China Local Government Financing Vehicle Criteria

Request for Comments

Purpose

Lianhe Ratings Global Limited's ("Lianhe Global") China Local Government Financing Vehicle ("LGFV") criteria was originally published on 16 July 2018. The current proposed criteria primarily elaborates on the details of the factors and subfactors that we consider when assigning ratings to China LGFV.

Lianhe Global invites market participants to provide comments and feedback on this proposed criteria by 31 March, 2021 by submitting their comments and feedback to info@lhratingsglobal.com.

No changes to our existing ratings are expected to result from the adoption of the proposed criteria, as it primarily relates to further elaboration of the original criteria published on 16 July 2018.

Scope of the Criteria

Lianhe Global applies the LGFV criteria to Chinese entities, that are 1) directly- or indirectly-owned, usually controlling, either through economic or voting control, by government(s) or government department(s) and 2) fulfil more than one condition stated in the "Definition of LGFVs" section below. The criteria intend to cover most China LGFVs, but there are circumstances in which an LGFV may fall outside this scope. We believe these cases would be few and far between and we intend to use the same underlying principles to conduct our analysis on them.

The criteria does not represent a comprehensive coverage but only addresses key rating factors to form our credit opinions and will be reviewed periodically. Credit opinions tend to be forward-looking and include our views of issuers' future performance and development.

General Approach

Lianhe Global applies a scorecard using a weighted-average approach to approximate an LGFV's standalone credit profile by assigning ratings in lowercase letters for each key credit factor ranging from the strongest 'aaa' to the weakest 'ccc and below' on a relative basis. The analytical components of the scorecard combine qualitative and quantitative measurements which in aggregate help form the overall standalone assessment. The scorecard is a summary that does not include every rating consideration. The weights shown for each factor in the scorecard represent an approximation of their relative importance for deriving the standalone creditworthiness, but actual importance may vary and is subject to analytical judgements. The weighted average result may be subject to modification after taking into account an LGFV's contingent liabilities or other idiosyncratic risks.

We then decide an LGFV's Long-term Issuer Credit Rating ("LTICR") by applying notching approaches to capture the likelihood and degree of local government support.

Overview

The criteria report explains Lianhe Global's general approach to assessing an LGFV's credit profile by combining the likelihood and degree of local government support that the LGFV will receive to sustain the LGFV's viability and sustainability, along with the standalone credit

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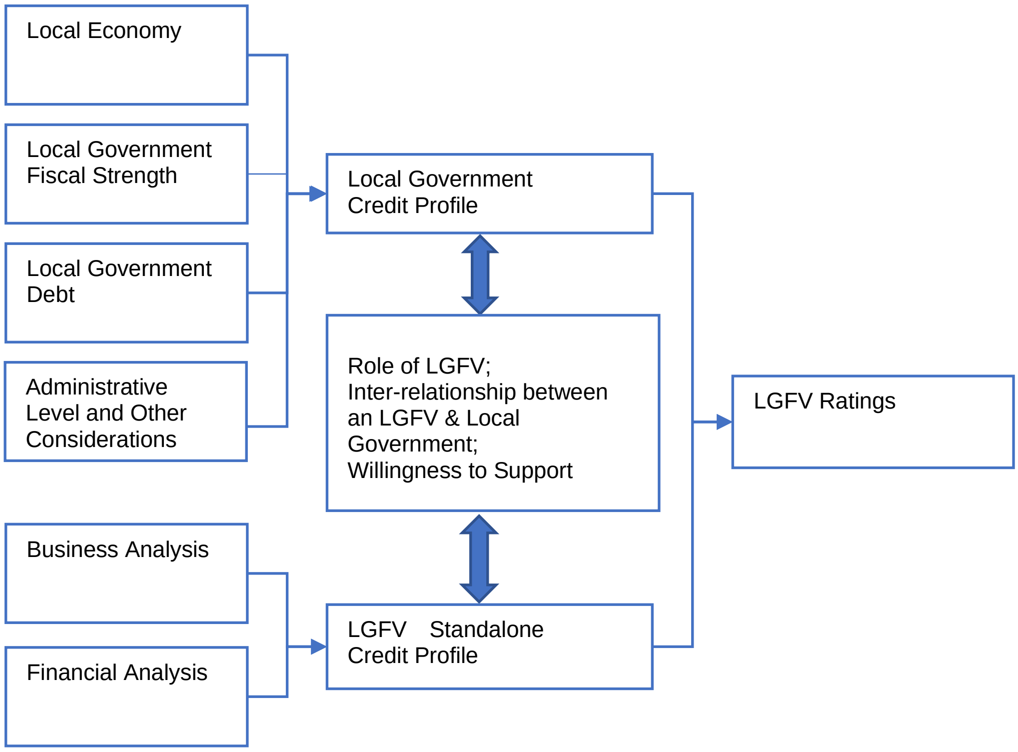
profile of the LGFV. We incorporate the availability of local government support into the assessment of an LGFV's standalone credit strength to assign a Long-term Issuer Credit Rating ("LTICR") to the LGFV. The LTICR represents our opinion on the issuer's relative capability to meet its financial obligations (usually senior obligations) as they come due. It acts as an anchor from which all other issuer and issuance ratings for the issuer are derived and is comparable across various industries.

