鵬元國際 PENGYUAN

Measuring the Creditworthiness of China's Corporates Using a Global Rating Scale

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Summary

- China's bond market has grown to become the world's second largest, with growing market size, increased market activity, a diverse issuer base as well as improving institutional framework. As China's bond market continues to attract increasing interest from international investors, it is critical to assess the creditworthiness of China's issuers using a global rating scale, allowing investors to compare investments on the same basis.
- To evaluate the creditworthiness of China's corporates on a global rating scale, this report applies Pengyuan International's globally comparable analytical framework to 534 Chinese corporate bond issuers that have issued bonds in the offshore market. The sample was selected due to their increased data transparency and the fact that some of them have received ratings from other international rating agencies.
- The offshore corporate bond universe, which is composed of 534 non-financial issuers, has an indicative credit estimate[1] distribution ranging from {CCC-} to {AA}, with a median of {BBB-}. The Government Related Entity (GRE) sector has the highest credit quality, although some of which have relatively weak financials and business models. This is because the majority of GREs have a distinct business strength and strong government support. On the other hand, the energy sector has the worst credit profile due to the fact that the companies within this sector that issued offshore bonds are primarily exploration and production (E&P) equipment manufacturers, which are highly volatile, cyclical, and subject to uncontrollable global factors.
- Notably, real estate companies, the largest industry group of general corporates, have a median of {BB-} indicative credit estimate. On average, real estate companies have low indicative credit estimates, owing to their high leverage, limited business diversification and general lack of liquidity. In addition, the new policy of "three red lines" has limited the financing options of real estate developers in the mainland. As the disruption of the pandemic has severely affected property construction, working capital management and contracted sales, the credit strength of real estate companies is especially weak at the moment.
- Excluding Local Government Financial Vehicles (LGFVs) and GREs, the majority of the general corporates have relatively weak credit strength, with only about 25% of the corporates having investment grade indicative credit estimates and only Information Technology companies having a median indicative credit estimate above investment grade.
- We believe that the issuers currently participating in the offshore bond market are mostly the stronger players within the sector, and that as more issuers enter the offshore market, it may gradually change the average size, profitability and leverage profile, effectively the credit quality of the universe.

[1] indicative credit estimate expressed in this report are Pengyuan International's view of credit quality derived from desktop analysis based on public information

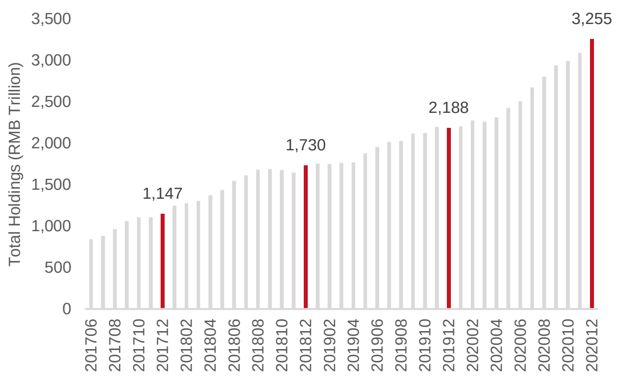
Introduction

As China is opening up its financial market, Chinese bonds are attracting increasing interest from international investors. In the last two years, several leading global bond indices, such as World Government Bond Index, Bloomberg Barclays Global Aggregate Bond index, and JP Morgan emerging bond index have included China bonds into their global indices. This has resulted in the inflow of billions of dollars of passive investment into China's bond market, which offers higher returns and has less correlation with developed bond markets.

China's regulator has also made tremendous effort in improving foreign access into the Chinese onshore bond market. Since 2016, a series of initiatives has been introduced to reduce entry barriers for foreign investors seeking to invest in the onshore bond market. At the moment, foreign investors have four primary access points to China's onshore bond market: 1) Qualified Foreign Institutional Investors (QFII); 2) Renminbi Qualified Foreign Institutional Investors (RQFII); 3) China Interbank Bond Market (CIBM) Direct; and 4) Bond Connect. Among them, Bond Connect was a critical step toward simplifying and enhancing the efficiency of investing in and out of Chinese bonds by allowing investors to trade onshore bonds via offshore financial infrastructure without being bound by individual quotas. By the end of May 2021, 2,563 international investors, including 78 of top 100 global asset management companies, have registered with Bond Connect.

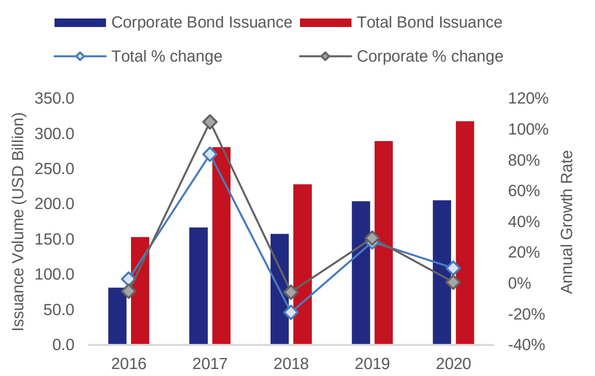
While foreign investors have continued increasing their share in the market, they are mainly holding sovereign and policy bank (quasi-sovereign) bonds. The foreign holdings of corporate bonds are extremely limited. One of the main obstacles is the lack of capacity of assessing the creditworthiness of the corporates due to the local credit rating system. China's domestic rating agencies assign ratings for corporates under the national rating scale and the majority of domestic ratings fall into the rating categories of AAA to AA. As a result, China's domestic rating system appears to have limited global comparability and credit differentiation. Foreign investors need to exercise greater caution when investing in China's corporate bonds in the absence of comparable credit ratings. Globally comparable credit ratings will be critical to the onshore bond market's internationalisation.

Exhibit 1: Holdings by Foreign Investors



Sources: Bond Connect, WIND, Pengyuan International

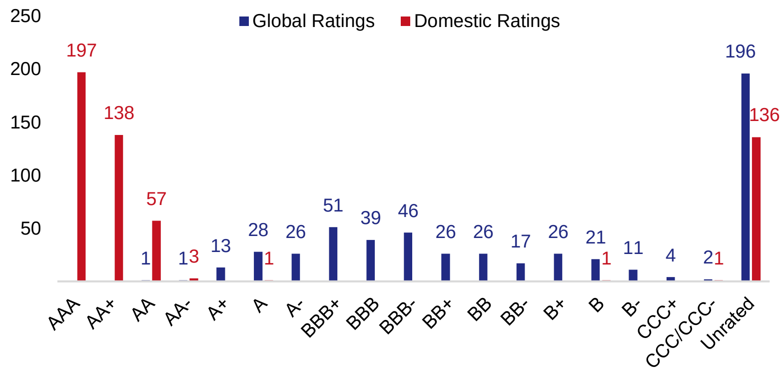
Exhibit 2: Issuance Volume of Chinese Offshore USD Bonds



Sources: Bloomberg, Pengyuan International

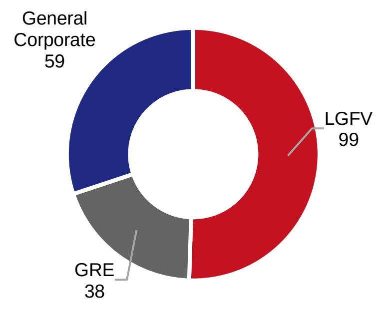
Along with the expanding onshore bond market, China's offshore bond market has also grown rapidly in recent years, with annual issuance increasing from USD149 billion in 2015 to USD318 billion in 2020. Chinese corporations tap the international bond market to finance their international operations and establish themselves as familiar names in the market. While some of the Chinese offshore bonds carry globally comparable credit ratings, many of the bonds are issued without global scale ratings (see Exhibit 3a and Exhibit 3b). This is partly because the unrated bonds were primarily bought by offshore subsidiaries of Chinese banks and investment companies, which are more familiar with these Chinese issuers. However, in recent years, international investors have increased their participation in the Chinese offshore market in order to seek higher returns and diversify their portfolios. As is the case with the onshore bond market, a lack of globally comparable credit ratings creates a barrier for many international investors who rely on global scale ratings to guide their investment and risk management decisions.

