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METHODOLOGY FOR ASSIGNING SOVEREIGN GOVERNMENT CREDIT RATINGS – FULL VERSION

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1.1 Scope of the methodology

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.

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.

1.2 Default definition

Any of the following cases shall be considered as default by the Agency:

- Non-fulfilment of financial liabilities on bonds after the end of the period of technical default (more than 10 business days or shorter period if such period is defined by the covenants of bonds issuance), including: failure to pay interest (coupon) on bonds; non-redemption of a nominal value of bond; non-fulfilment of liability to purchase bond (if such liability included to the issuing covenants (offer to purchase));
- Non-fulfilment of other financial liabilities bearing interest and which shall be repaid (for more than 10 business days);
- If the rated entity's debt liabilities were restructured within the last two months, and after this creditors have worse conditions comparing with the initially mentioned in the agreements.

[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.).

According to the Agency's definition, the date of default is the date of the end of corresponding period after the first case of non-fulfilment of liabilities listed by the Agency.

1.3 Key rating assumptions

There are following rating assumptions:

1. There is a stable cause-effect relationship between the level of creditworthiness (hereinafter referred to rating level) of the rated entity and the qualitative and quantitative factors, listed in this methodology;
2. Qualitative and quantitative factors can have a linear and non-linear effect on the creditworthiness of the rated entity, the effect can be direct and reverse. Non-linear effect of factors is shown by using stress- and support-factors, that have a strong effect on the rating (detailed description of the qualitative and quantitative factors, influencing the ability of the rated entity to fulfill its liabilities, as well as description of their influence on the rating and the rating outlook are provided in the section "Order of the rating assignment");
3. The weight of each factor is determined according to the degree of its influence on the creditworthiness;
4. Indicators can have "limited intervals" for their influence on the rating score; if the value of an indicator goes beyond the "limited interval", it does not affect the rating score. If the value of the indicator is higher than the benchmark of the maximum score (for the indicators having positive correlation with the creditworthiness), it does not have an additional positive effect on the rating score. If the value of the indicator is below the benchmark of minimum score (for the indicators having negative correlation with the creditworthiness), it does not have an additional positive effect on the rating score. If the value of the indicator is below the benchmark of minimum score (for the indicators having positive correlation with the creditworthiness), it does not have an additional negative effect on the rating score (with the exception for the indicators having stress-factors). If the value of indicator is higher than the benchmark of minimum score (for the indicators having negative correlation with the creditworthiness), it does not have an additional negative effect on the rating score (with exception for the indicators having stress-factors).

1.4 General provisions and regulations

In accordance with the Regulation (EC) No 1060/2009 of the European Parliament and of the Council of 16 September 2009 on credit rating agencies and further amending or supplementing regulation (hereinafter – the CRA regulation) Rating-Agentur Expert RA GmbH strictly follows the requirements regarding the maintenance of its methodologies:

- The Agency uses the methodologies that are rigorous, systematic and continuous;

- The Agency discloses on its website information on the methodologies, models and key rating assumptions accompanied with the explanation of assumptions, parameters, limits and uncertainties surrounding the models and rating methodologies.
- Methodologies, models and key rating assumptions such as mathematical or correlation assumptions used for determining credit ratings are properly maintained, up-to-date and subject to a comprehensive review on a periodic basis.
- There are internal procedures established for regular review of methodologies in order to be able to properly reflect the changing conditions in the underlying asset markets.
- The Agency monitors and reviews its methodologies on an ongoing basis and at least annually, in particular where material changes occur that could have an impact on a rating. The Agency monitors the impact of changes in macroeconomic or financial market conditions on ratings.
- There is a review function responsible for periodically reviewing the Agency's methodologies and any significant changes or modifications thereto as well as the appropriateness of those methodologies, where they are used or intended to be used for the assessment of new financial instruments.
- The Agency publishes the proposed material changes or proposed new rating methodologies on its website, together with a detailed explanation of the reasons for and the implications of the proposed material changes or proposed new rating methodologies, inviting stakeholders to submit comments within a period of one month.
- The Agency notifies ESMA of the intended material changes to the rating methodologies or the proposed new rating methodologies when the proposed changes or proposed new rating methodologies are published on its website. After the expiry of the consultation period, the Agency notifies ESMA of any changes due to the consultation.
- When the rating methodologies are changed, the Agency immediately discloses the likely scope of ratings to be affected, informs ESMA and publishes on its website the results of the consultation and the new rating methodologies together with a detailed explanation thereof and their date of application. The affected ratings are reviewed as soon as possible and no later than six months after the change, in the meantime placing those ratings under observation. The Agency re-rates all ratings that have been based on those methodologies if, following the review, the overall combined effect of the changes affects those ratings.
- Changes in ratings are issued in accordance with the Agency's published methodologies. The Agency ensures that the ratings and the outlooks it issues are based on a thorough analysis of all the information that is available to it and that is relevant to its analysis according to the applicable rating methodologies. The information the Agency uses in assigning ratings and outlooks is of sufficient quality and from reliable sources. The Agency issues ratings and rating outlooks stipulating that the rating is the Agency's opinion and should not be regarded as a recommendation to buy, hold or sell any securities or assets, or to make investment decisions.
- Changes in the quality of information available for monitoring an existing rating are disclosed with the rating review and, if appropriate, a revision of the rating is made.
- If the Agency becomes aware of errors in its methodologies it shall immediately notify ESMA about those errors and all affected rated entities, explaining the impact the on

ratings and indicating the need to review issued ratings. If errors have an impact on ratings, the Agency shall publish them on its website and correct the errors in the methodologies.

2. Sources of information

2.1 The following sources of information shall be used for assessment of the 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);
- 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 databases of country’s stock exchanges;
- Other public sources of information.

3. Rating classes

When assigning sovereign government creditworthiness ratings (SGC) the following rating scales shall be used. Scales rank the sovereign borrowers in accordance with the opinion of the Agency about the level of their creditworthiness and quality of credit environment in their countries.

3.1 Rating scale of the of sovereign government creditworthiness (SGC):

AAA - Highest level of creditworthiness

Capability to meet obligations in the long run is at the highest level. The lowest level of credit risk on obligations.

AA - Very high level of creditworthiness

Capability to meet obligations in the long run is very high. Very low level of credit risk on obligations.

A - High level of creditworthiness

Capability to meet obligations in the long run is high. Low level of credit risk on obligations.

BBB - Moderately high level of creditworthiness

Capability to meet obligations in the long run is moderately high. Moderately low level of credit risk on obligations.

BB - Sufficient level of creditworthiness

Capability to meet obligations in the long run is sufficient. Moderate level of credit risk on obligations.

B - Moderately low level of creditworthiness

Capability to meet obligations in the long run is moderately low. Moderately high level of credit risk on obligations.

CCC - Low level of creditworthiness

Capability to meet obligations in the long run is low. High level of credit risk on obligations.

CC - Very low level of creditworthiness, possible delay in execution of some commitments

Capability to meet obligations in the long term is very low, possible delay in execution of some commitments. Very high level of credit risk on obligations.

C - Pre-default level. The lowest level of creditworthiness, some of the commitments are not executed

Capability to meet obligations in the long run is in the lowest level. The highest level of credit risk on obligations.

