"Assessing financial condition of local government in Indonesia: an exploration"

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Assessing financial condition of local government in Indonesia: an exploration

Abstract

This study develops a concept to assess financial condition of local governments (LG) and implements the concept into local governments in Indonesia. This is an exploratory study because of the limitation of research focusing in local government financial condition. In the context of Indonesia, to the author's knowledge, this study is the first in proposing concept to assess the financial condition of local government. The concept consists of six dimensions, namely short-term solvency, long-term solvency, budgetary solvency, service-level solvency, financial flexibility, and financial independence. Each dimension has its own indicators. There are a total of nineteen indicators examined in this study. The exploration shows that local governments have good financial condition for dimension of short-term solvency, long-term solvency, and financial flexibility; adequate financial condition for budgetary solvency; and weak financial condition for financial independence. For the dimension of service level solvency, there is improving condition in delivering services to the community as indicated by the increasing trend of the ratios of service level solvency. Stakeholders of local government perceive the dimension of long-term solvency and short-term solvency are the two most important dimensions and the dimension of service level solvency is considered as the least important element of the financial condition. These facts indicate that the stakeholders tend to have short-term horizon rather than long term in managing local government finance. The results of assessing financial condition could be used by local governments and their stakeholders to enhance public accountability, to rank local government bonds, and to increase local government competitiveness.

Keywords: financial condition, local government, short-term solvency, long-term solvency, budgetary solvency, service-level solvency, financial flexibility, financial independence.
JEL Classification: H70, H71.

Introduction

In 1999 Indonesia began a new era of Local Government (LG) autonomy (Act 22/1999) in which the central government decentralized many aspects of its authority over LG. As a result, one aspect of the new local autonomy is fiscal decentralization granting LG rights to manage revenue, expenditure, and finance. However, one result of fiscal decentralization is that more than 30 percent of the central government budget is now being distributed to LG through a decentralization fund that has increased sharply in size, almost five times – from $USD9.08 billion in 2001 to $USD43.66 billion in 2011 (assuming 1 $USD = Rp9,000) (State Budget Acts, 2000-2010). However, the central government only provides the principles of managing local finance to LG rather than the detailed rules it provided previously. In turn, the financial conditions among LGs will vary. For example, there were 124 out of 491 of LGs in Indonesia experiencing financial problems paying their employee's salaries in the fiscal year 2011 (*Harian Surya*, August 2, 2011, p. 1). In the Central Java Province, 11 out of 35 LGs experienced such problems (*Harian Kedaulatan Rakyat*, June 16, 2011, p. 1). This variation of financial conditions creates the need for central governments, central and local parliaments, and communities to have an effective instrument to monitor the sound-

ness of a wide range of LGs in managing finance. In Indonesia, the need for information about the financial condition of LG is increasing because of fiscal decentralization.

LG in Indonesia, at each of the provincial, municipal, and district levels, must prepare financial statements consisting of balance sheets, statements of actual performance compared to budget, and statements of cash flows (Act 17/2003, Act 1/2004, Act 32/2004, and Government Regulation 58/2005). These financial statements must be audited by The Supreme Audit Board of The Republic of Indonesia in order to assure compliance with the Government Accounting Standards (Act 15/2004). These financial statements inform users about the values of total assets, total debt, net assets, total revenues, total expenditures, and cash inflows and outflows. However, to date these audited financial statements do not inform users about LG financial conditions or financial health.

Knowing the financial condition of LG is important because it is the main provider delivering services directly to the public including health, education, and infrastructure services (just to name a few). However, LG can deliver these services if, and only if, it is in a good financial condition. A good financial condition assures the sustainability of LG in delivering services at an appropriate quality. In addition, the good financial condition of LG not only directly impacts on the local community, but also plays an important role in the economy. If

LG fails to meet its financial obligations, the regional economy could be adversely affected (Honadle and Lloyd Jones, 1998).

Unlike the business sector in which financial assessments of firms are clearly defined, research assessing the financial conditions of LG is relatively new because research assessing financial conditions in local government started in the 1980s (Kloha et al., 2005). This can be contrasted to the business sector where such research commenced 20 years earlier. In the business sector, Beaver (1966) and Altman (1968) established a seminal model to assess the financial conditions of a firm. In the LG sector, scholars and practitioners have tried to develop measures for assessing local financial conditions using various dimensions and indicators (Groves et al., 1981; Brown, 1993; Brown, 1996; Hendrick, 2004; Honadle et al., 2003; Kleine et al., 2003; Kloha et al., 2005; Ladd and Yinger, 1989; Nollenberger et al., 2003; Mercer and Gilbert, 1996; Wang et al., 2007; Zafra-Gómez et al., 2009a; Zafra-Gómez et al., 2009b). However, there is still little agreement about what appropriate dimensions and indicators can be used to measure the specific financial condition that can occur in different contexts (Wang et al., 2007; Dennis, 2004).

Although LG stakeholders in Indonesia need information about LG financial conditions, until now, they have faced difficulties in knowing whether these conditions are good or not. In general, the difficulties of knowing the financial condition of LG are due to a lack of agreement about an effective assessment model and a lack of uniformity in financial condition indicators (Chaney et al., 2002). Despite the need for these indicators, to date of the limited research that has been undertaken, none have been developed in Indonesia. Therefore, the objective of this study is to develop a concept of financial condition of local government and to apply the concept to explore the financial condition of local government in Indonesia based on the government financial reporting framework. To achieve those objectives, the discussion of this study will be divided into six sections: conceptualizing the financial condition of local government, developing indicators of financial condition, implementing the indicators in the context of local government in Indonesia, analyzing the importance of each dimension of the financial condition and discussion and conclusion.

