This is an abridged version, the full version will be released later

Guiding Principles of Credit Rating

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Credit rating and the corresponding rating principles provide methods for market participants to understand the credit risks (i.e. debtors' repayment abilities) inherent in our economy. Rating methodologies to address different asset classes are then developed under such rating principles. The global financial crisis due to the failure of the Western rating principles and methodologies has caused a severe damage to the international credit rating system and revealed the deficiencies of such principles and methodologies. It is important for the market participants to re-examine the fundamentals governing the functioning of our credit economy and hence develop principles and methodologies reflecting such fundamentals. It is this background that leads to the emergence of Dagong Global Credit Rating Co. Ltd. (Dagong) Guiding Principles of Credit Rating, a new chapter in the credit rating history.

Ⅰ. Background to the Emergence of the *Guiding Principles of Credit Rating*

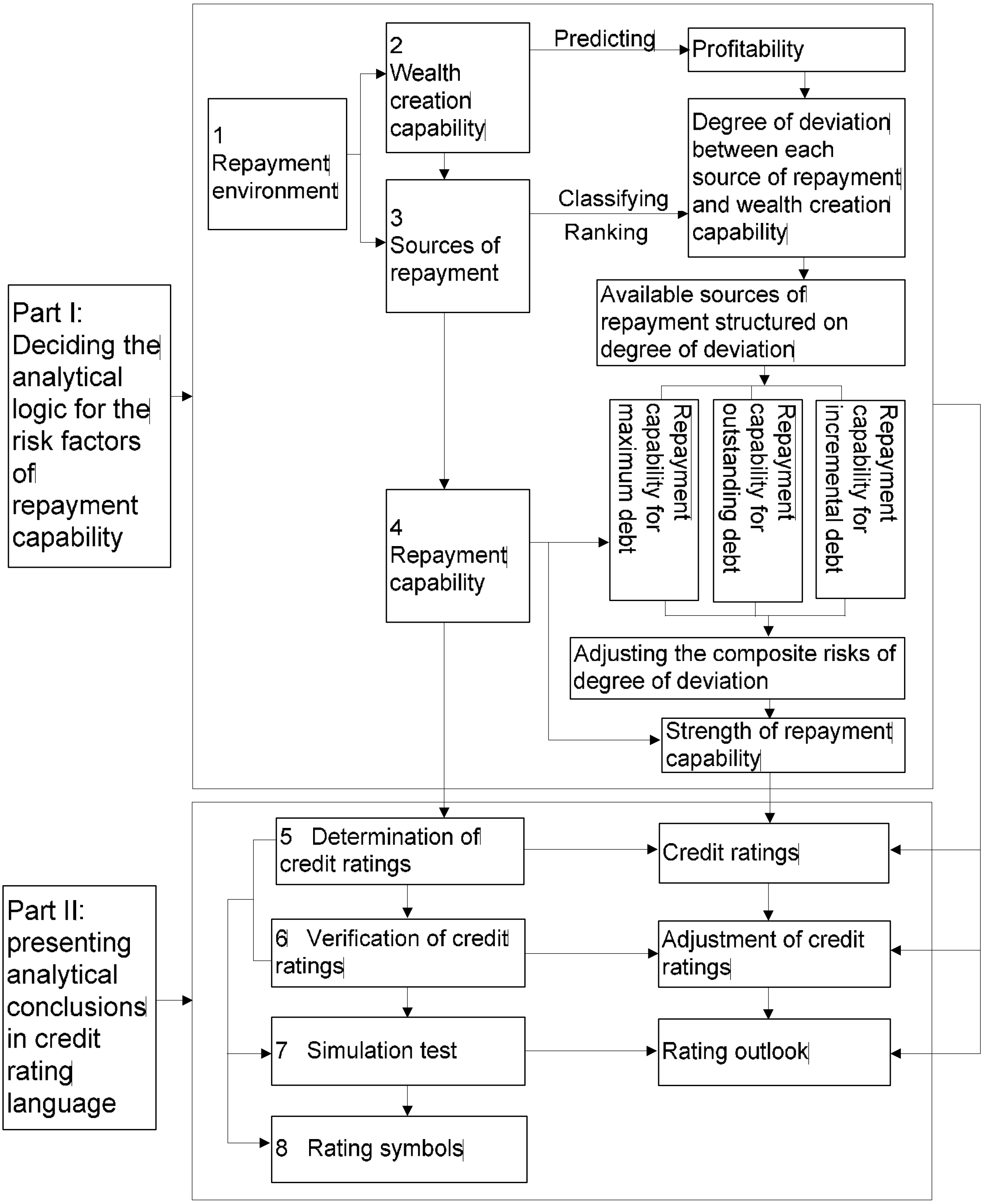
The Guiding Principles of Credit Rating came into being against the background of the unprecedented global credit crisis triggered by Western rating inadequacies.