The government doesn't execute some of financial obligations, and it is expected that in the long run the government will not be able to fulfil its obligations completely.

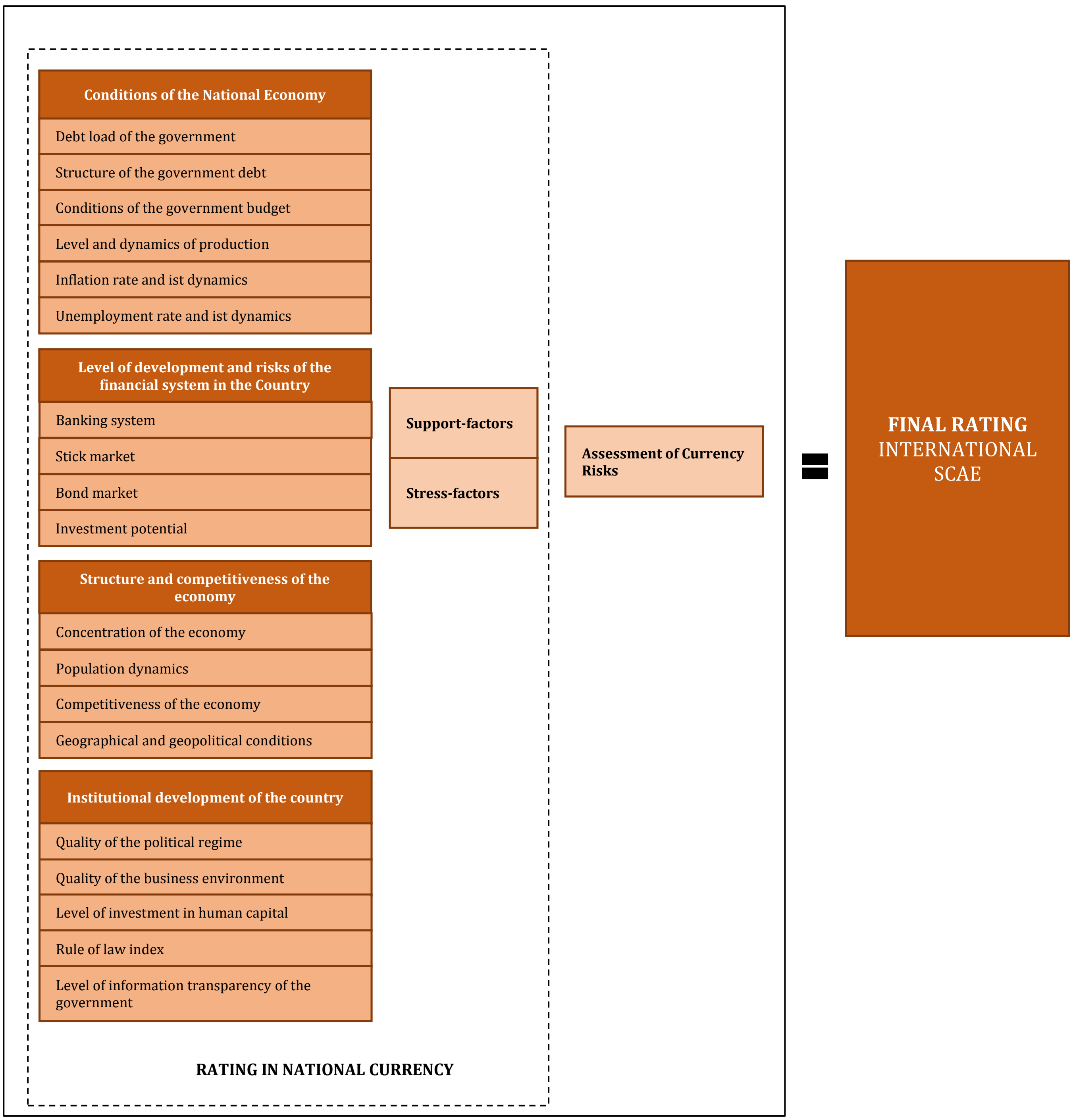
D - Default

The country does not fulfil any financial obligations / government declared default on its financial obligations.

One of the above rating levels that can be assigned to the country, excluding AAA and ratings below CCC, may be supplemented with (+) or (-) sign depending on the value of the rating score.

4. Order of the rating assignment

The sovereign rating of a country is assessed in two different steps. First the rating in national scale is assessed. The rating in international scale is then calculated by including the currency risk section into the assessment. The Stress and Support factors affect both types of ratings.



A. Sovereign government credit rating (SGC)

1. Condition of the national economy

Analysis of the condition of the national economy and the government (in broad sense, taking into account all of the regional and local governments) is carried out in this section.

1.1. Debt load of the government

The purpose of this section is to assess the risks associated with the level of government debt, issued guarantees, and other potential liabilities (pensions, infrastructure expenses, etc.) relative to gross domestic product produced by the economy, income of the government's budget and the level of foreign exchange reserves (including gold).

The level of gross government debt is a key indicator for the assessment of the government's indebtedness. High and growing government debt shows the deterioration of the government's debt position, and therefore affects negatively the credit rating assessment.

1.1.1. Gross government debt /GDP and its dynamics

Sources of information: IMF

Gross government debt/ GDP

Score	Gross government debt /GDP, %
-1	>100%
-0,5	75-100%
0	50-75%
0,5	25-50%
1	< = 25%

Weighted change in gross government debt /GDP over the last 6 years

Score	Weighted change in Gross government debt /GDP, percentage points
-1	For a weighted growth of more than 3 p.p.
[-1;1]	For a weighted growth higher than 0 p.p. and lower than 3 p.p.
1	For a weighted growth of less than 0 p.p.

1.1.2. Gross government debt/budget revenues and its dynamics

Sources of information: IMF

Gross government debt / budget revenues

Score	Gross government debt /budget revenues, %
-1	>300%
-0,5	200-300%
0	150-200%
0,5	100-150%
1	<=100%

Change in gross government debt / budget revenues over the last 3 years and over the last 6 years

Score	Weighted change in Gross government debt / budget revenue budget, p.p.
-1	For a weighted growth of more than 10 p.p.
[-1;1]	For a weighted growth higher than 0 p.p. and lower than 10 p.p.
1	For a weighted growth of less than 0 p.p.

1.1.3. Foreign exchange reserves / gross government debt

Sources of information: World Bank, IMF.

Score	Foreign exchange reserves / Gross government debt, %
-1	<15%
-0,5	15-30%
0	30-50%
0,5	50-70%
1	>=70%

1.1.4. Amount of contingent liabilities

Sources of information: Media, statistical sources, World Bank.

Explicit contingent liabilities (created by law or contract that a government must settle):

- State guarantees for non-sovereign borrowing and obligations issued to subnational governments and public and private sector entities (development banks);
- Umbrella state guarantees for various types of loans (mortgage loans, student loans, agriculture loans, small business loans);
- Trade and exchange rate guarantees on private investments;
- State guarantees on private investments;
- State insurance schemes (deposit insurance, income from private pension funds, crop insurance, flood insurance, war-risk insurance).