1. Conceptualizing financial condition of local government

1.1. Definition of the financial condition. Many scholars have attempted to define local government financial condition during the last few decades. This study will review seminal literature discussing financial condition of local government. Berne & Schramm (1986) proposed a definition of financial condition as the probability that a government will meet its financial obligations to creditors, consumers, employees, taxpayers, suppliers, constituents, and others as these obligations come due. Groves et al. (1981) and Nollenberger et al. (2003) defined financial condition as a local government's ability to finance its services on a continuing basis. They distinguished cash solvency, budgetary solvency, long-run solvency and service-level solvency. Cash solvency is the ability of local government to generate enough cash over thirty or sixty days to meet its debts. Budgetary solvency is local government's ability to generate sufficient revenue to fund its current or desired service levels. Long-run solvency is local government's ability to fulfill all of its expenditure activities including regular expenditures as well as those that will appear only in the years in which they must be paid. Furthermore, service-level solvency is local government's ability to provide services at the level and quality that are required and desired by its people. The definition proposed by Groves et al. (1981) and Nollenberger et al. (2003) above is adopted by Wang et al. (2007). Wang et al. (2007) define financial condition as the level of financial solvency, which includes the dimensions of cash solvency, budget solvency, long-run solvency, and service-level solvency.

The Canadian Institute of Chartered Accountants (CICA, 1997) defined government financial condition as financial health which is measured from the aspect of sustainability, vulnerability, and flexibility within the overall context of the economic and financial environment. Sustainability is a condition in which the government is able to maintain the programs that already exist and meet the requirements of creditors without incurring a debt burden on the economy. Flexibility is a condition in which the government can increase its financial resources to respond to increased commitment, either through increased revenues or increase its debt capacity. Vulnerability is a condition in which the government becomes dependent, resulting in vulnerability, to sources of funding beyond its control or influence, both from domestic and international sources.

Kloha et al. (2005) and Jones & Walker (2007) define financial condition in the context of fiscal distress. Kloha et al. (2005) define it as a condition in which local governments cannot meet the standards in operations, debt, and the needs of society for several consecutive years, whereas Jones & Walker (2007) interpret fiscal distress as an inability to maintain pre-existing levels of services to the community. On the other hand, Hendrick (2004)

defined financial condition in terms of fiscal health. She defined it as a local governments' ability to meet financial obligations as well as services to the community.

Kamnikar et al. (2006) build a definition of the financial condition based on definitions offered by International City/County Management Association (ICMA) (2003), Mead (2001), and CICA (1997). They define the financial condition as a local government's ability to meet its obligations as they come due and the ability to continue to provide the services its constituency requires. Rivenberg et al. (2009, 2010) define financial condition as a local government's ability to meet its ongoing financial, service, and capital obligations based on the status of resource flow and stock as interpreted from annual financial statements. Their definition is developed based on two reasons why financial statements are prepared and on the objectives of financial reporting. Berne & Schramm (1986) state that the reasons to prepare financial statements are to report on the flows of resources during a given time period (i.e. shown in operating statements) and to report on the stock of resources at a given point in time (i.e. shown in balance sheets), whereas the financial reporting objective is to provide information necessary to determine whether an organization's financial position improved or deteriorated as a result of the resource flow (GASB, 1987).

From the various definitions that have been developed by previous researchers and institutions, the most widely accepted definition of local government financial condition is the ability of local government to fulfil its financial obligations in a timely manner and the ability to maintain services provided to the community. Unfortunately, the researchers mentioned above do not develop a definition of financial condition stemming from the objectives of a nation. Previous researchers paid less attention to the environmental aspects of local government, especially the objectives of a nation, in developing the definition of the financial condition of local government. This current study argues that in developing a definition of the financial condition of local government one should derive from the objectives of nation.

1.2. Conceptualizing definition of financial condition of local government. This current study argues that in defining local government financial condition it should be derived from the objectives of nation because financial condition of local government is a financial impact resulting from local government activities to achieve the objectives of nation. In the context of Indonesia, there are four objectives of

nation as stated in the preamble of the Constitution: protect all the people of Indonesia and the entire country of Indonesia, promote the welfare of the people, intellectual life of the nation, and establishment of world order based on freedom, abiding peace and social justice.

To achieve those objectives, it must be carried out jointly by the central and local governments. In order to achieve the objectives of the nation, local governments implement programs and activities to serve community in all areas of services such as education, health, and infrastructure. In the framework of local government autonomy as stated in the Act 32/2004 regarding Regional Autonomy each local government is granted rights to design their own policies to achieve the objective of nation as long as congruence with the central government's strategic plan. As a result, each local government has its own programs and activities based on its people's perceptions both economically and politically. The implementation of programs and activities is financed by local government budget. Because each local government has different programs and activities, so it will impact on its financial condition. As a result, the financial condition of each local government would vary. Therefore, it can be concluded that financial condition of local government is a financial impact resulting from local government activities to achieve the objectives of nation.

During the process of implementing its own programs and activities, local government interacts with its stakeholders and environments. The interaction among local government, stakeholders, and environments will create certain rights and obligations to the local government.

On the other hand, local government efforts to achieve the objectives of nation are constrained by resources availability, including human, financial, equipment, time, and so on. Therefore, local government has to optimize the limited resources to achieve the objectives of nation. Local government must ensure that all of its obligations to the stakeholders must be satisfied. The obligations to the community can be ordinary obligations such as the fulfillment of minimum service standards in the areas of health, education, infrastructure; or extraordinary obligations that are caused by extraordinary events such as natural disaster, riots, and other matters. In addition, local government must be able to execute its rights effectively and efficiently. Thus, a good local government is a local government that can meet all of its obligations and can execute its rights efficiently and effectively in order to achieve objectives of nation.

Bringing the argument above into the financial context, a sound financial condition of a local government occurs when a local government is able to execute its financial rights (i.e. collecting revenue) efficiently and effectively and is able to meet all financial obligations to its stakeholders in order to achieve objectives of nation. The ability to execute financial rights efficiently and effectively is shown by the increase in local government own revenues. In turn, this condition will lead to an increase in the financial independence of local governments.