Since Western rating principles are one of the root causes for the global credit crisis, new rating theories and methodologies are needed to guide credit rating for the smooth development of the global economy. Credit expansion required by the contradiction between production and consumption has directly created pervasive credit relationships, which is the economic base of a modern society, while credit rating affects the stability of socio-economic base. In the process, the theoretical basis that directs the rating philosophy plays a decisive role. The pervasion of credit relationships brings humans into the development phase of credit-based economy, which is characterized by pervasion of credit risks. Discovering and revealing of such rules finally crystallize as credit rating theories. Only the rating methodologies based on such theoretical basis can precisely reveal credit risks and ensure the reliability of the rating information. The global credit crisis is the best verification of Western rating philosophy that has triggered the turbulence of the international credit system through incorrect ratings, and signals the end of this rating philosophy. Researches on Western rating philosophy show that the dominant Western rating philosophy, being highly ideological, is short of support of rating theories and fails to represent the essential requirements to reveal the inherent links among credit risk factors; actually some isolated and irrelevant indicators are employed to measure credit risks. The fundamental problem with Western rating philosophy is that it lacks of a rating theory that reflects the formation of credit risks; consequently, its methodologies cannot correctly identify and interpret credit risks, the rating information provided by Western rating system is inevitably flawed, and the credit relationships based on this will ultimately result in further crises. Rating theory – rating methodology – rating information – credit relationships constitute the inherent logic of development for the economic base in a credit-based economic society. Rating theory is fundamental for the sound economic and social development. After the baptism of crisis, a new rating theory and methodology are eagerly anticipated and expected.

Committed to the mission of exploring the rules governing the credit-based economy and credit rating, Dagong has become the historical undertaker to develop a new rating theory and philosophy. Internationalization of a national brand, a path taken by Dagong as its international development strategy, will guide Dagong to develop itself into a world-wide influential credit rating agency by contributing to the world the Chinese wisdom in the credit rating sector. Therefore, Dagong is strongly motivated to innovate a rating theory, building a competitive edge in rating philosophy and making it widely recognized by the international community. Twenty years of rating practice and research achievements of Dagong has laid a solid foundation for developing a rating theory and philosophy, enabling Dagong to be the designer of the rating theory and philosophy for a new historical chapter. After the global credit crisis, it is the broad approval of Dagong’s rating values by the international community that has pushed Dagong onto the international rating arena. Dagong’s international influence provides advantages for the recognition and application of the new rating theory and philosophy. History has singled Dagong out as the creator of the new rating theory and philosophy.

Ⅴ. Guiding Principles of Credit Rating

The Guiding Principles of Credit Rating are shown in the following diagram:

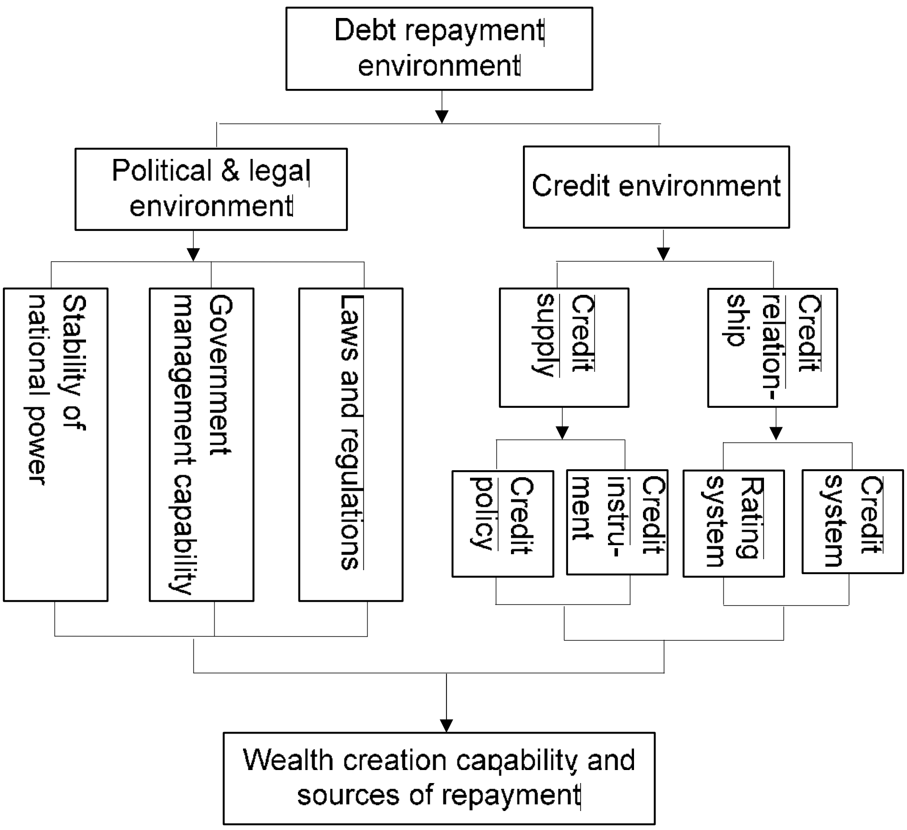


1． Debt repayment environment

Debt repayment environment refers to the macro institutional environment that imposes on debtors and impacts debtors' repayment capability within a nation. This includes, for instance, a nation's political stability, legal system, credit culture etc. This is the first rating factor to consider as each debtor conducts its economic activities under a nation's institutional environment and is part of a nation's political and economic systems. Therefore, the institutional environment's influence on a debtor's repayment capability cannot be avoided. Such analysis of the influence of a nation's system on a debtor's repayment capability links institutional credit risk factors (macro) to a debtor (micro).

The role of a debt repayment environment in rating is to analyze the impact of a nation's superstructure and economic base on a debtor's wealth creation capability and sources of repayment.

The principle of debt repayment environment is shown in the following diagram:



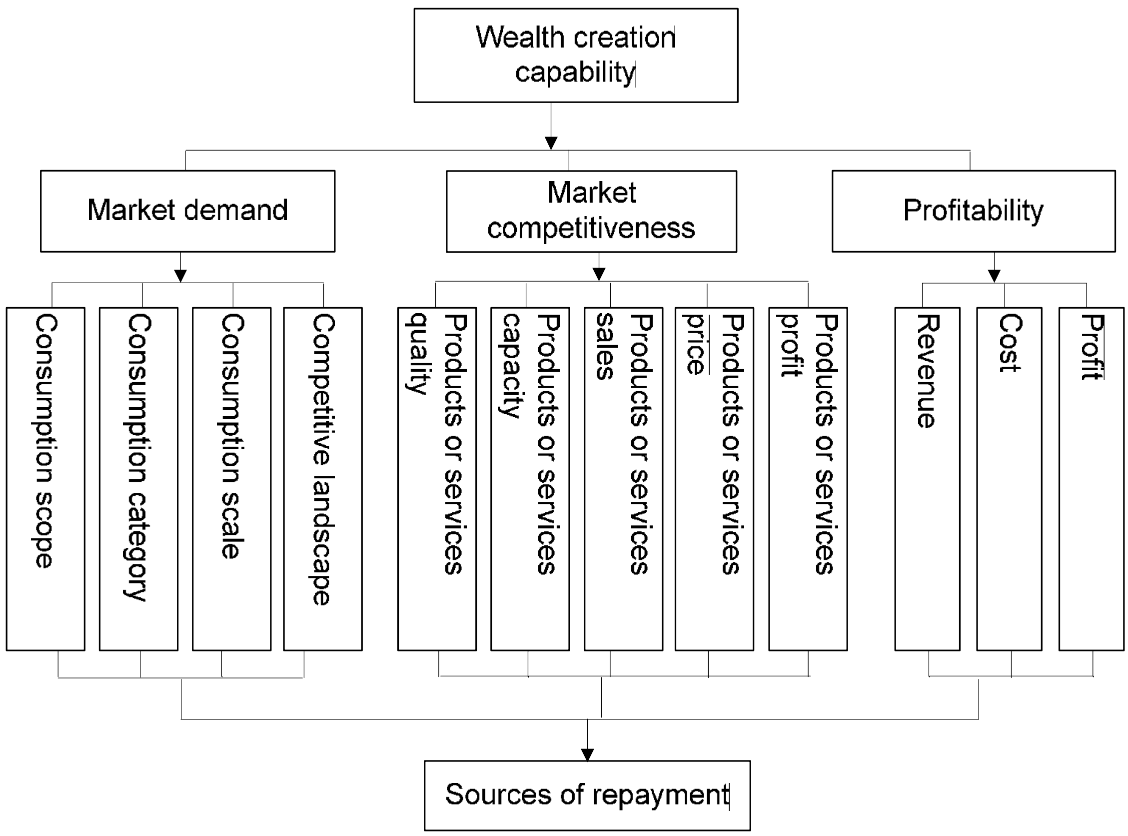
Political, legal and credit environments are the key analytical elements for the debt repayment environment.