Exhibit 3a: Distribution of Global and Domestic Ratings for Chinese Offshore Issuers



Sources: DMI, Pengyuan International

Exhibit 3b: Breakdown of Unrated Companies



Sources: DMI, Pengyuan International

This report aims to shed light on the characteristics and credit profile of Chinese corporate issuers under a globally comparable framework by adopting Pengyuan International's analytical approaches. Corporates' indicative credit estimates are derived based on a global rating scale, which are comparable to those assigned by other international credit rating agencies. We apply our credit analysis framework, in particular, to a universe of Chinese corporate issuers that have issued bonds in the offshore market, given their increased data transparency and the fact that some of them have received ratings from international rating agencies.

Between September 1993 and January 2021[2], the total number of China's offshore bond issuance reached 2,863, excluding those issued by governments and financial institutions. There were 703 individual issuers, of which 30 of them reported defaults[3]. This report focuses on the aforementioned 534 issuers, representing about 84% of the issued principal amount[4]. The remaining issuers mostly consist of entities that have insufficient publicly available financials, with data available for periods of two years or less.

The 534 corporates can be categorised into three different issuer types: General Corporates, Local Government Financial Vehicle[5] (LGFV) and Government Related Entity[6] (GRE). In order to provide more information, we further break down general corporates into different industries for better understanding of the underlying attributes. In our opinion, LGFVs and GREs have their unique characteristics and should be categorised separately when analysing their bond issues.

Characteristics of the China's Foreign Currency-Denominated Bond Market

Gradual recovery of offshore corporate bond issuance since pandemic

The issuance of China's foreign currency-denominated corporate bonds has overall decreased in 2020, as shown in Exhibit 4. The issuance market maintained its strong trend from the precedent months, but fell precipitously following the exponential rise in the number of the COVID-19 cases. As the pandemic spread across the globe over the next few months, market risk appetite decreased, which triggered liquidity squeeze in the global market. The global liquidity predicament depressed the Chinese offshore bond issuance market. Since June 2020, as the epidemic in China had been effectively contained and global liquidity had improved noticeably, the issuance and demand for Chinese offshore bonds had increased significantly.

2 Based on Dealing Matrix International database

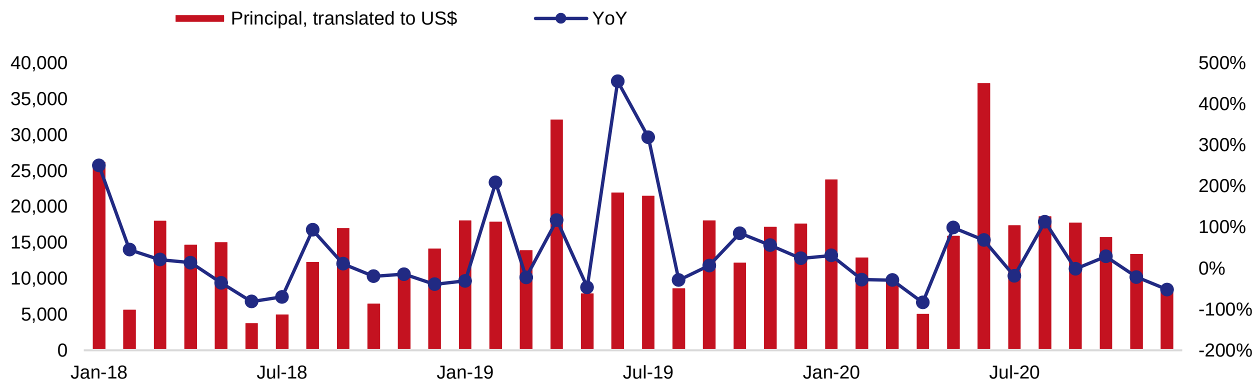
3 Based on Bloomberg Definition

4 Translated using exchange rates: HKD/USD=0.128736, EUR/USD=1.18763, CNY/USD=0.153334, GBP/USD=1.395644, SGD/USD=0.742429

5 LGFVs refer to corporates that are mainly engaged in infrastructure construction, land development, utilities or other public services on behalf of local governments.

6 GREs refer to entities that are controlled by a government and provide goods and services to general consumers. The term "government" refers to sovereigns and all sub-sovereign governments.

Exhibit 4: Monthly Issued Principal (in millions)



Sources: DMI, Pengyuan International

A total of 2,123 foreign currency denominated corporate bonds had been issued since 2015. The terms (Exhibit 5), features (Exhibit 6) and seniority structures (Exhibit 7) of these bonds were illustrated below. The vast majority of issued bonds are medium-term (2-5 years) to short-term (0-1 years) bonds, either standard or embedded with a callable option, and senior unsecured bonds.

Exhibit 5: Bond Term, issued since 2015

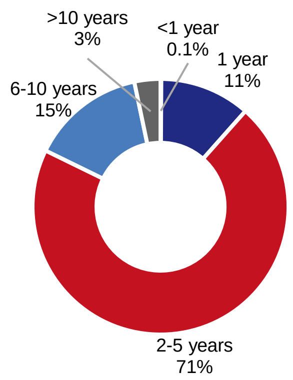


Exhibit 6: Bond Features, issued since 2015

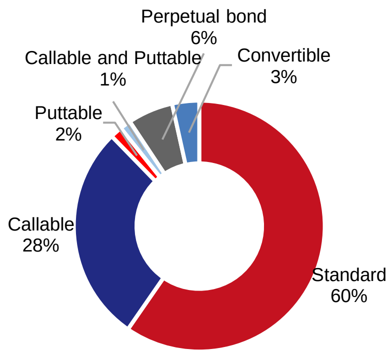
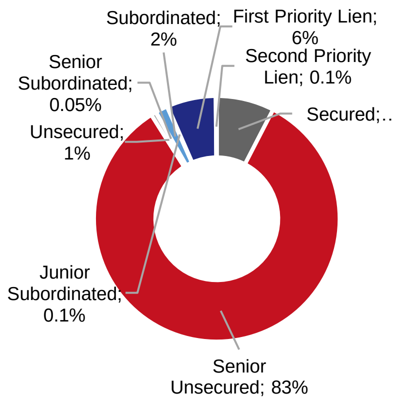


Exhibit 7: Bond Seniority, issued since 2015



Sources: DMI, Pengyuan International

Issuers are highly concentrated on LGFVs, GREs and real estate sectors

As illustrated in Exhibit 8a, LGFVs and GREs account for a significant portion of the universe (61%). The remaining is made up of regular corporations, nearly half of which are real estate. This means that non-real estate general corporates comprise only 20% of the universe. The chart resonates with the China's onshore corporate bond issuers, in which LGFVs account for around 40%, but the onshore corporate bond issuers is more diversified in terms of industries.

