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METHODOLOGY FOR ASSIGNING SOVEREIGN GOVERNMENT CREDIT RATINGS AND COUNTRY CREDIT ENVIRONMENT RATINGS – SHORT PUBLIC VERSION

The Methodology presented is a short public version.

1. General definitions

The Agency assigns two types of sovereign ratings:

- Sovereign government credit rating
- Country credit environment rating

Sovereign government credit rating (SGC): the level of the rating reflects the Agency's opinion on the ability of the government to meet both its current and future financial liabilities.

SGC ratings are used to determine the level of credit risk on debt obligations of the sovereign governments.

- SGC ratings can be used by the investors who invest funds into public obligations;
- In addition, this type of ratings are used by the Agency to assess the government's ability to support private borrowers related to the government¹ when determining the level of credit rating for individual borrowers. The higher the SGC rating, the higher the credit rating of the government and its ability to support private companies and banks.

Country credit environment rating (CCE): this rating is a measure of the systematic credit risk of the country compared with other countries. The level of the rating reflects the Agency's opinion about the risk level of repayment on investments in public and private debt in the country.

Based on the country credit environment ratings, the Agency determines the extent to which investors may expect a default on the debt issued by companies from the rated country. This may happen due to a low level of creditworthiness and institutional difficulties such as underdeveloped financial markets, social instability, low level of compliance with the law and insufficient protection of investors' rights.

- Country credit environment ratings are used to rank the countries according to the level of return on investment in public and private debt securities in this country. The higher the rating of credit climate the lower the level of systemic credit risk of the country compared to other countries;
- Country credit environment ratings are used when assigning credit ratings to borrowers and assessing reliability of their issued securities as one of the factors which affects the final rating score according to the international rating scale.

¹ Related to the government in this case means that the company is owned by the government or by government owned structures. It can also mean that a private borrower has a "friendly relationship" with the government or government structures (e.g. the company participates in government programs, the company is included in the various lists of "key enterprises", etc.).



When assigning country credit environment ratings, the following indicators are taken into account:

- Macroeconomic indicators reflecting the creditworthiness of business entities in the country;
- Indicators reflecting the level of creditworthiness of the sovereign government.

Country credit environment ratings reflect two factors. On the one hand, the government (in broad sense²) is one of the major macroeconomic agents in the country. Therefore, credit risks of its obligations should be assessed in order to get the overall picture of the reliability of investing in debt instruments inside the country. On the other hand, the government can affect the creditworthiness of businesses in the country, imposing regulatory restrictions on their operations and cash flows. This risk is also taken into account.

• Indicators which reflect the level of institutional development of the country.

These figures reflect the operational, political, regulatory and reputational risks faced by investors who decide to invest in debt securities issued by the private sector or by the government of the country.

Both types of country ratings are assigned in national and foreign currency.

Ratings in national currency define the capability to meet liabilities denominated in national currency.

Ratings in foreign currency define the capability to meet liabilities NOT denominated in the national currency. Ratings in foreign currency, in contrast to the ratings in national currency, include an assessment of the currency risks related to changes of foreign economic operations resulting from fluctuations in the exchange rate and restrictions on foreign exchange transactions, as well as the depreciation of foreign currency assets of the government and economic agents of the country.

2. Sources of information

2.1 In case of SGC and CCE ratings the Agency uses only publicly available sources of information. The following sources of information are used for assigning a rating score:

- International Monetary Fund (World Economic Outlook Database);
- International Monetary Fund (Country Report (Article Consultation));
- International Monetary Fund (Annual Report);
- World Bank Statistics Database (Economy & Growth, External Debt, Financial Sector, Private Sector);
- World Bank (Global Financial Development Database);
- World Bank (Public Sector Debt Database);
- World Bank International Finance Corporation (Annual Doing Business Report);
- World Federation of Exchanges (Statistics Database);
- World Economic Forum (Annual Global Competitiveness Report);

² Including federal level, regional and local authorities, its subdivisions and the Central Bank of the country.



- Transparency International (Annual Corruption Perceptions Index Brochure);
- Edelman Trust Barometer (Annual Global Study);
- United Nations Development Program (Annual Human Development Report);
- United Nations Office of Drugs and Crime (Annual Homicide Statistics);
- Statistics database of country's Ministry of finance;
- Statistics database of country's Central Bank;
- Statistics database of country's Official statistical service;
- Statistics database of country's stock exchanges;
- Other public sources if information.