The ability to meet financial obligations is shown by the ability of a local government to meet its short-term and long-term obligations (i.e. short-term solvency and long-term solvency, the ability to cover its operating (i.e. budgetary solvency), and the ability to provide services at the level and quality required and desired by its people (i.e. service-level solvency). In addition, a sound financial condition of local government occurs when a local government is able to anticipate events that are unexpected in the impending future (i.e. financial flexibility), such as natural disasters or social disasters. The following figure shows the process of conceptualization of the definition of local government financial condition.
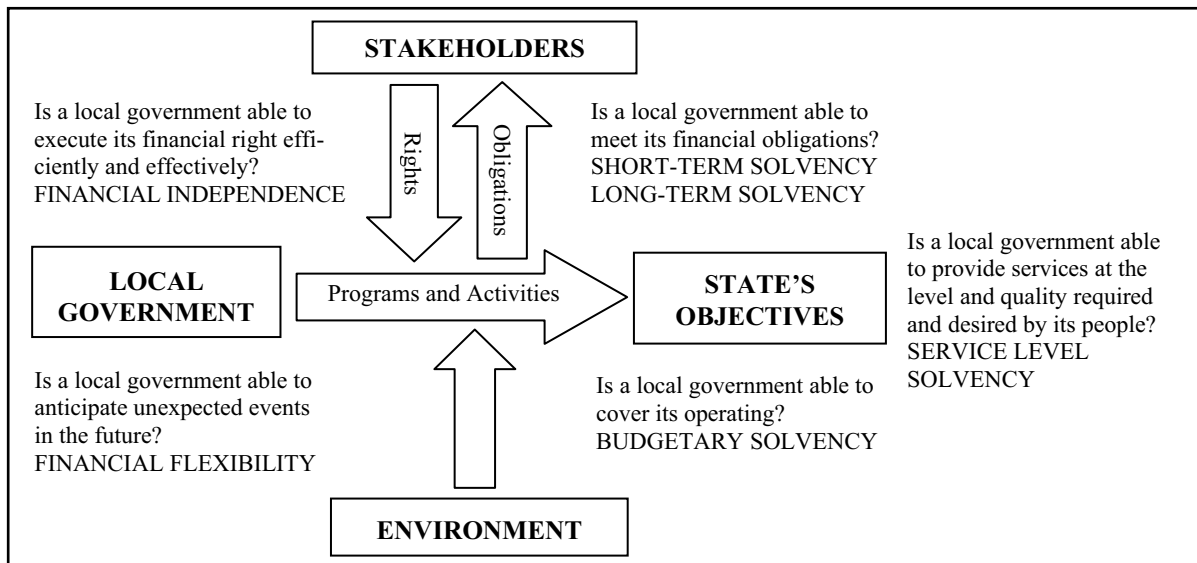

Fig. 1. Conceptualizing definition of financial condition of local government

Based on the argument stated above, there are six dimensions forming the financial condition of local government. The dimensions are the ability to meet short-term obligations, hereafter called *short-term solvency*; the ability to meet operational obligations, hereafter called *budgetary solvency*; the ability to meet long-term obligations, hereafter called *long-term solvency*; the ability to overcome unexpected events in the future, hereafter called *financial flexibility*; the ability to execute financial rights in an effective and efficient, hereafter called *financial independence*; and the ability to provide services to the community, hereafter called *service-level solvency*. Thus, this study defines the financial condition of a local government as *the financial ability of a local government to fulfil its obligations (short-term obligations, long-term obligation, operational obligation, and obligations to provide services to the public), to anticipate the unexpected events, and to execute financial rights efficiently and effectively.*

2. Developing indicators to assess financial condition

Compared to Wang et al. (2007) and CICA's (1997) definitions which have four dimensions and three dimensions respectively, the dimensions and indicators used in this study are more comprehensive to capture aspects of the financial condition of local government. Ratios are used to measure each dimension because ratios can eliminate the effect size of the objects being measured (Jones & Walker, 2007). The more ratios to measure a dimension, the better are the results because the more ratios can measure the dimension more comprehensively.

The ratios developed in this study are based on information provided in the financial statements prepared by local government in Indonesia. The financial statements are prepared based on the Government Accounting Standard which must be followed by local governments in Indonesia. The six dimensions and their operational definitions are as follows.

2.1. Short-term solvency. Short-term solvency demonstrates the ability of local governments to fulfill its obligations that mature within 30 to 60 days (Nollenberger et al., 2003). However, this study uses duration of within 12 months rather than 30 to 60 days because the disclosure in balance sheets is for current liabilities which fall due within 12 months.

The financial information of local government obligations that will mature within one year is shown in the current liabilities section of the statement of financial position, whereas local government resources that are available and intended to be used within one year are depicted in the current assets section of the statement of financial statements. Therefore, the ratios to measure the short-term solvency of a local government are as follows.

Ratio A = (Cash and Cash Equivalent + Short-term Investment) / Current Liabilities,

Ratio B = (Cash and Cash Equivalent + Short-term Investment + Account Receivables) / Current Liabilities,

Ratio C = Currents Assets / Current Liabilities.

Ratio A is the most conservative ratio in measuring the short-term solvency followed by *Ratio B* and *Ratio C* respectively. In general, the higher the value of these three indicators the more specified assets are available to cover the current liabilities. Thus, the higher the value of these indicators the higher is the level of short-term solvency. However, values that are too high in these ratios indicate that a local government has excessive current assets (i.e. idle capacity) which could be better used to deliver services to the community. Therefore, excessive current assets lead to sub-optimal delivery of services to the community.

2.2. Budgetary solvency. Budgetary solvency demonstrates the ability of local governments to generate revenue to cover operations during the period of the fiscal budget (Nollenberger et al., 2003). Thus, the indicators of this dimension must show a balance between operating revenues and operating expenditures during a fiscal period. This ability is measured by the following ratios (ratios of budgetary solvency):

Ratio A = (Total Revenues – Special Allocation Fund Revenue) / (Total Expenditures – Capital Expenditure),

Ratio B = (Total Revenues – Special Allocation Fund Revenue) / Operational Expenditure,

Ratio C = (Total Revenues – Special Allocation Fund Revenue) / Employee Expenditure,

Ratio D = Total Revenue / Total Expenditure.

The elimination of special allocation fund revenue from total revenues is because it is not a regular revenue and beyond local government's control. In the first ratio, *Ratio A*, capital expenditure is deducted from total expenditures because it is not a part of operating activities of a local government. In the case of *Ratio C*, the use of employee expenditure as the denominator is because it is typically the largest part of operating expenditures. The higher the ratio the better is the ability of a local government to have sufficient revenue to cover operating expenditure.