The diagram below illustrates the topology of the criteria:



Definition of LGFVs

From a regulatory perspective, an LGFV is an independent legal entity incorporated by a local government or other government department(s) with an initial capital investment in the form of financial contributions, land, and/or shares, etc. It functions primarily as a platform to facilitate the building of infrastructures, land development, provide public goods and services as an extension of a local government and/or management of state assets. Besides ownership, Lianhe Global focuses on the following conditions when examining whether an entity should fall under the "LGFV" category: (1) low or limited market-oriented business activities, (2) primary purposes are to provide public goods and services or manage state assets as an extension of government functions, (3) rely on some sort of government support, in forms such as subsidies or funding or capital/asset injections for operation and debt servicing, (4) primary purposes are to provide commercial-related activities but government would normally provide necessary financial support to ensure operation sustainability.

From a local government perspective, an LGFV is a government-financed entity but it operates as a market-oriented project company to facilitate and execute various government development plans, such as the construction of infrastructure projects in cities, rural areas, management of state assets, and/or development of primary land. It puts the emphasis on the functionality of an LGFV.

From Lianhe Global's perspective, local governments rely on connected entities as execution and financing platforms, LGFVs, to carry out or fund various public policy missions, with payments and repayments stemming from receivables and government subsidies or funding.

Lianhe Global delineates LGFVs into three categories: (1) Public Services, (2) Quasi-Public Services, and (3) Commercial Purposes.

Public Services

In general, these are infrastructure projects or services, initiated by government bodies to provide public or quasi-public services for the general public without regard to any fee schedule or cash flow expectations, which includes (but not limited to) land development (i.e. turning raw land into improved land), construction of roadways, schools and universities, and hospitals etc. They use LGFVs as execution and financing platforms but operate at the directives of government bodies which they depend on for maintenance of operations and repayment of their outstanding financial obligations.

Quasi-Public Services

In general, these are projects or services with blended features of both public goods and non-public goods such as low-income housing, natural gas, water, toll roads, toll bridges, and tunnels etc.

Commercial Purposes

In general, these are projects or services, with a fee for service in mind and/or sufficient cash flow prospects for debt servicing, which could be replaced by the private sector, such as property development, trading, and financial services etc.

Differentiation between SOEs and LGFVs

LGFVs and SOEs are both institutions with state ownership, while LGFVs are usually directly owned or ultimately controlled by local governments. In addition, an entity classified as an LGFV usually acts as an extension of government functions, such as being responsible for financing and investing infrastructure construction projects and other government related activities for the region's economic development and social welfare. LGFVs are generally less profit-driven when compared with SOEs which are more market-oriented.

Key Features of SOEs and LGFVs

	SOEs	LGFVs
Responsibility	Support important industries with national strategic importance for the economic development and social stability	Primarily act as an extension of government functions while operating some market-oriented businesses
Business	Aerospace, shipping, military, petroleum, chemical engineering, heavy equipment and industrial machines, electronics, non-ferrous metals, etc.	Land development, infrastructure construction, water, heating, public transportation, etc.
Operation	Market-oriented, responsible for their own profit and losse	Rely on earnings from profitable businesses and/or government subsidies to support daily operations
Profit target	Profit focus to preserve and increase the value of state assets	Not profit focus but mainly to support local governments' policies and missions
Staff size	Generally large	Relatively small

Links to Multiple Governments

For LGFVs who are owned by more than one local government, we assess relationship between the LGFV and each of the local governments to determine the actual operational and financial support provider(s). We may decide that, if there is no sufficient evidence of linkage to justify the use of a top-down approach, the bottom-up approach may be applied with the added benefit of external support and adjustments.

Assessment of Local Government's Willingness to Support

Lianhe Global assesses a local government's willingness to provide support to its underlying LGFV primarily based on the analysis of four key factors: strategic importance, potential impact of default, ownership and control, and operational and financial support. Each of these factors is assessed and defined as "Very Strong", "Strong" or "Moderate to Weak" based on our judgements as per the guidance described in the Exhibit and then we decide the local government's willingness to support which are also defined as "Very Strong", "Strong" or "Moderate to Weak". Among these four factors, we consider that strategic importance and potential impact of default would generally have a higher influence on a local government's willingness to support an LGFV than the other two factors. This reflects our view that a local government would have a strong incentive to avoid adverse consequences of the failure of an LGFV especially for the prevention of major disruption to the local economy and social stability as well as the borrowing capacity of the local government and other LGFVs.

Strategic Importance

We examine the availability of other LGFVs of a similar administrative level in the locality as the probable replacements for the defaulting LGFV. If an entity is the only LGFV in an administrative area with almost no probable replacement or substitute, the possibility of receiving strong support from the local government will be high. In general, an LGFV performs a specific role in a local economy, such as for infrastructure construction, land development, waste treatment, public water and electricity, state asset management etc. However, there are circumstances where an LGFV takes on multiple roles. In general, the larger the scope of public services provided by an LGFV, the higher the willingness of a local government to give support. We look at the alignment of an LGFV's roles and business development vis-à-vis the strategic planning and development of an administrative level to review whether an LGFV has the same common goals and objectives as the local government, and whether an LGFV is executing the plans on behalf of the local government.

