

The Capable Cities Index

Working Paper Series 2



Measuring The Performance Of Cities

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Cover image: *The iconic Ponte City Building in Hillbrow, Johannesburg. Photo credit: 123RF/demerzel21*

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About the Capable Cities Index

The Capable Cities Index measures the capability of South Africa's 27¹ major cities against specific indicators of capacity, compliance and performance that are under the operational control of a municipality and directly relevant to assessing how well local government is doing.

The Index does this by translating the concept of capability into statistical measures that are then used to compare practices across municipalities to assess patterns of conformity to and deviation from the governing legal frameworks for local government.

First published in 2015, the Capable Cities Index consists of three separate indices: the Capacity Index, the Performance Index and the Compliance Index.

- 1. Collectively, the Capable Cities Index rests on three core assumptions: the capacity, compliance, performance of municipalities must be measured against variables that focus on how well the municipality is managed.*
- 2. These measures must be confined to outcomes that are under the operational control of municipalities themselves. The measures selected thus exclude variables that reflect the impact of the external environment, such as broader socio-economic or political conditions, or grants provided to municipalities by the National Treasury.*
- 3. A focus on short-term changes in behaviour can overlook more durable long-term trends and so skew perceptions of local government. The Index thus often aggregates data over long periods (of up to five years) to ensure that ephemeral anomalies do not conceal significant underlying patterns.²*

The Constitution and national legislation distinguish between three categories of municipalities, which together provide the basic building blocks of local government: metropolitan (Category A), local (Category B), and district (Category C). Various government departments, including the Department of Cooperative Government and Traditional Affairs (COGTA), which is the national department responsible for the local government portfolio, employ a more fine-grained subdivision of these categories into a further seven different classes (see table below) distinguished from one another on the basis of settlement patterns and service delivery responsibilities. References to A (metro) and BI (secondary cities) must be understood in terms of the extended classification.

¹ Between 2011 and 2016 there were eight cities and 19 BI (big towns). However, the number appearing in the text and the graphics depends not only on the number of cities but also, first, subsequent amalgamations, and, secondly, missing data: when the data are not available, the text or graphic refers to the number of cities for which there is adequate information.

² The first year of an administration depends heavily on continuity in the budgets and senior appointments made by the preceding administration. Generally, no changes are made to senior positions (such as Municipal Managers and Chief Financial Officers) in the first year of an administration. Likewise, the new administration is confined by the budget that was adopted earlier. For this reason, the first year of the administration (in this instance, 2011/12) is excluded from the Index's calculations.

COGTA's municipal classification system in overview

<i>Municipal class</i>	<i>Description</i>
<i>A</i>	<i>Metropolitan municipalities</i>
<i>B1</i>	<i>Secondary cities, which are those local municipalities with the largest budgets</i>
<i>B2</i>	<i>Local municipalities with a large town as core</i>
<i>B3</i>	<i>Local municipalities with small towns and a substantial urban population but no large town as a core</i>
<i>B4</i>	<i>Local municipalities that are mainly rural, utilise communal tenure and have a few small towns</i>
<i>C1</i>	<i>District municipalities which are not water services authorities</i>
<i>C2</i>	<i>District municipalities which are water services authorities</i>

Highlights

- *The average Performance Index score of the municipalities was 0.50*
- *Overall, there is a poor correlation between municipal performance and the likelihood of section 139 intervention*
- *Generally, larger municipalities tend to have better levels of performance*
- *All but seven cities (and all metros) perform at levels that exceed the national average*
- *Money owed to municipalities amounts, on average, to 64 per cent of the annual revenue accruing to them from service charges*
- *The salary bill for political officers and senior management grows four per cent faster in each year than municipal revenue does*

Performance Index

The Performance Index measures performance against three variables that are under the control of municipal management and that must conform to national regulations:

1. **Repairs and maintenance:** *The first indicator is the level of spending on maintaining existing assets. The National Treasury has set a benchmark in terms of which eight per cent³ of the value of property, plant and equipment is to be spent on repairing and maintaining them. Levels of expenditure lower than this imply that existing assets are being allowed to lose value prematurely. The average amount spent on repairs and maintenance is expressed as a percentage of the value of property, plant and equipment for the sum of the financial years within the relevant range.*
2. **Debt level:** *As service providers, municipalities should be paid for their services within the stipulated period. Failure to ensure they are paid timeously gives rise to increased debt levels that undermine their financial sustainability. As such, the second key indicator of municipal performance is the amount of money that clients of the municipality owe it. This is expressed as the ratio between debts and service charges for the relevant period. Lower debt ratios indicate more effective revenue management and the appropriate pricing of municipal services.*
3. **Management cost growth:** *Effective management of municipalities requires that services are paid for and that the delivery of such services and receipt of payment take place timeously. The third indicator of municipal efficiency, then, is how fast the cost of managing services (and obtaining revenue) rises relative to changes in municipal revenue. If management costs rise faster than revenue, then management is relatively more expensive and, potentially, managerial inefficiency is being rewarded.*

Each of the three variables falls within the control of municipalities and, collectively, they reflect the extent to which assets are maintained and services paid for, and the cost efficiency with which this is done. While they are not intended to be a comprehensive measure of performance, they have the necessary breadth to straddle local government operations and illustrate the different dynamics of performance.

