

CREDIT RATING AND ASSESSMENT PRINCIPLES REGARDING BANKS

The internal credit rating and assessment study, utilized to examine the creditworthiness of the deposit and participation Banks and development and investment banks operating in Turkey and to calculate the upper level for the limits established by Takasbank in favor of them or to determine the membership types, uses independently audited non-consolidated financial tables, annual reports, market intelligence information, news in the printed and visual media and independent credit rating grades.

The data used in the internal credit rating and assessment study, is obtained from, Association of Banks in Turkey, Association of Participation Banks in Turkey, Banking Regulation and Supervision Agency, Capital Markets Board, Istanbul Borsa Inc. and independent rating firms' websites, the assessed bank and media.

The weighting of the financial data which consists of the financial items and ratios derivable from the financial tables used in the credit rating model, is 100%, the weighting of the non-financial data which reflects expert opinion 0%.

FINANCIAL DATA

Financial data consists of the data compiled by the Association from the past 3 years' financial tables that banks send to the Association of Banks in Turkey or the Association of Participation Banks in Turkey. The past 3 years' data weighting is 50, and in that order, 30 and 20% respectively for the remaining years.

The financial data, is classified under 2 major headlines, financial items and financial ratios.

Table 1 Financial Data Distribution and Weighting

Financial Data	Weighting (%)
Financial Items	10
Financial Ratios	90
Total	100

Financial Items:

Financial items consist of items, selected differently for deposit and participation banks and investment and development banks. The sizes within the financial items are scored differently according to their significance. During scoring, at the outset, the sectorial values for the banking sectors are calculated separately for the deposit& participation banks and development and investment banks and the sectorial average is compared with each bank's own value. While calculating the sectorial averages, if required, the largest and smallest data may be removed from the average, to reduce the impact of the outliers, not to exceed 10% of the number of data. For each bank, the scores are calculated out of 100, with the condition that those with sectorial average equivalent following the comparison, values receive 70%.

Table 2 Financial Items Used

Deposit and Participation Banks	Development and Investment Banks
Total Assets	Total Assets
Liquid Assets	Liquid Assets
Deposits / Collected Funds	Deposits / Liabilities outside collected funds
Deposits/Liabilities outside collected funds	Shareholders' Equity
Shareholders' Equity	Net Term Profit/ Loss
Net Term Profit/ Loss	Net Interest Income Expense
Net Interest/ Dividend Income and Expenses	
Net Fees/ Commission Income and Expenses	

Financial Ratios

Financial ratio score calculation varies according to ratios. Before the ratio score calculation, banks are classified into groups such as similar bank groups. During scoring, for same ratios the score is distributed according to proximity or distance to similar bank group's average, while for others proximity and distance to generally accepted benchmarks or those defined by authorities. Scoring based on comparison to benchmarks, assigns the scores in two parts, benchmark score and internal score. Sectorial or similar bank group average based scoring lies on the general principle that the bank with the average value can receive maximum 70% on the subject ratio. The remaining part of the score increases or decreases in direct proportion with the distance or proximity to the average.

In ratio analysis 6 different ratio sets are used in capital adequacy, asset quality, financial structure, income/ expense structure, profitability and liquidity groups. The ratios' reliability level is tested by comparing to the fixed levels or the averages calculated for sectorial and bank subgroups. Ratio groups, and ratio tables, which are contained in the groups, for deposit & participation banks and development & investment banks, are as per Table 3.:

Table 3 Ratio table in use

Ratio Groups and Ratios	Deposit and Participation Banks	Development and Investment Banks
CAPITAL ADEQUACY		
Capital Adequacy Ratio	√	√
Shareholders' equity/ Total Assets	√	√
Tier 1 Capital/ Total Liabilities (Leverage Ratio)	√	√
ASSET QUALITY		
Non-Income Generating Assets + Fixed Assets/ Total Assets	√	-
Individual Loans Increase Rate	√	-
Corporate Loans Increase Rate	√	√
Gross Non-performing Loans/ (Total Loans and Receivables + Gross Non-performing Loans)	√	√
Total Non -deposit Liability / Shareholders' Equity	-	√
Cash Group Loans/ Shareholders' Equity	-	√

(Cash+ Non-cash Group Loans) / (Loan and Receivables+ Non-cash Loans)	-	√
FINANCIAL STRUCTURE		
(Total Foreign Currency Assets+ Receivable from Derivatives)/ (Total Foreign Currency Liabilities+ Obligations due to Derivatives)	√	√
Average Call Deposits in TRY / Average Total TRY Deposit	√	-
Average FX Call Deposits/ Average Total Foreign Currency Deposit	√	-
INCOME- EXPENSE STRUCTURE		
Average Liability Cost (TRY)	√	√
Average Liability Cost (FX)	√	√
Net Interest Margin (TRY)	√	√
Net Interest Margin (FX)	√	√
Non-interest Income/ Total Operational Cost	√	√
Employment Costs/ Non-interest Income	√	√
PROFITABILITY		
Net Income/ Average Total Assets	√	√
Net Income/ Average Shareholders' Equity	√	√
LIQUIDITY		
Liquid Assets/ Total Assets	√	√
Liquid Assets/ (Total Foreign Liabilities+ Non-cash Loans)	√	√
Short Term Assets/ Short Term Liabilities	√	√
Total Loans and Receivables/ (Total Deposits or Collected Funds) + Issued Securities	√	-
Borrowings/ Total Assets	-	√

INDEPENDENT RATING ADDITIONAL SCORE

Independent Credit Rating Grade

Independent credit rating grades are obtained from the firms themselves, rating agencies' websites, bank's websites, annual reports or other sources on the Internet.

Banks and their domestic and overseas majority partners' or their head quarter's credit rating from independent rating agencies may be reflected to the internal credit rating and assessment grade in accordance with the aforementioned principles.