2.3. Long-term solvency. Long-term solvency indicates the ability of local government to meet its long-term obligations (Nollenberger et al., 2003; CICA, 1907). The dimension indicates the sustainability of a local government. Long-term obligations can only be met by local governments if they have sufficient assets that are financed from its own resource. To reflect the long-term solvency, the appropriate ratios are to place long-term liabilities as the numerator and to put total assets or investment equities as the denominator. A higher value for this ratio indicates the lower the ability of a local government to meet its long-term liabilities. Conversely, the lower the ratio the higher is the ability of a local government to meet its long-term liabilities.

Another ratio that could be used to measure long-term solvency is the ratio of investment equity to total assets. This ratio indicates what portion of local government's total assets is financed by its own resource. A higher value of this ratio indicates a higher ability of a local government to meet its long-term liabilities. The formulas for the long-term solvency are the following:

Ratio A = Long Term Liabilities / Total Assets,

Ratio B = Long Term Liabilities / Investment Equities,

Ratio C = Investment Equities / Total Assets.

2.4. Service level solvency. Service level solvency is the ability of local government to provide and maintain the level of public services needed and desired by the community (Wang et al., 2007). To meet that definition, the denominator in this dimension should be the number of people served by the local government. The numerator of this ratio is a number that reflects the facilities owned by local governments used to provide services to the people. Total assets indicate the accumulation and availability of resources owned by local governments in serving the community for the future (Chaney et al., 2002). Total equities is also appropriate as a numerator because it is the net assets (i.e. total assets minus total liabilities) owned by a local government to serve its community. Thus, the value of total assets or total equities is a suitable figure to represent the purpose. The higher the ratio of total asset value per population the better the local government provides public services to its people.

Another ratio to measure service level solvency is the ratio of total expenditure to population (Wang et al., 2007). This ratio indicates how much cost a local government incurs to serve each resident. The higher the value of this ratio, the higher the inefficiency in delivering services which could threaten a local government's service level solvency. The formula for the service level solvency ratios are as follows:

Ratio A = Total Equities / Population,

Ratio B = Total Assets / Population,

Ratio C = Total Expenditures / Population.

2.5. Financial flexibility. Financial flexibility is a condition in which a local government can increase its financial resources to respond to increased commitment, either through increased revenues or increased debt capacity (CICA, 1997). Thus, based on the definition, the indicators of this dimension must show a balance between revenue capacity and debt capacity during the fiscal period. The numerator of this dimension should be represented by revenue capacity after deducting mandatory expenses (i.e. employee expenditures) and or restricted revenues (i.e. special allocation funds), whereas the denominator is represented by the amount of obligations to other parties. The condition is measured by debt servicing capacity ratios as follows:

Ratio A = (Total Revenues – Special Allocation Fund Revenue – Employee Expenditures) / (Repayments of Loan Principal + Interest Expenditures),

Ratio B = (Total Revenues – Special Allocation Fund Revenue – Employee Expenditures) / Total Liabilities,

Ratio C = (Total Revenues – Special Allocation Fund Revenue – Employee Expenditures) / Long Term Liabilities,

Ratio D = (Total Revenues – Special Allocation Fund Revenue) / Total Liabilities.

The higher the value of these four ratios the higher is the level of local government financial flexibility to face extraordinary events which could come from either internal sources or be external to the local government organization. Thus, the higher the value of these ratios, the higher is the level of financial flexibility.

2.6. Financial independence. Financial independence is a condition in which a local government is not vulnerable, to sources of funding beyond its control or influence, both from national and international sources (CICA, 1997). To fulfil the definition, the numerator of the ratio should be local government own revenues and the denominator should be total revenues or total expenditures. Local government own revenues are all revenues sourced from the area of a local government itself and under control of the local government.

The lower the value of these ratios shows the less is the financial independence of financial condition of a local government. Thus, the higher the value of the two ratios, the higher the financial independence is of local government. This condition is measured by the following ratios of financial independence.

Ratio A = Total Own Revenues / Total Revenues,

Ratio B = Total Own Revenues / Total Expenditures.

3. Applying the indicators to assess financial condition

3.1. Data. This study uses financial statements of LG in Java Island as the sample. The length of observation was the four fiscal years of 2007 until 2010. The fiscal year 2006 was the first year of the implementa-tion of the Government Accounting Standards. In that year local governments experienced a year of transition to adapt the new accounting standards. Therefore, the fiscal year of 2007 is chosen as the starting year for observation for this study as the local governments have become accustomed to the Government Accounting Standards.

Table 1 (see Appendix) shows that the there are 445 financial statements that should be observed during 2007 until 2010. However, there are three financial statements that are not available, two in 2007 (Kabupaten Klaten and Kota Serang) and one in 2008 (Kota Jogjakarta). Therefore, there are 442 items of data available for analysis.

Based on the data availability, ratios for each dimension are calculated. After completing the computation of all ratios, the next step is to identify outlier data. A case is considered to be an outlier if its standard score is more than three (Hair et al., 2006). The standard score of a case is computed by using formula: $z = (X – Mean)/Standard Deviation$, where X is the value of a case. The outlier data should not be used in the analysis because it could disturb the picture of objects analyzed (Judd & McClelland, 1989). The maximum number of outlier data is twenty nine for the dimension of financial flexibility and two for the dimension of service level solvency. As a result, there is a range of 413 data (i.e. dimension of financial flexibility) to 440 data (i.e. dimension of service level solvency) used in assessing financial condition of local government.

3.2. Descriptive statistics. After removing the outlier data, the descriptive statistics to summarize and describe the object analyzed are run. The result of the

descriptive statistics could be used as a benchmark or "industry ratio" by local governments. The descriptive statistics of the observed data is presented in Table 2.

Table 2 (see Appendix) shows that the data for all indicators are not normally distributed as indicated by the values of skewness which are more than 0 for all indicators. Therefore, the median is a better statistic to represent the population (Kamnikar et al., 1996). In addition, Table 3 below reports the median values of each indicator from fiscal year 2007 to 2010. Thus, we can see the trend of each indicator from 2007 to 2010.