Implicit contingent liabilities (created by a moral obligation that although not legally binding):

- Defaults of subnational government or public or private entities on nonguaranteed debt and other obligations;
- Cleanup of liabilities of entities being privatized;
- Banking failure (support beyond state insurance);
- Failure of a nonguaranteed pension fund, employment fund, or social security fund (protection of small investors);
- Default of central bank on its obligations (foreign exchange contracts, currency defense, balance of payments stability);
- Bailouts following a reversal in private capital flows;
- Environmental recovery, disaster relief, military financing.

1.2. Structure of the government debt

The purpose of this section is to assess the risks associated with the debt maturity, the interest rates on the debt and other factors that make the order of payments for liabilities more stringent.

The maturity structure of the government debt is an important factor when assessing the debt sustainability of a country. The largest the share of short-term debt on total debt, the stronger is the need for the government to be liquid in the short term.

1.2.1. Short-term debt / GDP

Sources of information: World Bank, IMF, Ministry of Finance.

Score	Short term debt / GDP, %
-1	>50%
-0,5	35-50%
0	20-35%

0,5	10-20%
1	<=10%

1.2.2. Short-term debt / budget revenues

Sources of information: IMF, Ministry of Finance.

Score	Short term debt/ budget revenues, %
-1	>100%
-0,5	70-100%
0	50-70%
0,5	30-50%
1	<=30%

1.2.3. Foreign exchange reserves /short-term debt

This factor can be omitted from the analysis if the expert considers that the level of reserves is not a determinant for the creditworthiness of the country. The majority of developed countries (USA, European countries and Japan) do not hold a significant amount of FX reserves compared to their debt load. However, given the economic stance of these countries and the strength of their currencies, we normally consider that the level of FX reserves does not play a crucial role in their rating assessment.

Sources of information: IMF, Ministry of Finance, Central Bank.

Score	Foreign exchange reserves /short-term debt, %
-1	<20%
-0,5	20-50%
0	50-100%
0,5	100-150%
1	>=150%

1.2.4. Spread between the country's and the US 10Y bond yield

Sources of information: Trading Economics, Bloomberg.

Score	Spread between the country's and US 10Y bond yield, %
-1	>6,5%
-0,5	4,5-6,5%
0	2,5-4,5%
0,5	1-2,5%
1	<=1%

1.2.5. Obligations of the government to adjust the rate of internal or external debt

Sources of information: Media, Ministry of Finance, Central Bank.

Score	**Obligations of the government to adjust the rate of internal or external debt**
-1 OR -0,5	If a large share of public debt (30% or more) is index-linked (inflation, exchange rate, etc.)
0	If there is no information for this section

1.3. Condition of the government budget

The purpose of this section is to assess the risks associated with excessive deficit or surplus of the government budget. High and growing fiscal deficits show the deterioration of the government's fiscal position, and therefore affects negatively the credit rating assessment.

Sources of information: IMF

Fiscal balance/ GDP

Score	**Fiscal balance / GDP, %**
-1	< -10%
-0,5	from -10% to -7%
0	from -7% to -5%
0,5	from -5% to -3%
1	=> -3%

Weighted change in fiscal balance / GDP over the last 6 years

Score	Weighted change in fiscal balance / GDP, p.p.
-1	For a weighted deficit increase OR surplus reduction larger than 1 p.p.
[-1;1]	For a weighted deficit increase OR surplus reduction smaller than 1 p.p.
1	For a weighted deficit reduction OR surplus increase larger than 0 p.p.

1.4. Level and dynamics of production

The purpose of this section is to assess the ability of the government to raise funds from taxation and other fees based on the current level and dynamic of production. High and growing GDP figures show the improvement of the country's economy, and therefore affects positively the credit rating assessment.

1.4.1 GDP per capita and its dynamics

Sources of information: IMF, Ministry of Economy, National Statistical Office.

GDP per capita in PPP terms (PPP- thousands of International dollars)

Score	GDP per capita in PPP, '000 international dollars
-1	<2,5
-0,5	2,5-7,5
0	7,5-15
0,5	15-30
1	>=30

Weighted change in real GDP per capita over the last 6 years

Score	Weighted change in real GDP per capita over the last 6 years, %
-1	For a weighted reduction of more than 0%
[-1;1]	If a weighted growth is lower than 2.5% or a reduction is smaller than 0%

1	For a weighted growth higher than 2.5%

1.4.2. Real GDP dynamics

Sources of information: IMF, Ministry of Economy, National Statistical Office.

Weighted change in real GDP over the last 6 years

Score	Weighted change in real GDP over the past 6 years
-1	For a weighted reduction of more than 2%
[-1;1]	If a weighted growth is lower than 2% or a reduction is smaller than 0%
1	For a weighted growth higher than 2%

1.5. Inflation rate and its dynamics

<u>The purpose of the assessment:</u>

The purpose of this section is to assess the risks associated with inflation and its dynamics. High and increasing inflation figures show distort general prices in the economy, and therefore affects negatively the macroeconomic stance of the country, ultimately having a negative effect on the credit rating assessment.

Sources of information: IMF.

Inflation rate

Score	Inflation Rate, %
-1	>9%
-0,5	6-9%
0	4-6%
0,5	2,5-4%
1	<=2,5%

Dynamic and volatility of inflation rate

This factor is calculated automatically based on the simple average of the dynamic and volatility of inflation rate.

Score	Standard deviation of the real interest rate for the last 6 years
-1	>3,5p.p.
-0,5	[2,3 ; 3,5] p.p.
0	[1,7 ; 2,3] p.p.
0,5	[1,1 ; 1,7] p.p.
1	<=1,1p.p.

Score	Weighted change in inflation over the last 6 years, p.p.
-1	For a weighted growth of more than 1 p.p.
[-1;1]	For a weighted growth lower than 1 p.p., or weighted reduction smaller than 0,3 p.p.
1	For a weighted reduction of more than 0,3 p.p.

1.6. Unemployment rate and its dynamics

The purpose of this section is to assess the risks related to the unemployment and its dynamics. High and increasing unemployment is an obstacle for economic growth, which ultimately reduces fiscal revenues and increases debt and fiscal deficit ratios. This is has a negative effect on the credit rating assessment.

Sources of information: IMF.

Unemployment rate

Score	Unemployment rate (%)
-1	>12%
-0,5	9-12%
0	7-9%
0,5	5-7%
1	<= 5%

Weighted change in the level of unemployment over the last 6 years

Score	Weighted change in unemployment rate, over the last 6 years p.p.
-1	For a weighted growth of more than 1 p.p.
[-1;1]	For a weighted growth lower than 1 p.p., or reduction smaller than 0,1 p.p.
1	For a weighted reduction by more than 0,1 p.p.

2. Level of development and risks of the country financial system

2.1. Banking system

The purpose of this section is to assess the risks related to the development of the banking system, the value of credit load in the economy and stability of the banking system. A well-developed and stable banking system affects positively the credit rating assessment.

2.1.1 Size of the banking system

Sources of information: World Bank, Central Bank, IMF.

Bank assets / GDP

Score	Banks' assets / GDP, %
-1	<40%
-0,5	40-60%
0	60-80%
0,5	80-100%
1	> = 100%

If the ratio is more than 260%, the automatic score is 0, because it can indicate excessive debt load for the economy.

