General Corporate Criteria

Rating Criteria

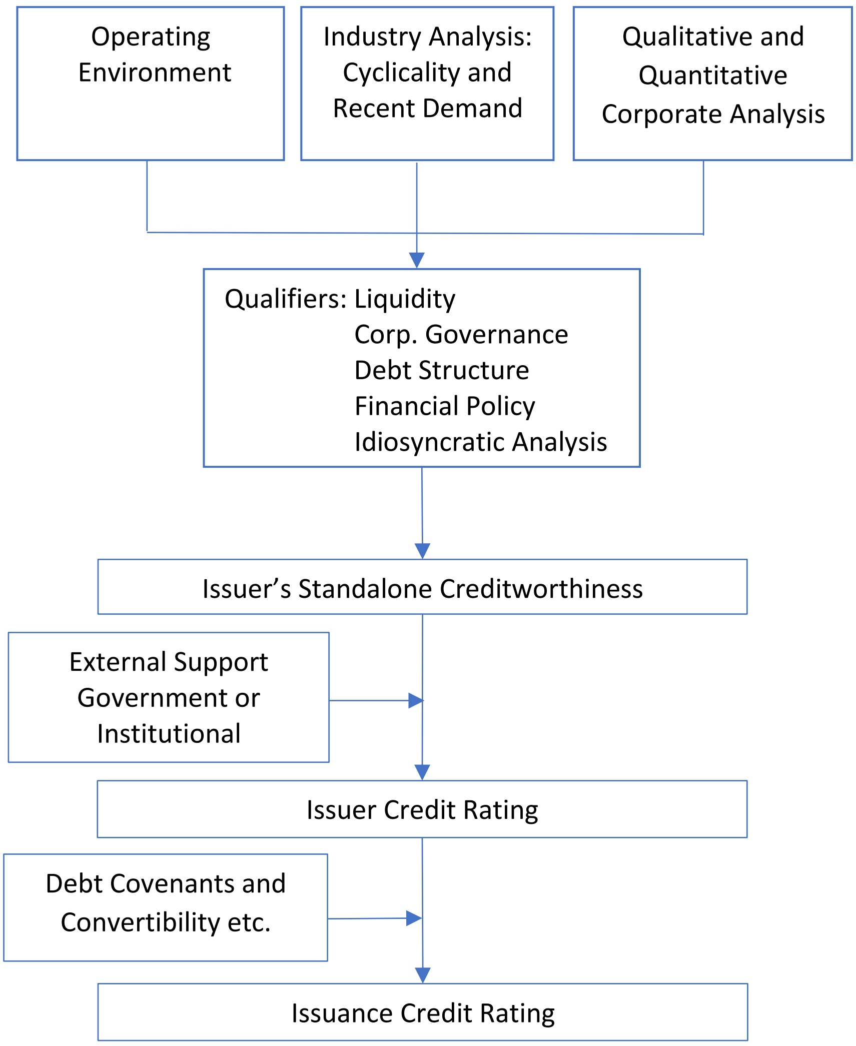
Scope of the Criteria

Lianhe Ratings Global Limited ("Lianhe Global") applies the general corporate criteria to corporate entities that are not in the industry of banking, non-bank finance, regulated monopolies (i.e. utilities), not-for-profit, and public and government services.

Overview:

The criteria report comprises three segments: (1) operating environment of the country in which a corporate entity is domiciled, (2) industry analysis in which the corporate entity conducts its business, and (3) corporate entity analysis. We strive to take a holistic view on a corporate entity while balancing all around political, economic, industrial, operational, and financial factors. Furthermore, the criteria do not represent a comprehensive coverage but only address key rating factors.

The diagram below illustrates the topology of the criteria:



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Operating Environment

Lianhe Global uses internal assessment to gauge operating environment. We believe our internal assessments on sovereign nations are not expected to be materially different from market consensus. We apply both commonly accepted quantitative and qualitative metrics to conduct our analysis. In addition, we apply elements from recognized third party indexes such as World Bank's Worldwide Governance Index, Human Development Index, Easy of Doing Business Index to maintain neutrality and objectivity in our analysis. We believe these indexes provide us with a platform to conduct our analysis in a non-ideologically biased setting.