In addition, we assess the magnitude and scale of contribution in terms of economic and financial indicators and general budgetary revenue (such as tax and government fund revenue) of an LGFV to the local government in an administrative area. We believe combining these quantitative factors together with our assessment of an LGFV's business will provide a comprehensive picture on the stance of an LGFV in an administrative area, which then demonstrates its importance to the local government hence affecting the local government's willingness to support.

Potential Impact of Default

In assessing the potential impact, we analyse how the local government may perceive and weigh the various scenarios if an LGFV were to default, and the potential consequences to the local government and the local economy that may result from such default. If a default would pose devastating effects, the urge of the local government to prevent a default will be high, hence reflecting the willingness of providing support to an LGFV to ensure its functionality and sustainability, will be high.

A default on LGFV may endanger the continued provision of essential public services, management of state assets, and destroy investors' confidence in the local government, thus may lead to social instability and economic downturn and also significantly impair the borrowing capacity of the local government and other LGFVs within that area. In general, the more serious the consequences of a default, the higher the possibility of an LGFV to receive support.

Ownership and Control

We also factor in the LGFV's shareholding structure, local government's participation in appointment/removal of the board of directors and senior managers and funding plans into our assessment of the inter-relationship between LGFVs and local governments. We believe a local government could direct the operations of an LGFV through full control. A local government which plays an active role in managing an LGFV, including the decision on an LGFV's budgetary decisions, strategy, internal control and policy roles, instead of being a mere shareholder, will exhibit a higher likelihood of providing continuous support. We are also of the view that a local government is likely to allocate more resources and dedicate operational support through active management and control of an LGFV, which illustrates de facto "integration" into the core of a local government.

Besides the involvement of the local government in an LGFV's activities, this factor also assesses any responsibilities (deriving from the regulatory framework or legal status of an LGFV) on the part of the local government to provide support.

Operational and Financial Support

We assess the operational support with reference to the control factor above. In particular, we look at the level of government purchases of services or goods, and reliance on specific sectors to derive revenue, as well as involvement of government officials in the day-to-day management and operations of an LGFV, which not only show support of the local government from but also its linkage with an LGFV from an operational perspective. We believe a majority government purchase of services and goods or support, speaks volumes about the inter-dependence between them.

On the financial front, we examine the regularity and stability of various forms of support to assist and maintain an LGFV's financial profile, such as through asset/capital injections, debt replacements, financial subsidies, tax benefits, and government purchases of services and goods. These are empirical measurements of local government's willingness to support the LGFV which we will make reference to, together with a demonstrated commitment or continuous support from the local government, when analysing the likelihood of support in the future. We also look at the amount and types of an LGFV's obligations guaranteed by the local government to derive the strength of financial support to the LGFV's business and operations.

Exhibit

Willingness to Support Analysis Framework

	Very Strong	**Strong**	**Moderate to Weak**
Strategic Importance	The only LGFV in the region. Carries out very important or broad government functions. Almost only undertakes public projects and is irreplaceable.	The primary LGFV in the region. Carries out important or broad government functions. Undertakes major public projects and is difficult to be replaced.	The second- or third-tier LGFV in the region. Mainly involved in commercial business. Public projects taken are immaterial or easily replaced.
Potential Impact of Default	A default would materially endanger the continued provision of essential public services/local economy and significantly impair the borrowing capacity of the local government and other LGFVs.	A default would temporarily endanger the continued provision of essential public services/local economy and moderately impair the borrowing capacity of the local government and other LGFVs.	A default would only pose moderate or minimal impact on the provision of public services/local economy or the borrowing capacity of the local government and other LGFVs.
Ownership and Control	Fully government-owned entity. The government has the ultimate right on the appointment/removal of the board of directors and senior management of the LGFV and close supervision over the LGFV's operations.	Majority government-owned entity. The government can materially influence the appointment/removal of the board of directors and senior management of the LGFV and its operations.	Government has minority ownership and limited involvement in the appointment/removal of the board of directors and senior management of the LGFV and its operations.
Operation and Financial Support	Proven track record of stable government support through asset/capital injections, debt replacement, subsidies, tax benefits, government purchases of services and goods, etc. and highly possible to continue.	Proven track record of less stable government support through asset/capital injections, debt replacement, subsidies, tax benefits, government purchases of services and goods, etc. and expected to continue.	Limited track record of government support or support may not be timely in case of needs.

Local Government Credit Profile Analysis

The support ability of a local government to an LGFV within a jurisdiction is primarily based on the government's creditworthiness which is mainly underpinned by its fiscal and monetary fundamentals, and is usually associated with the performance of the local economy and its administrative level. The level of the local economic activitiy and development impacts the jurisdiction's GDP and GDP growth prospects and a local government's fiscal revenue. In general, the higher the level of a local government the subject entity is directly associated with, the higher the creditworthiness of the subject entity and the stronger the expected level of support from the local government.