Weighted change of bank assets / GDP over the last 6 years

Score	Weighted change of banks' assets / GDP, over the last 6 years p.p.

-1	For a weighted reduction by more than 10 p.p.
[-1;1]	For a weighted growth lower than 1,5 p.p. or reduction smaller than 10 p.p.
1	For a weighted growth of more than 1,5 p.p.

2.1.2 Level of financial intermediation

Sources of information: World Bank, Central Bank, IMF.

Volume of private credit/GDP

Score	**Volume of private credit / GDP, %**
-1	<20%
-0,5	20-40%
0	40-60%
0,5	60-80%
1	>=80%

If the ratio is more than 160%, the automatic score is “0”, because it can indicate excessive debt load of the economy and problems regarding the repayment of obligations of corporate borrowers or individuals.

Weighted change in the volume of private credit / GDP over the last 6 years

Score	Weighted change in the volume of private credit / GDP over the last 6 years, p.p.
-1	For a weighted reduction of more than 3 p.p.
[-1;1]	For a weighted growth lower than 1,5 p.p. or reduction smaller than 3 p.p.
1	For a weighted growth of more than 1,5 p.p.

2.1.3 Share of distressed loans and its dynamic

Sources of information: World Bank, Central Bank.

Share of distressed loans in total loans

Score	Share of distressed loans in total loans, %

-1	>11%
-0,5	8-11%
0	5-8%
0,5	3-5%
1	<=3%

Weighted change in share of distressed loans in total loans over the last 6 years

Score	Weighted change in share of distressed loans in total loans over the last 6 years , p.p.
-1	For a weighted growth of more than 1 p.p.
[-1;1]	For a weighted growth lower than 1 p.p. or reduction smaller than 0,1 p.p.
1	For a weighted reduction of more than 0,1 p.p.

2.1.4 Average level of capital adequacy in the banking system and its dynamics

Sources of information: World Bank, Central Bank

Average capital adequacy ratio of banks

Score	**Average capital adequacy ratio of banks, %**
-1	<4%
-0,5	4-6%
0	6-8%
0,5	8-10%
1	>= 10%

Weighted change in the average level of capital adequacy of banks over the last 6 years

Score	**Weighted change in the capital adequacy ratio of banks over the last 6 years, p.p.**
-1	For a weighted reduction of more than 0,5 p.p.

[-1;1]	For a weighted growth lower than 0,1 p.p. or reduction smaller than 0,5 p.p.
1	For a weighted growth of more than 0,1 p.p.

2.1.5 Concentration of the banking system on the three largest banks

Sources of information: World Bank, Central Bank, Open sources.

Score	The three largest banks account for % of all bank assets
-1	>80%
0	50-80%
1	<50%

2.1.6 Profitability of banks, ROA

Sources of information: World Bank, Central Bank.

Score	ROA, %
1	>0
-1	<0

2.1.7 Share of public debt in banks' assets

Sources of information: Central Bank, Open Sources.

Score	Share of public debt in banks' assets, %
-1 OR -0,5	>20
0	<20

2.1.8 Share of state-owned banks in the banking sector

Sources of information: Central Bank, Open Sources.

Score	**Share of state-owned banks in the banking sector, %**
-1 OR -0,5	>50
0	<50

2.2 Stock market

The purpose of this section is to assess the level of development of the stock market and its ability to be a source of financing for companies in the country. A well-developed and stable stock market affects positively the credit rating assessment.

2.2.1. Total market capitalization of companies on the national stock exchanges to GDP

Sources of information: World Bank, WFE.

Score	Total market capitalization of companies on national stock exchanges to GDP, %
-1	<10%
-0,5	10-20%
0	20-40%
0,5	40-70%
1	>= 70%

The Score can be manually upgraded by “0,25” or “0,5”, if there are many listed foreign companies on the national exchange (compared to the number of national companies) (this case means, that national companies are able to be listed, but for some reasons they are not).

2.2.3 Concentration of trades in shares on the largest issuers

Sources of information: WFE

Score	The 10 largest issuers of shares accounts for X% of the trading volume for the year
-1	>80%
0	50-80%
1	<50%

2.3. Bond market

The purpose of this section is to assess the development of the bond market and its ability to be a source of financing for the country's companies and for the government. A well-developed and stable bond market affects positively the credit rating assessment.

2.2.1. Total market value of outstanding bonds to GDP, %

Sources of information: Central Bank, Ministry of finance, National Statistical Office, Stock Exchange, Open sources.

Score	**Total value of outstanding bonds to GDP, %**
-1	<10%
-0,5	10-20%
0	20-40%
0,5	40-70%
1	>= 70%

2.3.2 Level of development and risks of internal corporate bonds market

Sources of information: WFE, Cbonds, Central Bank.

Market share of domestic corporate bonds in the bond market

Score	**Criteria for assessing market share of corporate bonds, %**
-1	<10%
-0,5	10-20%

0	20-30%
0,5	30-40%
1	>= 40%

The benchmarks are based on a dynamic database with selective geographic coverage, thus it is possible that they will be changed in the future.

Liquidity of corporate bond market

Score	The value of traded volumes of national corporate bonds as percentage of total market value of the bond market, %
-1	<=5%
-0,5	5-10%
0	10-15%
0,5	15-30%
1	>30%

2.3.3. Level of development and risks of government bonds market

Sources of information: WFE, Cbonds, Central Bank.

Market share of government bonds in the bond market

Score	Criteria for assessing market share of government bonds, %
-1	<10%
-0,5	10-20%
0	20-30%
0,5	30-40%
1	>= 40%

The benchmarks are based on a dynamic database with selective geographic coverage, thus it is possible that they will be changed in the future.

Liquidity of the government bond market

Score	The value of traded volumes of government bonds as percentage of total market value of the bond market, %
-1	<=5%
-0,5	5-10%
0	10-15%
0,5	15-30%
1	>30%

2.4. Investment potential

The purpose of this section is to assess the risks of the growth of the economy related to the investment potential. Excessively low rates of foreign direct investments indicate a low investment potential in the country and therefore affect the rating negatively.

Sources of information: World Bank, Central Bank.

Foreign direct investment, net inflows / GDP

Score	Foreign direct investment, net inflows / GDP, %
-1	<=0%
-0,5	0-1%
0	1-2%
0,5	2-3%
1	> 3%

Weighted change in foreign direct investment, net inflows / GDP over the last 6 years

Score	Weighted change in the foreign direct investment, net inflows / GDP over the last 6 years, p.p.
-1	For a weighted reduction by more than 1 p.p.

[-1;1]	For a weighted growth of less than 0,05 percentage point, or reduction small than 2 p.p.
1	For a weighted growth more than 0,05 p.p.

3. Characteristics of government policy

3.1. Fiscal policy

The purpose of this section is to assess the risks and opportunities related to the government's fiscal policy. A more sustainable fiscal policy has a positive impact on the rating assessment.

3.1.1. Government capacities and plans of privatization

Sources of information: IMF, Ministry of Finance, Privatization Agency of the Country, Open Sources.