2. Wealth creation capability

Wealth creation capability is a key rating driver. Profitability, which is closely related to wealth creation, is the source for debt repayment by any debtor and hence the basis for any creditors' lending decisions. Firstly, creditors will not lend to any debtors (and hence form a credit relationship with the debtors) unless the creditors are confident that the debtors could turn the borrowed capital into debtors' higher profitability. Secondly, if the debtors cannot efficiently utilize the borrowed capital, or even does not have sufficient cashflow to pay the debt interest, such debtors with poor profitability cannot generate sufficient cashflow to meet their debt obligations and hence have to rely on borrowing new debt to repay the existing debt. Thirdly, wealth creation capability as the key criteria for assessing the solvency of any debtor can truly reveal the credit risks, and it is crucial in determining the credit risks in the four scenarios of a debtor's 1) ability (which could be measured by e.g. the debtor's free cash flow or earnings between interest, tax, depreciation and amortization (EBITDA)) to fully pay debt interest and (assumed) amortized principal, 2) ability to partially pay assumed amortized debt interest and principal, 3) ability to pay debt interest only and 4) inability to pay even debt interest.

The role of wealth creation capability in rating is to predict a debtors' profitability to facilitate the analysis of its sources of repayment.

The principle of a debtor's wealth creation capability is shown in the following diagram:



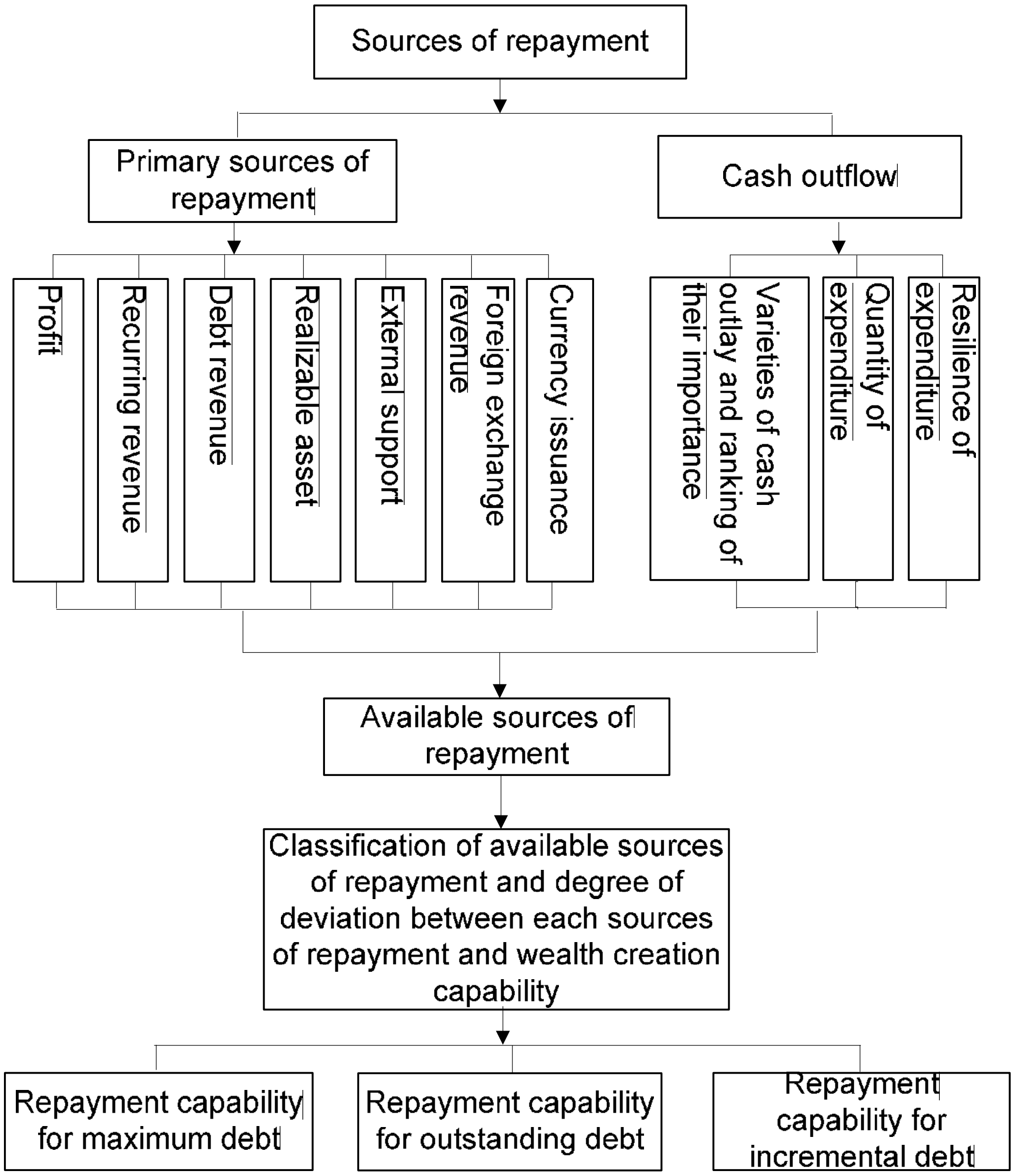
Market demand, market competitiveness and profitability are the major elements for analyzing a debtor's wealth creation capability.