The credit ratings must be received or reviewed in the past year to take into consideration. The unsolicited credit ratings are not taken into consideration.

The other credit rating agencies that may be considered are Fitch, Moody's, Standard & Poors, Japan JCR and DBRS (Dominion Bond Rating Services). The credit ratings assigned by domestic agencies affiliated with the aforementioned agencies, are taken into consideration if authorized by the BRSA (BDDK) or CMB (SPK). The credit ratings assigned by the other domestic agencies are taken into consideration if they are authorized both by the BRSA (BDDK) and CMB (SPK). Nevertheless, credit ratings assigned by the domestic agencies authorized only by the BRSA (BDDK) or CMB (SPK), are taken into consideration only if a second credit rating is available from another agency.

For domestic banks or their majority shareholders, long-term corporate national credit rating, otherwise international local currency credit ratings are used.

For banks' overseas headquarters or majority shareholders, international credit rating agencies' corporate long-term international foreign currency credit ratings are used.

If the bank and the bank's headquarters or majority shareholder both hold independent credit ratings, former in Turkey and latter in Turkey or abroad, one of the ratings or both of them are taken into consideration in accordance with the precautionary principle. In the presence of more than one credit rating, the lower one is taken into account. In the event of a negative opinion forming with regards to the authenticity and reliability of the credit ratings assigned by the rating agency, the rating is not taken into account. Table 4 is used to match internal credit rating and assessment grades with independent rating grades.

Table 4 Internal and Independent Rating Grade Matching Table

Internal Credit Rating and Assessment Grade	Independent Credit Rating Grades	
	Moody's	Fitch, S&P's, DBRS, JCR and others
TBD-A	AAA Aa1 Aa2 Aa3	AAA AA+ AA AA-
TBD-B	A1 A2 A3 Baa1 Baa2	A+ A A- BBB+ BBB
TBD-C	Baa3 Ba1 Ba2	BBB- BB+ BB
TBD-D	Ba3 B1 B2 B3	BB- B+ B B-
TBD-E	Caa1 Caa2 Caa3 D	CCC D

If the bank's appraised internal credit rating and assessment grade is equivalent to its or the majority shareholder's independent credit rating grade, the internal credit rating and assessment grade is not modified and the internal credit rating and assessment grade appraised by the Bank is taken into account.

If the bank's appraised internal credit rating and assessment grade is higher than its own or the majority shareholder's independent credit rating grade, the internal credit rating and assessment grade is downgraded in accordance with Table 5. If the brokerage firm's majority shareholder's independent credit rating shall be taken into account, 75% of the scores in Table 5 are considered.

If the bank's appraised internal credit rating and assessment grade is lower than its or the majority shareholder's independent credit rating grade and the appraised credit rating range is between TBD-B and TBD-D, extra points are added according to its or the majority shareholder's credit rating in line with Table 5. If the brokerage firm's majority shareholder's independent credit rating shall be taken into account, 75% of the scores in Table 5 are considered.

If the appraised internal credit rating and assessment grade is TBD-E, the brokerage firm’s or the majority shareholder’s independent credit rating grade is not taken into account and the appraised grade is not rectified.

Irrespective of the appraised internal credit rating and assessment grade, if the independent credit rating of the brokerage firm or the majority shareholder is “D (Default)”, their credit lines with our Bank is cancelled and he brokerage firm’s appraised grade is rectified as TBD-E.

While taking into account the majority shareholders’ independent credit rating grades, the Parent’s support grades which indicate the majority shareholder’s strength and intention to support the brokerage firm may be sought .

Table 5 Increase/ Decrease scale

	AAA Aaa	AA Aa	A A	BBB+ BBB Baa1 Baa2	BBB- BB+ BB Baa3 Ba1 Ba2	BB- B Ba3 B	CCC Caa	D D
TBD-A			0	-10	-20	-30	-40	CANCEL
TBD-B	+15	+10			-10	-20	-30	CANCEL
TBD-C	+20	+15	+10	+10		-10	-20	CANCEL
TBD-D	+25	+20	+15	+15	+10		-10	CANCEL
TBD-E	-	-	-	-	-	-		CANCEL

(*) If the independent credit rating grade of the brokerage firm’s majority shareholder shall be included in the appraisal, 75% of the points in the table are considered.

Corporate Governance Rating Grade

The Corporate Governance Rating grades are obtained from the firms themselves, the websites of the agencies that issue the report, banks’ websites, annual reports or other sources on the Internet. Banks’ grades, may be reflected in their internal credit rating and assessment grade. The grades must be received or reviewed in the past year.

The Corporate Governance Rating Grade is added to the internal credit rating and assessment score according to Table 6, not to exceed the total upper score.

Table 6 Corporate Governance Rating Grade

Corporate Governance Rating Grade	Extra Points
7,00 – 8,00	1,00
8,01 – 9,00	2,00
9,01 – 10,00	3,00

CREDIT RATING and ASSESMENT GRADE

The internal credit rating and assessment scores are calculated by multiplying the financial items and ratio scores calculated over of 100, by the division weightings. The final internal credit rating and assessment score is reached by additionally taking into account the independent credit rating and corporate governance rating grades.

As a result of the study, brokerage firms are rated one of the 5 grades below based on their total rating scores.

Rating and Assessment		Explanation
Class	Grade	
A	TBD-A	Very strong
B	TBD-B	Strong
C	TBD-C	Sufficient
D	TBD-D	Slightly insufficient
E	TBD-E	Highly insufficient

The evaluated bank's nominal and RMD based limits are calculated by multiplying the shareholders' equity by the shareholders' equity multiple in their corresponding group determined in this study, and their upper limits are set by adding up these limits.