	45%	18%
Public Transport Network Operations Grant (PTNOG) - support for operations of integrated transport systems	0.9	8%	3%
PRASA commuter rail annual subsidy - funding of operations and other current expenditure, including separate allocations for Shosholoza Meyl.	4	37%	15%
Gautrain ridership guarantee paid to operator	1	9%	4%
Total annual operating subsidies	10.73		40%
Total national grants	27.12		

Source: Department of Transport and author's calculations
Notes:
1 The table excludes municipalities' own subsidies for existing metropolitan bus services, as well as any support for their new IPTN systems. The latter element of funding is covered later in this chapter.
2 In the 2015 budget, this capital grant is combined with the PTNOG to give greater flexibility to moving money between capital and operations.

Figure 31: Breakdown of capital and operational grants (2014/15)



Although the PTNOG subsidies for new IPTN operations in cities (8% or R0.9-billion) seem relatively small compared to the major subsidies for commuter buses and commuter trains, the experience of IPTN systems already in operation, such as Johannesburg's Rea Vaya and Cape Town's MyCiTi, is that operating costs are proving higher than expected.

When the PTIS and PTNOG regime was being put together, the expectation was that fare revenues would at least cover immediate operating costs. This was based on experience in other countries where BRT systems had been successfully implemented. However, in practice this has not proved true, and some of the reasons emerge in the case study of Johannesburg's Rea Vaya (page 166). This situation, together with the prospect that commuter bus and even rail subsidies are to be assigned to cities, gives an idea of the nature and potential scale of the financial implications of public transport being assigned to cities. An estimate of the potential scale of operating subsidy requirements is made towards the end of the chapter.

Rationale for Assigning the Transport Function to Cities

Given the emerging funding crisis surrounding the assignment of the public transport function to cities, it is instructive to review the policy background, the economic rationale, and the socio-political implications of current public transport developments. For, unless the rationale is well understood, it will be difficult to face up to the challenges of solving the funding equation in the medium to longer term.

Policy background

Since the change of government in 1994, South Africa has not lacked comprehensive transport policy frameworks and legislation. The 1996 White Paper on National Transport Policy enshrined the principle of local accountability and anticipated the need to assign the transport function by advocating the 'principle of subsidiarity, and devolution of public passenger transport functions, powers and duties to the lowest appropriate level of government' (DoT, 1996). The Constitution (section 156) also provides that national government and the provinces must assign functions to municipalities wherever the municipality has the administrative capacity. The National Land Transport Transition Act (NLTTA) (No. 22 of 2000), and later the National Land Transport Act (NLTA) (No. 5 of 2009) re-emphasised the principle of local responsibility for integrated transport planning as part of the local planning process. The Acts also provided for the establishment at municipal level of transport authorities with the full range of transport functions.

In the early 2000s, the DoT applied its mind primarily to the two major, nationally subsidised public transport sectors: the provincially administered commuter bus contracts, and the commuter rail services provided by the South African Rail Commuter Corporation (SARCC). The DoT's main concern about the commuter bus contracts was that the commercial arrangements were simply perpetuating the apartheid-era function of transporting people from segregated residential locations to places of employment. With the advent of democracy, the spatial structure of metropolitan areas was increasingly defined by the free decisions of government institutions, businesses and individuals to locate where they judged best. While private cars and the MBT were able to adapt to the new circumstances, the publicly funded transport services were in danger of becoming both financially unsustainable and socially irrelevant. To address this, the DoT determined that the form of contract and institutional responsibility for these commuter bus services must be changed, in a manner that allowed for alignment with other public transport services in the metropolitan areas, including the MBT.

Similarly, the DoT realised that the SARCC's commuter rail services were not adapting to the changing realities and could also become financially unsustainable and socially redundant, unless they became better focused on the emerging realities of urban form and changing demand. The 2004–2006 Commuter Railplan (SARCC, 2006) addressed this situation and recommended that SARCC concentrate all its energies on revitalising commuter services on Priority Rail Corridors. Within the context of this refocusing, the current major investment in rolling stock recapitalisation emerged.

In 2007, these two strands of development came together in the DoT's plan: Towards 2020: Public Transport Strategy and Action Plan (DoT, 2007), which forms the framework of all current commitments to integrated public transport development. Investments related to the 2010 FIFA World Cup were brought together into a three-phase programme to 2020 aimed at integrating all elements of public transport provision in 12 cities and six rural areas. Phase 1 (2007–2010) encouraged cities implementing World Cup legacy transport projects to go beyond these commitments and lay the basis for a permanent change to integrated transport provision. By Phase 2 (2011–2015), several new integrated public transport systems should be operational and, by Phase 3 (2016–2020), all cities in the programme were to have functioning integrated rapid public transport networks (later changed to IPTN).

The assignment issues need to be viewed with this policy context. The financial implications for municipalities were not ignored, and National Treasury began to explore ways of managing financial resources earmarked for urban transport that would reflect the policy objectives of elected councils, not just the commercial requirements of commuter bus or commuter rail operators. For National Treasury, giving greater control of funds to municipalities would result in more efficient and accountable delivery of the services involved.

Although a clear policy framework for the current public transport spending is in place, there is less clarity on what the increased spending is supposed to be achieving, beyond a general sense that alignment with democratic legitimacy and spatial trends might make for more efficient use of the funds. Indeed, in the early days of what has now become the PTIS and PTNOG funding regimes, the understanding was that revenues from integrated transport systems would fully cover the direct operating costs of the services, and that average infrastructure costs would be about R10-million per km. In reality, both operating and maintenance costs are much higher than expected, which raises the questions:

- How are these costs to be funded in future?
- What value is being gained from the funding of public transport?

Economic rationale

Over and above the general policy rationale discussed above, what is the economic case for providing transport services that will never cover their operating costs, let alone infrastructure costs? Virtually nowhere in the world is public transport financially self-sufficient, and alternative sources of funding have to be found to supplement passenger revenues. All cities have to battle to find such additional funds. Therefore, a legitimate question to ask is: What is the money buying? To answer such a question, policy makers need to look at the growing body of research that links the provision of modern integrated transport services to improved urban economic functionality and employment opportunities.

A comparison of London and Paris shows how the importance of public transport to the urban economy was deduced, indirectly, during a study of labour markets in the two cities.

Paris and London have traditionally had differing perspectives on the priority to be given to public transport. To the French, the city (particularly the capital city) has intrinsic public value and so must be supported by public investment. Until recently, the typical British perspective was that the city (including the capital city) is a realm for individual enterprise, and investment in transport should be motivated on grounds of demonstrable transport functionality. To the British, the French 'over-investing' in public transport was based on romantic rather than empirical grounds.

In about 2000, as part of a commercial review of the labour markets of London and Paris, a UK-based management consulting firm discovered that labour productivity, over a wide range of employment types, was higher in Paris than in London – and even higher in inner London. The report, A Tale of Two Cities, explored in detail the reasons for these differences (Marsay, 2002). The research found that, although Paris had a lower total population than London – 4.5 million to London's 8 million, commuters in Paris could access almost any part of the city within a typical average commute time of about one hour. In contrast, commuters in London could access only a relatively small proportion of the total city area within the same one-hour commute time.

