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A Financial Health Measurement Framework for South African Municipal Governments

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Abstract
Purpose: *This study aims to create a conceptual framework for a methodical assessment of the financial health of South African municipal governments.*
Methodology: *Conceptualization and literature study research methods are employed to explore the meaning and measurement of local fiscal health in South Africa.*
Findings: *In order to thoroughly evaluate the financial health of South African local governments, the study created a four-dimensional framework consisting of cash solvency, budget solvency, long-run solvency, and service-level solvency. This framework was supported by 14 financial indicators.*
Conclusions: *The fiscal health measurement framework developed in this paper with its attendant dimensions and indicators, can potentially provide a fairly comprehensive indication of the prudence with which municipalities manage their short-term liquidity, budgets, long-term debt, own revenue sources and expenditure commitments to essentially support their critical developmental role in the country..*

Keywords: *Municipal government, Public Financial Management, Financial health*

Introduction

The Republic of South Africa's 1996 Constitution (South Africa, 1996) and the government's 2030 National Development Plan (National Planning Commission, 2011) both emphasise the vital role that an effective local government must play in the rebuilding and advancement of the nation and its people. Municipalities are expressly required under Section 153 of the Constitution to organise their institutional, planning, and budgetary procedures in a way that serves the fundamental requirements of the community and promotes social and economic advancement. Essentially, local government entities are expected to be at the forefront of delivering services to the local communities (Nzewi 2013).

Several authors such as Boex and Muga (2009), Shah (2007), and Welham, Krause and Hedger (2013) have as part of the global discourse on the connection between public financial management and development, alluded to the critical link between sound public sector management and government spending on the one hand and social justice, economic progress and efficient public service delivery on the other. Similarly, the link between public financial management and development at municipal government level in South Africa has also been acknowledged by Pauw, Woods, Van der Linde, Fourie and Visser (2009). They contend that the entire financial management processes of municipalities must be connected to the development disposition and plans of local government. In addition, Nkuna and Sebola in Moeti (2014) cite the

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importance of good financial management for effective municipal service delivery. However, as part of its Back-to-Basics Intervention Program, the Department of Cooperative Governance (South Africa. Department of Cooperative Governance, 2014) declared that sound financial management is essential for long-term service delivery and the improvement of local communities' social and economic standing. It is clear that there is apparent agreement that trustworthy public financial management systems are essential to the successful accomplishment of a government's development goals in light of the aforementioned claims made in the international and local literature surveyed, as well as the legislative and policy mandates mentioned above.

Nonetheless, despite the above-mentioned acceptance by the cited authors and government prescripts of the important nexus between sound public financial management and development outcomes, the meaning and measurement of what constitutes financially sustainable or fiscally healthy municipalities, that can effectively support the implementation of development policies, have not been scientifically investigated in the country’s context. It is contended in this paper that as a result of the abovementioned dearth of empirical evidence in academic literature in relation to the conceptualization and measurement of local fiscal health in South Africa, it is thus not objectively possible to determine whether or not the system of local public financial management is in actual fact supporting development outcomes. Hence, against the backdrop of the above problem statement, this article methodically investigates the meaning and measurement of the fiscal health concept from a municipal government perspective in South Africa.
This paper aims to: (1) give an overview of the South African municipal government system; (2) delineate the research methodology employed; and (3) examine pertinent scholarly and government literature to develop a conceptual framework for methodically examining fiscal health in the South African local government domain.

Background to Municipal Government in South Africa

The contemporary non-racial, democratic and developmental local government dispensation in South Africa has evolved politically, legally and institutionally over the more than two decades since its initial formation, and advanced as a key contributor in the progressive realisation of the country’s socio-economic development agenda. The results of multi-party negotiations in the early 1990s were a major factor in the creation of South Africa's current local government structure (Siddle and Koelble 2012). Informed by the multi-party negotiated agreements, the Constitution of 1996 and the White Paper on Local Government of

1998 called for a complete overhaul of the local government system, integrated local government as a vital part of the new democratic state, and prescribed an expanded role for local government in development. In this regard Powell (2012) posits that these naissance documents “offered a new vision of post-apartheid society embodied in the notion of developmental local government” and according to Siddle and Koelble (2012) translated the vision and guiding principles for the reformed system of local government into laws and policies.