Exhibit 8a and Exhibit 8b respectively illustrate the sector breakdown of the total issuer number and the aggregate asset, we see that despite LGFVs possessing a larger number of issuers, they are typically smaller in size. The case of GREs is, however, an opposite. LGFVs typically operate within a provincial, municipal or district level, constrained by their associated government's political reach, and have limited capability on expanding their business scope: as briefly described before, LGFVs provide public goods and services on behalf of the local government. Whereas GREs, like general corporates, do not have such restriction and provide their products and services to a broader demographic. However, compared to general corporates, GREs benefit from the backup of an associated government. As a result, GREs, especially those backed by a strong government, are usually enormous in size and have strong creditability.

Exhibit 8a: Issuer Number Breakdown by Issuer Type

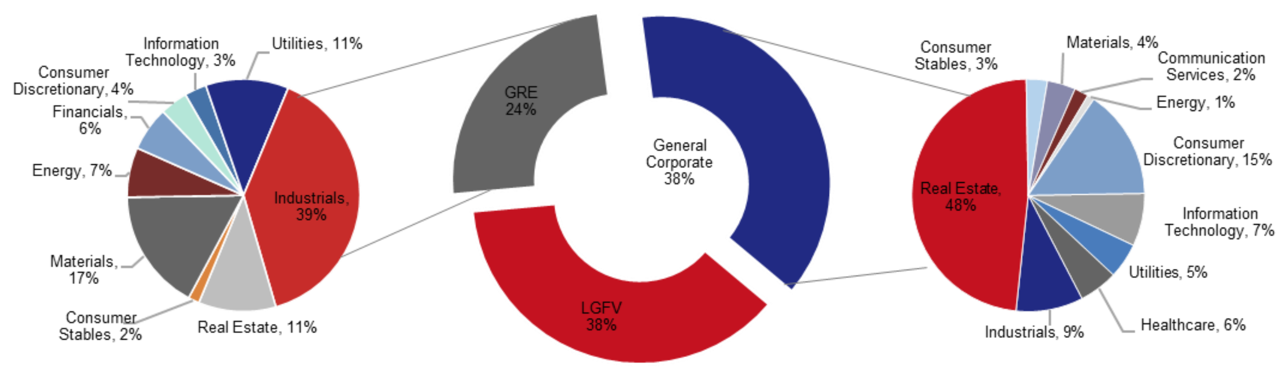
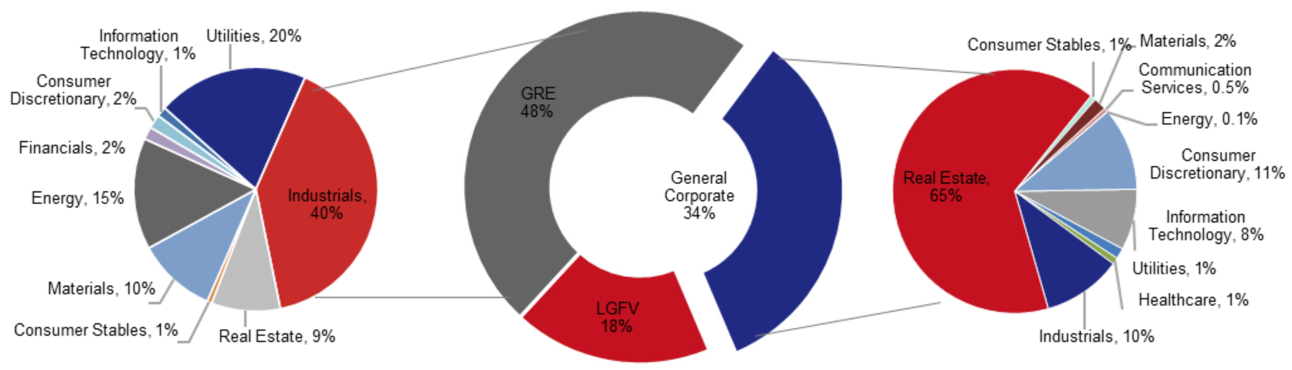


Exhibit 8b: Aggregate Asset Breakdown by Issuer Type



Sources: DMI, Pengyuan International

A rise of default cases since 2018

Due to the slowing domestic economic growth and de-leveraging financing environment in the mainland China, both the total defaulted amount and the number of defaulted issuers had increased since 2018. The pandemic shock in 2020 had created an immense disruption to some financial and liquidity systems, which led to a significant increase in Chinese offshore bond defaults in 2020. The total number of defaulted bonds in 2020[7]/total number of tradable bonds at the end of 2020 increased to 1.9%, with the associated principal amount accounting for 1.2% of the total outstanding amount in 2020. The majority of defaulted issuers are general corporates with less external support, accounting for 59% of the defaulted issuers, but we have seen an increase in the number of GREs that have reported defaults in recent years. A total of 30 bonds or 17 issuers reported defaults in 2020, seven of which were state-owned enterprises (SOEs). Three of the seven SOEs were directly related to Founder Group. The industries of the defaulted companies are mostly related to real estate, and the energy sector such as oil and gas. Recent onshore credit events, such as the default cases of Yongcheng Coal & Electricity Group and Brilliance Auto Group, depressed sentiment in the offshore bond market, leading to higher financing costs for bond issuance and a higher yield to maturity in trading market.

[7] Based on Bloomberg's definition

Exhibit 9: Annualised Number of Defaulted Offshore Issuers

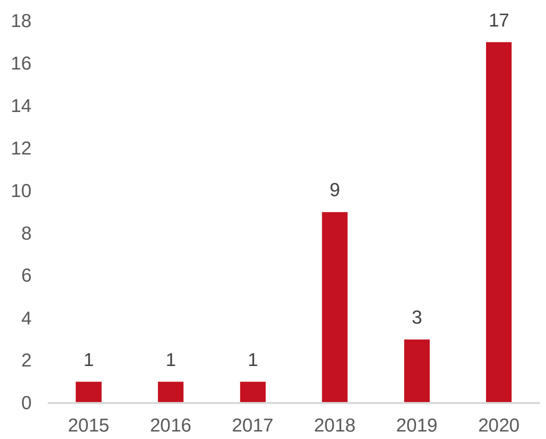
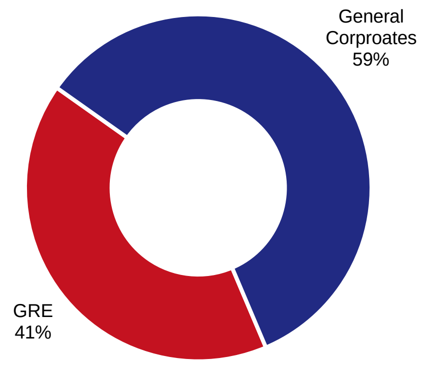