Table 3. Trends of median values of indicators composing financial condition

Dimension	Indicator	Median			
		2007	2008	2009	2010
Short-term solvency	Ratio A	44.64	31.87	33.43	28.65
	Ratio B	49.74	36.13	39.80	34.10
	Ratio C	55.79	40.31	45.40	38.55
Long -term solvency	Ratio A	0.00214	0.00185	0.00136	0.00124
	Ratio B	0.00016	0.00009	0.00000	0.00000
	Ratio C	0.93	0.94	0.95	0.94
Budgetary solvency	Ratio A	1.24	1.15	1.13	1.06
	Ratio B	1.27	1.18	1.14	1.08
	Ratio C	1.89	1.68	1.61	1.51
	Ratio D	1.02	0.98	0.99	1.00
Financial independence	Ratio A	0.0783	0.0767	0.0837	0.0868
	Ratio B	0.0810	0.0758	0.0859	0.0855
Financial flexibility	Ratio A	616.36	804.74	829.73	931.65
	Ratio B	164.16	191.47	221.12	266.41
	Ratio C	74.10	78.28	77.65	79.16
	Ratio D	803.78	1,577.08	4,797.29	125,620,000,000
Service level solvency	Ratio A	1,952,807	2,032,479	2,122,769	2,291,238
	Ratio B	1,956,370	2,038,198	2,124,909	2,293,001
	Ratio C	684,818	794,868	849,591	922,874

3.2.1. Short-term solvency. Table 2 shows that the median values of *Ratios A*, *B*, and *C* show that local governments have, 34.72, 41.51, and 45.36 times the specified assets to cover their current liabilities. This condition indicates that local governments have considerable idle current assets which should be avoided. Based on the ratios above, it is concluded that local governments have strong short-term solvency but in excessive amount of current assets. However, Table 3 shows that all ratios composing short-term solvency shows decreasing trends. For example, the value of *Ratio A* was 44.64 in 2007 and decreased to 28.65 in 2010. Such trends indicate good signal for local government's financial condition since showing an improvement in current assets management by reducing idle current assets.

A community might question why a local government maintains a high current assets balance in excess of amounts needed to pay current obligations. The excessive amounts of current assets indicate that there is inefficiency in current assets management which consists of cash management, inventory management, and other financial assets management (i.e. short-term investment and account receivables). In the future, local governments should reduce the ratios but not threaten its short-term sol-

vency so that they can optimize their current assets in delivering services to its community.

3.2.2. Long-term solvency. Table 2 reports that the median values of *Ratios A* and *B* are 0.000044 and 0.000048, respectively. It means that every one rupiah of long term debt is guaranteed by 22,727.27 rupiahs of assets (i.e. 1/0.000044) or 20,833.33 rupiahs of investment equities (i.e. 1/0.000048). This fact indicates that local governments have strong ability to fulfil their long term obligations. In addition, *Ratio C* indicates that most of local government's assets, 94.38%, are financed by their own resources. Therefore, based on the three ratios, it can be concluded that local government has strong long-term solvency. In addition, Table 3 shows decreasing trends for *Ratios A* and *B* and a steady trend for *Ratio C*. For example, *Ratio A* was 0.00214 in 2007 and declined to 0.00124 in 2010. Such trends indicate a positive signal for local government long-term solvency.

In the future, the strong condition of long-term solvency would be a good provision for local governments if it is to obtain funds from the public by issuing of bonds. However, it must be remembered that the issuance of bonds must conform to the Government Regulation Number 30 of 2012 about Regional Debt. The regulation states that a local gov-

ernment is allowed to issue bonds in order to finance infrastructure and investment activities or facilities within the framework of the provision of public services that generate revenues, which are derived from levies on the use of the infrastructure and or facilities, for the local government.

3.2.3. Budgetary solvency. Table 2 indicates that the median values for indicator *A*, *B*, *C*, and *D* are 1.15, 1.17, 1.69, and 1.00, respectively. Thus, local governments have adequate revenues to cover their operational expenditures. This is a good fundamental to build a healthy financial condition. Based on these ratios, it is concluded that local governments have good budgetary solvency.

However, Table 3 informs that the trends of all ratios of budgetary solvency show declining trends. For example, value of Ratio A which is (*Total Revenues – Special Allocation Fund Revenue*) / (*Total Expenditures – Capital Expenditure*) decreased from 1.24 in 2007 to 1.06 in 2010. This condition means that local governments' budgetary solvency tended to deteriorate from 2007 to 2010. Although those ratios show that local governments still have ability to cover their expenditure, local governments have to be careful in coming fiscal years because an operating deficit dictates the onset of financial distress (Kloha et al., 2005).

3.2.4. Financial independence. Table 2 shows that the median of the two ratios for independence are 8.17% and 8.36 %, respectively. It means that only around 8% of local governments' revenues are under their control. In other words, it can be said that local governments relied heavily on sources of funding beyond their control or influence. Based on these ratios, it is concluded that local governments have weak financial independence. However, Table 3 shows that *Ratio A* and *Ratio B*, composing the dimension of financial independence, show slight increasing trends. For example, *Ratio A* was 0.0783 in 2007 and increased to 0.0855 in 2010. This condition suggests that local governments are experiencing better financial independence.

The weak financial independence could be caused by the constitution. In the Constitution Article 33 states that land, water, and everything that significantly influences the life of the people is controlled by the State (i.e. the central government). As a result, the strategic sources of revenues such as income tax, and Value Added Tax, even though the sources are located in the local government's region, become revenue sources for the central government revenue, not the local government. As a result, local governments only manage the non strategic revenue sources that do not significantly influence the life of people such as hotel tax, advertisement tax, restau-

rant tax. This condition leads to the low financial independence of local government.

However, based on Act No. 32 of 2004 on Local Government and Act No. 33 of 2004 on Financial Balance, local governments are required to improve their local own revenues through innovations, but the innovations must not be against the rules. The ability of innovation to improve the local own revenues certainly varies among local governments. Increased local own revenues will increase the ability of local governments to fund their services and goods delivery to the community. Therefore, better local government capabilities to increase local own revenues will lead to improved financial condition.