Score	**Number of government-owned companies**
1	There are many large state-owned enterprises which theoretically can be privatized in the country and, at the same time, there are major privatization plans with potential to generate considerable budget revenues. The country also has a good track record of successful privatization procedures.
0	there are few large or no state-owned companies that can be privatized, OR there are some organizational problems with privatization in the country, OR there is insufficient information for the assessment this factor, OR there are no plans of privatization
-1	privatization is completely or partly not feasible

3.1.2. Quality of fiscal policy

Sources of information: Ministry of Finance, Central Bank, IMF, Open Sources.

Score	Analyst assessment of the Fiscal Policy
1	The fiscal policy is assessed as sustainable (assessed by fiscal flexibility, long-term fiscal trends and vulnerabilities, debt structure and funding access)
-1	The fiscal policy is assessed as NON sustainable (assessed by fiscal flexibility, long-term fiscal trends and vulnerabilities, debt structure and funding access)

Other situations are assessed from “-1” to “1

3.2. Monetary policy

The purpose of this section is to assess the risks and opportunities related to the monetary policy of the government. A more sustainable monetary policy has a positive effect on the rating assessment.

3.2.1 Exchange-rate regime

Sources of information: IMF, Central Bank.

Score	Exchange rate regime
-1	Fixed rate
0	rate pegged to another currency
1	Free floating

Fixed exchange rate is dangerous because in such case the government can spend all reserves and funds in order to maintain the exchange rate.

3.2.2 Quality of monetary policy

Sources of information: IMF, Central Bank, Ministry of Finance.

Score	Quality of Monetary Policy
-1	The monetary policy is NOT credible as assessed by the trend in inflation rate mainly. Also the monetary policy mechanisms DOES NOT function correctly (assessed by the impact of interest rates on inflation)
1	The monetary policy is credible as assessed by the trend in inflation rate mainly. Also the monetary policy mechanisms function correctly (assessed by the impact of interest rates on inflation)

The score is between “-1” and “1” (with an interval of 0,5[2]). Other situations should be assessed from “-1” to “1”.

3.3. Changes in fiscal and monetary policy

The purpose of this section is to assess the flexibility of the government policy (whether the government can admit its mistakes and change the policy). More flexibles and accommodating policies have a positive impact on the rating.

Sources of information: IMF, Open Sources, Ministry of Finance.

Score	Quality of Monetary Policy
-1	If during the period since the last default (if it was) or since the previous serious crisis, NO significant changes in the fiscal and/or monetary policy have occurred
1	If during the period since the last default (if it was) or since the previous serious crisis, significant changes in the fiscal and/or monetary policy have occurred OR There were no defaults in the country.

The score can be changed from “-1” to “1” (with the interval “0,5”).

[2] The following scores are possible: -1; -0,5; 0; 0,5; 1.

A good indicator of the overall government policy quality, as well as policy formulation and implementation and the credibility of the government's commitment to such policies, is the Government Effectiveness Index (see Section 5.1.1 of this document). The uses this index as part of his final judgement with regards to government policy quality and flexibility.

4. Structure and competitiveness of the economy

4.1. Concentration of the economy on the three largest sectors

The purpose of this section is to assess the risks related to the country's economy, as well as to the concentration on certain sectors of the economy. A highly concentrated economy on few industries affects the rating negatively.

Sources of information: National statistical Agency

Score	The concentration of the economy on three largest sectors, %
-1	> 75%
-0,5	60-75%
0	45-60%
0,5	30-45%
1	<=30%

4.2. Weighted population dynamics over the last 6 years

The purpose of this section is to assess the risks related to decline of population in the country. A declining population affects the rating negatively.

Sources of information: IMF

Score	Weighted population change over the last 6 years, %
-1	For a weighted population decline
0	Other
1	For a weighted population growth of more than 0,5%

4.3. Competitiveness of the economy

The purpose of this section is to assess the risks related to the competitiveness of the country's economy in global markets. A poorly competitive economy has a negative impact on the rating assessment.

4.3.1 Competitiveness index

Sources of information: World Economic Forum.

Score	Competitiveness Index
-1	<3,5
-0,5	3,5 - 4
0	4 - 4,5
0,5	4,5 – 5,2
1	>= 5,2

4.3.2 Outflows or inflows of funds from foreign trade

Sources of information: Central Bank, IMF.

Score	**Balance on goods and services** / GDP, %
-1	Balances for the last 2 years were negative and more than 1% (module) of GDP
0	All other cases
1	Balances for the last 2 years were positive

4.4. Geographical and geopolitical conditions

The purpose of this section is to assess the risks related to the geographic and geopolitical position of the country. A strong geographical and geopolitical position has a positive effect on the rating.

4.4.1 Country's borders

Score	Description
-1	It borders with countries which have military conflicts
0	All other cases
1	It borders with “strong” country / countries

Strong country refers to a country with high GDP per capita in PPP terms and high HDI (top 20 for both).

4.4.2 Territorial waters

Score	Description
-1	Landlocked country
0	Landlocked euro zone countries, which have free access to ocean because of the openness of borders.
1	There is access to the ocean

4.4.3 Natural resources

Score	Description
-1	Lack of resources, dependence on imports of several important resources
0	All other cases
1	Many resources (country has main types of fuels, forest, water, metals, etc.)

4.4.4 Natural and climatic threats

Score	Description
-1	Natural and climate disasters regularly occur
0	All other cases
1	Stable region

4.4.5 Environmental threats

Score	Description
-1	Environmental threats regularly occur
0	All other cases
1	Stable region

4.4.6 Negative rankings

The expert specifies if the country is one of TOP-10 for anything bad.

Score	Description
-1	Country is among TOP-10

0	No Ranks

4.4.7 Positive rankings

The expert specifies if the country is one of TOP-10 for something good, for example: large volume of natural resources.

Score	Description
1	Country is among TOP-10
0	No Ranks

5. Institutional development of the country

5.1. Quality of the political regime

The purpose of this section is to assess the risks and opportunities related to the legitimacy of the political regime, the level of confidence in the government, level of corruption, presence of political and social conflicts. All these factors make the effective implementation of public policies difficult, and can show structural problems in the economy which might be impossible to overcome. In this sense, a poor quality of the political regime affects the rating negatively.

5.1.1 Government Effectiveness Index

The Government Effectiveness index captures the perceptions about the quality of public services, the quality of civil services and degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.

Sources of information: World Bank.

Score	Government Effectiveness Index (ranging from approximately -2.5 to 2.5)
-1	<=-1,1
-0,5	-0,3
0	-0,8 – (-0,1)
0,5	-0,1 – 0,6
1	>0,6

5.1.2 Level of corruption

Sources of information: Transparency International.

Score	The level of corruption perception index (the higher the better)
-1	<25
-0,5	25-30
0	30-45
0,5	45-70
1	>= 70

5.1.3 Political Stability and Absence of Violence/Terrorism Index

Political Stability and Absence of Violence/Terrorism measures perceptions of the likelihood of political instability and/or politically-motivated violence, including terrorism.

Sources of information: World Bank.

Score	Political Stability and Absence of Violence/Terrorism Index (ranging from approximately -2.5 to 2.5)
-1	<=-1,1
-0,5	-0,3
0	-0,8 – (-0,1)
0,5	-0,1 – 0,6
1	>0,6

5.2. Quality of the business environment

The purpose of this section is to assess the risks and opportunities related to the quality of the business environment and doing business in the country. Business, among other things, is a source of tax revenues for the Government. The lower the quality of the business environment, the lower the rating.