Exhibit 10: Breakdown of Defaulted Issuers



Source: Pengyuan International

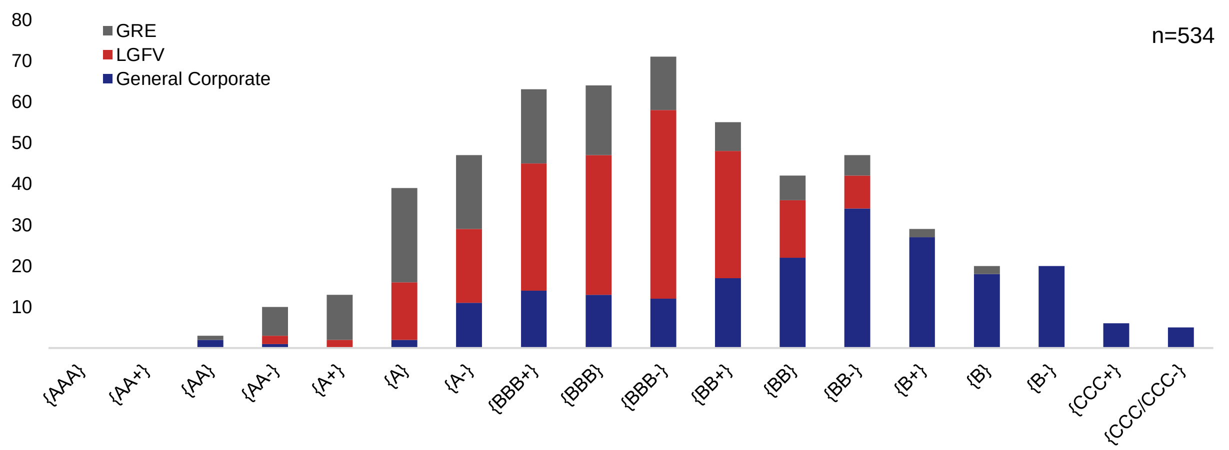
Credit Overview and Indicative Credit Estimate Distribution

We use public information to assess the creditworthiness of the 534 corporates that have issued bonds in China's offshore bond market. The analysis generates an indicative credit estimate[8] for each corporate, denoted by a rating letter enclosed in curly brackets (for instance, {AA}).

Indicative credit estimate distribution under global rating scale

The distribution of the indicative credit estimates for the 534 corporates assessed by Pengyuan International is shown in Exhibit 11. The majority of the assessed issuers fall somewhere between investment grade and high-yield grade. The distribution is slightly positively skewed, with the lower tail consisting primarily of general corporates and the upper tail consisting primarily of GREs and LGFVs. The median of the distribution is "{BBB-}".

Exhibit 11: Indicative Credit Estimate Distribution by Issuer Type



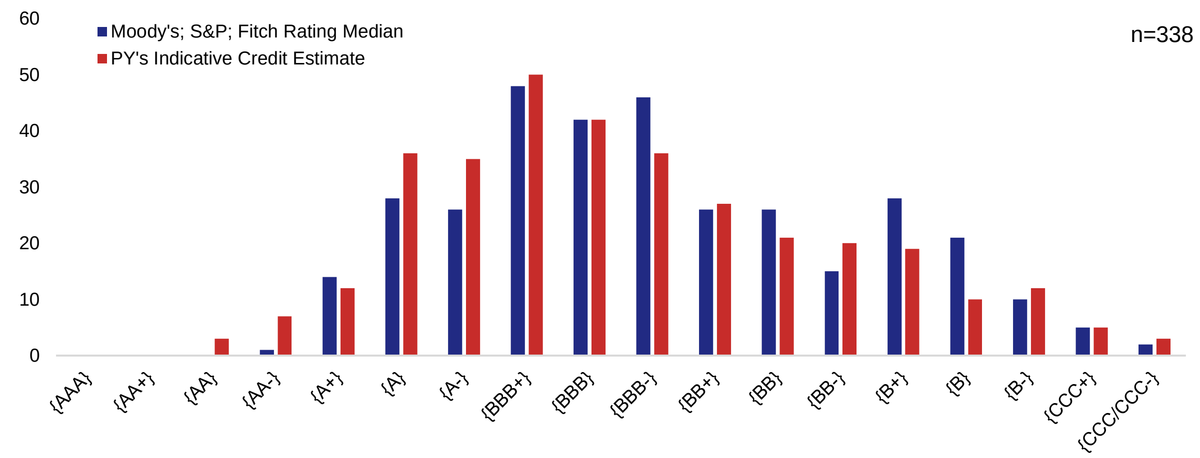
Source: Pengyuan International

The distribution of 338 issuers' ratings assigned by either S&P, Moody's or Fitch is shown in Exhibit 12, along with Pengyuan International's indicative credit estimate distribution. These 338 issuer ratings encompass all available ratings for 534 issuers from other international rating agencies. Pengyuan International's indicative credit estimate distribution is highly comparable

[8] indicative credit estimate expressed in this report are Pengyuan International's view of credit quality derived from desktop analysis based on public information

to that of other international rating agencies, but is significantly different from that of China's domestic rating agencies, where the vast majority of the ratings are AAA, AA+ or AA.

Exhibit 12: Comparison of Pengyuan's Distribution of Indicative Credit Estimates versus S&P, Moody's and Fitch



Sources: S&P, Moody's, Fitch, Pengyuan International

Pengyuan International's Globally Comparable Analytical Framework

Pengyuan International adopts a principles-based approach to assign and monitor ratings globally, which applies to all types of ratings in all markets, and aims to achieve the maximum consistency and comparability for all ratings across sectors, regions and over time. For each rating symbol and level, Pengyuan International's ratings imply the same level of creditworthiness for issuers and issues across sectors, regions and time periods, allowing users to compare corporations from different regions.

Pengyuan International has developed an "External Support Assessment" framework to evaluate the willingness and capacity of an associated government or parent to provide extraordinary support. In short, we examine factors, such as 1) ownership held from the parent, 2) parent's involvement via board and management, 3) company's business connections with the parent, 4) support received in the past, 5) developments and expectations on future changes on factors previously mentioned, 6) products and services that the company provides, 7) replicability of the company, 8) contribution to the parent, 9) company's status within the political, social and legal systems and 10) financial and social impacts to the local economy in the event of default. We have guidelines listing the details and criteria on how we assess the factors above. For more information on our approach on assessing external support, please refer to "Government-Related Entities Rating Criteria" and Appendix 1 for a graphical explanation.

LGFVs and GREs have high reliance on government support

Exhibit 12a and Exhibit 12b respectively show LGFVs and GREs issuers' indicative credit estimate distribution and standalone credit profile (SACP) distribution. SACP takes into account an issuer's country risk, industry risk, business profile, leverage level, profitability and liquidity, and disregards the potential external support. Based on our analysis, the SACP of GREs and LGFVs are largely different from their indicative credit estimates. These companies, especially LGFVs, are mostly very weak on a stand-alone basis and derive the majority of their credit strength from external supports. It is important to note that the company's connection with government and the financial support from the government can change over time, while ownership and business connections can decrease. As a result, it would require regular monitor to gauge the likelihood and strength of the potential support. In the case that an LGFV drastically changes the products and services it provides, and the majority of the products and services are no longer related to the government, Pengyuan International may consider reclassifying the LGFV as a GRE, regardless of any changes in its ownership.