Local Economy

A large, resilient and diversified economic structure usually indicates stable and sustainable economic growth. This in turn would contribute to a steady increase in a local government's fiscal income with a broad revenue base, providing resources to support its underlying LGFVs. Whilst a small and narrow economic base often contributes to smaller tax revenue, lower GDP per capita, and slower and volatile GDP growth rate.

We assess the local economy primarily by looking at the size and composition of local GDP, the GDP growth rate and GDP per capita. In China, the agricultural (or primary) industry, in general, generates low tax revenue while manufacturing (or secondary) and service (or tertiary) industries generate relatively higher tax revenue for a local government. As a result, we favour an economy with high degrees of manufacturing and service industries. We also believe both manufacturing and service industries are likely to provide a more sustainable economic growth momentum.

We also examine a local government's geographic location and infrastructure, availability of and accessibility to natural resources, as well as human capital and demographics, as these are key factors for driving a region's future economic development and growth. Superior location or natural resources could provide advantages such as low transportation costs, low production costs, high productivity, attracting more human capital, etc. Ongoing inflows of population, especially young talent, and improvement of infrastructure would support a region's industrial upgrade and economic growth. These characteristics will be reflected accordingly in indicators such as fixed income investments and growth, output growth of qualified industries, urbanization rate and disposable income per capita.

At the same time, we recognize the important role of the central government's policies in a local economy. A local government following the directives of the central government would receive funding and subsidies and would be conducive to its economic development. Additionally, the competence of a local government official brigade in carrying tasks and prescribed policies is also a metric that we review.

Local Government Fiscal Strength

A local government generally relies on three fiscal revenue sources: local tax revenue, government funding (primarily consists of land sale revenue), and transfer payments from central and/or higher-level governments. Lianhe Global examines fiscal revenue of a local government in terms of revenue structure, growth and stability, and primarily focuses on the fiscal revenue of the prior three years.

In general, tax revenue usually has greater stability and predictability than land sale revenue and transfer payments. We favour a diverse and broad tax revenue base. Reliance on and concentration in one industry sector for tax revenue may put a local government's finance at risk in case of an isolated economic shock. Strong land sales and persistent transfer payments would also support a local government's fiscal strength, although their sustainability would be less predictable and subject to changes in relevant policies, e.g. regulators' stance towards the property market, higher governments' subsidy policies, land transfer planning, etc. We also look into the flexibility of the transfer payments. Some transfer payments are earmarked for specific projects in which a local government cannot use or redirect these funds for other purposes.

Lianhe Global also examines a local government's fiscal expenditure in terms of its flexibility and scalability, as well as its pro forma budget deficit against revenue. A local government generally incurs two levels of expenditure: those in relation to general social welfare such as education, social insurance, housing and public services, and those in relation to projects such as earmarked infrastructure construction, etc. Sometimes a local government will also incur expenses in relation to transfer payments, such as those to local governments in administrative level above and/or below itself as means of capital re-organization and management of the economy.

We favour a higher degree of flexibility and scalability on fiscal expenditure which is conducive to debt service in times of financial difficulties. Some types of expenditure such as social welfare, public services, healthcare, education, etc are considered "necessary" which act as constrains to the flexibility on how a local government could manage its fiscal expenditure. Besides the individual considerations given to levels and trends within each of the revenue and expenditures, we also look at the self-sufficiency rate of a local government's revenue versus expenditures to assess the fiscal strength of a local government.

Local Government Debt

We examine the structure of a local government debt in the context of its debt ceiling, headroom, yield spread, debt and liability ratios. We look at the level of debt burden of a local government in proportion to its local economic strength, such as GDP size, as well as to its fiscal strength such as revenue size, to understand the leverage level and associated financial risks that a local government may face, and the financial flexibility that a local government may have in supporting the development of the economy and the operations of its LGFVs.

Currently, Chinese local governments are not allowed to issue debt above their debt ceilings. Conversely, these limitations would likely go to handicap the local governments' willingness and ability to support their LGFVs in times of financial distress.

Administrative Level of Local Government

In general, the higher the level of a local government the subject entity is directly associated, the higher the creditworthiness of the subject entity and the stronger the expected level of support from the local government. In a case of an identical administrative level, we look into other economic metrics of local governments.

Additionally, the higher the administrative level of a local government, usually the better the fiscal condition of the government and therefore the stronger support ability the government may have. We factor in the administrative level of local governments when assessing its creditworthiness, with the higher the level the more positive notching impact there will be to the credit assessment of the local government.

China's administrative divisions under the Central Government are generally divided into four categories: provinces, autonomous regions, municipalities directly under the Central Government, and special administrative regions. Currently there are 23 provinces, 5 autonomous regions, 4 municipalities directly under the Central Government and 2 special administrative regions in China.

From an administrative perspective, there are numerous sub-level governments under each of these categories, and also branches of sub-sub-levels under some of the sub-level governments, i.e. “sub-provincial prefectural-level city” versus “regular prefectural-level city” within the “prefectural-level city” sub-level under the “provinces” category, which only adds to the complexity in understanding the whole system in China. However, from a credit perspective, we focus instead on the shareholding, fiscal and budgetary management perspective for each of these categories, in our analysis of the administrative level of local governments.