Sources of information: World Bank (Doig Business)

Score	Place in the ranking of doing business

-1	<147
-0,5	110-147
0	73-110
0,5	37-73
1	>37

5.3 Level of investment in human capital

The purpose of this section is to assess the risks and opportunities associated with the level of human development in the country. A high human development affects the rating positively.

Sources of information: United Nations (Human Development Report).

Score	Human Development Index, inequality adjusted
-1	<0,3
-0,5	0,3-0,45
0	0,45-0,6
0,5	0,6-0,75
1	>= 0,75

5.4 Rule of Law Index

The rule of Law index captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence. The higher the rule of law perception in a country, the higher the rating assessment.

Sources of information: World Bank

Score	Rule of Law Index (ranging from approximately -2.5 to 2.5)
-1	<=-1,1
-0,5	-0,3
0	-0,8 – (-0,1)
0,5	-0,1 – 0,6
1	>0,6

5.5 Level of information transparency of the government and the government policymaking

The purpose of this section is to assess the level of disclosure of the government statistics as well as the transparency perception of the government policymaking. A high the level of disclosure of information of a government and a highly transparent policymaking disclosure affects the rating positively.

5.5.1 Level of information transparency of the government

Sources of information: Expert's opinion, based on the results of searching for information about the country, taking into account the transparency of information, ease of finding this information and other factors.

The expert assigns the score from "-1" to "1" (with an interval of 0,5) on the basis of the following factors:

1) How easy it was to fill in the calculation file and search for the necessary information (whether the Ministry of Finance and the Central Bank publish information about their performance, how relevant and up-to date is the main statistical web-site, etc.);
2) How often the official information published by public or private organizations in the country turns out to be wrong (for example: official statistics in Uzbekistan is sometimes different from the words of the President and then suddenly disappears; Russia could also be characterized by manipulations with statistics)

5.5.2 Level of information transparency of the government policymaking

Sources of information: World Economic Forum (Global Competitiveness Index).

Score	Transparency of government policymaking (ranging from 1 to 7 (best))
-1	<=3
-0,5	3 – 3,5
0	3,5 – 4
0,5	4 – 4,5
1	>4,5

6. Assessment of currency risk

This section analyzes 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 level of foreign exchange reserves and limited sources of their funding, and at the same time, the country depends on external financing, import of goods or services.

As a result of the currency risk assessment, the rating score can be reduced by 1-2 sub-levels when assigning a rating in foreign currency. The reduction of 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 the shortage of foreign currency);
- Risk of significant foreign exchange losses due to the volume of currency transactions with weak local currency.

6.1. Volume of foreign exchange debt of the government

The purpose of this section is to assess the currency risks arising from the government debt load expressed in foreign currency. The higher the FX debt, the larger the need for the government to rise foreign currency and to hedge from a potential devaluation. A lower FX-denominated government debt affects the rating positively.

6.1.1. Volume of foreign currency debt / GDP

Sources of information: World Bank, IMF, Central Bank, Ministry of Finance, National Statistical Agency.

Score	Volume of foreign currency debt / GDP, %
-1	>50
0	<50

6.1.2. Volume of foreign currency debt / government revenues

Sources of information: World Bank, IMF, Central Bank, Ministry of Finance, National Statistical Agency.

Score	Volume of foreign currency debt / government revenues, %
-1	>100
0	<100

6.1.3. Volume of foreign exchange reserves/ foreign currency debt

Sources of information: World Bank, IMF, Central Bank, Ministry of Finance, National Statistical Agency.

Score	Volume of foreign exchange reserves/ foreign currency debt, %
-1	<50
0	>50

6.2. Import / GDP

The purpose of this section is to assess the currency risks arising from the need of FX for imports. The higher the amount of imports of the country, the larger the need for the country to rise foreign currency and to hedge from a potential devaluation. A lower import to GDP ratio affects the rating positively.

Sources of information: World Bank, Central Bank

Score	Import / GDP %
-1	>50
0	<50

6.3. Currency status

The purpose of this section is to assess the currency risks arising from the strength of the national currency. A strong and widely-accepted currency contributes to mitigate potential currency risks, and therefore affects the rating positively.

Sources of information: Open Sources.

Score	Currency status
-1	Risky currency
0	Other
1	Reserve currency

There is no general definition of the "reserve currency status", but the United States dollar, Euro, Japanese yen and British pound are the four currencies of Special drawing rights (SDR) of the IMF, and they now account for more than three-quarters of global currency turnover. Other currencies with the characteristics of the reserve currency are: Swiss franc, Australian dollar and, to a lesser extent, New Zealand dollar and Canadian dollar, as well as Swedish and the Danish Krone. Countries with actively traded currencies, include countries with currencies which formed 1% of world trade accounts according to the Bank for International Settlement (BIS) (see Report "Triennial Central Bank Survey"), and which are not reserve currencies.

6.4. Balance of payments /GDP

The purpose of this section is to assess the currency risks arising from large and negative balances of payments. Positive balances of payment contribute to mitigate potential currency risks, and therefore affects the rating positively.

Sources of information: Central Bank, National Statistics Agency

Score	Balance of payments /GDP, %
-1	<-1%
0	>-1%

If the balance is negative, but its absolute value is less than 1% (meaning that it was scored "0") and at the same time the country has a low score for currency risks, negative balance is an additional argument to downgrade the score.

6.5. Whether the country is a member of economic and trade organizations/zones

The purpose of this section is to assess the currency risks arising from the exclusion of the country from economic and trade organizations and special zones. A country involved in economic and trade organizations is likely to have less obstacles to place its exports abroad, which ultimately contributes to an inflow of FX into the country. For this reason, the membership of a country in an economic and trade organization affects the rating positively.

Sources of information: Open Sources.

Score	Member of economic and trade organizations/zones
-1	the country is not a member of such organizations or organizations are very weak and/or actually nonperforming organizations
0	All other cases

6.6. Access to financing from international organizations

The purpose of this section is to assess the currency risks arising from restricted access to financing from international organizations. Access to finance from these organizations contribute to mitigate potential currency risks, and therefore affects the rating positively.

Sources of information: Open Sources, IMF, World Bank.

Score	Access to financing from international organizations
-1	the country does not have access to financing by international organizations or the access is severely restricted (for example, South Africa or the countries of the Persian Gulf in the past)
0	All other cases

6.7. Restrictions on operations in foreign currency

The purpose of this section is to assess the currency risks arising from restrictions to operate in FX. Freedom to operate in FX contribute to mitigate potential currency risks, and therefore affects the rating positively.

Sources of information: Open Sources

Public information.

Score	Restrictions on operations in foreign currency
-1	restrictions exist now or were imposed during the last year
0	All other cases

6.8. Exchange-rate regime

The purpose of this section is to assess the currency risks arising from the exchange rate policy of the country. Freedom to operate in FX contribute to mitigate potential currency risks, and therefore affects the rating positively.