3. Repayment Source

Repayment source is a determining rating factor because the status of a debtor's repayment sources determines its repayment capability. In reality there are diversified repayment sources with different risk levels (e.g. recurring revenue vs sale of unpledged assets), and hence different support for debt repayments. Differentiating the risks between various repayment sources is crucial in order to form a view of how secure a debtor's repayment capability can be. Each repayment source can only support a definite amount of debt, and new repayment sources have to be identified once the current repayment sources are fully utilized in order to continue the debt growth. Such approach in identifying and utilizing new repayment sources to repay the current debt deviates from a debtor's focus on profitability, the fundamental source of debt repayment. When more repayment sources have to be utilized, the reliability of such new repayment sources could be diminished and hence create a gap between the repayment sources and wealth creation capability. The degree of deviation means the gap between each repayment source and wealth creation capability. It reflects the extent to which a repayment source can secure the repayment of debts. The degree of deviation between a repayment source and wealth creation capability can distinguish the risk level of every repayment source, facilitating the assessment of the repayment capability (see the below section) in a scientific manner. The theory of degree of deviation is a remarkable tool in discovering the inherent relationship among a debtor's wealth creation capability, repayment source, and repayment capability.

The role of repayment source in rating is to estimate the total amount of cash that is available for repaying debts and the degree of deviation between each repayment source and a debtor's wealth creation capability, thus facilitating the assessment of its repayment capability.

The principle of repayment source is shown in the following diagram:



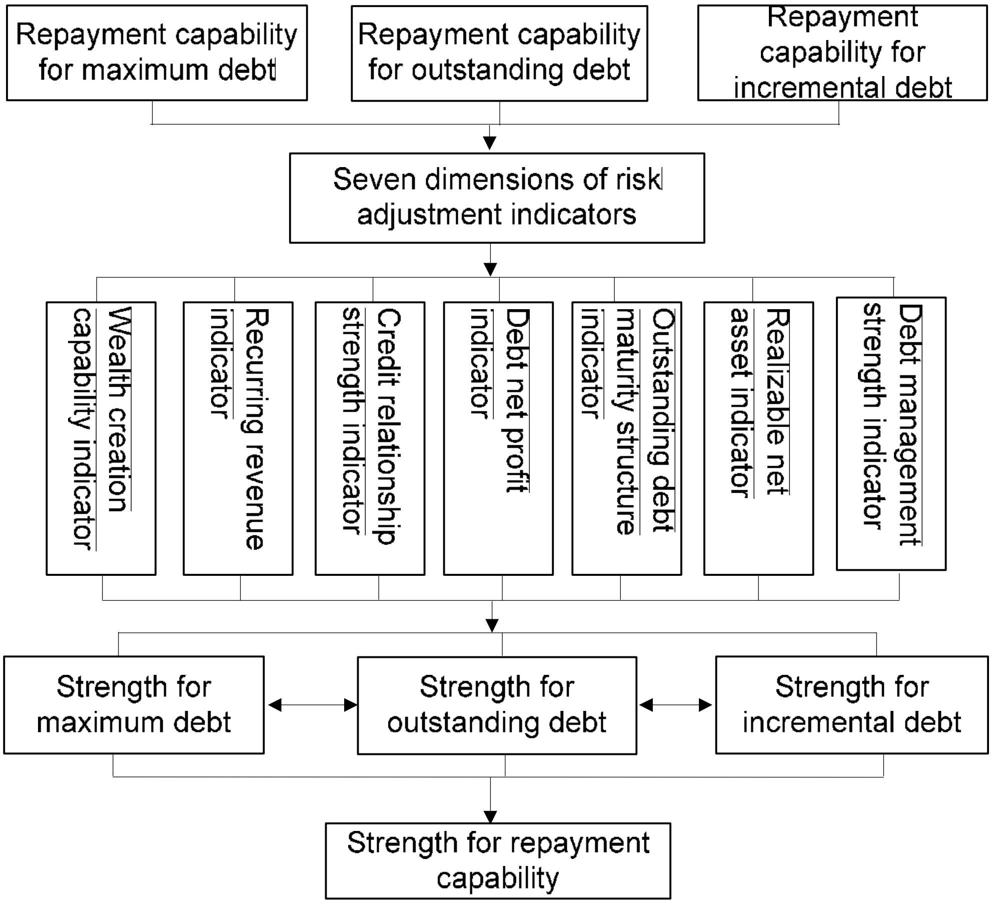
The key elements in analyzing repayment sources include primary repayment sources, cash outflow, and available repayment sources.

4. Repayment capability

Repayment capability is a key rating factor because creditors will base their lending decisions on debtors' repayment capability, which lays the foundation for the credit relationship between creditors and debtors. Creditors are most concerned about debtors' repayment capabilities for (a) the maximum debt that the debtor can borrow (maximum debt), (b) the debtor's current outstanding debt (outstanding debt), and (c) the incremental debt that the debtor can borrow (i.e. the difference between a and b, or incremental debt). Answers to these debtors' repayment capabilities will determine whether any credit relationship can be established, and also whether such relationship is stable. Repayment capability, through the risk adjustment of the degree of deviation of the available repayment source, aims to define the degree of protection that available repayment source can provide to serving a particular debt in a given period of time.

The role of repayment capability in rating is to risk adjust the degree of deviation of the available repayment sources of maximum debt, outstanding debt and incremental debt, facilitating the assignment of credit ratings.

The principle of repayment capability is shown in the following diagram:



The main elements in analyzing repayment capability include repayment capabilities of maximum debt, outstanding debt, and incremental debt respectively.

5. Determination of credit ratings

Credit rating involves transforming a debtor's three repayment capabilities into a comprehensive repayment ability which is then represented by a rating symbol.

Transforming the underlying credit risk factors into credit ratings involves converting qualitative factors (e.g. country legal systems) into quantitative symbols, and also quantitative factors (e.g. liquidity ratios) into qualitative benchmarks. Such conversion of various credit risk factors utilizes a matrix.

Debt repayment environment index, wealth creation capability index and the degree of deviation of available repayment source constitute the primary quantitative analytical framework for credit rating. Then, wealth creation capability index, recurring revenue index, credit relationship strength index, debt net profit index, realizable net asset index, outstanding debt maturity structure index and debt management strength index are used to differentiate the strength of all elements of the degree of deviation of available sources of repayment, to generate the respective degree of deviation of strength for the maximum debt, outstanding debt, and incremental debt. Finally, a comprehensive degree of deviation of the strength of available sources of repayment is calculated by assigning risk weights to the degree of deviation of the strength of the three sources of repayment, and the symbols corresponding to the mapping for the degree of deviation represent the credit ratings.

6. Verification of credit ratings

Verification of credit ratings means alerting potential credit risks through a continuous review of the credit risk factors impacting the assigned credit ratings. Credit ratings assigned should be forward looking. The ultimate purpose of alerting credit risks through credit rating can only be achieved by continuously tracking and reviewing the credit risk factors when the rating is outstanding, verifying those factors against the assigned ratings, and taking rating action on a timely basis.