3.2.5. Financial flexibility. The median of *Ratios A, B, C*, and *D*, in Table 2, show that local governments have a capacity of 788.9, 196.5, 77.1, and 1,998.2 times to anticipate extraordinary events which could come from sources internal or external to the local government organization. These values indicate that local government has adequate financial flexibility. It means that they can go to a third party to raise fund in order to overcome unexpected events. Looking at the trend as shown in Table 3, all the financial capacity ratios show increasing values. This indicates that local government financial flexibility is getting better.

Local governments have to maintain carefully these ratios because geographically most local governments in Indonesia are located in vulnerable areas. For example, all local governments located in the southern coastal of Java Island are potentially threatened by tsunami because the area is part of the "ring of fire" where earthquakes frequently occur. Moreover, many local governments are located around volcanoes. Only local governments in Kalimantan Island are relatively free from the risks of volcano eruption and tsunami. Thus, it is suggested that local governments located in vulnerable location should have a higher value of financial flexibility ratios in order to anticipate extraordinary events.

3.2.6. Service level solvency. The median of *Ratios A* and *B* (Table 2) shows that local governments have Rp2,089,057 and Rp2,104,560 assets, respectively, to serve each of its residents. In the case of ratio C, it indicates that local governments incur expenditure of Rp813.278 to serve each of their residents. For the dimension of service level solvency, it cannot be concluded whether the values of the ratios above, showing existing condition of local government, are good or not because there is no threshold that distinguishes a good from a weak condition. However, in general, the higher the ratio of service level solvency, the better is service level solvency.

Looking at the trend of service level solvency ratios as shown in Table 3, all ratios show increasing trends. This condition means that there is an improvement in delivering services to the community from 2007 to 2010. It is suggested that the values of service level solvency should increase steadily from year to year to show that there is an improvement in delivering services to the community.

4. Analyzing the importance of each dimension of the financial condition

The analytical hierarchy process (AHP) is used to determine the importance of each dimension composing the financial condition. The more important a dimension the more weight will be assigned on it. To determine the weight, this study uses 162 respondents who come from the Ministry of Home Affairs (30 respondents), the Ministry of Finance (30 respondents), universities (30 respondents), the Supreme Audit Board (32 respondents), and local governments (40 respondents).

The process details and results of the process above mentioned can be provided upon request to the authors. The overall results of weight determination are reported in the following table.

Table 4. Weight of each dimension based on the analytical hierarchy process

Name of dimension	Weight
Short-term solvency	0.206
Budgetary solvency	0.142
Long-term solvency	0.245
Service level solvency	0.107
Financial flexibility	0.175
Financial independence	0.125
Total of weight	1.000

Table 4 above shows that the dimension with the largest weight is the dimension of long-term solvency followed by dimension of short-term solvency, financial flexibility, budgetary solvency, financial independence, and service level solvency, respectively. It means that dimension of long-term solvency and short-term solvency are considered as the two most importance dimensions among other dimensions composing financial condition of local govenment. On the other hand, the dimension of service level solvency is considered as the least importance of elements of the financial condition. These findings indicate that stakeholders of local governments in Indonesia tend to be myopic which means that their horizons of views are tend to be short term (as indicated by long-term and short-term solvencies) rather than long term (as indicated by service level solvency).

If we decompose the overall results based on the origin of the respondents, the weights of dimensions will be different for each groups of respondent. The results are reported in the following table.

Table 5. Weight of each dimension based on groups of respondent

Name of dimension	Weight				
	MoHA	MoF	Univ.	SAB	LGs
Short-term solvency	0.228	0.179	0.238	0.182	0.235
Long-term solvency	0.259	0.239	0.176	0.277	0.253
Budgetary solvency	0.150	0.147	0.164	0.112	0.150
Financial flexibility	0.175	0.195	0.176	0.182	0.145
Financial independence	0.101	0.136	0.130	0.150	0.096
Service level solvency	0.086	0.104	0.117	0.098	0.121
Total of weight	1.00	1.00	1.00	1.00	1.00

Notes: MoHA = Ministry of Home Affairs; MoF = Ministry of Finance; Univ. = Universities; SAB = The Supreme Audit Board; LGs = Local Governments.

The table reports that all groups of respondents, except group of universities, consider the dimension of long term solvency as the most importance dimension of financial condition. The pattern is also similar for the least importance dimension, where all groups of respondent put service level solvency as the least importance dimension, except respondent from group of local government. Again, these findings indicate that majority of groups of local governments stakeholders in Indonesia tend to have short-term horizon rather than long-term horizon.

5. Discussion

5.1. Strategies to improve the financial condition. Based on the strong financial condition in the dimensions of short-term solvency and long-term solvency, local governments have an opportunitiy to accelerate the improvement of public welfare. To achieve this, one strategy that could be taken by local governments is to reduce the excessive current assets (for example, by implementing modern cash and inventory management) along with the addition of long term debt in an appropriate amount (i.e. as long as the amount does not create a budget deficit) to fund the development of productive facilities and infrastructure or to invest in strategic investment. This strategy is supported by the operating surplus condition as shown in the budgetary solvency dimension indicators, specifically the *Ratio B = (Total Revenues – Special Allocation Fund Revenue) / Operational Expenditure*, which has median value of 1.18 times. The addition of the appropriate amount of long-term debt will not worsen the financial condition of local governments in the long run because the facilities and infrastructure financed are productive assets which will provide cash inflow in the future to local government in the form of retribution revenues. Retribution revenues are part of local government own revenues. Thus, in the long

run local government own revenues will increase. This condition will improve the financial condition on the dimension of financial independence. In addition, those facilities and infrastructure will improve the services provided to the community. As a result, the service level solvency will increase.

Furthermore, increasing retribution revenues as part of local own revenues will also improve the dimensions of budgetary solvency and financial flexibility.

In addition, local government should be innovative; looking for untapped sources of revenue as long as conform to Act No. 28/2010. As a result, the financial condition of local government and social welfare will improve.