3. Structure of the rating analysis

- 3.1 The Agency assigns two types of sovereign ratings: Sovereign government credit rating (SGC) and Country credit environment rating (CCE) (see Part 1).
- 3.2 While assigning both types of ratings the following sections are assessed (but with different weights for SGC and CCE): condition of the national economy, level of development and risks of the country financial system, characteristics of government policy, structure and competitiveness of the economy, institutional development of the country.
- 3.3 Both ratings depend on the financial position of the country's borrowers including the government, the development of financial markets, levels of social and political instability, and characteristics of the legal system of the country. However, the financial position of the government and its debt load are more important for the SGC-ratings. Credit environment ratings (CCE) mostly focus on the institutional development of the country and the condition of its financial system. Additionally, the following indicators are added to the analysis of CCE ratings: level and dynamics of real interest rates, debt load of the private sector, quantity and quality of instruments in the financial markets of the country, change of the main stock index over the last 3 and 6 years, policy of the government in financial markets, quality of investor protection in the country, time from the moment of default until decision on the distribution of defaulted company's assets (see Part 4 and Annex 1).
- 3.4 To assess the ratings (both SGC and CCE) in foreign currency, the initial rating score must be adjusted for *currency risks* (see Part 5).
- 3.5 On the final stage, the ratings (both SGC and CCE) in foreign and national currency can be adjusted for *support- and stress-factors* (the list of support- and stress-factors is provided in Part 5). Different lists of support- and stress-factors can be included in the calculation of the final rating scores for SGC and CCE. In addition, the strength of support- and stress-factors can be different for SGC and CCE (weak, moderate or strong).



4. System of indicators

- 4.1 Section "*Condition of the national economy*" includes the following factors:
 - Debt load of the government
 - Structure of government debt
 - Condition of the government budget
 - Level and dynamics of production
 - Inflation rate and its dynamics
 - Unemployment rate and its dynamics

4.2 Section "*Level of development and risks of the country financial system*" includes the following factors:

- Banking system
- Stock market
- Bond market
- Investment potential

4.3 Section "*Characteristics of government policy*" includes the following factors:

- Fiscal policy
- Monetary policy
- Changes in fiscal and monetary policy

4.4 Section "*Structure and competitiveness of the economy*" includes the following factors:

- Concentration of the economy on the three largest sectors
- Population dynamics
- Competitiveness of the economy
- Geographical and geopolitical conditions

4.5 Section "*Institutional development of the country*" includes the following factors:

- Quality of the political regime
- Quality of the business environment
- Level of investment in human capital
- Crime/social instability in the country
- Level of information transparency of the government

4.6 Additional factors for country credit environment rating:

- Level of development and risks of the country financial system:
 - ✓ Level and dynamics of real interest rates in the country
 - ✓ Debt load of the private sector
 - ✓ Quality and quantity of instruments in the financial market of the country
 - ✓ Change of the stock index over the past 6 and 3 years
- Characteristics of government policy:
 - ✓ Policy of the government in financial markets
- Institutional development of the country:
 - ✓ Quality of investor protection in the country
 - ✓ Time from the moment of default until the decision on the distribution of defaulted company's assets



5. Rating score adjustments

5.1 To assess the ratings (both SGC and CCE) in foreign currency, the initial rating score must be adjusted for *currency risks*. Such adjustment includes the analysis of the risks, related to currency restrictions and/or monetary losses due to the devaluation of foreign exchange assets. This can happen if the country has a weak currency, low foreign exchange reserves and limited sources of their funding and depends on external financing as well as imports of goods or services. The following factors are used to assess the currency risk:

- Volume of foreign currency debt / GDP
- Volume of foreign currency debt / government revenues
- Volume of foreign exchange reserves / foreign currency debt
- Import/GDP
- Currency status
- Balance of payments / GDP
- Whether the country is a member of economic and trade organizations/zones
- Access to financing from international organizations
- Restrictions on operations in foreign currency
- Exchange-rate regime

5.2 As a result of the currency risk assessment, the rating score can be reduced by 1-2 sublevels when assigning a rating in foreign currency. The reduction of the scores can only occur in two cases:

- Risk of foreign currency shortage on repayments of the government debt (foreign exchange restrictions by the government indicate such risk; limited access to international financing and stable capital outflow can lead to shortage of foreign currency);
- Risk of significant foreign exchange losses due to the volume of currency transactions with a weak local currency.