7. Simulation test

Simulation test means testing the credit risk factors under multiple scenarios and predicting the change in the trend of a debtor's repayment capability, which serves as an early-warning of credit rating risks. In reality, the debtor's underlying credit risk factors can have different correlation to each other, and it's difficult to predict how all these underlying factors with different correlation will impact the credit ratings. Hence it is crucial to run stimulation tests under different scenarios to test how the debtor's repayment strength, and hence the credit rating, will be impacted.

8. Rating symbols.

Credit rating symbols for the debtor's short-term solvency are English alphabetic letters in the upper case. They are divided into three grades: A, B, and C, each of which has three sub-grades, i.e. AAA, AA, A; BBB, BB, B; CCC, CC, C. All the grades, except AAA and CCC (inclusive) and below, can be appended with a plus sign "+" or a minus sign "-", and each grade denotes the strength of the debtor's repayment capability, which is determined by the degree of deviation between the debtor's available sources of repayment and its wealth creation capability in the short term.

Prediction for the debtor's long-term solvency is indicated by rating outlook, including "positive", "stable" and "negative". Each of the three outlooks indicates the tendency of strength of the debtor's repayment capability, which is determined by the degree of deviation between the debtor's available sources of repayment and its wealth creation capability in the long term.

VI. Historical Status of Guiding Principles of Credit Rating

The global credit crisis has become the turning point in the world history of credit rating. It marked the failure of the Western rating philosophy, and expedited the birth of *Guiding Principles of Credit Rating*. Since then, a brand-new rating theory has emerged and ushered in a new chapter of credit rating history. Comparing it with the Western rating philosophy, we can easily recognize the historical status of *Guiding Principles of Credit Rating*.

1. Probability of default (PoD) is the core concept in Western rating philosophy.

Major America-based credit rating agencies are the founder of the Western rating philosophy, which has built its dominant presence around the world through a hundred years of efforts. It is the credit rating reflecting such a rating philosophy that they have constructed the main framework of international credit system and controlled the global capital flow. Continued and in-depth research of the Western rating philosophy reveals that probability of default is at its core. The principle behind this rating ideology is: statistical classification of historical rating default samples is conducted and they are mapped onto each credit rating, with each of the rating grades representing a level of PoD. When the sample of rating default is controlled below the speculative rating grade it proves that the rating is able to differentiate the risks of debt issuers and their specific debts. The major problems of the PoD-based rating philosophy are as follows:

1.1. PoD is only a way to verify credit ratings. Debt default is a fact, and it is the result of application of credit rating information; so the relationship between credit rating and default is causality. Generally speaking, the established defaults of debtors can be used to verify the correctness of ratings. The global credit crisis of 2008 can be deemed as an unprecedented debt default, which testifies that the inadequacy of the Western credit rating has inflicted very serious consequences on the global financial system.

1.2. PoD is not a rating methodology. History has nothing to do with the potential default in the future, it is simply impossible to reach a correct conclusion speculating the possibility of future default only by historical data. It has no inherent relationship with underlying factors of credit risks, so it cannot reflect the logic of credit rating analysis that is in line with the rules of intrinsic movement of credit risks, nor can it reveal credit risks. By no means can it undertake the responsibility of credit rating.

1.3. PoD is not based on any rating theory. No theoretical system that supports the PoD rating idea is available in the literature of Western credit rating, which suggests unconvincing value boast of PoD as well as the chaos of Western rating philosophy.

1.4. There is not an inherent logic channel for the application of PoD in credit rating methodologies. Looking at the overall perspective of Western credit rating methodologies, one can find that the application of the PoD idea is arbitrary and confused, without any holistic methodological system, which leads to this idea being disconnected from the rating practice, making it short of practical applications.

This PoD fundamental concept of rating has dominated our practice in a credit-based economy. PoD proves an absence of rating theory in the world while triggering a world-wide credit disaster; therefore it is a very urgent requirement of the time to fill in the historical blank.