In general, higher level governments would strive to keep the creditworthiness of its sub-level governments in place, as the latter plays an important economic, political and social role in terms of proper function of these higher-level governments. However, as the levels go down further, we can notice a divergence of creditworthiness widening given the sheer existence of a large number of local governments (hundreds and thousands of prefectural-level cities and county-level cities, respectively).

Highest and Second Highest Levels

In our analysis, we treat the capital city of China, Beijing as having the highest level. Provinces, autonomous regions, capital cities of these two categories, municipalities directly under the Central Government, and cities specially designated in the state plan (“計畫單列市”) as the second highest level.

We consider capital cities as second highest level as they usually contribute a notable amount to the local economy of their respective provinces or autonomous regions. We also consider cities specially designated in the state plan as the same level, since their economic and fiscal aspects are directly linked to the Central Government, providing them with a similar economic and fiscal status as provinces.

Third, Fourth, and Fifth Highest Levels

We treat prefectural-level cities as having the third highest level, while county-level cities as having the fourth highest level. For the rest of the local governments such as those township-level or villages, we generally consider them to have the lowest level in our analysis. As mentioned above, the creditworthiness of local governments of these three levels could diverge to a much larger extent.

Special Zones and Districts

Other than the typical categories, there are also numerous special zones and districts in China, including national or provincial economic and technological development zones, high-tech industrial development zones, special economic zones, and new areas. Most of these zones are managed and controlled by administrative committees delegated by a provincial or city level government. Given the special and different purposes of the establishment of each of these zones, we generally assess them on a case-by-case basis.

Other Considerations

We examine whether there are any other elements that may affect the creditworthiness of a local government by considering factors such as whether it has any special legal status, any records of credit or default events in the local economy, level of industry and sector concentration, level of implicit debts, utilization of bond issuance quota, etc.

Notching Approach – Top-Down or Bottom-Up

We incorporate the likelihood and degree of local government support into an LGFV's LTICR by using either a top-down or bottom-up notching approach. As a local government's credit strength and its willingness to support affect the likely support for an LGFV, we use our credit opinion for a local government based on our internal assessment as an anchor rating and an LGFV's LTICR would be notched down from the anchor rating if we apply a top-down approach for the LGFV. The Exhibit shows the typical notching we use based on our assessment of a local government's willingness to support an LGFV. On the other hand, we use an LGFV's standalone credit rating as an anchor rating and notch up from the rating to derive an LGFV's LTICR when the bottom-up approach is applied.

The policy role and strategic importance of an LGFV for a local government and local economy and the inter-relationship between the LGFV and the local government, including but not limited to ownership and control, are main considerations when we decide which approach to adopt. In most cases, we choose the top-down approach for the sole or largest LGFV (which is significantly larger than the second one and hardly replaceable) within a jurisdiction as the probability of the LGFV receiving support from its associated local government is high. The LGFV usually has advantages in various aspects such as accessing to major government projects and receiving large asset transfers from the government or other LGFVs and significant financial subsidies.

When there are several LGFVs operating under the same administrative government, we mainly look at each LGFV's contribution to the local economy, its business monopoly and functionality, and the impact of its failure to the region. The top-down approach may be considered if an LGFV has demonstrated strategic importance to the local government and the region's economy. Otherwise, the bottom-up approach would be adopted.

Lianhe Global may change the notching approach for an LGFV from the top-down to bottom-up, or vice versa depending on the LGFV's business development and its relationship with the associated government. The top-down approach may become not applicable if there is perceived weakening in government support which could be due to reduced strategic importance of an LGFV with diminished government functions and/or a reduction of the state ownership. Conversely, a broader policy role or increased state shareholding could lead to a move from the bottom-up approach to top-down.

Subsidiaries of an LGFV

Lianhe Global examines the creditworthiness of subsidiaries of an LGFV based on various observations, including but not limited to the linkage between an LGFV and its subsidiaries, the flow of government support among the local government, the LGFV and the subsidiaries, and business and operational performance of the subsidiaries. We look at whether the linkage of the subsidiaries exists, if any, at the LGFV or the local government level to decide if a top-down or bottom-up approach will be appropriate. If there is no notable evidence on how support from a local government can flow through to the subsidiaries, the reference rating will be the standalone credit profile of the LGFV regardless of whether a top-down or bottom-up approach is adopted. If there is no existence of notable linkage, we would assess the standalone profile of the subsidiaries under the appropriate sector rating criteria instead.

Typical Top-Down Notching from the Local Government's Internal Credit Assessment

	Local government's willingness to support		
	Very Strong	**Strong**	**Moderate to Weak**
Local government rated at 'AA' category or above	0-3 notches below	≥ 1 notch below	≥ 3 notches below
Local government rated between 'BBB' and 'A' categories	0-2 notches below	≥ 1 notch below	≥ 3 notches below
Local government rated at 'BB' category or below	0-1 notches below	≥ 1 notch below	≥ 2 notches below

Potential Adverse Implications (Government Constraint)

In most cases, an LGFV's LTICR would be constrained by its government's credit profile, even though the LGFV's standalone rating is above the government's LTICR. If there are specific ring-fencing arrangements such as shareholders agreements or debt covenants, whereby the local government, even though as a controlling shareholder, will have limited ability to access/mobilize the assets or cash of the LGFV, the cap of an LGFV's LTICR to its government's credit profile may be lifted.

