Justification of the discounting rate components for the implementation of socially oriented projects

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Characteristics of methods for calculating the discount rate

Method name	General characteristics
Cumulative construction method	Provides for the summation of the risk-free rate with all compensation for the risk with which the object of assessment is overloaded
Comparative sales method	The discount rate is determined by dividing the net operating flow by similar objects by their market value (in commercial transactions)
Related investment method	Used in two varieties: 1) for equity and debt capital; 2) to the constituent elements of the object implies that the rate of discount on the average technology
WACC weighted average cost of capital method	The discount rate is set according to the level of weighted average cost of capital
The method of internal rate of return	Implemented in two forms: simple and modified; involves the installation rate of discount according to the level of internal rules yield equity investor
LIBOR bet method	The rate of discount is set according to the value of the monetary unit at the London currency exchange, considering the risk of state
CAMP capital assets method	The discount rate is determined through the existing capital market

Risk factors

Risk factors	Risk premium, %
A key figure in leadership; quality of leadership	0–5
Company size	0–5
Financial structure	0–5
Production and territorial diversification	0–5
Clientele diversification	0–5
Revenues: profitability and predictability	0–5
Other special risks	0–5

To adjust the CAPM associated with the assessment of low liquidity, there are two solutions:

1) accounting for the risks of acquiring low-liquid stocks when adding the appropriate risk assessment to the results obtained with the help of CAPM, ie to the pre-established discount rate;

2) adjustment of the obtained result of the assessment of stock profitability (excluding insufficient liquidity) by means of a discount for lack of liquidity.

Types of risks that determine the impact on the level of the discount rate

TYPES OF RISKS

- Risk of underfunding by source of income (graded risk premium 0-5%)
  - From the state, shortfall of budget allocations
  - From financial institutions, changes in lending volumes
  - From the investor, change in the amount of investment capital
- Risk of loss of income (graded risk premium 0-5%)
  - Inflation allowance
  - Changing the conditions for the implementation of the project relative to the planned
  - Failure to comply with the effect of the implementation of the project
- Risk of cost growth (graded risk premium 0-5%)
  - Exchange rate change
  - Industrial and territorial diversification
  - The risk of growth in the cost of the project

Leading rating agencies rank long-term investment risks

Risk Ranking Conditions	Standard & Poor's	Fitch	Moody’s	% Risk premium
The country has exceptionally high opportunities to pay interest on debt obligations and the debts themselves	AAA	AAA	Aaa	0
The country has extremely high capabilities to pay interest on debt obligations and the debts themselves, in line with long-term ratings	AA+ AA AA-	AA+ AA AA-	Aa1 Aa2 Aa3	1
The country's ability to pay interest and debt is highly valued, but it depends on the economic situation	A+ A A-	A+ A A-	A1 A2 A3	2
The capacity to pay of the country is considered satisfactory	BBB+ BBB BBB-	BBB+ BBB BBB-	Baa1 Baa2 Baa3	3
The country is solvent, but unfavorable economic conditions can adversely affect the possibility of payments	BB+ BB BB-	BB+ BB BB-	Ba1 Ba2 Ba3	4
The level of solvency of the country is quite low	B+ B B-	B+ B B-	B1 B2 B3	5

The amount of the risk premium, which provides for a possible shortfall in funds from financial institutions, can be set at the following gradation

Risk Ranking Conditions	Risk premium, %
The financial institution (bank) is included in the rating of the first 10 banks according to the rating of the NBU and / or the Ministry of Finance, rating agencies at the time of formation of the project	0
The financial institution (bank) has a rating position from 11 to 20 according to the ratings of the NBU and / or the Ministry of Finance, rating agencies at the time of formation of the project	1
The financial institution (bank) has a rating position from 21 to 30 according to the ratings of the NBU and / or the Ministry of Finance, rating agencies at the time of formation of the project	2
The financial institution (bank) has a rating position from 31 to 40 according to the ratings of the NBU and / or the Ministry of Finance, rating agencies at the time of formation of the project	3
The financial institution (bank) has a rating position from 41 to 50 according to the ratings of the NBU and / or the Ministry of Finance, rating agencies at the time of formation of the project	4
The financial institution (bank) has a rating position below 50 according to the ratings of the NBU and / or the Ministry of Finance, rating agencies at the time of formation of the project	5

In an unstable economy, it is also necessary to take into account the risk of increasing the cost of implementing the project, whose impact can be diversified as follows

Risk Ranking Conditions	Risk premium, %
The economy is stable there are no prerequisites for an increase in the cost of materials and related services	0
Fluctuations in the economy are present at a minimal level	1
The economy is characterized by a slight and periodic increase in the cost of raw materials and related services	2
The economy is characterized by a slight and constant increase in the cost of raw materials and related services	3
The economy is characterized by fluctuations in the cost of raw materials and related services within inflation	4
The economy is characterized by fluctuations in the cost of raw materials, materials and related services, which exceeds inflation rates	5

Thank you for attention!