The reason for this was that Paris had invested in radial and orbital transport infrastructure, both roads and public transport, with transport corridors traversing the city in all directions and so allowing for movement around the city. The result was that, for an average commute time, employers had access to the full 4.5 million labour pool and, similarly, individual workers could access jobs in any part of the city.

In contrast, transport corridors in London were found to be limited mainly to radial access to the perimeter of the central area and, while access within the central area is excellent (explaining the higher productivity), London's orbital transport infrastructure was very limited, whether by road or rail. The result was that employers had access to less than half the population of the city and, similarly, workers had access to a smaller total number of jobs than in Paris. Paris's 'over-investment' in transport infrastructure and services was yielding measurable economic benefits.

In the UK's largest ever transport review, the Eddington Transport Study (UK Department for Transport/HM Treasury, 2006) investigated the 'urban economic benefits' from transport infrastructure investment over and above conventionally calculated transport efficiency savings. The report found that, in the context of growing metropolitan centres, investing in public transport infrastructure and services can lead to labour market productivity gains of up to 50%. These research findings revealed an empirical basis for investing more in public transport than may appear to be warranted from a simple transport operations analysis. They were used to motivate investment in London's East-West Crossrail.

The evidence also suggested that a city's economy requires a rich network of transport services in order to function efficiently. Having just one dominant mode, or route, does not permit all parts of the city to function as an economic unit. In South Africa, these findings were applied in a DoT-commissioned report that reviewed how the Gautrain project was contributing to greater transport and economic integration in Gauteng (DoT, 2010).

Practical preconditions for successful assignment

Notwithstanding the policy commitment and the economic rationale for assigning the transport function to cities, there also needs to be the willingness – and competence – to manage the function at local level. Two dangers arise from assigning to cities both the major funding associated with the IPTN and the commuter bus and commuter rail budgets:

1. Funds are assigned, but the competence to manage them properly is lacking.
2. There is compliance in the receipt and accounting for funds, but the mind-set views capital expenditure on new transport projects as the panacea to all the city's problems, deferring the practical and financial operational realities to an unaccountable future.

As South African cities reach the operating stages of IPTN rollout, what is becoming increasingly evident is that the provision of public transport does not end with the implementation of modern transit technologies; it is only the beginning of a process of building an ongoing consensus among all stakeholders to make the great new venture actually work.

This is not just a South African problem: Jaime Lerner,[60] former mayor of Curitiba in Brazil learned a similar lesson in his city:

> *If you want creativity, cut one zero from your budget. If you want sustainability, cut two zeroes from your budget. And if you want solidarity, assume your identity and respect others' diversity. On infrastructure, there's always the assumption that the government has to provide public transport. Every time we try to create a solution, we have to have a good equation of co-responsibility with the public. That means it's not a question of money and it's not a question of skill; it's how do we organize our equation of co-responsibility?*

Lerner's sentiments are very instructive for South African cities grappling with both the practical and financial implications of the assignment of the transport function. The challenge is to think not only about the critical role transport plays in the economic growth and development of cities, but also about the socio-political ingredients of success.

Underlying these issues is the failure to recognise that participatory governance, and the building of a social consensus around transport objectives, is not an easy process. Although it may take time to develop, a more mature political discourse is needed, where honest discussions can take place around questions such as:

- In the context of limited financial resources, can the country afford to expand freeway systems and build public transport systems with top-end technologies?
- How can cities leverage the private sector behind transport priorities?
- Can existing lower technology transport solutions, such as the MBT industry, be made more accountable and more effective through the use of modern data-sharing technologies?

The reality is that, unless cities become less wedded to capital spending programmes and more willing to face up to the nitty-gritty realities of day-to-day operations and systems management, the great aspirations towards modern public transport systems could founder before having had chance to demonstrate their potential for making cities work more effectively.

Three Cities Taking on Greater Responsibility

This section aims to illustrate some of the issues raised in the above discussion through reviewing:

- Johannesburg's Rea Vaya BRT project: its background, progress and current financial situation.
- George's attempt to develop an appropriate transport network.
- eThekwini's consideration of a business case for assignment of the commuter rail subsidy.

The Rea Vaya project is the most substantial of these reviews because it is the furthest advanced and potentially has the most lessons for other cities implementing IPTN systems.

[60] Interview conducted by the Amercian Society of Landscape Architects (www.asla.org)

Johannesburg's Rea Vaya – financial situation and prospects

Johannesburg was the first city in South Africa to implement a BRT system: the Rea Vaya, with two routes implemented and a third under construction. It was also the first to experience the complex realities of managing and operating an integrated public transport system. In this regard, the city acknowledges that, in the busyness of procuring the infrastructure and equipment associated with a BRT system, it underestimated the task of actually running buses and monitoring, managing and maintaining the associated operations, especially from a financial point of view.

Rea Vaya is managed by the City of Johannesburg's Scheduled Services Management Agency (SSMA) which, in time, will be responsible for any other transport services that may be incorporated into the city's IPTN. This could soon include some of the provincially administered commuter bus services. For now, and in connection with Rea Vaya only, the SSMA coordinates the following contractors:

- Separate bus-operating companies for the two operational phases of Rea Vaya, which own and maintain the buses and employ the drivers and other bus company staff. The service level agreements with the bus operators include a penalty system for under-performance.
- An advanced public transport management system to provide real-time performance information to SSMA management and the bus operating companies.
- A supply/maintenance contract for the fibre optic telecommunications infrastructure.
- A supply/maintenance contract for CPTV, variable message and wireless telephony systems at stations, supporting security, passenger information and communication.
- The supply/maintenance of all aspects of the automated fare collection system.

Other city agencies are also involved in Rea Vaya delivery:

- The Johannesburg Roads Agency implements all the above technology-related components of Rea Vaya, and maintains the road infrastructure used by the system.
- The Johannesburg Development Agency is responsible for infrastructure planning and project managing the infrastructure contractors.
- The Johannesburg Property Company provides delivery, cleaning and maintenance services to the Rea Vaya stations on a daily basis, using and monitoring subcontractors.

For Rea Vaya to perform anywhere close to its full operational potential, all the technical systems and contractual/coordination relationships need to work properly all of the time. In practice, some of these systems and management arrangements are not performing as required, with the result that passenger numbers and fare revenue are lower than planned. Some specific aspects affecting Rea Vaya operational and financial performance include:

- Despite compensation payments to displaced minibus-taxi services affected by BRT routes, there is still encroachment by taxis, leading to passenger and fare dilution.
- The City of Johannesburg has to carry the working capital risk of the EMV ticketing system, which Rea Vaya adopted in compliance with the DoT. This, together with the high medium ticket cost (R37) – and the fact that, initially, tickets are being offered free in the hope of seeding what should be an easier-to-use payment system – has resulted in the cost of collecting EMV-based fares being greater than revenues.
- All payment systems seem to 'leak' in one way or another. (i) Many users treat non-EMV cards (at R12) as disposable items because the ticket cost is lower than some journey prices, i.e. on longer journeys, it pays not to 'tap out' on exiting the bus and to simply buy another ticket. (ii) Cash paid at station sales points, and collected by the revenue collection contractor, does not always tally with sales recorded by the automatic fare collection system. (iii) The VeriFone transaction system used by vendors for loading EMV cards also appears to be compromised, with revenues not tallying with transactions. There are also difficulties with the contractor responsible for the functioning and maintenance of this system.
- The monitoring of ticket loading and passenger behaviour is generally poor at the stations, and so malpractices are becoming increasingly acceptable.
- The operational performance of the buses and stations via the Control Centre is not being monitored effectively, and interventions to rectify both bus and station service-level issues are not prompt.