The Index consists of a composite performance index that ranks

- *the average amount spent on repairs and maintenance, expressed as a percentage of the value of property, plant and equipment for the sum of the financial years 2012/13, 2013/14, 2014/5 and 2015/16;⁴*
- *the difference in (a.) the rate of growth of remuneration of political officers and senior managers, and (b.) the growth in municipal own revenue for providing services, over the period 2012/13 to 2015/16;⁵ and*
- *all municipalities on a scale of 0 to 1, where higher scores correspond to better or preferable situations – the highest score invariably reflects the most desirable outcome.⁶*

³ National Treasury, MFMA Circular No. 71, Municipal Finance Management Act No. 56 of 2003, Uniform Financial Ratios and Norms. Pretoria. 2014. [http://mfma.treasury.gov.za/Circulars/Documents/Circular_71 – Financial Ratios and Norms – 17 January 2014/MFMA Circular No 71 Financial Ratios and Norms – 17 January 2014.pdf](http://mfma.treasury.gov.za/Circulars/Documents/Circular_71_-_Financial_Ratios_and_Norms_-_17_January_2014/MFMA_Circular_No_71_Financial_Ratios_and_Norms_-_17_January_2014.pdf) (last accessed 30 January 2018).

⁴ This value was transformed to a logarithm base 10.

⁵ This value was transformed to a logarithm base 10.

Each of the three variables was scored on the 0 to 1 scale. They were then summed to give the composite performance score. This aggregated, 'composite' score was, in turn, reset to the scale of 0 to 1.

The data were sourced from the detailed data and benchmarking statistics published by the National Treasury's MFMA unit.⁷

The performance index consists of

- the composite performance index for all municipalities;*
- the performance index for the 27 major cities;*
- the component indices for each variable, showing only the rankings of the 27 major cities; and*
- a comparison of the performance of cities.*

⁶ *For example, where growth in the management wage bill exceeded that of own revenue by the highest margin, a municipality scored 0, as this is the least desirable situation; where this gap was the smallest (and possibly negative), the municipality scored 1.*

⁷ *National Treasury/Code for SA, municipal money API website (last accessed 30 January 2018). National Treasury MFMA website (last accessed 30 January 2018).*

The performance of all municipalities

- **Three distinct bands of performance can be discerned in local government**

Diagram 1 below shows the distribution of composite Performance Index scores across the spectrum of scores. As explained above, the higher a municipality's performance level, the higher its score. The median Performance Index score of all municipalities is 0.50.⁸ Half of all municipalities⁹ get more than this value.

A wide variation in performance levels can be seen, with three distinct trends being evident. These trends correspond to the following groups of municipalities:

- **Track 1:** the 20 municipalities that performed well on each of the three indicators.
- **Track 2:** a large group of 212 municipalities that obtained a score of 0.3 or more (but less than 0.66).
- **Track 3:** a small group of municipalities that fared poorly on each of the indicators and obtained scores below 0.3.

Diagram 1 illustrates the Performance Index scores for each of these three groups.¹⁰

Trend 1: Twenty municipalities fall into Track 1. Members of this group have a Performance Index of greater than 0.66. These municipalities obtain relatively high scores on all three indicators (repairs and maintenance, debt level, and management cost growth). As such, there is little room for them to improve their performance.

Trend 2: With 212 members, well more than half of all municipalities fall into this group (Track 2). Although Johannesburg lies on the cusp of joining Track 1, all metros other than Ethekewini and Cape Town are currently in Track 2. Within this Track, there is a moderate rate of decline in overall scores. These scores can often be attributed to the municipalities having performed poorly on one of the indicators.

This, along with the moderate slope in the graph, suggests that by incrementally improving performance on the weakest indicators, municipalities would have a viable strategy for improving their Performance Index score. This strategy hinges on municipalities' progressively reducing the debtors' book; increasing expenditure on repairing and maintaining property, plant and equipment; and limiting the difference in the growth of own revenue and that of management cost. The trend for this group is illustrated in Diagram 1 by the flat projection line.

Trend 3: The third group is relatively small, with 18 members. All municipalities in this Track fare poorly on each of the three indicators. They thus have high debt levels; do not maintain existing assets adequately; and have a salary bill for management that rises faster than municipal own income.

⁸ The first iteration of the Performance Index was based on the best and worst values observed at the time. The range was changed in this, the second, iteration. As a result, the first iteration has been recalculated using the new minima and maxima values, and there is, consequently, a small difference between the figures used here and those published in the initial report. However, while individual scores in the first iteration will have changed slightly on recalculation, there is no substantive change in municipalities' individual scores or rankings.