2. Degree of deviation is the core concept in Dagong’s rating philosophy. The principle of this rating idea is: the wealth creation capability of debtors is the wellspring of debt repayment, but this is not the entirety of sources of repayment; the debtor is motivated to resort to a new source of repayment when the current source of repayment is exhausted. Thus, the series of sources of repayment run increasingly away from the wealth creation capability, with each source of repayment representing a different level of risk. By revealing the degree of deviation between the sources of repayment and the wealth creation capability and applying risk adjustment one can differentiate the strength of repayment capabilities which are determined by sources of repayment. The rating idea of degree of deviation is characterized in the following:

2.1. Degree of deviation sets forth the objective of credit rating to be evaluating the strength of repayment capabilities, and the rating information that reflects this content is able to meet investors' demand for credit ratings.

2.2. Degree of deviation takes wealth creation capability, sources of repayment and repayment capability as the soul elements of credit rating, which establishes the inherent logic for credit rating.

2.3. Degree of deviation is the focus of the rating theory, and solid theoretical foundation enhances the authority of the rating methodology with degree of deviation as the core idea.

2.4. Degree of deviation finds the inherent link between credit rating and the underlying credit risk factors, and reflects the rating logic among the reality, theory, methodology, and practice, displaying a very strong practical value.

Degree of deviation and probability of default are different rating concepts altogether, and they represent different values and methodologies applied to interpret the credit world. PoD is to infer future credit risks by applying historical default data while degree of deviation is to predict future credit risks in accordance with the inherent development logic of underlying credit risk factors, the vast difference between the two ideas in both theory and practice results in opposite impact of their rating results on our economic society.

3. The historical position of *Guiding Principles of Credit Rating*.

Guiding Principles of Credit Rating establishes its position in world history of credit rating through revealing the rules related with credit rating.

3.1. Pinpointing the position of rating for the first time

Production vs. credit and credit vs. rating are two pairs of contradictions that promote the development of credit-based economy. The first pair of contradiction is a pro-cyclical impetus for the credit-based economy and the second pair is a counter-cyclical one. This significant discovery about the rules governing the development of credit-based economy lays the theoretical foundation for the independent innovation of the principles of credit rating. Committed to answering the three questions about debtors' repayment capabilities and evaluating the strength of repayment capability in an effort to perform the counter-cyclical function of rating, *Guiding Principles of Credit Rating* affirms the role of rating in preventing credit crisis from triggering economic and social turmoil by preventing excess expansion of credit, and unravels in theory for the first time the position of credit rating in the social evolution of credit-based economy.

3.2. Explaining fully the credit rating philosophy for the first time

Aiming to assess repayment capability, *Guiding Principles of Credit Rating* draws a rating roadmap from elements influencing repayment capability to results of disclosing credit risks, and develops a full and clear system of rating philosophy, which, for the first time, presents the intrinsic rules of credit rating in a systematic way.

3.3. Formulating the degree-of-deviation-based rating idea for the first time

Guiding Principles of Credit Rating persists in taking wealth creation capability as the fundamental source of debt repayment, believing that any source of repayment that deviates from wealth creation capability contains uncertainty, and that the further the deviation, the greater the risk. Such an inventive rating philosophy provides the means to preventing the misuse of credit by debtors while their sources of repayment substantially deviate from the wealth creation capability and to playing the countercyclical role of credit rating, and assuring for the first time the right direction for the development of rating.

4. The significance of the *Guiding Principles of Credit Rating*.

Guiding Principles of Credit Rating is the fruit in exploring the rules governing the development of credit-based economy and rating. Its publication will be significant in the following three aspects:

4.1. Filling in the blank in the world rating theory, taking on epoch-making significance. *Guiding Principles of Credit Rating* gives a panorama view of the theory on credit rating methodology for the very first time, and provides useful guidance on changing the long-running fettering of the rating practice by the wrong Western rating philosophy and reverting the rating sector onto the right track of development.

4.2. Consolidating the role of rating as a countercyclical driver for the credit-based economy, taking on practical significance. The prevalent application of *Guiding Principles of Credit Rating* will surely result in a worldwide change in rating criteria, which will definitely build the capacity of credit rating in truly disclosing credit risks, transfusing positive energy for the development of credit-based economy with the rating capability.

4.3. Changing people’s awareness and understanding of credit rating, which is conducive to wide application of correct rating concepts, taking on social significance. *Guiding Principles of Credit Rating* provides an approach to develop people’s own opinion about credit risks from the perspective of credit rating so that they can easily identify and prevent credit risks. The change of credit rating philosophy incurred by the Principle will eventually produce the social effect of engaging more people to the rating practice.