In the meantime, all the various systems, including bus and station operations, continue to incur costs and have to be covered by an inadequate, if not declining, revenue stream. The current reality is that the various mechanisms that should ensure service quality, and hence passenger growth, are not working satisfactorily. All of this has financial implications.

Table 46 shows funding from central government grants to date on Rea Vaya. Almost R8-billion of capital grants have been allocated, with some R6.5-billion spent to date. In the years leading up to the 2010 FIFA World Cup, spending was accelerated ahead of actual allocations, to ensure delivery of Phase 1A in time for the competition. Expenditure through to 2013/14 was mainly on Phase 1B, and 2014/15 represents the commencement of Phase 1C.

Table 47 is a partial analysis of what the infrastructure grants were spent on up to June 2014. The data is incomplete.

Table 46: Grant-funded capital expenditure on Rea Vaya (2005/06–2014/15)

CoJ Financial Year	Public transport infrastructure systems grants (PTIS) allocation	PTIS actual expenditure	Public transport network operations grants (PTNOG) allocation	PTNOG actual expenditure
2005/06	106 980 000	3 259 828	-	-
2006/07	184 000 000	78 138 000	-	-
2007/08	329 000 000	197 031 000	-	-
2008/09	661 171 000	1 073 034 000	-	-
2009/10	652 803 000	1 337 918 000	-	-
2010/11	1 070 471 000	912 154 218	-	-
2011/12	1 700 000 000	955 510 929	-	-
2012/13	1 298 702 000	808 532 000	-	-
2013/14	893 766 000	818 135 000	268 000 000	255 748 800
2014/15	829 751 000	218 787 008	236 000 000	96 023 714
Total	7 726 644 000	6 402 499 983	504 000 000	351 772 514

Source: National Treasury et al. (2014: 23)

Note: Before 2013/14, the city requested that National Treasury reallocate some of the infrastructure grant to help meet operational funding shortfalls. From 2015, operating and capital grants are to be combined.

Capital spending is not the main area of concern, as the city's Transport Directorate – together with the agency companies – has become quite proficient at

Go George

Table 47: Analysis of PTIS grant funded spending, (2005/06–2014/15)

Category	Item	Amount (Rm)	Percentages
Equipment costs	Buses for trunk route operations	127	2%
	Buses for complementary or trunk extension services	0	0%
	Feeder vehicles	0	0%
	Fare system equipment	195	3%
	Information / communication systems	313	5%
		635	10%
Infrastructure costs	Roadway civil works (including utilities) + station civil works	1 979	31%
	Trunk station structures	885	14%
	Feeder station structures	0	0%
	Depots	309	5%
	Control Centre	262	4%
	Bus stops	0	0%
	Land and property acquisition	203	3%
		3 638	56%
Transitional costs	Minibus taxi advisor	174	3%
	Industry compensation	174	3%
	Non BRT expenditure	210	3%
		558	9%
Unanalysed		1 608	25%
Total PTIS spend to 30-06-14		6 439	100%

Source: City of Johannesburg, September 2014 presentation to National Treasury

Leaving the unallocated portion aside, infrastructure costs predominate, accounting for 56% of total spend, of which roadways and station civil works account for 45%. Buses are a surprisingly small proportion of the total, which is because the city has had to pay for most of the bus purchase costs from its own funds – the percentage shown here is only bus-related costs funded from PTIS. 'Transitional costs' are significant, making up nearly 10% in total. This transformational context is not unique to South Africa. A review of BRT projects in five cities (Lagos, Johannesburg, Jakarta, Delhi, and Ahmedabad) found a common factor to be the introduction of modern transit systems in the face of powerful informal MBT sectors, and how this aspect was managed was key to the success or failure of the implementation of the BRT systems (World Bank, 2012).

Figure 32: Rea Vaya Phase 3 (Louis Botha to Alexandra) route and progress

Source: City of Johannesburg (2014)

managing the procurement and implementation of the BRT infrastructure. Two infrastructure phases are up and running, and a third (see Figure 32) is under construction and making good progress.

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Table 48: City of Johannesburg request to National Treasury for 2015/16

Operating costs		Operating revenues / income		Percentages of total system operating costs
Management BRT functions for which city is responsible	R464m	City revenue support	R535m	59%
Direct bus operating costs	R440m	Department of Transport (PTNOG)	R268m	30%
		Farebox receipts	R101m	11%
	R904m		R904m	100%
		Fares as % of bus operations only*		23%

Source: City of Johannesburg (2014) and SSMA

Note: The numbers in this table, although based on the city's presentation to National Treasury, have been updated to reflect actual data received from the Director, Transport Finance of the SSMA. The original estimates had fares at R114-million and costs at R412-million, giving a coverage ratio of 28%.

As Table 48 shows, the City of Johannesburg is currently the principal funder of Rea Vaya operations. This raises the issue of how sustainable such a situation is, and the implications for Johannesburg and for other cities implementing similar systems. What will be the implications of the proposed assignment to the city of bus contracts currently administered by the province. Management of these bus contracts would presumably come under the jurisdiction, and cost centre, of the SSMA, which is already heavily burdened with systems overheads costs.

On the positive side, the city forecasts that, as Phase 3 comes on line, passenger numbers for the whole network will grow more strongly because the three phases will meet in the city centre, and inter-route synergies will begin to emerge. As more phases come into operation, this network effect is expected to result in revenue growing at a faster rate than operating costs. In 2016/17, fare revenue is projected to increase to 41% of direct bus operating costs, and to 53% in 2017/18. In the longer term, if funding for subsequent stages is found, the network effects could cause further acceleration of passenger numbers and revenue growth.

On the negative side, in the short term, passenger and revenue projections are clearly optimistic, casting some doubt over the projected increased cost coverage. Surviving is the current challenge. Further, with central government budgets under strain – PTIS grant budgets for all IPTN cities for 2015/16 have been cut – other sources of revenue will be required to help bridge the operational funding gap.

For the time being, Johannesburg appears able and willing to carry the unexpected funding burden involved in bringing the BRT, and integrated public transport more generally, to fruition. But, given that other (smaller and less resourced) cities are likely to face similar gaps between operating costs and fare revenues, a very serious urban public transport funding crisis could be in the offing.

Like other major cities in the world (e.g. London and Paris as mentioned above), Johannesburg is learning that funding additional to direct operational revenues is always going to be required – and makes economic sense in the long term. However, funding crises may well become a way of life for urban public transport planners. This is certainly the case in New York where, it can be argued, the city is in the midst of a 60-year transit funding crisis. Its public transport systems have almost gone bankrupt on numerous occasions. Over the decades, the situation has been resolved by: creating alliances between private road, bridge and ferry services and the city, in which the private revenues support bond financing of public transport; tying in the treasuries of the states adjacent to the City of New York to the city's transit funding, on the grounds that their commuters benefit from the city's productivity; and introducing better management systems for transit services in the city.