Thus, in order to fulfil its constitutionally mandated developmental responsibilities, South Africa's local sphere of government must organise and oversee its budgetary, planning, and administrative procedures in a way that prioritises basic community needs and advances the social and economic well-being of local communities (South Africa 1996). Furthermore, the White Paper on Local Government (1998) recommended that the new framework for municipal finance support the developmental role of local government by tackling the underlying causes of the financial issues municipalities have historically faced, striking a balance between initiatives to eradicate poverty and promote equity and strategies to boost growth, job creation, and competitiveness, and enabling municipalities to carry out their constitutional mandate.

The aforementioned legislative and policy statements highlight two crucial elements of the local government system as originally envisioned by the White Paper on Local Government and the Constitution, namely: that the municipal finance system should prudently and sustainably support the local government's developmental role and that the local government system should support the government's overall developmental agenda.

The second feature of the local government system referred to above, therefore suggests that the praxis of managing local government finances should prudently and sustainably enable municipalities to achieve their local development objectives. This important inference thus begs the question, whether a universal theoretical discernment of the meaning of sound and sustainable local government financial management exists, and moreover, how this construct should in fact be measured. Accordingly, it is argued in this paper that the absence of a generally accepted conceptual understanding and measurement framework of what constitutes financially sustainable or fiscally healthy municipalities, will in the end make it complex to empirically determine whether or not, the local public financial management system does indeed support the realisation of local developmental objectives.

Research Methodology

Conceptualisation and literature study research methods are employed to explore the meaning and measurement local government fiscal health in South Africa. According to Du Plooy-Cilliers, Davis & Bezuidenhout (2014) conceptualisation refers to the refinement and description of abstract concepts to generate specific meanings for the purposes of a research study. The literature study method is applied to provide academic and conceptual foundations for the analysis of the fiscal health phenomenon. In this regard secondary sources including books, journal articles, online sources, published government reports and documents are critically reviewed and analysed.

The meaning and measurement of municipal financial health

"Examining the fiscal condition [health] of local governments has been the subject of academic scholarship and state legislation since the 1970s, sparked largely by the well-publicized fiscal difficulties of cities such as New York and Cleveland...[followed by similar reported] difficulties in Miami, Pittsburgh, and Philadelphia during the 1990s.....The number of local governments experiencing fiscal problems is growing, in part because many states are cutting aid to local governments to help balance their budgets" (Kloha, Weissert & Kleine 2005).

From the above assertions by Kloha et al (2005), it appears that concerns about the financial health status of municipal governments have been quite prevalent over the past five decades or so in the United States of America. Similar disquiets have also been observed in other countries such as Australia (Dollery 2009), Greece (Cohen, Doumpos, Neofytou & Zopounidis 2012), the United Kingdom (Turley, Robbins & McNena 2015), Spain (Brusca, Rossi & Aversano 2015), and Nigeria (Edet Usang & Salim 2016). According to Maher (2013) these anxieties regarding local government's financial health were further exacerbated by the 2008 global financial crisis, which had a profound impact on national and sub-national governments across the world.

Evidently, the South African local governments have not been insusceptible to this trend as recently reported by the South African National Treasury (SANT) (South Africa. National Treasury 2018), which listed close to 50% of the country's municipalities as being financially distressed. A similar analysis of municipal financial health for the same financial year, i.e. 2016/17 by the Auditor-General of South Africa (AGSA) (South Africa. Auditor-General 2018) however, states a much higher figure of 66% of municipalities that were not in good fiscal health. Although both statistics are alarming, the observed discrepancies in reports of the SANT and AGSA on a similar concept are concerning and probably indicative of the absence of uniform measures across the sector to determine the financial health of municipalities in South Africa.

The meaning of the municipal financial health construct

Numerous international scholars have considered the evaluation of fiscal health in local government during the last few decades. This line of enquiry has yet to deliver any discernible consensus on the meaning and measurement of fiscal health. In this regard, scholars have established that fiscal health is complex, not directly observable, multidimensional in nature and contextually differentiated (Wang, Dennis & Tu 2007; Hendrick, 2011; Cabaleiro Casal & Buch Gómez, 2014; Brusca, Manes-Rossi & Aversano et al., 2015; Gorina, Joffe & Maher, 2018; Citro, Lucianelli & Santis 2018).