LGFV Standalone Credit Profile Analysis

Business Analysis

Unlike for-profit corporate companies, these LGFV entities often operate as not-only-for-profit. Oftentimes, these LGFV entities engage in primary land development and development of infrastructure projects with large initial outlay, long construction and pay-back periods etc, according to the strategic planning and implementation of the local government. Also, some LGFV entities engage in the management of state assets with an aim to control risks in the economy and financial system of a local government. As a result, the application of an additional set of metrics such as nature of the business, development trends, scope and mode of operation, source of funding, efficiency of operating and asset management, project construction phase/cycle, method and stage of payment, and project under planning etc will be more appropriate in conducting business analysis of LGFV entities.

For LGFV entities who carry out primarily not-only-for-profit activities, for example, providing social functions such as constructions of public infrastructures, social/affordable housing, and primary land development on behalf of the local government in accordance with its economic development plan, we generally analyze their business profile through the sub-factors mentioned with an aim to capture the differentiations in business profile in relation to the strategic importance of those businesses to the local economy in our assessment of local government's willingness to support. As the primary role of these LGFV entities is to execute the initiatives of local government regardless of the nature of the businesses they are tasked to do, this analytical approach hence dissects how the nature of various businesses would affect the credit profile of the LGFV entities.

For LGFV entities who carry out meaningful commercial activities, we assess their business profile by looking at the sub-factors below from a more commercial perspective and reflect the observations accordingly into the business analysis section of the scorecard.

For entities who have a majority of their businesses being commercial activities, we apply our general corporate analysis with the added benefit of external support and adjustments.

Macroeconomy and Operating Environment

We assess the macroeconomy and operating environment in which the LGFV entities operate in conjunction with our Local Government Credit Profile Analysis (as abovementioned) to derive the macroeconomic profile. We believe macroeconomy sets the tone on how and what an LGFV performs, in particular to conducting business activities in various sectors within the local economy.

Revenue Streams and Mode of Operation

We usually consider the business nature, role and functionality, and development trends etc. when we examine an LGFV entity.

For an LGFV that provides public goods and services, we consider the efficiency in performing its functions and the accrued benefits provided to the public. We look at the business flow and how different elements of the operations piece together for the LGFV to effectively carry out its business to be in line with expectations of the local government. We also consider, on the repayment front, the terms, size and timing of government subsidies and/or funding in order for the LGFV to sustain its business.

For an LGFV that provides quasi-public services, we consider both accrued benefits to the public and the commercial aspects, such as stability and industry dynamics, which affect how much government aid would be required. For the sake of discussion, we consider regulated utilities as quasi-public services. Frequently regulated utilities are also regulated monopolies with government oversight. These regulated utilities perform public services while they charge a market price to maintain their level of services with any shortfall filled by government subsidies or funding.

For an LGFV that engages partially in commercial activities, we also exam the rationale behind the involvement in these activities, their business and financial performance, and how those will affect the performance of the LGFV as a whole.

Mega Projects Under Construction and Planning

We pay close attention to any mega or white elephant projects undertaken by an LGFV, that require a large initial outlay, long construction and pay-back periods, which often run into construction delays and budget overruns. We believe any mishap in a mega project could easily risk and ruin the viability and liquidity of an LGFV. We take into consideration mega projects that are both under construction and under planning. We examine closely a mega project's initial outlay, total layout, source of funding, construction periods, stage of construction, budget shortfall, balance of budget, and pay-back period etc.

Management

Lianhe Global pays close attention to the experience and background of senior management of an LGFV. We generally examine an LGFV's organizational structure, reporting hierarchy, delineation of duties, internal control processes, and overall corporate culture. We may also examine senior management and board members' tenures, as well as their past official titles and any roles within government bodies and current political party affiliations. We believe, given the close linkage between LGFVs and their related local governments, this is a critical assessment factor. If a current board member of an LGFV has had previously held positions within government bodies and/or currently has political party affiliation, this at least gives the appearance of the important role of the LGFV to a local government, as well as the close ties between them. Additionally, we believe this close linkage is also conducive for an LGFV to seek more government resources or funding. We favour senior managers and board members with prior tenures at government bodies and/or have current political party affiliations with state-owned enterprises ("SOEs").