Leaving aside the obvious short- and medium-term needs to reduce cost management inefficiencies and improve fares and revenue growth, Johannesburg will also have to become creative in looking for additional funding to operate and grow its public transport systems. Some suggestions are:

- Consider how the management structures, and information and communication systems, can be simplified and made less maintenance-intensive and prone to failure.
- Adopt a more 'hands-on' approach to the monitoring of bus operations, and tighten cash management and revenue controls in order to prevent leakage and maximise revenue.
- Provide better, and more intensive, training to improve the city's capacity to manage the associated technical systems that Rea Vaya and future IPTN elements depend on.
- Keep emphasising the economic 'big picture' to the Council, with the aim of motivating contributions from the budgets of other departments (e.g. economic development, human settlements) whose constituencies and policy objectives benefit from better public transport accessibility.
- When motivating for increases in national and provincial budget allocations to transport, show the city's increased prioritisation of transport in its own budget and build a strong evidence base to support the assertion that city economies will contribute more to the national fiscus as accessibility and mobility improve.
- Look to the roads sector as a potential source of funding. If Johannesburg were to argue that the SANRAL e-tolling system could be modified to become a province-wide congestion charge linked to public transport funding, it might prove more politically acceptable, and a valuable source of funding.
- Look to the MBT industry as an example of a technology and industry structure that is better aligned with the multiple-origins/multiple-destinations structure of transport demand in the city, and consider adjustments to the structure of future phases of IPTNs that learn from this.

George – tailoring design to available resources and skills

The George IPTN, 'GO GEORGE', is the first IPTN to be implemented in a city that is not a metro or Category A municipality included in the original list of 12 candidates for IPTN support. With a population of just over 200 000, it is much smaller than other IPTN cities, all of which have populations of well over 500 000.

George was aware that it would not be able to make a case for the high levels of infrastructure funding associated with the more formal transit systems being developed in some of the larger cities. The city also realised that it would not be able to provide the skills needed to plan and manage a sophisticated transport system. In practice, these deficiencies became the opportunity to pilot a new, much lower cost approach to the development of an IPTN, one that has resulted in interesting lessons from both the infrastructure and operating phases of the project.

Although planning towards formal public transport for George has been going on since 2005, with support from the Western Cape Department of Transport and Public Works, the municipality received its first formal PTIS grant in July 2013. Since then, progress has been rapid: the first routes started operating in November 2014, and other routes are being added as infrastructure is completed and buses are delivered.

GO GEORGE will comprise a network of trunk, community, inter-suburb and (eventually) inter-town routes using an initial fleet of 95 street-running buses in standard, midi and minibus sizes. Infrastructure involves: some road improvements, about 600 simple 'flag and pole' kerbside bus stops, a central bus terminus and depot, and a remote depot. Operations are handled from a control centre housed at, and largely staffed by, the Western Cape Provincial Government. Table 49 summarises expenditure in the period to June 2014.

Table 49: PTIS spending: GO GEORGE (2013/14)

Item	Amount	Share of this total
Cradock Street bus terminus, Phase 1	R6.5m	3%
Various street upgrades to accommodate bus services	R39.2m	20%
590 'flag and pole' bus stops, of which:	R12.5m	6%
[PTIS / provincial funding]	[R4.6m / R7.9m]	
Sub total – infrastructure	R58.2m	29%
Bus ordering and manufacturing	R140m	71%
TOTAL	R198.2m	

Source: George PTIS and PTNOG Annual Evaluation report, October 2014

The main stages of development have been:

- **Planning:** the overall business and institutional plan; a financial plan, including financial modelling, passenger and revenue forecasting; a universal accessibility plan leading to vehicle design specifications to meet DoT requirements; agreement of necessary institutional arrangements between George Municipality and the Western Cape Department of Transport and Public Works; detailed designs for infrastructure and depot construction; and a marketing and communications plan.
- **Infrastructure development:** bus stop construction; ordering and delivery of the first phase vehicles (including conclusion of a new universal accessibility-compliant minibus design); various roadworks and pavement upgrades; and development of terminus and depot infrastructure.
- **Operating systems:** establishing a vehicle operating company and preparing it for operational readiness; negotiating compensation agreements with MBT operators; and establishing the IPTN oversight unit, an integrated fare management system and an information transfer system. For the time being, the funding and staffing of all these management systems will remain the responsibility of the provincial Department of Transport and Public Works.

The GO GEORGE experience has important lessons for other cities.

1. The capital cost was kept down by adopting a technology that requires minimal infrastructure. Bus purchase costs were the largest cost item, accounting for over 70% of the PTIS spending (Table 47) – taxi industry compensation costs are not included. In contrast, for Johannesburg's Rea Vaya, infrastructure costs made up the majority of expenditure (Table 48): 56% of total expenditure, or well over 90% if infrastructure and bus costs only are taken into account.
2. GO GEORGE has, of necessity, had to share costs with provincial government. The most significant costs are those related to the creation of the system management unit, and the planned fares and information management systems. For Rea Vaya, equipment costs for the fare system and information systems came to R195-million and R313-million respectively. System costs are of course much lower in George, but having the provincial government take responsibility for these items has relieved the municipality of a significant burden. Table 48 shows that the Western Cape Provincial Government has contributed the majority (R7.9-million) of the R12.5-million spent on infrastructure costs to date.
3. More importantly, cost consciousness has been present from the outset because of it being unrealistic for George to expect major infrastructure funding. This has become the framework within which compensation negotiations with the MBT industry have taken place. Although no less contentious than in larger cities, discussions in George appear to have been shaped by a more realistic appreciation of the actual value of the services that would be displaced by the new bus services, than by aspirations to simply achieve the maximum possible share of a large compensation budget. A secondary consequence of the limited budget available to George was the acceptance that services offered must be related to realistically achievable market demand. As a result, the culture required has been more akin to business management than to project management. The fact that the responsibility for oversight, together with the future fares and information transfer systems, are the responsibility of the province, not the city, brings a further cost-moderating factor to bear.

Although so much smaller than a Johannesburg, Cape Town or Tshwane, the lessons that the GO GEORGE experience offers for the sustainability of IPTNs are very significant indeed, and are considered further in the conclusions to this chapter.

eThekwini – assigning the commuter rail subsidy

Section 11(1)(c) of the NLTA states that the city is responsible for 'financial planning with regard to land transport [...] with particular relevance to transport planning, infrastructure, operations, services, maintenance, monitoring and administration'. The city is also responsible for 'service level planning for passenger rail on a corridor network basis – in consultation with PRASA'.[61] To date, the inclusion of rail service planning in integrated transport plans has been limited, partly by the lack of effective rail planning capacity within the metros, and partly because PRASA is funded centrally and treats its business as a functional whole, even though services are delivered in the different metros. Given the very large amounts of funding being committed to commuter rail, the National Treasury and the DoT want to see greater accountability for rail service delivery to the elected metros.

eThekwini Transport Authority (ETA), serving Durban's eThekwini Municipality, is currently testing whether or not a business case can be made for requesting the assignment of the commuter rail subsidy to the metro level. The key stakeholders are:

- National Treasury, which plays a leading role in managing the subsidy.
- The DoT, to which PRASA is accountable.
- PRASA, which is the national operator.
- eThekwini Transport Authority, which is mandated to plan for integrated public transport.