In addition, Cabaleiro et al (2014), Arnett (2011) and others have noted that a host of terms have been applied to financial health, including *fiscal health, fiscal condition, fiscal stress, fiscal crisis, financial performance, financial wellness and financial sustainability*. Moreover, while some scholars define financial health as a local council's capacity to fulfil its financial commitments on time (Wang et al 2007), others define financial health in a broader sense, encompassing a local government's capacity to meet its financial commitments and provide services to its populace (Hendrick, 2004; Zafra-Gómez, López-Hernández & Hernández-Bastida 2009b; Arnett 2011). In addition, Berne (1992) in Cabaleiro et al (2014) states more pointedly that financial health is linked to the ability of an institution to meet its fiscal obligations towards creditors, employees, taxpayers and other stakeholders, as well as current and future service commitments to constituents.

Similarly, Rodríguez Bolívar, Navarro Galera, Alcaide Muñoz & López Subirés (2016) and Navarro-Galera, Rodríguez-Bolívar, Alcaide-Muñoz & López-Subires (2016) refer to a government's capacity to provide present services without jeopardising its ability to do so in the future when discussing financial health and sustainability in the context of intergenerational justice. Nevertheless, figure 3.1 below depicts a general consensus in the surveyed literature that a weak fiscal health status typically signifies that a government is experiencing financial distress that requires immediate attention. Further, at the extreme right end of the continuum an extremely weak fiscal health position is indicative of a government in a fiscal crisis facing serious financial problems requiring urgent and critical intervention. This conceptual understanding of the fiscal health spectrum can assist institutions authorised to oversee, monitor and support local governments, to proactively intervene in municipalities experiencing fiscal stress or that are moving towards a fiscal crisis, based on an analysis of municipal financial performance reports and long-term financial plans.

Figure 1: Continuum of Local Government Fiscal Health
Source: Adapted from Arnett (2011)

While the appropriateness of the different conceptual approaches to fiscal health as elaborated in the next section, has been the subject of ongoing deliberation in the literature reviewed, Arnett (2011) argued that most fiscal health definitions recognise both the financial and services commitments of municipal government. Therefore, in light of the important legislative and policy directives pertaining to South African municipal governments, as previously mentioned, a comparable definition of fiscal health that emphasises both financial and service responsibilities is used in this research. Accordingly, the ability of a municipal government to continuously meet its fiscal and service delivery obligations to the general public, creditors, employees, and other stakeholders is referred to as local financial health. The adoption of this more expansive definition of fiscal health, incorporating both financial and service dimensions, logically informs the measurement approach elaborated in the next section.

Measurement of the financial health construct

The varied conceptual approaches to fiscal health outlined above have spawned different fiscal health measurement methodologies in the empirical literature. Among others, the following analysis frameworks have generally been employed by several norm-setting institutions and scholars to measure fiscal health in public sector entities:

a. the Statements of Recommended Practice (SORP 4) issued by the Canadian Institute of Chartered Accountants (CICA) (1997; 2009);

b. the Financial Trend Monitoring System (FTMS) released by the United States based International City/County Management Association (ICMA) (1981);

c. and the Funding Assessment Model for South African Local Government (Dollery & Graves, 2009; Graves, 2012; Graves, Dollery & Kortt, 2016).

The three analysis frameworks mentioned above, and some others are depicted in figure 2 below.