⁹ In 2016, South Africa had 278 municipalities (district, metro and local). However, calculating the Performance Index depends on the availability of all data for every year of the period under review. When the data are missing and cannot be imputed, no index value has been estimated. There were sufficient data for calculating the composite indices for only 250 municipalities.

¹⁰ If municipalities were unable to provide estimates of a key variable for at least one of the years under review, they were accorded a value of 0 for that variable. This was particularly pronounced in the case of valuating property, plant and equipment and the amount of money spent on repairs and maintenance. A fourth group thus includes several municipalities where performance levels have not been measured at any time and it cannot be determined whether they have met the relevant benchmarks and thereby conformed to regulations.

When members of this group are identified as targets for additional support, a 'moral hazard' is presented. The hazards are created when the municipality and those responsible for the poor performance are 'rewarded' by increased resourcing. In this group, a rapid rate of deterioration is clear and external intervention is thus warranted. However, the support may also, seemingly, incentivise poor performance and non-compliance.

- **Generally, larger municipalities tend to have better levels of performance**

All the metros fall into Track 1 or 2, with each metro receiving a Performance Index score significantly better than the national average: the average score for category A municipalities (metros) was 0.63, which is 26 per cent higher than the national average. By contrast, the average score of category B1 municipalities was 0.48, and thus almost on a par with the national average.

As for municipalities that are not centred on a large town or city, they are believed to be less able to attract professional staff than those that are; as a result, they face capacity deficits and additional impediments to performing well. However, these smaller, and more rural, municipalities received, on average, a Performance Index score of 0.49. This is fractionally higher than that of B1 municipalities.

Although larger municipalities tend to perform better than smaller ones, the relationship between municipal size and Performance Index score is loose: several small municipalities fare very well on this score, whereas some large (non-metro) municipalities score very poorly. It is clear, in other words, that there is no causal relationship between municipal size and Performance Index rating.

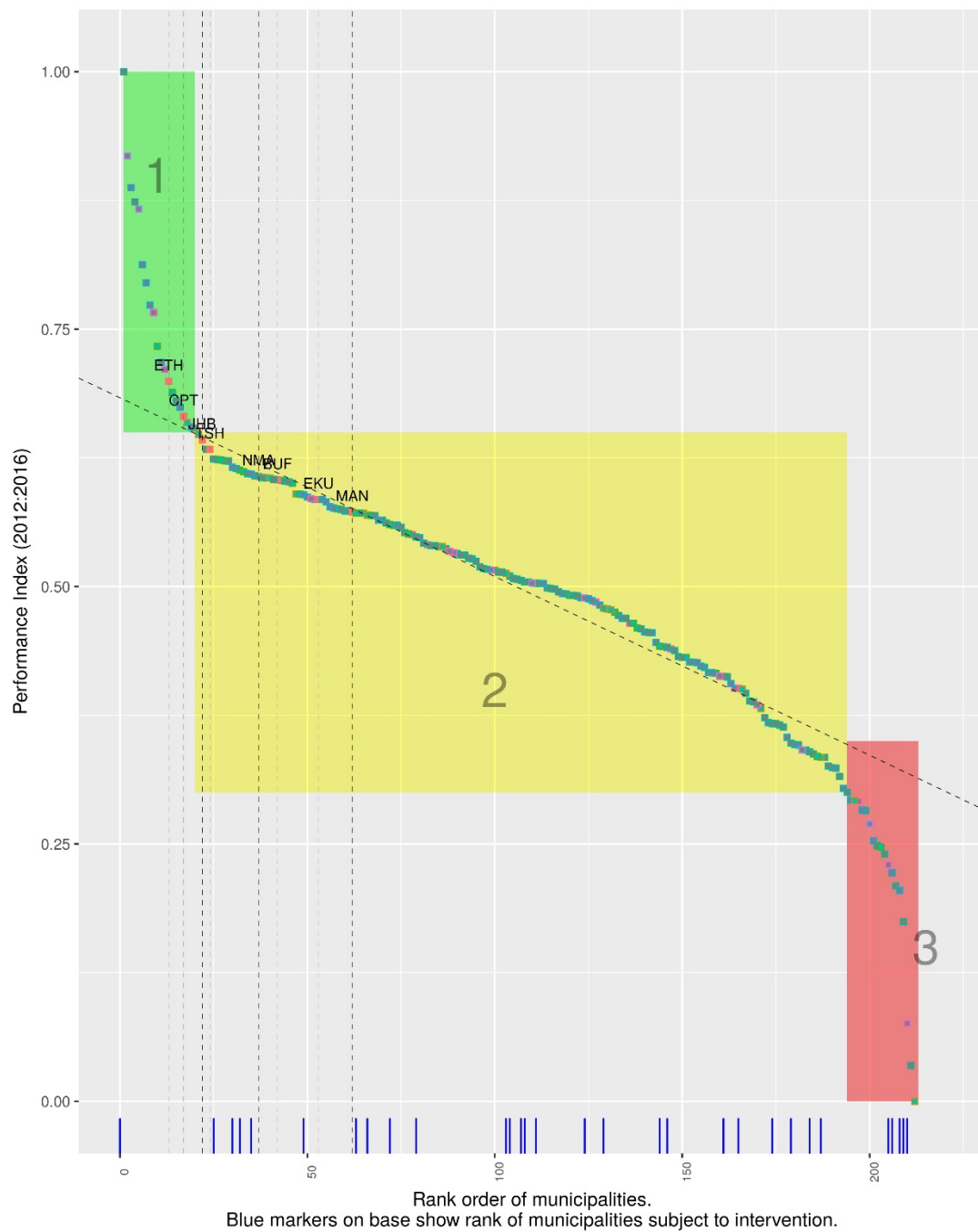
The location of each metropolitan municipality on the Performance Index spectrum is highlighted in Diagram 1, which shows the distribution of Performance Index scores for all local, metropolitan and district municipalities. The blue lines running along the bottom of the graph indicate municipalities had been subject to section 139 interventions.