From the perspective of **National Treasury**, investments in commuter rail, like those in any other public service, are aimed at improved delivery of services. While the national budget has responded with increased capital investment in new rolling stock, operational improvements (financed through the operational subsidy) are also required. Therefore, a stronger accountability and performance framework is needed to bring about the improved delivery of the services. These concerns point to the fact that, whatever the form of subsidy devolution, ultimately devolution will need to result in verifiable improvements in commuter rail services. In other words, eThekwini would need to establish whether administering the subsidy could, at a reasonable expense to the metro, achieve better rail commuter service provision than at present.

[61] In an update of the NLTA that is currently under way, the DoT proposes to amend this to read 'in agreement with PRASA or other rail service providers'.

The DoT has systems in place, which are meant to hold PRASA to account for all its spending and operations based on its expenditure. In seeking to assign the commuter rail subsidy to metro level, the DoT's aim is very similar to that of the National Treasury. Its concern is that PRASA's service delivery to customers is not improving, although the subsidy money is flowing and is being accounted for through the required reporting processes. The DoT hopes that devolving the administration of the commuter rail subsidy to the government sphere closest to the users will yield better value for money.

PRASA is able to point to a relatively high degree of compliance and prompt response to all DoT's reporting requirements. Yet all stakeholders (PRASA included) know that the ultimate purpose of state funding for public transport is to see services to customers improving. PRASA reports to DoT within the terms of a Service Level Agreement and a Shareholder Compact, with the DoT being the sole shareholder in PRASA. Although these frameworks make provision for detailed reporting on financial and service level parameters, the hard truth is that rail as a commuter mode is declining – even though capital spending on commuter rail has risen almost tenfold since the 2006 Commuter Railplan, and the operational subsidy has increased at least in line with inflation. Rail has seen a progressive loss of market share to other modes, particularly in Cape Town where rail's share of public transport commuting has declined from 55% to 35% in the past ten years. The question for PRASA (and any other body accountable for spending the subsidy in the future) is whether this decline is because of poorly incentivised operations or a reflection of underlying market trends away from rail.

eThekwini Transport Authority/eThekwini Municipality is proactively positioning itself to be able to deliver on the intentions of the DoT's integrated transport planning strategy. Its interpretation of the IPTN vision is its planned GoDurban transit system, which aims to link a network of new, partially lane-segregated buses with existing bus and MBT services, and in time including rail. Work has been done on the costs involved in creating the technical and managerial capacity to implement its plans (Table 50). These costs are designed to cover management and planning functions similar to those involved in Johannesburg's Rea Vaya. Although the eThekwini study of assignment of the rail subsidy is not yet complete, and so the likely costs of administering the subsidy are not yet known, a basic provision for a rail subsidy management unit is included in Table 50.

Table 50: Proposed costs for a restructured Integrated Transport Unit for ETA

Additional costs to support full transport planning functionality	2014/15	2015/16	2016/17	2017/18	2018/19
Additional staff costs	R116m	R178m	R247m	R287m	R330m
Establishment costs – restructuring	R21m	R3m	R3m	-	-
Establishment costs – new functions	R6m	R24m	R29m	R7m	R7m
Additional overheads	R2m	R12m	R23m	R24m	R26m
Total cost implications	R145m	R217m	R302m	R318m	R363m

Source: eThekwini Transport Authority (2014)

Importantly, however, these figures do not include the operating costs of any of the transport systems. An outstanding question for eThekwini relates to commitments made to existing public transport stakeholders who are seeking to become operators within the new GoDurban integrated transport network. Are they to be subsidised, as is the case with Rea Vaya? And where will the money come from to fund the subsidies? If Rea Vaya (and Cape Town's MyCiti) are used as guides, eThekwini cannot expect that revenues from passengers will cover more than 30-40% of operating costs. Therefore, on top of funding for the management functions outlined in Table 50, eThekwini will have to budget for operating cost shortfalls that may not be fully covered by the expected levels of PTNOG.

eThekwini Transport Authority's consideration of the commuter rail subsidy assignment must be placed within the above context. Figures 33 and 34 summarise the questions eThekwini must answer, which include: What degree of assignment do they want? What are the costs? What are the benefits?

Figure 33: The devolution continuum

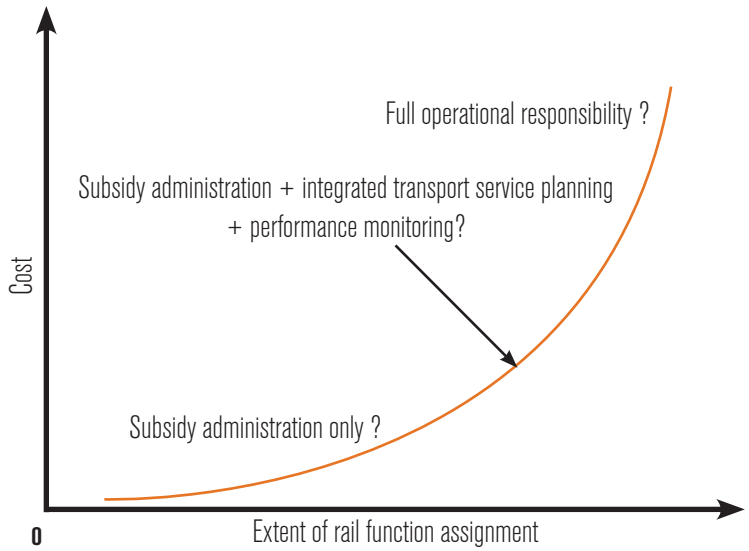

Figure 34: Costs and benefits of rail subsidy assignment

	Costs involved in managing subsidy	Service level from managing subsidy
Status quo (delivery via prasa)	X	Y
ETA (delivery via ETA integrated transport unit?)	X+?? (ETA's estimate of incremental integrated transport unit costs)	Y+?? (ETA's best estimate based on its integrated planning capabilities)

Administration of the rail subsidy alone may add costs without conferring any leverage to influence operational performance. Taking over full responsibility for operations and service delivery is well outside the metro's competence, affordability and indeed current aspirations. Therefore, a degree of assignment somewhere between the two is what is probably aspired to, and would be consistent with the integrated transport planning requirements of the NLTA.

To place the rail function in the context of costs associated with other types of public transport, PRASA's regional accounts show that the operating costs of the KZN region commuter rail network for the year 2013/14, was R587-million. Of this, 67% were payroll costs and the rest electricity (13%), routine maintenance (5%) and various support functions (15%). Fare revenue covered R200-million (35%) of the total operating costs, with the balance coming from the subsidy.

Assuming that the metro does not take over the full rail operations, the cost implications for eThekwini Municipality would depend on the degree of assignment chosen. For instance, if eThekwini were to administer the subsidy, channelling the money to PRASA (perhaps with certain cooperative planning conditions), this may require simply appointing a full time management accountant with clerical support and a competent transport professional capable of engaging effectively with PRASA's regional operations and management team. The cost to eThekwini for this level of assignment might be in the order of R5-million per year, which could be accommodated within the budget outlined in Table 49.

However, if the assignment were to include transport planning and performance monitoring consistent with the requirements of NLTA, eThekwini would probably have to develop a special rail planning and management unit comprising a range of technical and operations specialists, together with accounting functions. In effect, this unit would take over some of PRASA's functions, although still work closely with PRASA in integrating services with GoDurban's scheduled bus and MBT services, and advising on capital investment priorities. Costs for this level of assignment would be much higher, perhaps in the region of R50-million per year, and would almost certainly be additional to the estimates in Table 49.