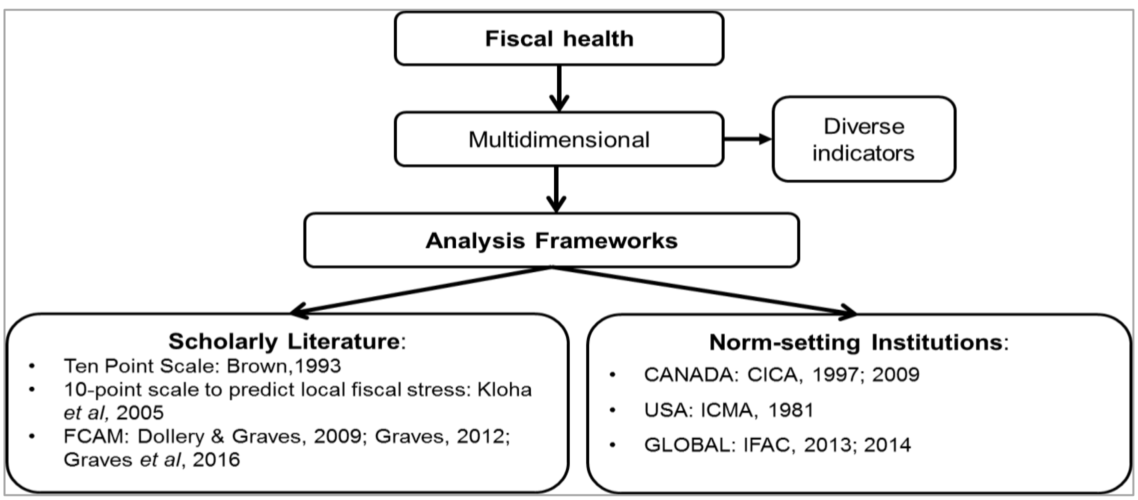

Figure 2: Fiscal health measurement frameworks

Source: Adapted from Cabaleiro-Casal & Buch-Gomez (2014)

The salient elements of each of the above fiscal health analysis frameworks are briefly discussed below:

a. The Statements of Recommended Practice (SORP 4) issued by the CICA established a common framework of indicators for assessing financial health of government entities in terms of *sustainability*, *flexibility* and *vulnerability* dimensions. The *sustainability* factor of the CICA framework gauges an organisation's capacity to continue running its current initiatives and meeting its financial commitments without raising taxes or debt levels. The ability of a government to increase its debt or tax income in response to shifting circumstances is referred to as *flexibility*. Finally, *vulnerability* quantifies how much an organisation depends on outside sources of income, which could compromise its capacity to fulfil obligations. The financial ratios used in SORP 4 to compute the three financial health dimensions have been applied in previous studies (Zafra-Gómez, López-Hernández & Hernández-Bastida 2009a and 2009b; Cabaleiro, Buch & Vaamonde 2012; Cabaleiro Casal & Buch Gómez 2014) and to an extent measure similar factors as the FTMS discussed below. However, municipal accounting data limitations regarding taxable assessments and foreign currency debt impede the full application of the CICA's SORP 4 to the South African local government sector at this stage.

b. The Financial Trend Monitoring System (FTMS) released by the ICMA (1994:1-4) is generally applied in American state and local governments. It is based on the solvency framework initially developed by Groves et al in 1980 and differentiates between three types of factors that influence fiscal health, namely environmental, organisational and financial factors (Crosby & Robbins 2013:525). This framework offers 48 possible indicators of fiscal health that represent four dimensions of local fiscal health (Gorina et al 2018:75) namely:
   - (i) *cash solvency*, which refers to a government's capacity to generate sufficient cash to cover its present liabilities, which serves as evidence of its liquidity and sound cash management.;
   - (ii) *budget solvency*, represents an institution's ability to generate adequate revenues to fund its current financial obligations without causing a deficit;
   - (iii) *long-run solvency*, relates to the impact of existing long-term commitments on future resources; and
   - (iv) *service-level solvency*, is the capacity of an organisation to deliver and maintain service levels and standards that citizens require.

   The solvency framework is described by Gorina, Maher & Joffe (2018) as possibly the 'most comprehensive practitioner-oriented framework' that captures the relevant financial management factors and thereby enhances its usefulness and comprehensiveness in understanding and measuring fiscal health. This is demonstrated by the solvency framework's wide-ranging application over time, in the surveyed empirical literature (Wang et al 2007; Arnett 2011; Clark 2015, 2015; Stone 2015; Gorina et al 2018). South African local government financial statements contain sufficient information to effectively apply an adapted version of the FTMS measurement framework as used by Wang et al (2007) and Arnett (2011).

c. The Funding Compliance Assessment Model (FCAM) is based on a procedure developed by the SANT to measure funding requirements compliance in accordance with the MFMA focusing on realistic revenue budgeting (Dollery & Graves, 2009:101). The procedure includes 18 measures of funding compliance including cash management, budgeting, debt and asset management. Eight of the ratios are also used by the SANT to assess the financial health of municipalities (South Africa. National Treasury. 2017:5). Graves (2012:) raises the important question whether funding compliance can be used as a proxy for financial health. He argued that there was no conclusive evidence in his study supporting a correlation between funding compliance and financial health. Consequently, the FCAM will not be used as a framework for measuring local fiscal health albeit that some of the indicators might be similar to certain of the indicators found in the CICA and ICMA frameworks.