- **Overall, there is a poor correlation between municipal performance and the likelihood of section 139 intervention**

Section 139 of the Constitution enables provincial governments (and in some cases, the national government) to intervene in the administration of municipalities under certain circumstances. Such interventions are increasingly used to address gross performance deficits in local government. In the first iteration of this Index, almost one-quarter of the worst-performing municipalities had been subject to a section 139 intervention; this trend is repeated in Track 3 in the current iteration. However, half of the ten worst-performing municipalities were subject to a section 139 intervention during the period under review. The worst-performing (Track 3) municipalities were twice as likely to be subject to an intervention as Track 2 municipalities; however, only half of them had been subject to any intervention. Members of Track 2 were less likely to have been subject to a section 139 than in the first iteration – only 13 per cent of them had been so. No member of Track 1 has been subject to a section 139 intervention.

The correlation between section 139 intervention and poor performance has thus improved for the very worst-performing municipalities. There is now some evidence that interventions are being used to address gross performance deficits and not just, as was previously the case, failures in municipal compliance. That being said, performance deficits are correlated to compliance failures, and it is unhelpful to make a stark differentiation between them.

Diagram 1: Performance of all municipalities



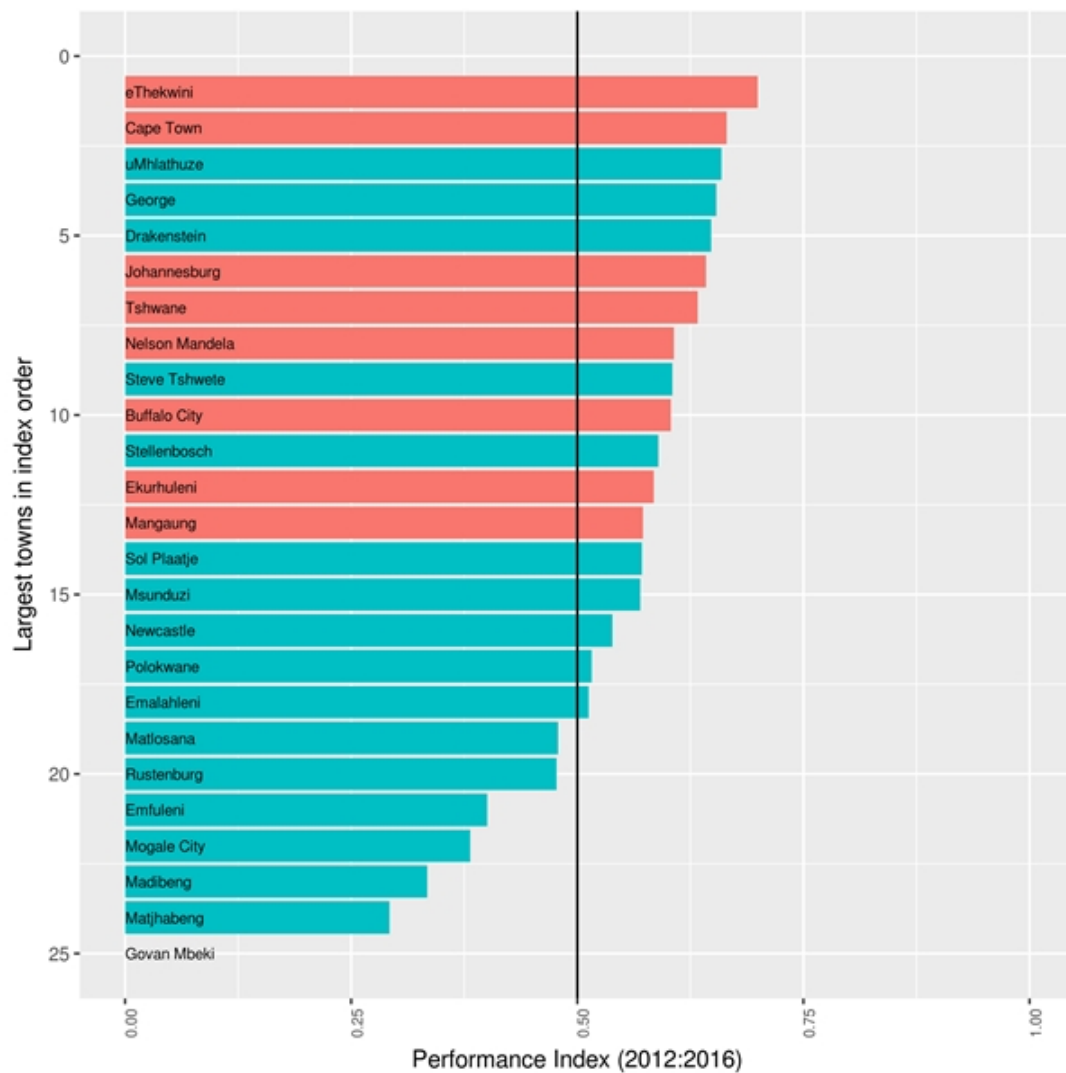
The performance of major cities