Exhibit 13a: LGFVs' Indicative Credit Estimate and SACP Distribution

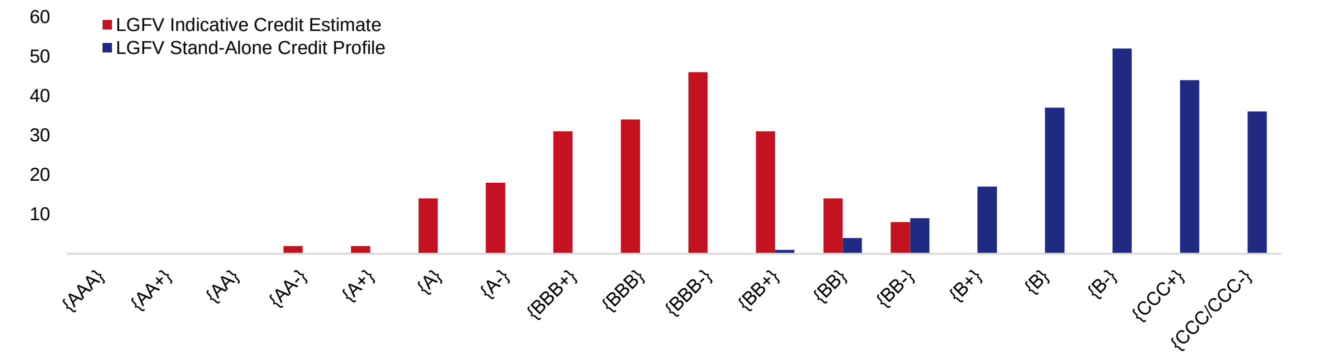
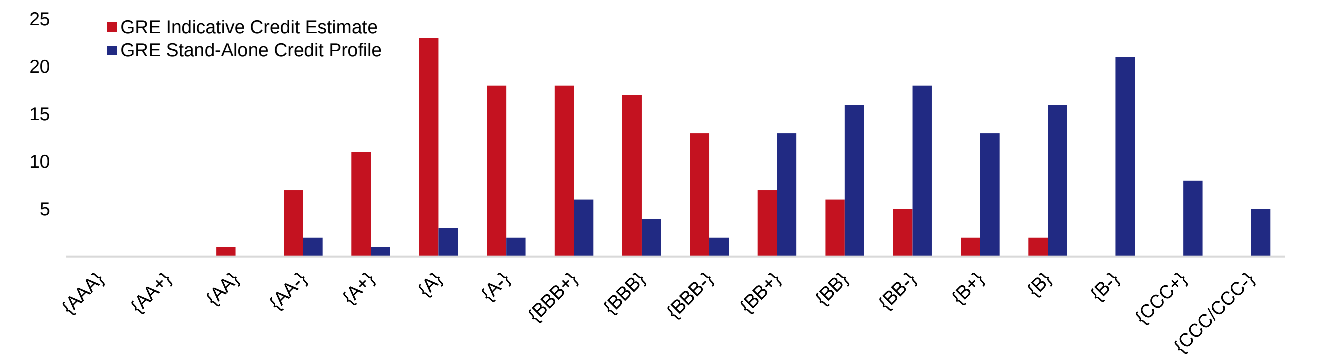


Exhibit 13b: GREs' Indicative Credit Estimate and SACP Distribution



Source: Pengyuan International

LGFVs' indicative credit estimates differ across administrative levels and geographic locations

LGFV issuers can be further classified according to their administrative levels and geographic locations. In our samples, the majority of LGFV issuers are at the prefecture level, accounting for 55% of total LGFVs. On average, provincial-level LGFVs have higher indicative credit estimates than prefecture-level LGFVs, and similarly, prefecture-level LGFVs have higher indicative credit estimates than county-level LGFVs. Generally, governments with higher administrative levels tend to have more authority and capacity to make major policy decisions and allocate resources effectively to support their local economic growth and balance their fiscal position. Hence, governments with higher administrative levels have stronger credit profiles, and hence greater capacities to support their LGFVs.

Exhibit 14: LGFVs' Indicative Credit Estimate Distribution by Level and Region

Indicative Credit Estimate	**LGFV** Province	**LGFV** Prefecture	**LGFV** County	**LGFV** Eastern	**LGFV** Central	**LGFV** Western	**LGFV** Northeast
{AAA}							
{AA+}							
{AA}							
{AA-}	1	1		2			
{A+}	1	1		2			
{A}	$\boxed{10}$	3	1	5	5	4	
{A-}	4	12	2	6	3	9	
{BBB+}	2	22	7	13	10	7	1
{BBB}	2	$\boxed{18}$	14	21	$\boxed{3}$	9	1
{BBB-}	1	26	$\boxed{19}$	$\boxed{21}$	10	$\boxed{15}$	
{BB+}	1	15	14	16	3	12	
{BB}		8	6	10	1	2	1
{BB-}		5	4	4	3	1	
{B+}							
{B}							
{B-}							
{CCC+}							
{CCC/CCC-}							
Total	**22**	**111**	**67**	**100**	**38**	**59**	**3**

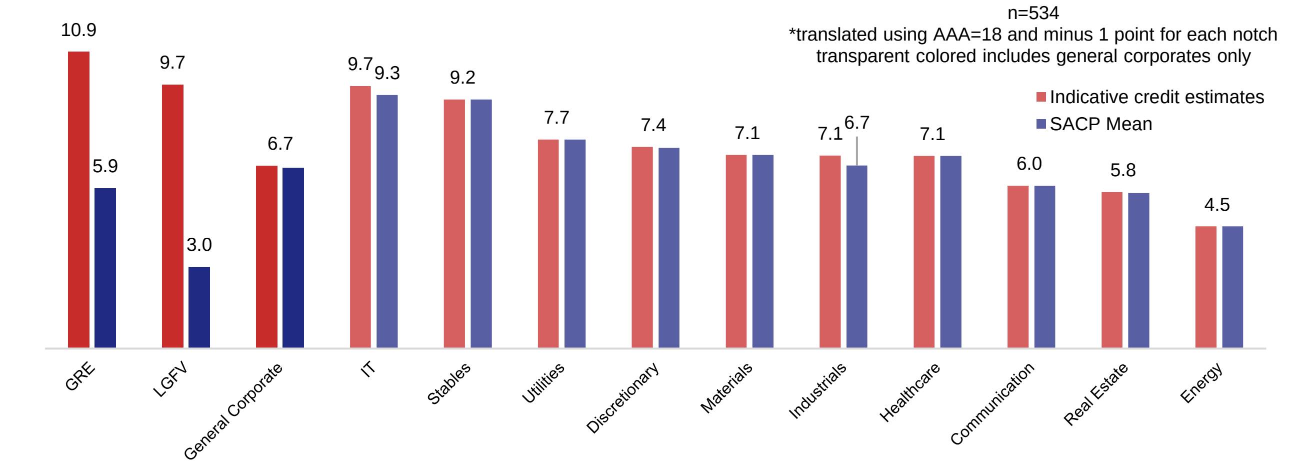
Note: Number in boxes represents medium of the samples
Source: Pengyuan International

Despite the fact that the western region's economy is weaker than those in the eastern and the central region, the LGFVs from the western region do not necessarily have lower indicative credit estimates. This is because the bonds issued by these LGFVs are from the wealthier regions, such as Chengdu, Chongqing, Xian, Kunming and Yunan. These cities are the engines of the western region's development, and have issued a greater proportion of foreign currency-denominated bonds than other LGFVs.