Based on the analysis of the three financial health measurement frameworks discussed above, a hybridised approach is accordingly employed in this paper to conceptualise a fiscal health measurement framework for municipal governments in South Africa. This approach is largely informed by the relevance of the measures from the above international frameworks to the South African local government milieu and the availability of municipal accounting and financial data to operationalise the framework in this country.

A South African Municipal Financial Health Measurement Framework

The hybrid measurement framework discussed below is thus based on an adapted version of the ICMA's four financial solvency dimensions combined with a modified translation of CICA's three financial health indicators, namely sustainability, flexibility and vulnerability. Arnett (2011) noted that the selection of measurement methods is mainly determined by the availability of data, the inclinations of a researcher and unit of analysis. The different dimensions and indicators adapted in this paper for the South African municipal fiscal health (FH) analysis framework are depicted in table 1 below and are summed up as follows:

- Cash solvency (CS): Gorina et al (2018) defined CS as a government's short-term liquidity position or ability to generate sufficient cash to pay its current liabilities. The cash ratio includes only the most liquid current assets, with the quick and current ratios including increasingly less liquid current assets. Three indicators comprise the CS dimension, namely cash (FH1), quick (FH2) and current

(FH3) ratios. For these ratios, a higher value means a local government has more current assets available to cover current liabilities.

- Budget solvency (BS): denotes a government's capacity to generate sufficient revenues to fund its current expenditure commitments without causing a deficit (Gorina et al, 2018). Three financial indicators cover the BS factor, namely operating ratio (FH4), the surplus (deficit) per capita (FH5) and revenue autonomy (FH6). The first two indicators, namely FH4 and FH5 relate more to the balance between revenues and expenditures, whilst revenue autonomy (FH6) measures the proportion of a local government's total revenues generated from its own internal sources. It therefore indicates the degree of vulnerability of a municipality's reliance on inter-governmental transfers from the national and provincial spheres to fund its operations. A higher revenue autonomy ratio means that a local government is less vulnerable and reliant on intergovernmental transfers and is in a position to fund more of its operating expenditure commitments from its own internal sources of revenue comprising mainly of property taxes and service charges for electricity, water, sanitation and refuse removal services.
- Long-run solvency (LRS): refers to a government's ability to sustainably meet is long-term expenditure obligations, namely the repayment of long-term loans, replacement of capital assets, etc. Four indicators measure LRS: net asset ratio (FH7), long-term (LT) liability ratio (FH8), LT liabilities per capita (FH9) and LT liabilities to total revenue (FH10). A higher value for FH7, FH8 and FH10 denotes a higher long-term liability burden of a local government and indicates potentially greater difficulty in settling these liabilities when they become payable. A higher net asset ratio (FH9) indicates a better ability to meet long-term financial commitments.
- Service-level solvency (SLS): measures whether a local government can provide the level and quality of services required for the general well-being of a community. The SLS factor also comprises four measures, namely property taxes per capita (FH11), service charges per capita (FH12), revenue per capita (FH13) and expenses per capita (FH14). The first three indicators, FH11, FH12 and FH13 assess the revenue burden on municipal residents, whilst FH14 evaluates the operational cost of providing services to municipal residents. Higher values for the first three measures suggest a higher or unsustainable tax and service charges burden on local citizens and subsequently less scope for future increases, whilst FH14 indicates higher operating costs of providing services.

Table 1 below depicts the key features of the proposed conceptual framework for the measurement of local government's fiscal health in South Africa, as summarised above. Furthermore, the table illustrates that each of the four fiscal health dimensions can be objectively measured through the application of different indicators calculated by means of a set of financial ratios.