- **All but seven cities (and all metros) perform at levels that exceed the national average**

Category A and B1 municipalities include all of the country's large cities, and these are the primary focus of the Capable Cities Index. In 2015/16, these 25 municipalities accounted for three-quarters of the budgeted operating expenditure of all municipalities. Diagram 2 below shows how the cities are distributed on the Performance Index spectrum, with the national average Performance Index score of 0.50 represented by the vertical line. All but seven cities (and all the metros) perform at levels that exceed

the national average. Metropolitan municipalities tend to dominate the upper end of the scale (i.e. once B2, B3, B4 municipalities have been excluded).

Diagram 2: Performance of cities



In the first iteration of the Performance Index, most of the cities with a score below the national average were from the North West Province. This geographical dimension has improved: although North West municipalities are still the most numerous of this group, they no longer make up a majority. Nevertheless, no non-metropolitan city from North West, Free State or Limpopo provinces obtained a Performance Index rating higher than the national average.

Repairs and maintenance of assets

As previously mentioned, the Performance Index uses three specific measures, namely:

- 1. repairs and maintenance;*
- 2. debt level; and*
- 3. management cost growth.*

The subsections below describe the performance of municipalities in terms of each of these specific measures.

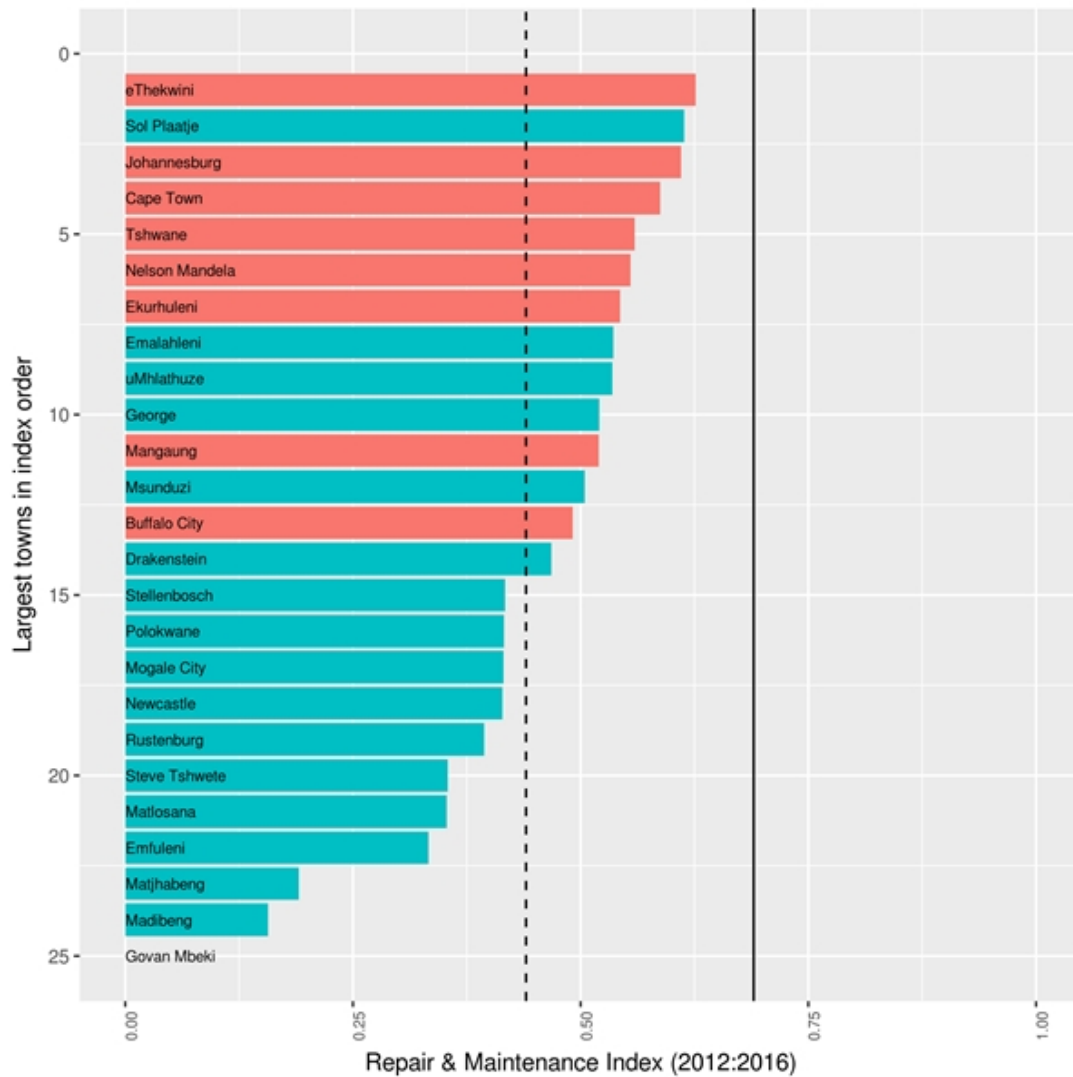
- **No city reaches the prescribed spending level with respect to repairs and maintenance of assets***