Whatever the decision made with regard to rail assignment, the cost equation for eThekwini needs to include the as-yet unbudgeted estimates of IPTN operating costs subsidies.

Future IPTN Operating Cost Shortfalls

This section gives an indication of the scale of capital spending already committed to IPTNs nationally, and the stages at which the various cities are. It will also consider estimates of the recurrent funding requirements in the management and operation of the new transport systems.

Table 51 summarises the situation at the end of the 2013/14 financial year. The colour key shows which cities have operational transit systems, which have begun construction, and which are still at the planning stage.

Table 51: Integrated public transport systems spend to June 2013/14

City	Cumulative PTIS grant allocated (Rm)	% of national total by city	PTIS allocated in 2013/14 (Rm)	PTIS spent year to June 2014	Proportion spent
Cape Town*	5 512 806	21%	1 298 762	871 778	67%
Johannesburg*	6 064 813	28%	1 111 766	675 113	61%
N Mandela*	2 013 856	8%	185 000	86 971	47%
Tshwane*	3 641 038	14%	773 761	779 018	101%
George	180 019	1%	265 019	265 019	100%
eThekwini*	3 368 698	13%	578 761	93 193	16%
Rustenburg*	1 246 922	5%	630 000	300 431	48%
Ekurhuleni	1 089 625	4%	243 543	116 294	48%
Mbombela	776 481	3%	123 762	43 132	35%
Buffalo City	680 985	3%	20 000	0	0
Mangaung	706 615	3%	20 000	20 000	100%
Msunduzi	520 713	2%	100 846	43 238	43%
Polokwane	841 216	3%	198 761	106 409	54%
Totals *	26 643 787	100%	5 549 981	3 400 596	61%
Operating	Constructing	Planning		* = Approx. R9bn for World Cup	

Source: Cities' annual reviews sent to Department of Transport + Department of Transport summary reports.

The capital spending, of nearly R27-billion, is almost equivalent to the cost of a second Gautrain. Johannesburg and Cape Town together account for half (49%) of the total spend. Major construction is underway in Tshwane, eThekwini, Rustenburg and Mbombela, with these cities' spending accounting for a further 39% of the total spend. The high costs in the larger cities have raised concerns beyond South Africa. For example, a World Bank study has highlighted that BRT costs in South Africa seem to be higher than comparable systems elsewhere (Kumar et al., 2012). In contrast, George, with only 1% of the total spend, is a case where the budget was well-tailored to local circumstances, with a less infrastructure-intensive bus technology having been selected.

Notwithstanding concerns about some of the capital costs, for most cities the major financial issue is going to be the cost of operations. If Johannesburg's experience is anything to go by, the lesson to all the other cities is clear: it is in the operations phase that the rubber hits the road (quite literally!), and when the responsibilities of being an IPTN authority become most apparent, both financially and operationally.

Table 52 is the author's approximation of the likely future management and operational cost implications of the various programmes. These estimates draw on the experiences of Johannesburg and Cape Town, where current operations costs can be used to gauge a relationship with the aggregate capital cost. The following assumptions have been made when calculating the figures:

- The annual cost of management systems and operations is estimated at between 10–15% of the initial capital spend.
- Fare revenues cover between 20–30% of total transit system operating costs, but will cover a higher percentage of direct bus operating costs, as experience to date indicates that system management costs are a major part of total operating costs (fares/communication/administration, etc.).

Some adjustments are made to the above assumptions depending on the complexity of the IPTN systems proposed. It should be stressed that these numbers are not intended for accounting purposes, but rather to give a professional estimate of the scale of funding commitments IPTN systems are generating.

Table 52: Indicative annual costs of IPTN operations – 13 cities

City	Capex (cumulative)	System operating costs as a percentage of capex	Indicative system operational costs (a)	Percentage contribution from fares*	Indicative contribution of fares* (b)	Indicative annual funding (a-b)
Cape Town	5 512 806	10%	551 281	25%	137 820	413 460
Johannesburg	6 064 813	15%	909 722	20%	181 944	727 778
N Mandela	2 013 856	10%	201 386	25%	50 346	151 039
Tshwane	3 641 038	12%	436 925	20%	87 385	349 540
eThekwini	3 368 698	10%	336 870	20%	67 374	269 496
Rustenburg	1 246 922	10%	124 692	20%	24 938	99 754
Ekurhuleni	1 089 625	10%	108 963	20%	21 793	87 170
George	180 019	10%	18 002	30%	5 401	12 601
Mbombela	776 481	10%	77 648	20%	15 530	62 118
Buffalo City	680 985	10%	68 099	20%	13 620	54 479
Mangaung	706 615	10%	70 662	20%	14 132	56 529
Msunduzi	520 713	10%	52 071	20%	10 414	41 657
Polokwane	841 216	10%	84 122	20%	16 824	67 297
Indicative annual funding to be found from sources other than fares						2 47 5611

Note: Fares contribution is to whole system costs, not just bus operating costs.

The estimates are based solely on the IPTN projects and do not take account of additional management costs related to cities taking responsibility for either provincially administered commuter bus services or rail commuter services. The total operating cost for Johannesburg's Rea Vaya alone is put at R727-million per year. Of this, about R500-million is currently financed by the city itself with the rest coming from the PTNOG allocation and fares revenues.

In order to cover the high operating cost burden, Cape Town took the decision to allocate up to 4% of the city's rates revenue to support MyCiti. Forecast rates revenue for 2014/15 is R5.9-billion. Four per cent of R5.9-billion is R236-million which, if fully allocated, would cover 57% of the above estimate of R414-million. Nevertheless, for the additional phases to be rolled out, the city is doing everything possible to reduce costs and align service levels closely to revealed demand.

In smaller cities, the scope of the systems need to be scaled to the available rates revenue. For instance, the estimated operating cost for George is R12-million. If George had to raise 57% of this cost, i.e. about R7-million, and if this were also the equivalent of 4% of its rates, this would imply that George's rates revenue would need to be about R175-million in order to meet a similar level of commitment as Cape Town. As it is, George's rates revenue in 2014/15 was R171 million.

Conclusion

The assignment of transport functions to cities will generate new and ongoing funding responsibilities. However, given the evidence that effective public transport systems contribute substantially to urban economic productivity, this is a long-term challenge that needs to be grasped creatively.

In the short term, a funding crisis seems inevitable, as the capital spending phases of IPTN programmes give way to higher-than-anticipated management and operations costs. As indicated, a first option is that cities allocate a higher proportion of their existing discretionary revenues to transport. To achieve the 4% Cape Town has allocated will mean reducing expenditure elsewhere. Such a decision requires careful consideration and is a political decision that entails accepting that prioritising transport makes good economic sense.

In the medium term, cities may have to find, or dedicate, additional sources of revenue to make good on their commitments to modernise public transport services.

Sharing of funding between cities and provinces may need to become more explicit, especially in Gauteng where several municipalities are involved. This may have to apply even if all transport functions are assigned from the provinces to the cities, either for affordability reasons, as in the case of George, or to ensure coordination of purpose, as may be required in Gauteng.