The figure below shows a proposed strategy that could be taken by local governments to strengthen their financial condition in order to improve social welfare.
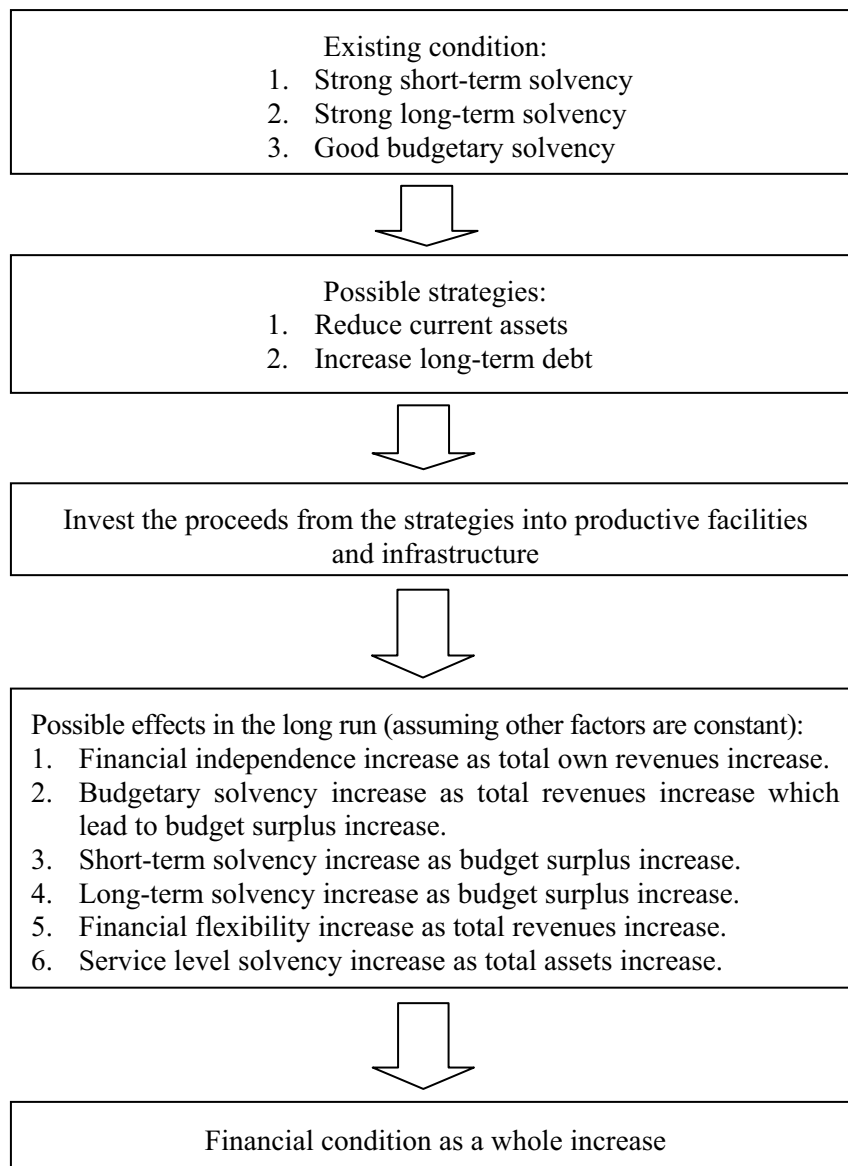
> Existing condition:
> 1. Strong short-term solvency
> 2. Strong long-term solvency
> 3. Good budgetary solvency

> Possible strategies:
> 1. Reduce current assets
> 2. Increase long-term debt

> Invest the proceeds from the strategies into productive facilities and infrastructure

> Possible effects in the long run (assuming other factors are constant):
> 1. Financial independence increase as total own revenues increase.
> 2. Budgetary solvency increase as total revenues increase which lead to budget surplus increase.
> 3. Short-term solvency increase as budget surplus increase.
> 4. Long-term solvency increase as budget surplus increase.
> 5. Financial flexibility increase as total revenues increase.
> 6. Service level solvency increase as total assets increase.

> Financial condition as a whole increase

Fig. 3. Strategies to improve financial condition

5.2. Research implications. This study has two main implications: theoretical implications and practical implications. Those implications are discussed in the following sections.

5.2.1. Theoretical implications. This study provides a systematic conceptual framework to assess financial condition of local government. Based on the framework, the dimensions and indicators are derived to assess local government financial condition. This was not done in previous studies (see Groves et al.,1981; Berne and Schramm, 1986; Nollenberger at al., 2003, Brown, 1993, 1996; Wang et al., 2007; CICA, 1997; Kloha et al., 2005, Jones & Walker, 2007; Hendrick, 2004; Kamnikar et al., 2006). In this study, it is argued that in defining the government's financial condition it should be derived from the objectives of a nation because the financial condition is the result of a LG effort to achieve a nation's objectives. In addition, this study also provides new dimensions and indicators to assess local

government financial condition. Unlike business sector which has seminal ratios to assess financial condition of company, this study offers new ratios to enrich tools in assessing financial condition of local government.

5.2.2. Practical implications. The existence of dimensions and indicators to assess local government financial condition will enhance local governments' public accountability. Previously, the one reference of the LGs' public financial accountability has been the opinion on the financial statements issued by the Supreme Audit Board. In the presence of the dimensions and indicators to assess local government, LGs' public accountability will be stronger because the dimensions and indicators provide information for public financial accountability which is more substantive than the opinion on the financial statements issued by the Supreme Audit Board.

The dimensions and indicators to assess local government also can be used to rank the LGs' bonds. Government Regulation 30/2011 allows LG in Indonesia to borrow money by issuing LG bonds through the capital markets. In this circumstance, the dimensions and indicators can be used by credit rating agencies to assign quality ratings to local governmental bonds. In addition, the rating of the financial condition can be used as one of the criteria that must be met by local government before they issue bonds to the public.

The database used to compile the dimensions and indicators to assess local government, can build the "industry ratios" for equivalent LG groups. As discussed in Part 4, the "industry ratios" can be based on the median of equivalent LGs. As is the case in the business sector, the "industry ratios" can be used as the benchmark for each LG to compare its financial condition to other equivalent LGs.