The first sub-component of the Performance Index – the repairs and maintenance measure – is a measure of what proportion of asset value is spent in maintaining those assets. As highlighted above, the National Treasury sets a benchmark of at least eight per cent of the value of property, plant and equipment (PPE) being spent on maintaining those assets. Failure to do so indicates that the assets will function at sub-optimal levels and will need to be replaced unnecessarily early. Few municipalities attain this level for any length of time.

Across all municipalities, an average of only 3.4 per cent of PPE is currently spent on repairs and maintenance. This is half the benchmarked value and less than in the first iteration (the average percentage then was 4.1). The benchmark corresponds to a sub-component index value of 0.64.

The values of this sub-component of the index for cities are shown below. The national average (sub-component index value of 0.44) is indicated by the solid vertical line, while the benchmark set by National Treasury is indicated by the dashed vertical line.

Diagram 3: Performance of municipalities in terms of repair and maintenance of assets



While more than half (14) of the of the 25 cities obtain a Repair & Maintenance Index score above the national average, no city reaches the desired level. In this iteration of the Performance Index, only one city (Govan Mbeki) was unable to provide estimates of the value of PPE and its expenditure on repairs and maintenance for any of the years reviewed. In keeping with the way in which missing information is treated in the Performance Index, this city has been allocated a value of 0 on this component of the Index.