5.3 Both types of ratings (SGC and CCE) can be adjusted on the final stage for the following support and stress-factors:

5.3.1 **Support-factors**:

- Exceptionally high level of foreign exchange reserves
- Participation in currency/ political union
- The country has an extremely strong financial system which affects other countries
- The country has a very strong and important reserve currency

5.3.2 *Stress-factors*:

• Significant changes of dates/rates/other terms and conditions of payment on the debt have been announced and could negatively affect the status of creditors



- High probability of significant political changes in the short run
- High probability of war/ war at the moment
- Natural disasters, constant exposure to difficult natural conditions
- The sum of the volume of domestic corporate debt (loans + bonds) and foreign corporate debt (if there is data on it) is five times more than the volume of GDP
- Risk of the need to support other related country
- Increased dependence on another country
- There is evidence of accounting public obligations as corporate obligations
- Concentration of tax revenues on one industry
- 5.4 Support-factors can increase the rating by 1-4 sublevels.
- 5.5 Stress-factors can reduce the rating by 1-4 sublevels.
- 5.6 Expert can introduce other support and stress-factors if there is a sufficient justification to include them.



Annex 1. List of indicators and corresponding weights

| | Weight | Weight |
|---|---------|---------|
| Factor | for the | for the |
| I Condition of the national agenemy | SGC | CCE |
| I. Condition of the national economy | 50,0% | 33,0% |
| Debt load of the government Structure of government debt | 1 | |
| | 1 | |
| Condition of the government budget | 1 | |
| Level and dynamics of production | 1 | |
| Inflation rate and its dynamics Unemployment rate and its dynamics | | |
| II. Level of development and risks of the country financial system | 22.00/ | 24.00/ |
| Banking system | 22,0% | 24,0% |
| Stock market | 1 | |
| Bond market | 1 | |
| | 1 | |
| Investment potential III. Characteristics of government policy | 9,0% | 8,0% |
| Fiscal policy | 9,0% | 0,0% |
| Monetary policy | 1 | |
| Changes in fiscal and monetary policy | 1 | |
| IV. Structure and competitiveness of the economy | 11,0% | 8,0% |
| Concentration of the economy on the three largest sectors | 11,0% | 0,0% |
| · | 1 | |
| Population dynamics Competitiveness of the economy | 1 | |
| | 1 | |
| Geographical and geopolitical conditions V. Institutional development of the country | 8,0% | 15,0% |
| Quality of the political regime | 0,070 | 13,070 |
| Quality of the business environment, position in Doing Business Ranking | | |
| Level of investment in human capital, adjusted for inequality | 1 | |
| Crime/social instability in the country | 1 | |
| Level of information transparency of the government | • | |
| | | |
| VI AUGULIANT I INDICATORS FOR THAT I BUT ACTORS PATIACTING THA CRADITWORTHINGS OF THA | | |
| VI. Additional indicators for the CCE (factors reflecting the creditworthiness of the private sector, because all other parts (institutional environment and the | 0% | 12.0% |
| private sector, because all other parts (institutional environment and the | 0% | 12,0% |
| private sector, because all other parts (institutional environment and the creditworthiness of government) are already assessed in the SGC) | 0% | 12,0% |
| private sector, because all other parts (institutional environment and the creditworthiness of government) are already assessed in the SGC) Level of development and risks of the country financial system | 0% | 12,0% |
| private sector, because all other parts (institutional environment and the creditworthiness of government) are already assessed in the SGC) Level of development and risks of the country financial system Level and dynamics of real interest rates in the country | 0% | 12,0% |
| private sector, because all other parts (institutional environment and the creditworthiness of government) are already assessed in the SGC) Level of development and risks of the country financial system Level and dynamics of real interest rates in the country Debt load of private sector | 0% | 12,0% |
| private sector, because all other parts (institutional environment and the creditworthiness of government) are already assessed in the SGC) Level of development and risks of the country financial system Level and dynamics of real interest rates in the country Debt load of private sector Quality and quantity of instruments in the financial market of the country | 0% | 12,0% |
| private sector, because all other parts (institutional environment and the creditworthiness of government) are already assessed in the SGC) Level of development and risks of the country financial system Level and dynamics of real interest rates in the country Debt load of private sector Quality and quantity of instruments in the financial market of the country Change in the main stock index over the last 3 and 6 years | 0% | 12,0% |
| private sector, because all other parts (institutional environment and the creditworthiness of government) are already assessed in the SGC) Level of development and risks of the country financial system Level and dynamics of real interest rates in the country Debt load of private sector Quality and quantity of instruments in the financial market of the country Change in the main stock index over the last 3 and 6 years Characteristics of government policy | 0% | 12,0% |