Sources of information: Open Sources, Central Bank, IMF

Score	Exchange rate regime
-1	if the country has a negative score for exchange-rate regime (see section 3.2.1) as this indicates the following risk: government can impose restrictions on the circulation of currency in order to support the rate if the currency regime is fixed
0	All other cases

6.9. Net foreign assets / GDP

The purpose of this section is to assess the currency risks arising from the amount of net foreign assets of a country. Large amounts of net foreign assets act as buffers for potentials financial distress, contribute to mitigate potential currency risks, and therefore affects the rating positively.

Sources of information: World Bank

Score	Net foreign assets/GDP, %
-1	if the value of the net foreign assets to GDP, % does not exceed 5%
0	All other cases

6.10. Exports of goods and services / GDP

The purpose of this section is to assess the currency risks arising from meager export volumes. Large amounts experts as compared to GDP boost FX inflows to the country, contribute to mitigate potential currency risks, and therefore affects the rating positively.

Sources of information: World Bank

Score	Exports of goods and services / GDP, %
-1	if the value of the exports of goods and services to GDP, % does not exceed 25%
0	All other cases

6.11. Total reserves in months of imports

This factor can be omitted from the analysis if the expert considers that the level of reserves is not a determinant for the creditworthiness of the country. The majority of developed countries do not hold a significant amount of FX reserves compared to their average amount of monthly imports of goods and services. However, given the economic stance of these countries and the strength of their currencies, we normally consider that the level of FX reserves does not play a crucial role in their rating assessment.

Sources of information: World Bank, Central Bank.

Score	Total reserves in months of imports
-1	if the value of the total reserves in months of imports does not exceed 2
0	All other cases

6.12. Foreign exchange rate volatility

The purpose of this section is to assess the currency risks arising from FX rate volatility. The volatility of the exchange rate is assessed by analyzing the one year period volatility of the local currency vs US dollar exchange rate growth taken at a daily frequency. Wide FX rate volatility has a direct impact on the debt payment of the government and on terms of trade, therefore it affects the rating negatively.

For the assessment the analyst source the daily foreign exchange rate of the local currency against the US dollar on a span of calendar year from either statistical database of the country's Central Bank or the database of the country's official statistical service. If FX rates are not found/available at the above mentioned statistical sources the analyst may source the data from a reliable third-party provider.

Score	Foreign exchange rate volatility
-1	if the value of the one year period local currency foreign exchange rate vs US dollar growth volatility does not exceed 0,9
0	All other cases

7. Support- and stress-factors

7.1 Support-factors

Support-factors can increase the rating by 1-3 sublevels. The extent of the support-factor's influence is summarized below:

Support-factor:		Score:
Weak	Very weak	0,125
	Weak	0,25
	Moderately weak	0,375
Medium	Medium weak	0,5
	Medium strong	0,625
Strong	Moderately strong	0,75
	Strong	0,875
	Very strong	1,0

1. **Exceptionally high level of foreign exchange reserves.**

If the country has a fixed or partially fixed exchange rate, the expert shall be careful with this factor: in the case of a crisis situation, a large part of the foreign exchange reserves can be spent on the maintenance of exchange rate (something similar was in Russia in 2008). **Country can be scored, even with a weak-factor, only when the amount of foreign exchange reserves exceed the volume of GDP**.

2. **Participation in currency/ political union.**

Examples: the EU is a strong support factor, NAFTA, ANZUS – are medium, countries of the Customs Union should be assigned with a weak support-factor.

3. **The country has extremely strong financial system, which affects other countries, and the country has a large economy.**

Examples: United States - one of the leading countries in terms of GDP at PPP, it has the main reserve currency and "powerful" financial market. The United Kingdom is one of the leading countries in terms of GDP at PPP, it has an important reserve currency, strong banking sector and financial markets.

4. **The country has very strong and important reserve currency**

At the moment the maximum level of this factor is medium (see the comments to the section "Currency status"). United States dollar, Yen, Pound, Canadian dollar and Australian dollar should be scored as a medium support factor. Euro should be scored as a weak support factor because of the current instability in the Eurozone.

7.2 Stress-factors

Stress-factors can reduce the rating by 1-3 sublevels. The extent of the stress-factor's influence is summarized below:

Stress-factor:		Score:
Weak	Very weak	0,125
	Weak	0,25
	Moderately weak	0,375
Medium	Medium weak	0,5
	Medium strong	0,625
Strong	Moderately strong	0,75
	Strong	0,875
	Very strong	1,0

1. **Significant changes of dates/rates/other terms and conditions of payment on the debt are announced, that could negatively affect the status of creditors.**

2. **High probability of significant political changes in the short run.**

Example: Egypt

3. **High probability of war/ war at the moment**

Examples: Syria, Libya

4. **Natural disasters, constant exposure to difficult natural conditions.**

5. **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.**

Information is taken from the spreadsheet „Add_for_climate_rating" of calculation file, line "Private-sector debt to GDP". If it is five times more than GDP, the expert shall include a weak stress factor. Examples: United Kingdom, Ireland.

6. **Risk of the need to support other related country.**

Example: Germany and France in the EU have a weak stress-factor in this case.

7. **Increased dependence on another country.**

Example: Greece and Cyprus in the EU. The level of this factor depends on the degree of dependence.

8. **Evidence of large contingent liabilities, such as debt of state-owned enterprises or large pension or other off-budget liabilities or evidence for hiding government debt in off-budget funds or state-owned enterprises.**

If there is a very high amount of contingencies due to high amount of debt to the state owned enterprises, large pension or other off-budget liabilities or evidence of hiding government debt in off-budget funds or state-owned enterprises, then the analyst may assign a weak stress-factor.

9. **Concentration of tax revenues on one industry.**

Example: Kazakhstan. The level of the factor depends on the degree of concentration. Kazakhstan has a weak-factor.

10. **Increased dollarization level.**

If the level of deposit dollarization in a country exceeds 40% (i.e. share of foreign currency deposits in total deposits exceeds 40%), an analyst may assign a weak stress-factor for an increased level of deposit dollarization in the country.

Score	Level of deposit dollarization, %
0,125	40-50%
0,25	50-60%
0,375	60-70%
0,5	70-75%
0,625	75-80%
0,75	80-85%
0,875	85-90%
1	>90%

The stress-factor can be set manually if the information for the dollarization level is not available.

11. Expert can provide other support and stress factors, if there is sufficient justification for them.

Example: imbalances generated by the “impossible trinity”3.   , etc.

[3] *«Impossible trinity»* is a trilemma in international economics which states that it is impossible to have all three of the following at the same time: A fixed exchange rate; Free capital movement (absence of capital controls); An independent monetary policy. See «Book of cases».

5. The rules for the determination of the outlook on the rating

Rating-Agentur Expert RA GmbH determines the rating outlook according to this methodology. Rating outlook means the opinion of the Agency on the probability of changes of the rating in one-year perspective (unless indicated otherwise). The rating of the rated entity can be assigned with one of the following outlooks:

- Positive outlook (high probability of rating upgrade within the following 12 months);
- Negative outlook (high probability of rating downgrade within the following 12 months);
- Stable (high probability of rating maintenance within the following 12 months);
- Developing outlook (the probability of the following rating actions is equal for the 3 months horizon: upgrade, downgrade and rating maintenance).

The outlook on the rating of a country is based on the Agency's expectations about the dynamics of the indicators, used in this methodology, i.e. the outlook is affected by the same factors as the assigned rating, including the stress- and support-factors. The rating outlook is applicable only for the final rating (not for the stand alone rating).