Summary of indicative credit estimates and Standalone Credit Profile

Exhibit 15 summarises the indicative credit estimate and SACP average for each sector. The finding is consistent with those in Exhibit 13a and Exhibit 13b, indicating that the difference between SACP and indicative credit estimate for LGFVs and GREs is significant. For general corporates, the difference between SACP and indicative credit estimate is much smaller, and only a few companies receive meaningful and accountable support from their parents. Taking everything into consideration, general corporates, on average have much lower credit quality than LGFVs and GREs, with an average score of 6.7, which is equivalent to "BB". The median indicative credit estimate is "BB-", three notches lower than the overall average. The lower average indicative credit estimates for the general corporates are primary because most of the issuers are real estate companies which in general have low indicative credit estimates. The relatively low indicative credit estimate is because most real estate companies have high leverage, limited business diversification, and are generally smaller in size in terms of revenue. In addition, the new policy of "three red lines" has limited the financing of China's real estate developers. Considering the disruption of the pandemic has severely affected property construction, working capital management, and contract sales to some extent, the credit strength on real estate companies is especially weak, in our view.

Exhibit 15: Average of Indicative Credit Estimates and SACP by Industry



Source: Pengyuan International

Exhibit 16: General Corporates' Indicative Credit Estimate Distribution by Industry

Indicative Credit Estimate	Information Technology	Utilities	Healthcare	Industrials	Real Estate	Consumer Staples	Materials	Communication Services	Energy	Consumer Discretionary	Total
{AAA}											
{AA+}											
{AA}	1									1	2
{AA-}	1										1
{A+}											
{A}	1									1	2
{A-}	1	2		3	2	1	1			1	11
{BBB+}	2	1		2	4	1	1			3	14
{BBB}	1	1	2		3	2		1		3	13
{BBB-}	$\boxed{2}$		3	1	4					2	12
{BB+}	1	2		2	8		2			2	17
{BB}	3				13	1	1			$\boxed{4}$	22
{BB-}	1		$\boxed{2}$	$\boxed{6}$	$\boxed{19}$		1	1		4	$\boxed{34}$
{B+}		2	3		13	1		1	1	6	27
{B}	1		1	1	12		1		1	1	18
{B-}		2		4	12			1		1	20
{CCC+}					5					1	6
{CCC/CCC-}					3		1			1	5
Total	**15**	**10**	**11**	**19**	**98**	**6**	**8**	**4**	**2**	**31**	**204**

Note: Number in boxes represents median of industry indicative credit estimates with more than 10 corporates

Source: Pengyuan International

There is only a handful of general corporate issuers whose indicative credit estimates score higher than or equal to "{A}", and only about 25% of corporates have investment grade indicative credit estimates. Only information technology issuers have a median score above investment grade. In general, they have low leverage with strong cash generating ability, and most of the issuers are either mega-size corporates such as Lenovo, Baidu, Tencent, SINA or those supported by these mega-size corporates. Hence, the credit quality in this sector is generally high.

Business and Financial Profile Analysis by Industry

Exhibit 17 and Exhibit 18 respectively show the business profile and financial profile distribution of the samples conducted by Pengyuan International. The business profiles were evaluated on a seven-point scale ranging from "vulnerable" to "very strong", while the financial profiles were evaluated on an eighteen-point scale ranging from "highly leveraged" to "minimal". Based on our findings, the business profile of these samples is generally weak, with about 58% issuers falling below "moderate" business profile category, and that the majority of these companies have high leverage level, with approximately 48% being "highly leveraged".

Exhibit 17: Business Profile Score Distribution

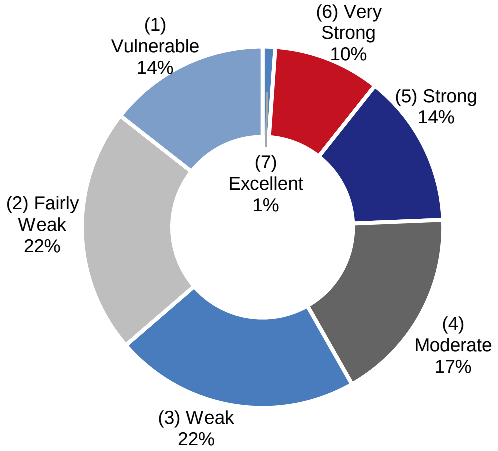
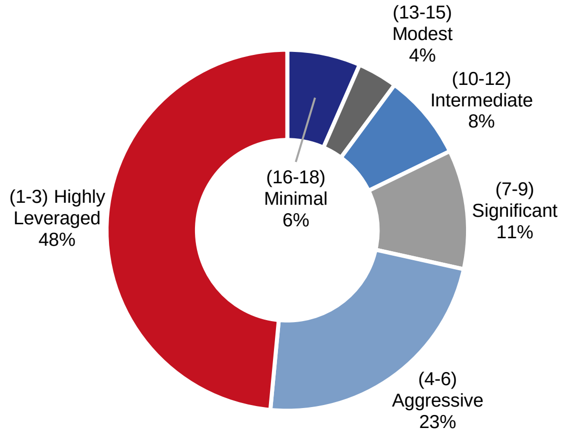