In total there are 14 indicators coded from FH1 to FH14. In addition, according to the hybrid approach referred to earlier, some of the indicators, that is FH6, FH7, FH8, FH10, FH11, FH12, FH13 and FH14 reflect features of both the ICMA solvency framework, namely cash solvency, budget solvency, long-run solvency and service-level solvency and the three CICA's SORP 4 elements of sustainability, flexibility and vulnerability.

Table 1: South African municipal financial health conceptual framework

MUNICIPAL FINANCIAL HEALTH CONCEPTUAL FRAMEWORK				
Financial Health is the ability of a municipal government to continuously meet its fiscal and service delivery obligations to the general public, creditors, employees, and other stakeholders.				
DIMENSIONS	**Cash solvency**	**Budget solvency**	**Long-run solvency**	**Service-level solvency**
	The ability to generate sufficient cash flow to cover present liabilities.	The capacity to generate sufficient revenues to fund current expenditure obligations without incurring a deficit.	The impact of existing long-term (LT) obligations on future resources of an organisation.	The ability to provide and sustain service levels and standards that citizens require.
INDICATORS	**FH1: Cash Ratio**	**FH4: Operating Ratio**	**FH7: Net Asset Ratio (LRS-F)**	**FH11: Property Taxes per capita (SLS-S)**
	(Cash + Cash Equivalents + Investments) / Current Liabilities	Total Operating Revenues / Total Operating Expenses	Total Assets / Total Liabilities	Total Property Taxes / Population
	FH2: Quick Ratio	**FH5: Surplus/(deficit) per capita**	**FH8: LT Liability Ratio (LRS-S)**	**FH12: Service Charges per capita (SLS-S)**
	(Cash + Cash Equivalents + Investments + Receivables) / Current Liabilities	Surplus or deficit for the year / Population	Non-current Liabilities / Total Assets	Total Service Charges / Population

	FH3: Current Ratio	**FH6: Revenue Autonomy (BS-V)**	**FH9: LT Liability per capita**	**FH13: Revenues per capita**
	Current Assets / Current Liabilities	Own Sources of Revenue / Total Operating Revenues	Non-current Liabilities / Population	Total Operating Revenues / Population
			FH10: LT Liability to Revenue (LRS-S)	**FH14: Expenses per capita**
			Non-current Liabilities / Total Operating Revenues	Total Operating Expenses / Population

Financial health, consisting of the stated dimensions and indicators, offers a fair representation and measurement of the efficacy with which local governments execute their local public financial management function. In this regard, fiscal health provides a comprehensive assessment of the efficiency with which local governments manage their:

a) cash flows in order to timeously pay creditors and meet other short-term financial commitments;
b) medium-term budgets to adequately meet current expenditure commitments without incurring any deficits;
c) long-term debt to prudently meet future financial and capital investment commitments thereby ensuring inter-generational equity; and
d) own revenue sources and expenditure commitments to ensure that ratepayers are not overburdened by high property taxes and service charges, and cost efficiencies in providing services.

Conclusion

The paper examined the financial health construct within the municipal regulatory and policy context in South Africa. In this regard, South African municipalities are legislatively and strategically expected to maintain sound financial management to effectively and sustainably undertake their developmental and service delivery responsibilities. Whereas a general understanding was discerned from the academic and government literature reviewed concerning the important nexus between sound local public financial management and the attainment of local development impact, a dearth of empirical research was however found, especially in the South African municipal context, that methodically explores the meaning and measurement of local fiscal health. Accordingly, the fiscal health measurement framework developed in this article with its attendant dimensions and indicators, can potentially provide a fairly comprehensive indication of the prudence with which municipalities manage their short-term liquidity, budgets, long-term debt, own revenue sources and expenditure commitments to essentially support their critical developmental role in the country.

REFERENCES

Auditor-General of South Africa. 2018. Consolidated General Report on the Local Government Audit Outcomes. MFMA 2016-17.

Boex, J & Muga, MC. 2009. What determines the quality of local financial management? The case of Tanzania. IDG Working Paper, No. 2009-02.

Arnett, S. 2011. Fiscal Stress in the U . S . States : an Analysis of Measures and Responses. Georgia Institute of Technology.