When assigning the outlook, the Agency takes into account the historical data of the rated entity, data from the entity's strategy, the Agency's own macroeconomic forecast.

When assessing the rated entity's perspectives, the Agency uses the key rating assumptions for the possible scenarios of the entity's dynamics, as well as the probability of each scenario. Such scenarios are the subjective opinion of the members of the rating committee. These scenarios can be based on the official strategy of the rated entity and internal calculations of the Agency. The outlook is sensitive to the final decision of the rating committee in the most probable scenario of the entity's dynamics. The planned changes in the regulation are taken into account for the outlook determination if they can have a significant influence on the rating.

The rating committee can determine the criteria, satisfaction or non-satisfaction of which, can lead to the changes in the rating (rating sensitivity).

Annex 1. List of indicators and corresponding weights

Factor	Weight for the SGC
I. Condition of the national economy	**50,0%**
Debt load of the government	**18,0%**
Gross government debt / GDP	
Weighted change in gross government debt / GDP over the past 6 years	
Gross government debt / budget revenues	
Weighted change in gross government debt / budget revenues over the last 6 years	
Foreign exchange reserves / gross government debt	
Amount of contingent liabilities	
Structure of government debt	**8,0%**
Short-term debt / GDP	
Short-term debt / budget revenues	
Foreign exchange reserves / short-term debt	
Spread between the country's and US 10Y bond yield,%	
Obligations of the government to adjust the rate of internal or external debt	
Condition of the government budget	**7,0%**
Fiscal balance / GDP	
Weighted change in fiscal balance / GDP over the last 6 years	
Level and dynamics of production	**7,0%**
GDP per capita	
Weighted change in real GDP per capita over the last 6 years	
Weighted change in real GDP over the last 6 years	
Inflation rate and its dynamics	**5,0%**
Inflation rate	
Dynamic and volatility of inflation rate	
Unemployment rate and its dynamics	**5,0%**
Unemployment rate	
Weighted change in the rate of unemployment over the past 6 years	
II. Level of development and risks of the country financial system	**22,0%**

Banking system	**13,5%**
Banks' assets / GDP	
Weighted change of banks' assets / GDP over the past 6 years	
Volume of private credit / GDP	
Weighted change in the volume of private credit / GDP over the past 6 years	
Share of distressed loans in total loans	
Weighted change in share of distressed loans to total loans over the last 6 years	
Average level of capital adequacy in the banking system	
Weighted change in the average level of capital adequacy of banks over the past 6 years	
Concentration of the banking system in three largest banks	
Profitability of banks, ROA	
Share of public debt in Banks' assets	
Share of state-owned banks in the banking sector	
Stock market	**1,5%**
Total market capitalization of companies on national stock exchanges / GDP	
Concentration of trades in shares on the largest issuers	
Bond Market	**3,5%**
Total value of outstanding bonds to GDP,%	
Development and risks of internal corporate bonds market	
Market share of domestic corporate bonds in the bond market	
Liquidity of corporate bond market	
Market of government bonds	
Market share of government bonds in the bond market	
Liquidity of the government bond market	
Investment potential	**3,5%**
Foreign direct investment, net inflows / GDP	
Weighted change in foreign direct investment, net inflows/ GDP over the past 6 years	
III. Characteristics of government policy	**9,0%**
Fiscal policy	**3,5%**

Government capacities and plans of privatization	
Quality of fiscal policy	
Monetary policy	**4,5%**
Exchange-rate regime	
Quality of monetary policy	
Changes in fiscal and monetary policy	**1,0%**
IV. Structure and competitiveness of the economy	**11,0%**
Concentration of the economy in three largest sectors	**2,0%**
Population dynamics	**1,0%**
Competitiveness of the economy	**3,0%**
Competitiveness Index	
Outflows or inflows of funds from foreign trade/GDP	
Geographical and geopolitical conditions	**5,0%**
Country's borders	
Territorial waters	
Natural resources	
Natural and climatic threats	
Environmental threats	
Place in rankings (negative)	
Place in rankings (positive)	
V. Institutional development of the country	**8,0%**
Level of corruption, CPI	
Government Effectiveness Index	
Quality of the business environment, position in Doing Business Ranking	
Level of investment in human capital, adjusted for inequality	
Rule of Law Index	
Transparency of government policymaking Index	
Level of information transparency of the government	
Political Stability and Absence of Violence/Terrorism Index	
Government policy	**0%**

Policy of the government in financial markets	
Level of institutional development of the country	**0%**
Time from the moment of default until decision on the distribution of defaulted company's assets, years	
Quality of investor protection in the country (the score can be adjusted by expert opinion)	
VI. Assessment of currency risks	**10**
Currency debt / GDP	
Currency debt / government revenue	
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	
Is there access to financing in the international organizations	
Are there any restrictions on operations in foreign currency	
Exchange-rate regime	
Net foreign assets / GDP	
Exports of goods and services / GDP	
Total reserves in months of imports	
Foreign exchange rate volatility	
VII. "Support" factors	**15% each**
Exceptionally high level of foreign exchange reserves (0,125 step)	
Participation in currency/ political union (0,125 step)	
The country has extremely strong financial system which affects other countries (0,125 step)	
The country has very strong and important reserve currency (factor of medium or weak support) (0,125 step)	
Other (0,125 step)	
Other (0,125 step)	
VIII. "Stress" factors	**15% each**

Significant changes of dates/rates/other terms and conditions of payment on the debt are announced that could negatively affect the status of creditors (0,125 step)	
High probability of significant political changes in the short run(0,125 step)	
High probability of war/ war at the moment (0,125 step)	
Natural disasters, constant exposure to difficult natural conditions (0,125 step)	
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 (0,125 step)	
Evidence of large contingent liabilities, such as debt of state-owned enterprises or large pension or other off-budget liabilities or evidence for hiding government debt in off-budget funds or state-owned enterprises (0,125 step)	
Risk of the need to support other related country (0,125 step)	
Concentration of tax revenues on one industry (0,125 step)	
Increased dependence on another country (0,125 step)	
Increased dollarization level (step 0,125)	
Other (0,125 step)	
Other (0,125 step)	

Table matching scores and levels of rating:

0,75 and above	AAA
[0,70; 0,75)	AA+
[0,65; 0,70)	AA
[0,60; 0,65)	AA-
[0,55; 0,60)	A+
[0,50; 0,55)	A
[0,45; 0,50)	A-
[0,40; 0,45)	BBB+
[0,35; 0,40)	BBB
[0,30; 0,35)	BBB-
[0,25; 0,30)	BB+
[0,20; 0,25)	BB
[0,15; 0,20)	BB-
[0,10; 0,15)	B+
[0,05; 0,10)	B
[0; 0,05)	B-
[-0,05; 0)	CCC+
[-0,10; -0,05)	CCC
[-0,15; -0,10)	CCC-
[-0,20; -0,15)	CC
[-0,25; -0,20)	C
[-0,30; -0,25)	D

Annex 2. List of weights for the assessment of factor dynamics

Dynamics weights					
Year	t	t-1	t-2	t-3	t-4
Relative weight	33%	27%	20%	13%	7%