There are 5 key factors in our operating environment assessment:

Key Factors	Sub Factors
Country Governance	Country Profile
	Political System
	National Security
	Governance Capacity (World Bank's Worldwide Governance Index)
Macroeconomic Policy and Performance	Macroeconomic policy
	Economic Performance
	Economic Sentiment
	Inflation Level and Volatility
	Unemployment Rate
Structural Feature	Economic Structure
	Level of Development (GDP per capita, Human Development Index & Ease of Doing Business Index)
	Stability of Banking Sector
	Degree of External Dependency
	Demographic Structure
	Other Factors
Public Financing Strength	Fiscal Policy
	Fiscal Balance
	Debt Burden
	Debt Structure
	Debt Capacity
	Government Refinancing Capacity
External Financing Strength	International Balance of Payment
	External Debt Burden & Structure
	Repayment Capacity
	Exchange Rate Volatility

Industry Analysis

Lianhe Global glances from third party data to conduct analysis but draws our own conclusion on industry analysis. We believe by applying each industry's historical cyclicality over a long period and blend them with macro and industry demands of recent decade are a balanced approach to address industry analysis. We list each factor in the table below:

Key Factors	Description of Key Factors
(a) Cyclicality	Historical industry specific cyclicality
Market Analysis	
(b) Macro Demand	Aggregate demand of recent
(c) Industry Demand	Industry specific demand of recent

Corporate Entity Analysis

Lianhe Global uses a combination of qualitative and quantitative factors to conduct our analysis on business and financial risks, respectively. Additionally, we use a combination of a weighted average approach and notching to capture and balance business and financial risks, as well as dominating factors that drives the credit rating of a corporate entity in the marketplace.

In general, we put more emphasis on the current fiscal year and the two succeeding years' forecasts and less on the two preceding fiscal years. We believe risks lie in the future but not the past. History is a guide only.

Carousel of Qualitative Factors

Lianhe Global believes each industry has its unique set of drivers. While these are unique sets, they can be identified and categorized into various factors. We list each factor in the table below:

Key Factors*:
(a) Market Position
(b) Competitiveness
(c) Diversity
(d) Operating Efficiency
(e) Profitability

*Not ranked according to their importance

We believe no single factor (or a couple of factors) shall be the determining drivers across all industries while the importance of these factors in aggregate, whatever they may be, are critical. These contributing factors play different levels of importance in various industries. Some are more relevant to one industry than the others. Within an industry, we rank their contributing importance and assign the predetermined weights to them accordingly. As a result, we take advantages of both worlds by setting the weights of the factors as static while the factors themselves as dynamic. In other words, given the importance of these predetermined factors in an industry, they would be given the same static weights while the factors themselves would rotate according to their industry (and sub-industry) categories.

For the sake of discussion, steel and aluminium producers, as basic material producers, have different drivers, in our view. Steel producers often differentiate themselves with the scale of operating and quality of their steel products, while aluminium producers always compete on costs (saving a few high-grade aluminium specialty producers). As a result, the drivers are different for steel and aluminium producers.

Additionally, we may use a different set of rank ordered factors within the same industry (except for the same sub-industry category). Take the pharmaceutical industry as an example. A well-established multi-national pharmaceutical company has (a) market position which comprises of brand recognition and deep-seated distribution network, (b) competitive edge which comprises of drug products, patents, R&D, and possibly a full drug pipeline, and (c) diversity which comprises of revenue, product, and geographic diversity. While for a small pharmaceutical company, these factors may not be relevant at all with the exception of a promising drug pipeline. A pharmaceutical company that focuses on generic drugs may have higher (d) operating efficiency and lower costs from savings on R&D as its drivers. The point is that we would rank these factors according to their innate importance. Nevertheless, the predetermined factors (and weights) are identical in each sub-industry such as generic drug manufacturers in this example. Any significant idiosyncratic driver not captured under Business Analysis would be accounted under Qualifiers.

Static Quantitative Factors

Lianhe Global uses a set of static metrics to measure the financial worthiness of a corporate entity. We list the factors in the table below:

Key Financial Factors:	**Description of Key Financial Factors**
(a) Debt over EBITDA	Gross Debt / EBITDA
(b) EBITDA over Interest	EBITDA over Interest Payment
(c) Liquidity Ratios	(Cash & Equivalent + ST Investment) / (ST Debt), Current Ratio, Quick Ratio, and Cash Ratio
(d) Debt over Capitalization	Gross Debt / (Debt + Equity)

Lianhe Global uses a set of generally accepted financial metrics. We believe (a) Gross Debt over EBITDA and (b) EBITDA over Interest factors are the two most important determinants of financial worthwhile for any corporate entity. We may use Net Debt (i.e. Gross Debt minus cash & cash equivalent & short-term liquid assets) if we deem a corporate entity has demonstrated a strict cash policy with proven track records. In general, we take a conservative approach by only including interest expense but not interest income, unless a corporate entity is able to demonstrate the recurrence nature of the interest income is associated with its normal course of business. We may make adjustments to financial ratios if we have concerns over their quality and volatility. Taking shareholders' equity as an example, we may adjust Debt over Capitalization if there is a high percentage of goodwill and/or valuation reserves on the balance sheet. Additionally, we may make adjustments to these financial ratios if we deem they have demonstrated volatility in the past or we expect them to deteriorate in the future.

Qualifiers

Lianhe Global also believes there are prevalent factors that are so critical that they deserve a category of their own and worthy of applying notching rather than a weighted average approach.