Bhardwaj, V. 2016. Are there 30 service delivery protests a day in South Africa? *Africa Check*, 8 June 2016. Available at: https://africacheck.org/reports/are-there-30-service-delivery-protests-a-day-in-south-africa-2/

Brown, K. 1993. The 10-point test of financial condition: toward an easy-to-use assessment tool for smaller cities. *Government Finance Review*. 9(6):21.

Brusca, I, Rossi, FM & Aversano, N. 2015. Drivers for the financial condition of local government: A comparative study between Italy and Spain. *Lex Localis*. 13(2):161–184.

Burger, J. 2009. The reasons behind service delivery protests in South Africa. *Polity*, 5 August 2009. Available at: http://www.polity.org.za/article/the-reasons-behind-service-delivery-protests-in-south-africa-2009-08-05

Cabaleiro, R, Buch, E & Vaamonde, A. 2013. Developing a Method to Assessing the Municipal Financial Health. *American Review of Public Administration*. 43(6):729–751.

Canadian Institute of Chartered Accountants (CICA). 1997. *Indicators of government financial condition.* Toronto, Ontario, Canada: CICA.

Canadian Institute of Chartered Accountants (CICA). 2009. *Public sector statements of recommended practice (SORP) 4. Indicators of financial condition*. Toronto, Ontario, Canada: CICA.

Citro, F, Lucianelli, G & Santis, S. 2018. Financial Conditions, Financial Sustainability, and Intergenerational Equity in Local Governments. *International Journal of Buisness and Management.* 13(1):53-69.

Clark, BY. 2015. Evaluating the Validity and Reliability of the Financial Condition Index for Local Governments. *Public Budgeting and Finance*. 35(2):66–88.

Cohen, S, Doumpos, M, Neofytou, E & Zopounidis, C. 2012. Assessing financial distress where bankruptcy is not an option: An alternative approach for local municipalities. *European Journal of Operational Research*. 218(1):270–279.

Crosby, A & Robbins, D. 2013. Mission impossible: monitoring municipal fiscal sustainability and stress in Michigan. *Journal of Public Budgeting, Accounting & Financial Management*. 25(3):522–555.

Department of Cooperative Governance and Traditional Affairs. 2014. *Back to Basics: Serving our communities better*.

Department of Provincial Affairs and Constitutional Development. 1998. *White Paper on Local Government*. South Africa.

Dollery, B. 2009. *Financial sustainability in Australian local government: problems and solutions*. (02–2009).

Dollery, B & Graves, N. 2009. An analysis of budget compliance measurement in South African Local Government Best-Practice Financial Management Technical Assistance Programs, 2001 – 2003. *Public Administration and Development*, 29(2):101-116.

Du Plooy-Cilliers, F, Davis, C & Bezuidenhout, R (eds). 2014. *Research matters*. Cape Town: Juta.

Edet Usang, OU & Salim, B. 2016. Local government financial condition and sustainable development of communities in Nigeria. *Scholedge International Journal of Management & Development*. 3(1):11-19.

Gorina, E, Joffe, MD & Maher, C. 2018. Using Fiscal Ratios to Predict Local Fiscal Distress. *Ssrn*. (April).

Gorina, E, Maher, C & Joffe, M. 2018. Local Fiscal Distress: Measurement and Prediction. *Public Budgeting and Finance*. 38(1):72–94.

Graves, NR. 2012. *International best practice technical assistance performance for the South African Local Government Financial Management Reform and Capacity-building Program from 2003*. Armidale, NSW: University of New England.

Graves, NR, Dollery, B & Kortt, MA. 2016. Financial health in Australian local government: The application of a funding assessment model to Brisbane and Sydney City Councils. *International Journal of Public Administration.* 39(4):303-322.

Groves, SM, Godsey, WM & Shulman, MA. 1981. Financial indicators for local government. *Public Budgeting & Finance.* Summer 1981.

Hendrick, R. 2004. Assessing and measuring the fiscal heath of local governments: Focus on Chicago suburban municipalities. *Urban Affairs Review*. 40(1):78–114.

International Federation of Accountants (IFAC). 2013. Recommended practice guideline. Reporting on the long-term sustainability of an entity's finances. NewYork: IFAC.

International Federation of Accountants (IFAC). 2014. Handbook of international public sector accounting pronouncements. New York: IFAC.