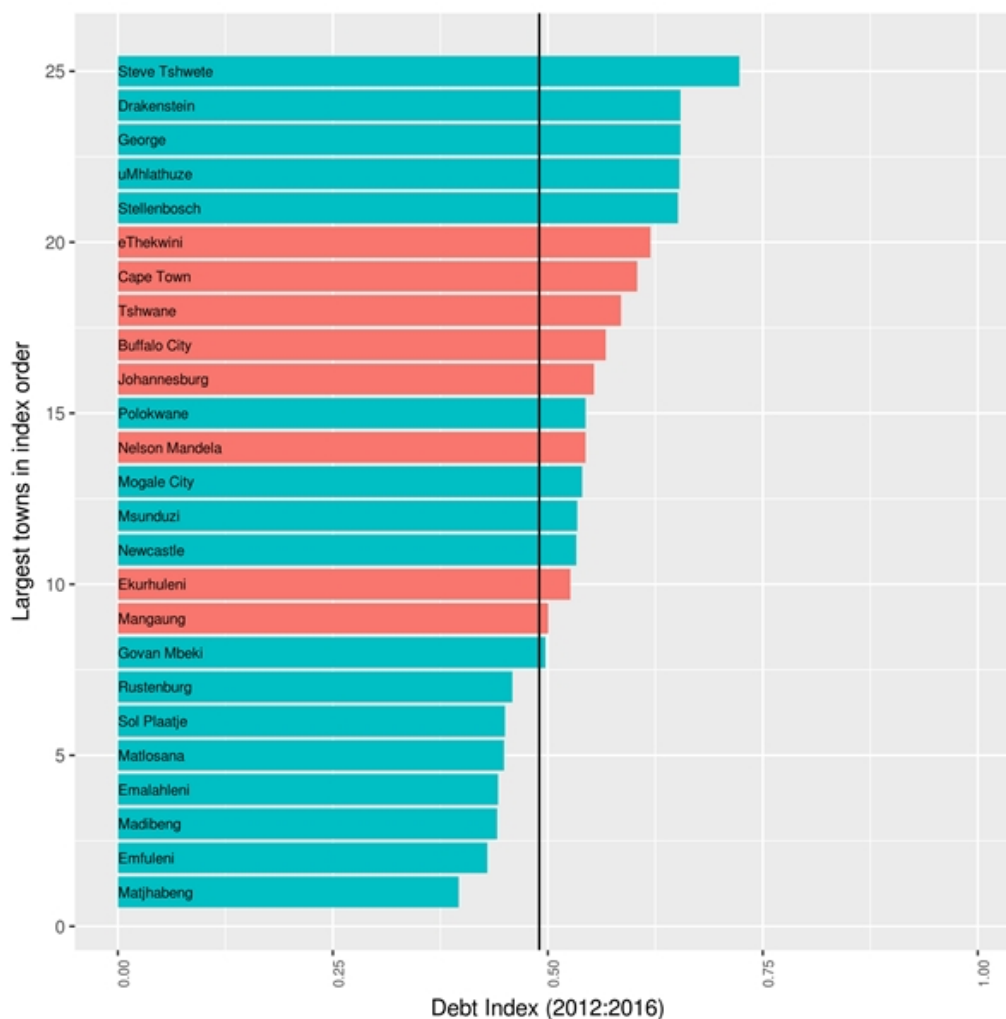
Debt levels

- **Money owed to municipalities amounts, on average, to 64 per cent of the annual revenue accruing to them from service charges**

The second sub-component of the Index measures the extent to which the municipality receives timely payment for services rendered. The debt residents owe is expressed as a percentage of the revenue the municipality earns from residents. Since various grants (such as the equitable share allocation) are intended to cover the costs of providing basic services, the value of these grants is excluded from the Index.

The average value of this sub-component of the Performance Index was 0.46. All metropolitan municipalities obtain a Debt Index score that was above this national average, as reflected by the continuous black vertical line in Diagram 4 below. However, almost 30 per cent of cities (that is, seven of them) performed worse than the national average in terms of debt management. The distribution nevertheless implies that cities are significantly better than smaller municipalities at being paid for the services they render.

Diagram 4: Performance of municipalities in terms of debt management



Management cost growth

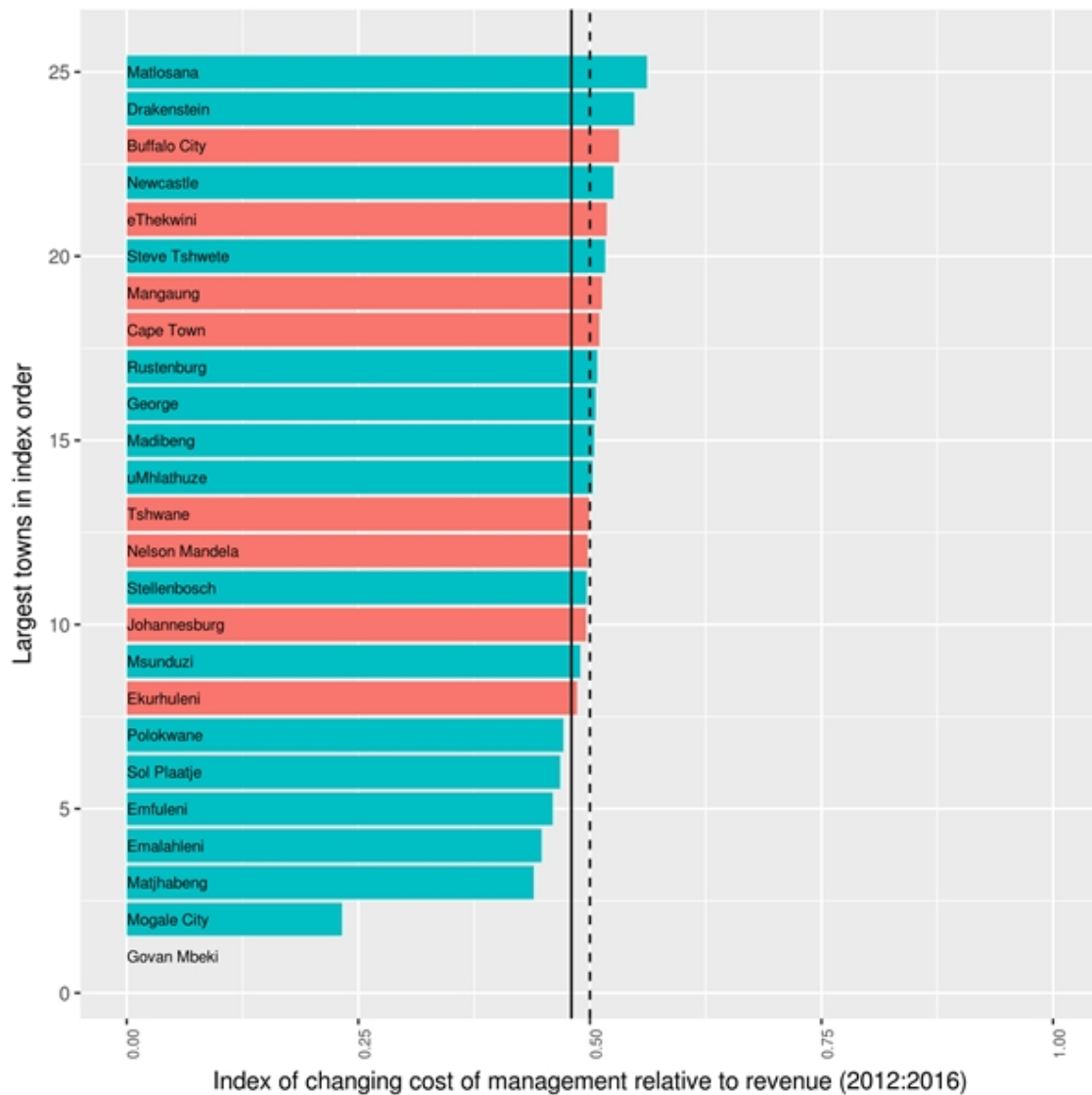
- *The salary bill for political officers and senior management grows four per cent faster in each year than municipal revenue does*