With regard to congestion charging, the Gauteng e-tolling system could, with creative political will on the part of the metros and the Province, be transformed into a very valuable source of shared funding for both freeways and public transport, both of which are needed to make the city work effectively.

Notwithstanding all of the above, the longer-term sustainability of public transport funding will require ongoing and probably increased national funding via current and future transport grant programmes. From the perspective of National Treasury, this can only be contemplated provided the current devolution of responsibility for transport functions to cities results in greater financial accountability and improved service levels to users. In this regard, the National Treasury is currently undertaking a review of the 'architecture of public transport funding', knowing that transport funding is not going to be a short-term financial crisis but rather a permanent funding issue, central to effective urban and, by extension, long-term fiscal growth.

This places a major responsibility on municipalities to demonstrate awareness of the scale of the task facing them, and willingness and capability able to take it on. Drawing on the short case studies in this chapter, there are a number of specific lessons to be learned.

The main lessons from the Johannesburg's Rea Vaya case study include:

- Training in operations and financial management is needed for both the city's systems management officials and the bus operating companies.
- The new responsibilities constitute a cultural revolution in the way that cities will be run in future.

The main lessons from the eThekwini's case study are:

- Accurate assessment of incremental transport system management costs is vital.
- Good management of the subsidy and associated management functions, including collaboration with PRASA, can lead to improved commuter rail performance.

Lessons from George's Go George case study include:

- Cities should manage their exposure to unfunded operating commitments by tailoring technical solutions to what the local needs actually are; in other words, investment should be demand-led.
- Municipalities must be realistic about what they are actually capable of managing.
- There are benefits to human resource and cost sharing with the provincial authority.

Finally, there is a significant contrast between the huge scale of capital and operating costs involved in operating BRT and similar integrated transit systems, and the MBT industry. The MBT industry moves more people from more origins to more destinations in South African cities than any of the formal public transport modes; and does so without formal subsidy.

It can, of course, be argued that the MBT industry 'takes' its subsidy in the form of unpaid taxes and the social and environmental externalities arising from often disorderly road behaviour and a poor safety record. Yet, even allowing for these informal subsidies, the industry has lessons the country can ill afford to ignore:

- It delivers high levels of accessibility and mobility for relatively low public cost.
- It efficiently matches service levels to revealed demand and spatial form.
- It avoids the public sector transport tendency to create complex, costly management structures.

In future, business models for public transport in South African cities will need to find ways of combining these aspects of MBT industry ingenuity together with effective management of systems and operations. Without these improvements in technological and managerial efficiencies, it will be difficult to make the case for the funding.

Learning these lessons is going to require patience from the national fiscus, huge commitment to improving management from city transport officials, improved operational and business skills from bus operators and, importantly, willingness by the MBT industry to grasp a unique opportunity to lead South Africa by transforming its skills into a new generation of public service-based urban transport.

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CONCLUSION

Cities occupy an important place in South Africa's social, economic and political landscape but are under extreme pressure from historical backlogs, increasing urbanisation (resulting in increased demand for service delivery), and the constraints of current municipal revenue models. Cities are also expected to take on additional (often unfunded) mandates as well as greater responsibility for the sustainability of their own finances.

This report shows that South Africa's largest cities are getting better at doing the basics right. Their revenues have held up remarkably well since the 2008 economic crisis, their billing is better than most other municipalities, and their audit outcomes continue to improve. However, this performance has to continue improving in order to maximise economy, efficiency and confidence in the municipal systems. Furthermore, given the much-awaited devolution of key built environment functions, cities need to plan carefully for taking on the additional responsibilities to avoid being placed under even more pressure. This will require rethinking how cities are funded and seeking innovative ways to increase their revenues, as well as improving further the day-to-day financial management (the basics).

Funding the expansion of cities is a global challenge. Like all municipalities (and nearly all governments around the world), the cities would like to have access to additional revenues. Therefore, the following recommendations are proposed:

1) **Spend funds more efficiently:** 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. Therefore, the most important revenue expansion opportunity for cities is to eliminate wasteful spending and revenue loss through corrupt practices. They need to extract savings from eliminating over-priced contracts, project over-runs, unnecessary bureaucracy, non-priority expenditure, top-heavy management structures, golden handshakes, perks, unnecessary litigation, fruitless and wasteful expenditure, cronyism and corruption. Tackling these issues will yield direct savings which can be reallocated to fund necessary, priority services and infrastructure. More importantly, tackling these issues lays the foundation for changing taxpayers' perceptions of the city and thus their willingness to pay existing bills and any new taxes the city may want to implement in future.

2) **Make better use of existing revenue sources:** Cities need to ensure they are making complete use of their existing revenue sources. This means:

   - Using the full range of own-revenue sources available to them. For instance, addressing the high non-payment of traffic fines, and making greater use of development charges for funding infrastructure.
   - Ensuring municipal taxes and service charges are appropriately structured to optimise revenues. Very often municipalities do not fully understand the cost structures of their different services and so are unable to set appropriate tariffs and tariff increases. Generally tariffs are set according to what is politically acceptable and what is needed to finance expenditures, rather than the cost of delivering the service concerned.
   - Sending accounts to everyone who should be receiving accounts. In other words, having complete billing systems.
   - Structuring appropriately and managing efficiency the municipality's indigent policy. For instance, if the property rates rebate is structured as a fixed percentage of the value of the property, then wealthier households benefit far more from the rebate than Zindigent households.

3) **Explore options for additional taxes and charges:** Section 229 of the Constitution gives municipalities the power to impose surcharges on fees for services provided and to impose other taxes, levies and duties appropriate to local government 'if authorised by national legislation'. The legislation in question is the Municipal Fiscal Powers and Functions Act, which sets out a framework for municipalities to apply to the Minister of Finance for permission to impose surcharges and additional taxes, levies and duties so as to expand their revenue base. The Constitution places several restrictions on what a new municipal tax could be, such as it cannot be any tax that resembles an income tax, a value added tax or general sales tax, or customs duties. Furthermore, the taxes imposed by local government may not materially and unreasonably prejudice national economic policies, economic activities across municipal boundaries, or the national mobility of goods, services, capital or labour. While this narrows the range of possible new taxes available to municipalities considerably, cities need to continue to explore possible viable options actively, in consultation with the Minister of Finance and Minister of Cooperative Governance.

Proposed local business tax

- In 2011 five cities, led by eThekwini, applied to the Minister of Finance for permission to impose a local business tax. Two options were put forward:
- A tax on businesses turnover administered through the SARS VAT system – the base includes all taxable supplies in terms of the VAT regime and would only be payable by VAT-registered vendors.
- A tax on business footprint administered through the SARS company tax system – the base includes the use of capital and labour services by the company, and excludes profit and royalties, and would not subtract gross investment.
- The Minister of Finance turned down both proposals on the grounds that they are both similar to VAT in structure, and the turnover tax is similar to income tax. Theoretically, there is wide agreement that a local business tax is an appropriate tax for local government, and cities should continue to explore and argue for such a tax to be considered, even if it requires a constitutional amendment.