Business Analysis

	aaa	**aa**	**a**	**bbb**	**bb**	**b**	**ccc and below**
Macroeconomy	The economy is highly stable and healthy, with extremely strong resilience to economic downsides.	The economy is very stable and healthy, with very strong resilience to economic downsides.	The economy is stable and healthy, with strong resilience to economic downsides.	The economy is generally stable and healthy, with adequate resilience to economic downsides.	The economy is less stable and healthy, with limited resilience to economic downsides.	The economy is volatile and unhealthy. It is vulnerable to economic downsides.	The economy is highly volatile and very unhealthy. It is very vulnerable to economic downsides.
Business Profile and Risk	Extremely strong market position with very superior competitive advantages in product pricing, business diversity and scale. The industry is highly developed and extremely healthy.	Very strong market position with superior competitive advantages in product pricing, business diversity and scale. The industry is very well developed and healthy.	Strong market position with competitive advantages in product pricing, business diversity or scale. The industry is well developed and healthy.	Adequate market position and may have some advantages in certain areas. The industry is developing and reasonably healthy.	Less than adequate market position and a market follower. The industry is competitive.	Weak market position and a market follower. Lack of business diversity and scale. The industry is very competitive with poor margin.	Very weak market position with disadvantages in pricing, product offerings and scale. The industry is highly competitive with very poor margin.
Management Quality	Management has demonstrated consistently very strong credibility and stability, with proven records of achieving business and financial goals.	Management has demonstrated consistently strong credibility and stability, with proven records of achieving business and financial goals.	Management has demonstrated consistently good credibility and stability, with proven records of achieving business and financial goals.	Management has adequate credibility and stability. Business and financial goals are generally achieved.	Management has acceptable credibility. More reliance on key individuals or higher management turnover.	Management has noticeable deficiencies, such as lack of credibility or experience. Heavy reliance on key individuals or high management turnover.	Management has significant deficiencies and is unstable.

Financial Analysis

Asset Quality and Balance Sheet Structure

(1) Asset Quality

Lianhe Global first generally examines an LGFV's asset composition and purpose, as well as their prevailing market values for the prior 3 years. We examine an LGFV's asset composition such as (but not limited to) account receivables, other receivables, inventory, PP&E, long-term investments and intangibles, as well as their corresponding purposes such as receivables related to current accounts with local government(s) and/or other entities, assets earmarked for public services, quasi-public services, and commercial purposes. We also examine if there are any restrictions on asset sales, and/or any potential asset injection plans from local government.

We pay close attention to an LGFV's receivables and land reserves. An LGFV with sizeable account receivables and other receivables (particularly those that are current account receivables) may pose risks to its liquidity position. We examine its receivables exposure to key clients in this regard, including terms, aging and settlement trends. On the land reserves front, we examine the valuation of land prices. Oftentimes, land prices are volatile in some regions of China. Many of them are challenging to evaluate and develop, which may result in overstating their carrying values inadvertently. This may affect an LGFV's asset size and quality, consequently. Additionally, we may examine the development costs, carrying values and sources/uses of funds of projects under construction with reference to their corresponding initial outlay and staged deployment of payments.

We also pay close attention to financial assets and long-term investments of an LGFV, as these reflect on utilization of funding and the effectiveness of deploying its capital towards investments. These indicators will be of even more importance for LGFVs who play a role in management of state assets for the local governments and economy.

(2) Equity

Secondly we examine an LGFV's shareholder composition, their changes over time (or stability), as well as past and planned equity injection plans. We believe shareholders are the biggest supporters of an LGFV and they map its development direction with committed capital.

(3) Debt Structure and Trend

Thirdly we examine an LGFV's debt structure and trends. We usually examine an LGFV's debt structure in terms of bondholders, size and currency, tenor, yield spreads, maturity profile and financial guarantee, if any, for the most recent 3 years. We pay particular attention to the trend, composition and cost of funding of various debt types within the debt structure and their appropriateness in relation to the asset structure and business profile. We also examine methods of payment for the debt and their corresponding repayment plans in the next 3 years.

(4) Debt Level and Trend

Fourthly we examine an LGFV's level of debt and trends for the most recent 3 years. In particular, we examine an LGFV's leverage in terms of debt to equity, debt to capitalization, and long-term debt to capitalization ratios, as well as their respective trends.

(5) Contingent Liabilities

We believe a majority of the contingent liabilities stem from guarantees on third parties' (or related parties') financial obligations. In case of a non-payment, an LGFV in its capacity as a guarantor has to honour the financial obligations. Lianhe Global usually examines the commercial terms of these guarantees and their associated liens and claims against on the third party (or the related party) for its own benefits in case of a default. This is commonly known as a counter-guarantee clause in China. We may also examine the business nature, guaranteed amount, duration, concentration risk, operating and financial strength of the third party, historical losses incurred from guarantee liabilities if any, and include these contingent liabilities under an LGFV's debt profile for our analysis in its repayment capacity.

Asset Quality and Balance Sheet Structure							
(In RMB bn unless stated otherwise)	**aaa**	**aa category**	**a category**	**bbb category**	**bb category**	**b category**	**ccc and below category**
Total Assets (>=)	1,000	350	140	60	20	3	<3
Equity (>=)	500	100	60	28	16	4	<4
Debt/ Capitalization [(1)] (%) (<=)	5	20	30	40	52.5	60	>60
LT Debt/ Capitalization [(2)] (%) (<=)	4	14	26	35	45	60	>60
Asset Quality	Assessment based on the factors mentioned						

Note:
1) Total debt+equity
2) LT debt+equity

Profitability and Liquidity

(1) Revenue and Cost Structure

Lianhe Global reviews an LGFV's most recent 3 years of financial statements. We review an LGFV's revenue and cost structure, as well as their stability and developing trends. In particular, we examine an LGFV's size of revenues, operating profits, and its gross margin, as well as the respective trends of these metrics.