Liquidity

Liquidity is the first and foremost important driver for any corporate entity. Usually any sign of distress starts with a liquidity crunch. We measure liquidity by examining a corporate entity's (but not limited to) cash position, short-term liquid assets, committed bank credit lines, forecasted earnings, and projected proceeds from capital market financing activities against its maturing debt obligations, capital expenditures, and committed lease payments, over the next 12 months.

Corporate Governance

Corporate Governance plays second fiddle in this case. We believe any corporate governance related issue would likely to be firstly reflected in the liquidity of a corporate entity. We take a holistic view on corporate governance. Family owned businesses are not necessarily calls for concern, in our view. In general, we examine features (including but not limited to) such as the ownership and organizational structure, reporting hierarchy, independent non-executive directors on board of directors, board committees, related party transactions, material litigations, and prior regulatory sanctions etc.

Debt Structure and Financial Policy

Debt Structure and Financial Policy refers to debt maturity profile and management's altitude towards financing. In general, we favour long-term over short-term debt in which the former allows a corporate entity more time to generate and accumulate profit to repay its debt. Meanwhile, short-term debt obligations put pressure on a corporate entity to either refinance or repay its debt over a short period of time. If a corporate entity's revenue stream is in one currency but it issues debt in another currency that results in currency risk. Likewise, interest rate term structure is also a key risk factor if the reference indexes exhibit high volatility and the corporate entity does not have any hedging strategy in place which exposures itself to higher interest payment shocks.

We favour conservative over aggressive financial policy as measured by debt to revenue growth rate as one of the factors. A corporate entity relies on net income generated from revenue growth, which oftentimes represents only a friction, for repayment of debt. If debt growth is not complement by revenue growth, this may be a cause for concern.

Idiosyncratic Analysis

Idiosyncratic Analysis is designed to be a "catch-it-all" factor. While we believe our analysis has captured most of the risk elements of a corporate entity, we admit that there are special circumstances in which our analysis has not taken into account given the complexity of today's business world. Taking the airliners as an example, in China, most low-cost carriers ("LCCs") fly short-haul routes and face competitions from expanding high-speed railway and highway systems. But LCCs in provinces with treacherous terrains do not face these challenges due to higher railway and highway construction costs associated with these terrains. Hence, we may use this factor to account for the competitive advantage offered to the few selected ones.

External Support

As a part of our analysis, we also examine if a corporate entity receives any external support from parent company or government.

For any corporate entity to receive support either from parent or sister companies, the supporting entity must demonstrate (a) ability and willingness to support, (b) the resulting support would not adversely affect either the supporting entity or the combined entities. In general, we categorize two forms of support (1) Top Down and (2) Bottom Up. To qualify for Top Down support, the subject corporate entity must demonstrate it is an integral part of a larger corporate family and without its survival would irreversibly damage the larger corporate family in terms of earnings, distribution network, product and service, market position and reputation. We expect this scenario to be far and few in between. On the contrary, we expect many supports would be in the form of Bottom Up.

Top Down Support:

To quality for Top Down Support, the subject corporate entity must meet all of the following conditions:

(a) Demonstration of control by the supporting entity in term of control over its Board of Directors ("BOD") OR it is the largest controlling shareholder and has the ability to appointment/remove members of BOD and senior managers;
(b) Must demonstrate it is an integral part of a larger corporate family and without its survival would cause irreversible damage to the larger corporate family in term of earnings, market position, production process, distribution networks, integrated services, and reputation etc.;
(c) The supporting entity had a track record of extending support to the subject corporate entity in time of financial or operational difficult if applicable;
(d) The supporting entity has influence over major financial decisions of the subject corporate entity range from M&A, capital market financing activities, and financial policy etc.;
(e) The supporting entity guarantees the subject corporate entity's debt OR it had done so during its formative years if applicable.

Thereafter, we determine if the combined entities pose any financial deterioration compared to its prior standalone credit profile. The factors which we consider are overlapping revenue from common territory, exposure to similar economic shocks, face the same or similar market driven dislocations, and agglomerated financial metrics etc. We would then either notch down the subject corporate entity or both the subject and the supporting corporate entity as we deem fit according to our qualitative and quantitative factors described above.

Bottom Up Support:

To quality for Bottom Up Support, the subject corporate entity must meet various conditions. We have 3 categories to delineate the degree to which the supporting corporate entity exhibits the Willingness to Support as follows:

(I) Very Strong: Meet condition (a) and any three out of the four conditions in (b) through (e);
(II) Strong: Meet condition (a) and any two of the four conditions in (b) through (e);
(III) Moderate: Meet any two of the five conditions in (a) through (e).

Depending on the degree of support and the strength of the supporting entity, Lianhe Global will assign 0 to 5 notches uplift to the subject corporate entity.

However, under no circumstance, the subject corporate entity shall receive a rating higher than it would have under the Top Down Support scenario or higher than that of the supporting corporate entity.

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