| private sector, because all other parts (institutional environment and the creditworthiness of government) are already assessed in the SGC) Level of development and risks of the country financial system Level and dynamics of real interest rates in the country Debt load of private sector Quality and quantity of instruments in the financial market of the country Change in the main stock index over the last 3 and 6 years | 0% | 12,0% |
| private sector, because all other parts (institutional environment and the creditworthiness of government) are already assessed in the SGC) Level of development and risks of the country financial system Level and dynamics of real interest rates in the country Debt load of private sector Quality and quantity of instruments in the financial market of the country Change in the main stock index over the last 3 and 6 years Characteristics of government policy Institutional development of the country VII. Assessment of currency risk ³ | 0% | 12,0% |
| private sector, because all other parts (institutional environment and the creditworthiness of government) are already assessed in the SGC) Level of development and risks of the country financial system Level and dynamics of real interest rates in the country Debt load of private sector Quality and quantity of instruments in the financial market of the country Change in the main stock index over the last 3 and 6 years Characteristics of government policy Institutional development of the country | 0% | 12,0% |
| private sector, because all other parts (institutional environment and the creditworthiness of government) are already assessed in the SGC) Level of development and risks of the country financial system Level and dynamics of real interest rates in the country Debt load of private sector Quality and quantity of instruments in the financial market of the country Change in the main stock index over the last 3 and 6 years Characteristics of government policy Institutional development of the country VII. Assessment of currency risk ³ Volume of foreign currency debt / GDP | 0% | 12,0% |
| private sector, because all other parts (institutional environment and the creditworthiness of government) are already assessed in the SGC) Level of development and risks of the country financial system Level and dynamics of real interest rates in the country Debt load of private sector Quality and quantity of instruments in the financial market of the country Change in the main stock index over the last 3 and 6 years Characteristics of government policy Institutional development of the country VII. Assessment of currency risk ³ Volume of foreign currency debt / GDP Volume of foreign currency debt / government revenues | 0% | 12,0% |
| private sector, because all other parts (institutional environment and the creditworthiness of government) are already assessed in the SGC) Level of development and risks of the country financial system Level and dynamics of real interest rates in the country Debt load of private sector Quality and quantity of instruments in the financial market of the country Change in the main stock index over the last 3 and 6 years Characteristics of government policy Institutional development of the country VII. Assessment of currency risk ³ Volume of foreign currency debt / GDP Volume of foreign exchange reserves / foreign currency debt Import/ GDP | 0% | 12,0% |
| private sector, because all other parts (institutional environment and the creditworthiness of government) are already assessed in the SGC) Level of development and risks of the country financial system Level and dynamics of real interest rates in the country Debt load of private sector Quality and quantity of instruments in the financial market of the country Change in the main stock index over the last 3 and 6 years Characteristics of government policy Institutional development of the country VII. Assessment of currency risk ³ Volume of foreign currency debt / GDP Volume of foreign exchange reserves / foreign currency debt | 0% | 12,0% |

 $^{^{3}}$ There is no weights for currency risks in methodology, additional coefficients are used in this section



| Access to financing from international organizations Restrictions on operations in foreign currency | |
|--|--|
| Exchange-rate regime | |
| VIII. Support factors* | |
| Exceptionally high level of foreign exchange reserves | |
| Participation in currency/ political union | |
| The country has extremely strong financial system, which affects other countries, and the country has a large economy | |
| The country has very strong and important reserve currency | |
| Other | |
| IX. Stress factors* | |
| Significant changes of dates/rates/other terms and conditions of payment on the debt are announced, that could negatively affect the status of creditors | |
| High probability of significant political changes in the short run | |
| High probability of war/ war at the moment | |
| Natural disasters, constant exposure to difficult natural conditions | |
| The sum of the volume of domestic corporate debt (loans + bonds) and foreign corporate debt (if there is data on it) is five times more than the volume of GDP | |
| There is evidence of accounting public obligations as corporate obligations | |
| Risk of the need to support other related country | |
| Concentration of tax revenues on one industry | |
| Increased dependence on another country | |
| Other | |

^{*}See Point 5 "Rating score adjustment" in the description above.