4. **Continue to argue for an increased equitable share from the national fiscus:** The current system is based on the constitutional requirement that, when determining the equitable division of revenue, consideration must be given to the relative development needs of municipalities and their respective fiscal capacity. National government is thus able to use the local government equitable share to redistribute to smaller, poorer rural municipalities. Relative to other municipalities, cities have far greater fiscal capacity and generally lower service delivery backlogs, and are seen as being favoured by the reforms made to conditional grants for infrastructure. However, the grants system does not provide discretionary funding that cities can use to drive development in their own jurisdictions. Cities are also taking on additional functions that are not always self-financing and are not covered by their current share of nationally raised revenues. Cities should continue to argue for a greater share of nationally raised revenue to be used at their discretion in order to meet their unique and ongoing development needs resulting from in-migration, and to enable them to meet the challenges and expectations of being 'engines of growth' for the country's economy.

5. **Explore innovative financing options:** Strictly speaking borrowing is not a revenue source but rather a means of spreading the cost of financing capital investments over a period of time, However, cities can use debt financing instruments, such a municipal bonds, to invest in infrastructure developments that will grow their revenue base and thus contribute directly to increased future own revenues. Cities need to explore more carefully this link between borrowing and growing the revenue base. Cities also ought to explore opportunities to innovate around their property portfolios, through property swaps, property value capture and public private partnerships. However, cities should avoid auctioning off 'surplus property holdings' in order to cover shortfalls on their operating budgets. All revenue from the sale of municipal properties should be invested in acquiring other more strategic properties or in building productive infrastructure so as not to weaken the municipalities' balance sheet.

6. **Lobby to have a stronger voice in government:** In a changing intergovernmental fiscal environment, the way in which cities are funded needs to reviewed. For this to happen, cities need to have a stronger voice in government. This means playing a stronger role in intergovernmental forums, and through direct representation especially on forums involved in the division of nationally collected revenues. Metropolitan mayors should be represented at the Extended Cabinet and MinMECs. If cities are to have a stronger voice, they will also need to learn from each other, cooperate where possible, and work closely together to establish common ground on issues that affect their financial sustainability. In particular, when engaging with national and provincial government over the devolution of human settlements and transport functions so as to ensure that propositions made do not negatively impact upon the sustainability of cities and their finances.

In summary, the cities are steadily improving on doing the basics right but should continue to do better, in particular by addressing inefficiencies in the current system. They will also need to adapt and innovate in order to maximise their revenues and fulfil their developmental mandates within a shifting and dynamic economic and fiscal environment. This will require a government-wide rethinking of how cities are financed and funded so as to allow them to drive the economy while also developing inclusive and accessible cities that are affordable and liveable for all of South Africa's urban dwellers.

JDA – SACN

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Carmen Abdoll has experience in public sector finance management, budget analysis, and various tax policy issues, including issues related to value-added tax, excise duties and all sub-national taxes. She has also worked on various projects related to the structure of the intergovernmental fiscal system in South Africa. Carmen has a particular interest in policy and services impacting on the lives of orphan children.

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Jonathan Carter is a policy researcher and policy cost modeller. He has experience in the design of intergovernmental fiscal funding mechanisms, intergovernmental fiscal relations, public sector training, costing of policies and legislation and is familiar with both qualitative and quantitative research techniques. He is interested in the institutional arrangements and processes in government that facilitate accountability and enhance service delivery. He has extensive experience in public sector training, especially in municipal finance management. He enjoys working on policy issues related to child well-being.

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Phil Sinnett was Head of the Public Expenditure and Financial Accountability Secretariat based at the World Bank, until his retirement at the end of June 2014. Before moving to Washington to join PEFA, Phil was employed by the Chartered Institute of Public Finance and Accountancy (CIPFA) for more than 20 years. During this time, he designed, managed and reviewed numerous donor-funded projects; for much of this period, he was based in South Africa and worked on the development of PFM during the post-apartheid transition process. Phil holds a degree in Economics and is a Chartered Public Finance Accountant. His experience in the full range of public sector accounting and financial management functions was initially gained as an accountant with the City Council of Liverpool, his hometown.

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List of Acronyms

AEL	Atmospheric Emission Licence
AFS	Annual Financial Statements
AL&HDC	Affordable Land & Housing Data Centre
APPs	Annual Performance Plans
BCM	Buffalo City Metropolitan Municipality
BEPP	Built Environment Performance Plan
BNG	Breaking New Ground
BRT	Bus Rapid Transit
Capex	Capital Expenditure
CPT	City of Cape Town
COD	Chemical Oxygen Demand
COGTA	Ministry of Cooperative Governance and Traditional Affairs
CPI	Consumer Price Index
DBSA	Development Bank of Southern Africa
DEA	Department of Environmental Affairs
DHS	Department of Human Settlements
DORA	Division of Revenue Act
DORB	Division of Revenue Bill
DoH	Department of Housing
DoT	Department of Transport
EDD	Economic Development Department
EKU	Ekurhuleni Metropolitan Municipality
EMM	Ekurhuleni Metropolitan Municipality
EPA	Environmental Protection Agency
EPRI	Electric Power Research Institute
ETA	eThekwini Transport Authority
ETH	eThekwini Metropolitan Municipality
FFC	Financial and Fiscal Commission
FHWA	Federal Highway Administration
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GTAC	Government Technical Assistance Centre
GVA	General Value Add
HSDG	Human Settlements Development Grant
IDC	Industrial Development Corporation
IDP	Integrated Development Plans
INEP	Integrated National Electrification Programme
IPAP	Industrial Policy Action Plan
IPTN	Integrated Public Transportation Network
IRPTN	Integrated Rapid Public Transportation Network
ITF	International Transport Forum
JHB	City of Johannesburg
KEI	Korean Environment Institute
kl	Kilolitres
kWh	kilowatt hours
MAN	Mangaung Municipality
MBT	Minibus-taxi industry
MEC	Member of the Executive Council
MFMA	Municipal Finance Management Act
MIG	Municipal Infrastructure Grant
MinMEC	Ministers and MECs
MOE	Ministry of Environment
MPRA	Municipal Property Rates Act
MSU	Msunduzi Municipality
MTEF	Medium Term Expenditure Framework
MVA	Mega Volt Amp
MWh	Megawatt hours
NMB	Nelson Mandela Bay Metropolitan Municipality
NCOP	National Council of Provinces
NDP	National Development Plan
NDPG	Neighbourhood Development Partnership Grant
NGP	New Growth Path
NLTA	National Land Transport Act

NLTTA	National Land Transport Transition Act
NPC	National Planning Commission
PEFA	Public Expenditure and Financial Accountability
PFMA	Public Finance Management Act
PICC	Presidential Infrastructure Coordination Commission
PRASA	Passenger Rail Agency of South Africa
PTIS	Public Transport Infrastructure Grants
PTISG	Public Transport Infrastructure & Systems Grant
PTOG	Public Transport Operations Grant
PTNOG	Public Transport Network Operating Grants
SACN	South African Cities Network
SALGA	South African Local Government Association
SARCC	South African Rail Commuter Corporation
SCOPA	Standing Committee on Public Accounts
SCM	Supply Chain Management
SDF	Spatial Development Framework
SIP	Strategic Infrastructure Programme
SOEs	State-Owned Entities
SSMA	Scheduled Services Management Agency
Stats SA	Statistics South Africa
SWH	Solar Water heater
TSH	City of Tshwane
UDAs	Urban Development Authorities
UNEP	United Nations Environment Programme
USDG	Urban Settlements Development Grant

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