Kloha, P, Weissert, CS & Kleine, R. 2005. Developing and Testing a Composite Model. *Public Adminisration Review*. 65(3):313–323.

Lekabe, T & Eybers, C. 2019. Mapped: 13 Communities across SA rocked by protests. *Eyewitness News*, 12 April 2019. Available at: https://ewn.co.za/2019/04/12/mapped-13-communities-across-sa-rocked-by-protests

Maher, CS. 2013. Measuring financial condition: an essential element of management during periods of fiscal stress. *Journal of Government Financial Management*. (Spring):20–26.

Makhafola, G. 2018. 144 service delivery protests recorded in 2018 so far. *IOL*, 11 July 2018. Available at: https://www.iol.co.za/news/south-africa/144-service-delivery-protests-recorded-in-2018-so-far-15961274

Moeti, K (ed). 2014. *Public finance fundamentals*. 2nd edition. Cape Town: Juta.

National Planning Commission. 2011. *National Development Plan: Vision for 2030*. South Africa.

National Treasury. 2016. *Media Release. Local Government Revenue and Expenditure: Fourth Quarter Local Government Section 71 Report (Preliminary results) For the period: 1 July 2016 – 30 June 2017*.

National Treasury. 2017. The State of Local Government Finances and Financial Management as at 30 June 2016

National Treasury. 2018. The State of Local Government Finances and Financial Management as at 30 June 2017.

Navarro-Galera, A, Rodríguez-Bolívar, MP, Alcaide-Muñoz, L & López-Subires, MD. 2016. Measuring the financial sustainability and its influential factors in local governments. *Applied Economics*. 48(41):3961–3975.

Nleya, N. 2011. Linking service delivery and protest in South Africa: an exploration of evidence from Khayalitsha. *Africanus*, 50(1): 3-13.

Nzewi, O. 2013. Local government administrators: purveyors of social equity in the south african public administration? *Journal of Public Administration*. 48(4):606–624.

Pauw, JC, Woods, G, Van der Linde, GJA, Fourie, D & Visser, CB. 2009. *Managing public money: a system from the south*. 2nd edition. Sandown: Heinemann Publishers.

Powell, D. 2012. Imperfect transition - local government reform in South Africa 1994-2012. *Local Elections in South Africa: Parties People Politics*. 11–30.

Rodríguez Bolívar, MP, Navarro Galera, A, Alcaide Muñoz, L & López Subirés, MD. 2016. Risk Factors and Drivers of Financial Sustainability in Local Government: An Empirical Study. *Local Government Studies*. 42(1):29–51.

Shah, A (ed). 2007. *Public sector and governance accountability series: Local public financial management*. Washington, DC: The World Bank.

Siddle, A & Koelble, TA. 2012. *The Failure of Decentralisation in South African Local Government: Complexity and Unanticipated Consequences*. Cape Town: UCT Press.

South Africa. 1996. *Constitution of the Republic of South Africa Act 108 of 1996*. Pretoria: Government Printers.

Statistics South Africa. 2016a. *Provinces at a glance*. Pretoria.

Statistics South Africa. 2016b. *Community Survey 2007: Statistical Release*. Pretoria. Available from: https://www.statssa.gov.za/publications/P0301/P0301.pdf.

Stone, SB. 2015. The Effect of Fiscal Decentralization on the Financial Condition of Municipal Government. *International Journal of Public Administration*. 38(6):453–460.

Turley, G, Robbins, G & McNena, S. 2015. A Framework to Measure the Financial Performance of Local Governments. *Local Government Studies*. 41(3):401–420.

Welham, B, Krause, P & Hedger, E. 2013. Linking PFM dimensions to development priorities. Working Paper 380, Results of ODI research presented in preliminary form for discussion and critical comment. Overseas Development Institute, London.

Zafra-Gómez, JL, López-Hernández, AM & Hernández-Bastida, A. 2009a. Developing a Model to Measure Financial Condition in Local Government. *The American Review of Public Administration*. 39(4):425–449.

Zafra-Gómez, JL, López-Hernández, AM & Hernández-Bastida, A. 2009b. Developing an alert system for local governments in financial crisis. *Public Money and Management*. 29(3):175–181.