Exhibit 18: Financial Profile Score Distribution



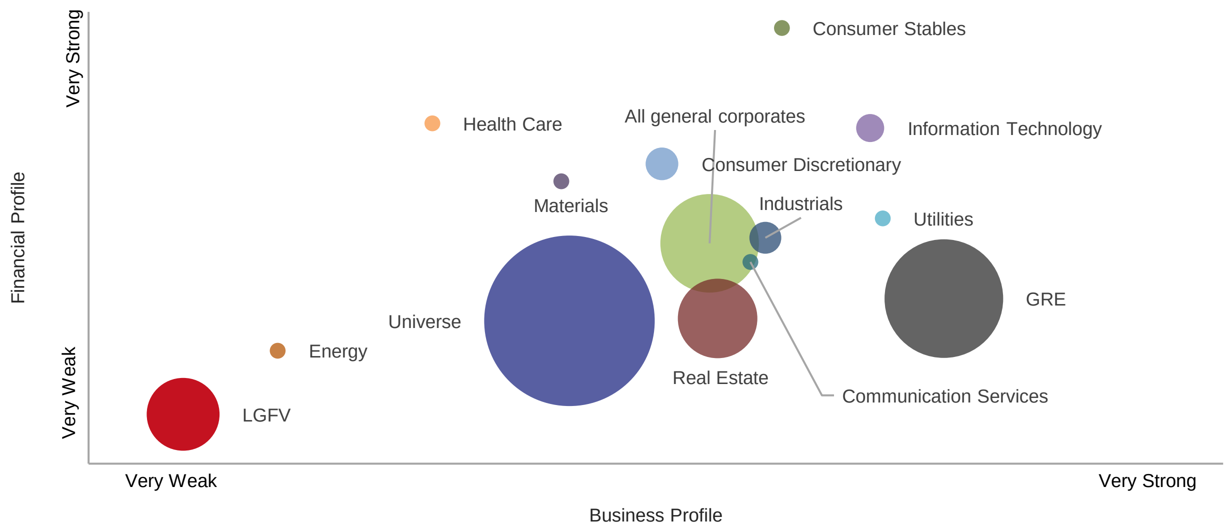
Source: Pengyuan International

Pengyuan International evaluates a company's business strength through a combination of qualitative and quantitative factors that are backed up by credit research. Our business profile assessment takes into consideration a business's macro-environmental risk (including political and legal risk, economic strength, financial system risk), industry risk (including industry concentration, entry barrier, growth perspective, profitability level and trend, substitution risk and cyclicality risk), and then analyses the company's idiosyncratic business risk mainly based on five factors: 1) Operating Scale, 2) Products, Services and Technology, 3) Brand Image and Market Share, 4) Operating Efficiency and 5) Business Diversity. Each of these five factors is graded according to research-backed guidelines detailed in our "*General Corporate Rating Criteria*". We combine the macro-environmental, industry and idiosyncratic risks with pre-set weightings to determine the final score of our business profile score.

Our financial profile assessment is a quantitative evaluation of a company's cashflow-based leverage, financial volatility, debt structure, financial policy and profitability. In order to address the differences in accounting standards, Pengyuan International classifies and adjusts the financial statements of various countries according to pre-defined rules, allowing investors to compare a company's credit on the same basis. In addition, in order to provide a wholly appropriate analysis, our approach and the financial adjustments that are used to assess a company's financial profile may vary across different industries, but the underlying logic is consistent. For real estate companies, for instance, we supplement our evaluation on a company's leverage profile with a set of industry specific ratios, such as net debt to adjusted inventory and contracted sales to gross debt.

As shown in Exhibit 19, it is primarily LGFVs that drag down the overall financial profile. The energy sector has the worst combined profile, as the majority of energy companies that have issued offshore bonds are exploration and production (E&P) related equipment manufacturers, which are highly volatile, cyclical and have the risk of falling off. Meanwhile, for healthcare companies, although most of them are not mega-sized corporations with strong business prospects, they generally have a strong niche and a track record of stable cash flow generation. GREs typically have very strong business profiles owing to the fact that they are backed by administrative policies and enjoy a sizable market share.

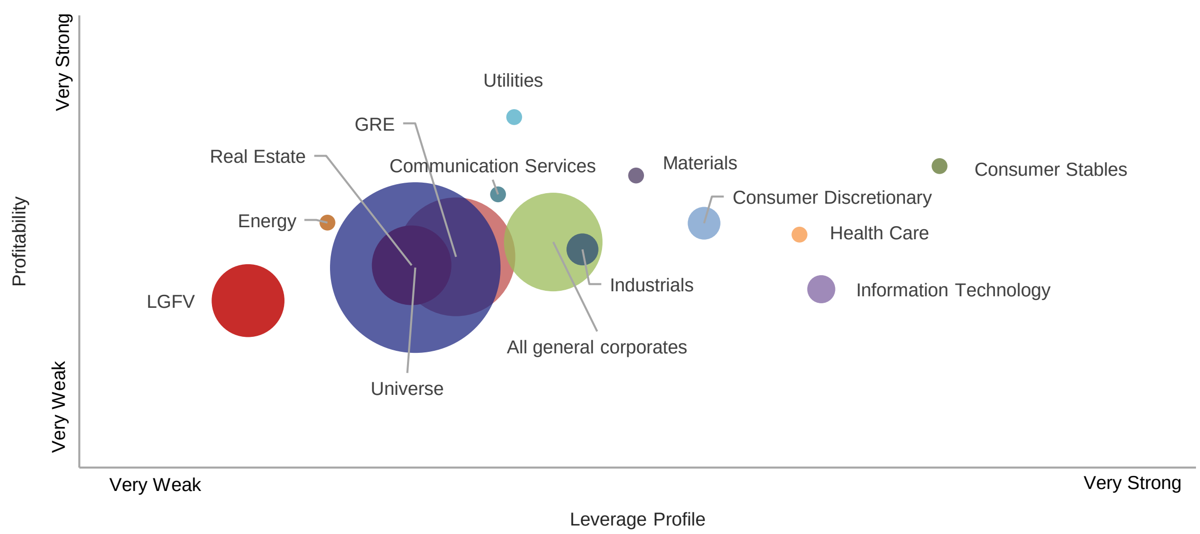
Exhibit 19: Profile Risks by Sector or Type



Note: Bubble size indicates the aggregate asset size of the industry
Source: Pengyuan International

Exhibit 20 summarises the leverage profile and profitability of industries. We assess a company's leverage and profitability strength using a pre-defined set of financial ratios that is industry-specific and includes forecasted and historical financials. The consistency and predictability of a company's financials will affect our assessment of the company's leverage and profitability strength. As expected, consumer staples have the best leverage profile because of their strong and stable cash generation ability and modest financial leverage, while LGFVs have some of the worst leverage profiles due to their weak cashflow generation and extremely high leverage. Notably, issuers of consumer discretionary and information technology businesses, have a net cash position on average. It is important to note that our profitability assessment compares a company's profitability against the industry's global standards. Among examples of an appropriate comparison, a car maker with "medium" profitability will have different ratios than an airline carrier with "medium" profitability.

Exhibit 20: Leverage profile and Profitability by Sector or Type



Note: Bubble size indicates the aggregate asset size of the industry
Source: Pengyuan International

Table 1 contains selected key financials of different sectors. Revenue, EBITDA, total assets and net debt data are presented in order to give readers a sense of the size of an average company within the sector, and certain ratios have been selected to highlight the sectors' profitability and leverage profile. Please note that Table 1 does not represent Pengyuan International's methodology on assessing a company's operating scale, leverage and profitability strength. Our analytical framework entails the examination of financial data spanning multiple time periods and taking into account a variety of qualitative factors.

As Table 1 indicates, GREs and information technology companies are, on average, significantly larger than the rest, while energy and healthcare companies are the smallest. Despite the fact that some sectors have a small number of issuers, the EBITDA margin still arguably lies within the global range. Numerous sectors, including information technology, healthcare, consumer staples, materials and consumer discretionary have significant cash holdings and short-term investments, and thus have a low net debt to EBITDA ratio, although some of which have a relatively high gross debt to capitalisation ratio.