Political officers (councillors, mayors, and so on) and senior management constitute a significant cost to municipalities. Nationally, their wage bill typically amounts to about one-quarter of what municipalities receive from payment for services. In small municipalities in particular, management costs tend to be high in relation to municipal revenue. This tendency ensures that small municipalities are prejudiced by measures such as the 'proportion of revenue spent on salaries'. To avoid such bias, this sub-component of the Index is based on the growth in the salary bill relative to the growth of municipal revenue.

Between the start and end of the current administration, the salary bill for political officers and senior management grew on average by seven per cent each year; conversely, money received by municipalities from rates and the sale of services grew, on average, almost twice as fast, by 13.7 per cent each year.

This is in sharp contrast to the situation in the first iteration of the Index. At that time, the annual cost of political officers and senior management grew four per cent faster than municipal 'own revenue'. To the extent that the salary bill consistently exceeds the benefits of employing those managers and political officials, a moral hazard exists in remuneration practices, as previously noted. This in turn can undermine the financial sustainability of municipalities.

Diagram 5: Growth of management cost relative to revenue growth



There should be, at the very least, a general equilibrium between revenue growth and the salary bill – each percentage point growth in salaries should result in a commensurate increase in revenue. This situation, which approximates a Management Cost Growth Index value of 0.50, is represented by the dashed vertical line in Diagram 5 above.

Cities now tend to be close to this mark, with increases in the remuneration of senior officials being close (percentage-wise) to the growth in municipal own revenue from residents. The national average of the Management Cost Growth Index corresponds to 0.48 (as shown by the solid line above). Municipalities with low scores have endpoints to the left of the dashed line: in these cases, the remuneration of senior officials is growing faster than the municipality’s own revenue.

All but seven cities perform better than the national average on the Management Cost Growth Index, but in only 11 municipal cities are senior officials becoming more efficient. In these cities the rate of growth in municipal revenue exceeds the rate at which management costs are rising. This implies furthermore that salary inflation is significantly more pronounced in smaller municipalities.

Comparison of city performance

The various indices that make up the Capable Cities Index benchmark capacity, compliance and performance by comparing municipalities against each other. The standard against which performance is measured is not an absolute one, but a statistical benchmark which is established by the performance of other municipalities at the time of measurement. In other words, as municipal performance constantly changes, so too does the way in which the indices are calculated.

Yet while this facilitates the ranking of municipalities, it is not conducive to comparing changes over time. A small increase in a municipality's Performance Index from one iteration of the series to the next does not point definitively to an improvement in its performance. This brings into question the value of comparing changes in the Performance Index over time.

The change in rank order between iterations of the Capable Cities Index is definitive and offers insight into performance changes over time. For example, since the first iteration, Cape Town's Performance Index ranking has risen from 49th to 17th. By contrast, Mangaung's has dropped from 23rd to 69th.

Diagram 6 below shows how the performance of cities among the best-performing 80 municipalities changed between the two iterations.

The illustration shows how there can be marked changes in municipal Performance Index ranks over a relatively short time. The trajectory of metropolitan municipalities is shown by the blue lines, and the trajectory of BI municipalities, by the yellow. Even this subset of municipalities reveals that each improvement by a municipality is accompanied by another municipality's evincing a deterioration in its rank order. Large changes in rank order indicate changes in the municipality's actual performance, while minor changes are probably attributable to differences in performance relative to other municipalities.¹¹

¹¹ *The method shows the ranking of municipalities in any given year and shows general changes over time. However, small increases in a municipality's Performance Index from one iteration of the series to the next do not point to a definitive improvement in its performance.*

Diagram 6: Comparison of rankings between this and previous iteration of Index