A further implication of the "industry ratios" as a benchmark is the emergence of competition among local governments. LG leaders will compete to be better than other LGs or at least be better than their own financial condition in the previous period. The existence of an atmosphere of competition will make LG more efficient and effective in the delivery of services and products to the community. In turn, community wellbeing will be improved because the community can get better services and products from LG.

5.3. Future research. The limitation of this study is that this study only explores LGs in Java. It is suggested that future research should extend the objects of study to increases the level of generali-

zability. In addition, future research should assess the reliability and validity of the dimensions and indicators developed in this study in order to assure that the dimensions and indicators assess something that they intend to measure (i.e. the financial condition) and have internal consistency. Moreover, combining dimensions and indicators of the financial condition into a composite index becomes a challenge for future research so that stakeholders of LG will find it easier to interpret the financial condition of LG.

Conclusion

The study offers a concept to assess the financial condition of LG which will be an improvement on the previous studies. This study argues that in defining the government's financial condition it should be derived from the objectives of a nation because the financial condition is the result of a local government effort to achieve a nation's objectives. This study defines the financial condition of a local government as the financial ability of a local government to fulfil its obligations (short-term obligation, long-term obligation, operational obligation, and obligations to provide services to the public), to anticipate the unexpected events, and to execute financial rights efficiently and effectively.

Based on the concept developed, this study explores local government financial condition. The exploration shows that local governments have good financial condition for the dimensions of short-term solvency, long-term solvency, and financial flexibility. An adequate financial condition exists for budgetary solvency as the local governments can cover all expenditures. However, local governments have weak financial independence because they can only control around 8% of their revenues. For the dimension of service level solvency, it cannot be concluded whether the existing condition of local government is good or not because there is no threshold that distinguishes good and a weak financial condition. However, in general, there is an improvement in delivering services to the community as indicated by the increasing trend of the ratios of service level solvency.

Finally, this study finds that stakeholders of local government in Indonesia perceive the dimension of long-term solvency and short-term solvency are the two most importance dimensions and the dimension of service level solvency is considered as the least importance of elements of the financial condition. These facts indicate that the stakeholders tend to have short-term horizon rather than long-term in managing local government finance.

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Appendix

Table 1. Summary of the observed data from 2007 to 2010

Dimension	Number of LG					Data availability					Outlier data					Data utilized				
	2007	2008	2009	2010	Total	2007	2008	2009	2010	Total	2007	2008	2009	2010	Total	2007	2008	2009	2010	Total
Short-term solvency	110	111	112	112	445	108	110	112	112	442	1	2	1	1	5	107	108	111	111	437 (98,2%)
Long-term solvency	110	111	112	112	445	108	110	112	112	442	3	3	5	1	12	105	107	107	111	430 (96,6%)
Budgetary solvency	110	111	112	112	445	108	110	112	112	442	5	4	2	1	12	103	106	110	111	430 (96,6%)
Financial independence	110	111	112	112	445	108	110	112	112	442	1	2	1	1	5	107	108	111	111	437 (98,2%)
Financial flexibility	110	111	112	112	445	108	110	112	112	442	6	9	6	8	29	102	101	106	104	413 (92,8%)
Service level solvency	110	111	112	112	445	108	110	112	112	442	0	1	1	0	2	108	109	111	112	440 (98,8%)

Table 2. Descriptive statistics of the observed data from 2007 to 2010

Dimensions	Indicators	N	Mean	Median	Standard deviation	Maximum	Minimum	Skewness	Standard error of skewness
Short-term solvency	Ratio A	436	1 868 032 846,84100	34,724515	12 687 754 001,8474	134 741 000 000,00	0,13	7,89	0,1169
	Ratio B	436	2 001 559 542,57002	41,517633	13 475 809 519,9921	142 595 000 000,00	0,16	7,81	0,1169
	Ratio C	436	2 200 772 276,61266	45,360556	14 578 971 622,2791	158 419 000 000,00	0,26	7,62	0,1169
Long-term solvency	Ratio A	430	0,00089	0,000045	0,0022	0,02	0,00	4,18	0,1177
	Ratio B	430	0,00095	0,000048	0,0024	0,02	0,00	4,18	0,1177
	Ratio C	430	0,93700	0,943769	0,0412	1,00	0,65	(2,10)	0,1177
Budgetary solvency	Ratio A	430	1,16980	1,155093	0,1209	1,64	0,84	0,75	0,1177
	Ratio B	430	1,18955	1,179005	0,1245	1,66	0,84	0,66	0,1177
	Ratio C	430	1,73115	1,693231	0,2747	2,71	1,21	0,77	0,1177
	Ratio D	430	1,00927	1,003508	0,0554	1,26	0,84	0,53	0,1177
Independence	Ratio A	437	0,09316	0,081714	0,0417	0,24	0,00	1,16	0,1168
	Ratio B	437	0,09398	0,083575	0,0424	0,24	0,00	1,15	0,1168
Flexibility	Ratio A	413	59 148 134 192,46220	788,939210	122 445 729 322,4140	560 037 000 000,00	2,85	1,99	0,1201
	Ratio B	413	5 028 410 185,96003	196,520972	47 376 481 797,3506	650 188 000 000,00	3,80	10,23	0,1201
	Ratio C	413	2 190 560 751,20167	77,102020	20 118 904 217,7258	235 450 000 000,00	1,59	9,39	0,1201
	Ratio D	413	120 452 904 022,78700	1 998,210879	173 449 827 439,9560	1 177 960 000 000,00	1,79	1,65	0,1201
Service level solvency	Ratio A	440	3 148 747,23106	2 089 057,129000	2 997 138,0705	22 154 984,72	54 865,69	2,65	0,1164
	Ratio B	440	3 160 164,49706	2 104 560,680000	3 000 894,0514	22 155 129,89	90 998,09	2,64	0,1164
	Ratio C	440	988 849,02930	813 278,133450	627 030,2626	7 284 677,00	285 159,56	3,80	0,1164