Table 1: Key Financials based on latest FY information

Per Company	LGFV	GRE	General	IT	Utilities	Health-care	Industrial	Real Estate	Staples	Materials	Comm.	Energy	Discret.	Total
Revenue	11.9	206.1	61.2	147.7	15.8	12.0	60.7	50.9	54.8	47.1	19.4	4.0	98.7	78.0
EBITDA	1.4	23.1	10.1	21.3	3.8	2.7	10.7	10.3	7.2	7.5	6.6	0.8	10.8	10.0
Assets	106.2	433.1	190.5	209.7	54.9	30.8	214.3	258.4	47.5	80.9	53.3	10.6	137.8	218.0

Selected Ratios (Latest FY information)

EBITDA Margin	12.2%	11.2%	16.5%	14.4%	24.0%	22.1%	17.6%	20.2%	13.1%	16.0%	34.1%	19.1%	10.9%	12.9%
Net Debt/EBITDA	25.7x	3.2x	2.4x	-0.8x	3.7x	1.6x	2.9x	4.1x	0.3x	2.6x	3.7x	3.4x	-0.3x	4.1x
Gross Debt/Capita.	50.7%	44.5%	42.3%	27.5%	41.1%	33.7%	41.0%	47.6%	23.1%	44.4%	63.9%	46.2%	30.6%	45.2%

Source: Pengyuan International

Conclusion

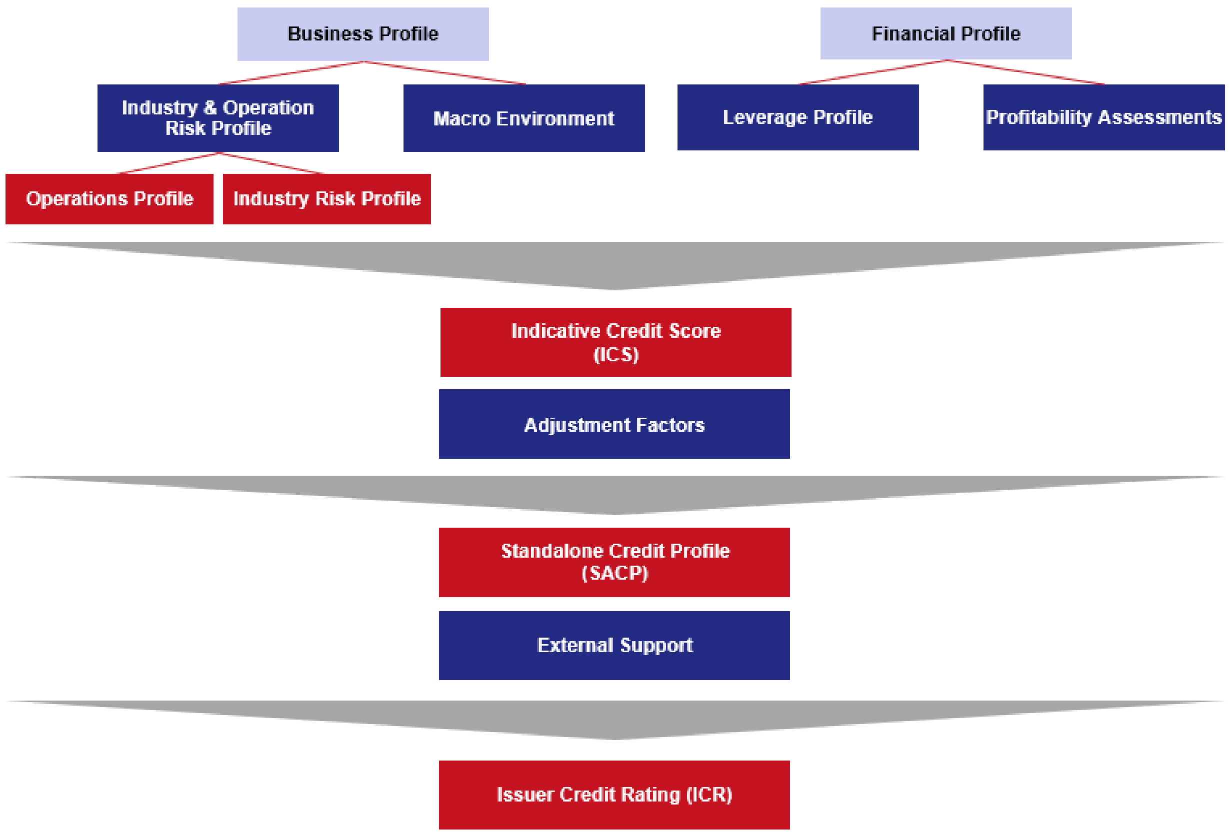
China's onshore and offshore bond markets have grown rapidly over the last decade. China has overtaken Japan as the world's second largest bond market, with a market capitalisation of over USD17.70 trillion[9]. The offshore Chinese bond market has also grown to become the largest in the international bond market across the Asia-Pacific region, with USD961 billion in outstanding bonds (excluding sovereign bonds), according to Bloomberg. Foreign participation in China's bond market, on the other hand, remains extremely limited. While foreign investors' access to China's onshore bond market has significantly improved, foreign investors continue to primarily hold sovereign and quasi-sovereign bonds. Among other things, the absence of globally comparable credit ratings creates a barrier for many international investors who rely on global scale ratings to guide their investment and risk management decisions.

Pengyuan International has adopted a global rating system in order to facilitate international investors' understanding of the Chinese bond markets and to make it easier for them to compare debt securities from different countries. Utilising a globally recognised rating system enables greater segregation of credit scores for distinct companies than China's domestic rating system, which appears to have limited credit differentiation. As demonstrated in this report, despite the fact that the offshore corporate bond market is relatively concentrated in LGFV, GRE, and real estate issuers, their credit quality varies, and categorizing the vast majority of issuers into three ratings is unjust.

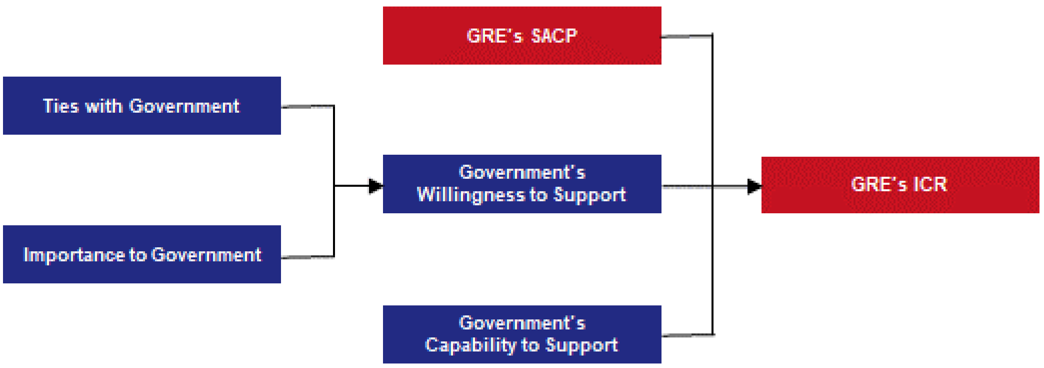
[9] Market capitalisation figure as of February 28, 2021 and was translated to US dollars using exchange rate CNY/USD= 0.153334. Source from China Central Depository & Clearing

Appendix

Appendix 1: Overall Framework of General Corporate Criteria



Appendix 2: Analytical Framework – Potential Extraordinary Support



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