Given LGFVs' nature of the business and their close ties to local governments, it is not surprising that some LGFVs may depend primarily and continuously on government subsidies and/or funding to stay operational. In these cases, Lianhe Global pays close attention to the stability of government subsidies and/or funding, as well as monitoring LGFVs' changing roles and dominance under prevailing policy stances.

(2) Liquidity

We look closely into an LGFV's receivables and current assets. Oftentimes receivables could make up a significant amount of an LGFV's current assets. We look at the proportion of receivables to total assets and ratio of current assets versus short-term debt to derive debt coverage prospects. We also assess an LGFV's collection rate by paying close attention to the historical 3-year average cash amount received comparing to the historical 3-year average revenue. In addition, we look at the proportion of restricted assets to total assets, in order to gauge how much flexibility an LGFV has in terms of mobilizing its assets.

We examine an LGFV's statements of cash flow with particular attention to its cash flow from operating activities and investing activities. We believe a strong and steady cash flow from operating activities is one of the best conditions for debt servicing. Cashflow from investing activities shows an LGFV's risk management approach and investment philosophy. We pay particular attention to sales categorized under operating activities and investing activities. In some cases, sales would be recognised as investing activities which should have been recognized under operating activities. We make adjustments accordingly.

We also examine an LGFV's statements of cash flow from financing activities to understand its financing needs both in terms of debt service and new issuance to form a holistic picture of its financial and repayment burdens.

Profitability and Liquidity							
(In RMB bn unless stated otherwise)	**aaa**	**aa category**	**a category**	**bbb category**	**bb category**	**b category**	**ccc and below category**

Profitability							
Revenues (>=)	500	70	20	6	2.0	0.7	<0.7
Operating Profit (>=)	10	3	1.75	1.0	0.4	0	<0
Gross Margin (%) (>=)	70	50	35	20	7.5	1.0	<1.0
Liquidity							
Receivables/ Total Assets (%) (<=)	2	8	14	20	27.5	40	>40
Current Assets/ ST Debt (x) (>=)	12	9	6	4	2.0	0.5	<0.5
Cash Received/ Revenue [1] (%) (>=)	-	-	-	90	60	30	<30
Restricted Assets/ Total Assets (%) (<=)	-	-	-	1.0	3.0	6.0	>6.0

Note:
1) Cash received from sale of goods or rendering of services; three-year average for both the denominator and the numerator

Repayment Capacity

We examine an LGFV's short-term repayment capacity in terms of cash to short-term debt, debt to CFO and CFO to interest ratios, and long-term repayment capacity in terms of EBITDA over interest and debt over EBITDA ratios for the most recent 3 years. Sometimes we may look at these ratios on a forward-looking basis. As stated earlier, we pay close attention to contingent liabilities of an LGFV, especially third-party guarantees. Besides the factors mentioned, we also look at the ratio between the number of third-party guarantees and total equity. In general, we examine all these ratios' past stability as we would under our general corporate criteria.

Availability of Credit Facilities

We usually review an LGFV's most recent 3 years of bank credit facilities in terms of the number and types of credit lines, terms, limits, utilized and unused portions. We may also review the type of banks which are providing credit facilities, such as policy banks, nationally recognized commercial banks and/or regional banks. We may also review if any credit line has been renewed, declined, or terminated and/or any maturing bank loan has been repaid or rolled over, in the past 3 years. We believe the availability of large and multiple bank credit lines with relationship banks are conducive for an LGFV to maintain its liquidity position.

Debt Servicing Capability ***(In times (x) unless stated otherwise)***	**aaa**	**aa category**	**a category**	**bbb category**	**bb category**	**b category**	**ccc and below category**
Cash/ST Debt (>=)	5.0	4.25	3.0	1.75	1.0	0.4	<0.4
Debt/CFO (<=)	1.0	2.5	4.0	5.5	10	20	>20 or <0.0
Debt/EBITDA (<=)	1.0	2.2	2.7	3.0	8.0	15	>15 or <0.0
EBITDA/Interest (>=)	20	10	7.0	4.0	2.5	0.75	<0.75
CFO/Interest (>=)	10	4	1.5	0.6	0.3	(0.5)	<(0.5)
Guarantees/ Equity (%) (<=)	-	-	6.0	12.5	20	40	>40

Summary of Key Rating Factors

	Key Factors	*Key Sub-factors / Indicators*
Local Government's Willingness to Support	Strategic Importance	Number and nature of local LGFVs etc.
	Potential Impact of Default	
	Ownership and Control	Shareholders and controlling
	Operational and Financial Support	Stakeholders' track record on capital injections, allocation of resources/assets, providing operational support and receiving govt subsidies /funding, as well as their expected continuity
Local Government Credit Profile	Local Economy	Size, growth and structure of GDP, GDP per capita, number and change of population, natural resources, economic outlook etc.
	Local Government Fiscal Strength	
	Local Government Debt	Outstanding debt, maturity profile, coupon rates
	Administrative Level of Local Government	
	Other Considerations	
LGFV Standalone Credit Profile	Macroeconomy	
	Business Profile and Risk	
	Management Quality	
	Asset Quality	
	Capital Structure	
	Profitability	
	Liquidity	
	Debt Servicing Capability	

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