



BULGARIAN  
STOCK EXCHANGE

# BSE AD

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**Methodology for Calculation of Financial Ratios**

## Methodology for Calculation of Financial Ratios

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### FINANCIAL RATIOS

BSE calculates the following financial ratios for the companies listed on BSE markets:

1. Current Ratio;
2. Asset Turnover Ratio;
3. Debt-To-Assets Ratio (D/A);
4. Return On Equity (ROE);
5. Return On Assets (ROA);
6. Earnings Before Interest & Tax (EBIT);
7. ROE using EBIT;
8. ROA using EBIT;
9. Price-To-Earnings Ratio (P/E);
10. Price-To-Sales Ratio (P/S);
11. Price-To-Book Ratio (P/B);

For the companies, which prepare consolidated financial reports, there shall be two different values calculated for each of the ratios above:

- Based on the data in the consolidated reports, and
- Based on the data in the non-consolidated reports.

### FINANCIAL RATIOS FOR LIQUIDITY

#### 1. CURRENT RATIO

*Current Ratio* = Current Assets / Current Liabilities

**Where:**

- **Current Assets and Liabilities** shall be the current assets and liabilities as per the last report of the company.

#### 2. ASSET TURNOVER RATIO

*Asset Turnover* = Sales / Total Assets

**Where:**

- **Sales** shall be the revenues (sales) of the company for the last four quarters;
- **Total Assets** shall be the average value of the total assets per the last five quarterly reports.

**Notes:**

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- When calculating the ratio for a holding company, both financial and non-financial revenues shall be included.

### FINANCIAL RATIOS FOR SOLVENCY

#### 3. DEBT-TO-ASSETS RATIO (D/A)

$$D/A = \text{Total Debt} / \text{Total Assets}$$

##### Where:

- **Total Debt** shall be the sum of the current liabilities and the non-current liabilities as per the last report of the company;
- **Total assets** shall be as per the last report of the company.

### FINANCIAL RATIOS FOR PROFITABILITY

#### 4. RETURN ON EQUITY (ROE)

$$ROE = \text{Net Income} / \text{Common Equity}$$

##### Where:

- **Net Income** shall be the net income **available to common shareholders** of the company for the last four quarters;
- **Common Equity** shall be the average value of the common equity as per the last five quarterly reports.

##### Notes:

- When calculating the ROE ratio based on the data from **the consolidated report**, the consolidated net income (excluding earnings from noncontrolling interest) shall be taken into consideration;
- When calculating the ROE ratio based on the data from **the consolidated report**, the noncontrolling interest in the common equity shall not be taken into consideration.

#### 5. RETURN ON ASSETS (ROA)

$$ROA = \text{Net Income} / \text{Total Assets}$$

##### Where:

- **Net Income** shall be the net income **available to common shareholders** of the company for the last four quarters;
  - **Total Assets** shall be the average value of the total assets as per the last five quarterly reports.
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### **Notes:**

- When calculating the ROA ratio based on the data from **the consolidated report**, the consolidated net income (excluding earnings from noncontrolling interest) shall be taken into consideration.

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### **6. EARNINGS BEFORE INTEREST & TAX (EBIT)**

*EBIT = Earnings Before Tax + Interest Expenses*

### **Where:**

- **Earnings Before Tax** shall be the earnings before taxation of the company for the last four quarters;
- **Interest Expenses** shall be the interest expenses of the company for the last four quarters;

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### **7. RETURN ON EQUITY USING EARNINGS BEFORE INTEREST & TAX (ROE USING EBIT)**

*ROE (USING EBIT) = EBIT / Common Equity*

### **Where:**

- **EBIT** shall be the *Earnings Before Interest & Tax* as per item 6 above, for the last four quarters;
- **Common Equity** shall be the value of the weighted average common equity as per the last five quarterly reports.

### **Notes:**

- When calculating the ROE (USING EBIT) Ratio based on the data from **the consolidated report**, the noncontrolling interest in the common equity shall be taken into consideration.

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### **8. RETURN ON ASSETS USING EARNINGS BEFORE INTEREST & TAX (ROA USING EBIT)**

*ROA (USING EBIT) = EBIT / Total Assets*

### **Where:**

- **EBIT** shall be the Earnings Before Interest & Tax as per item 6 above, for the last four quarters;
  - **Total Assets** shall be the average value of the total assets as per the last five quarterly reports.
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### PRICE MULTIPLES

#### 9. PRICE-TO-EARNINGS RATIO (P/E)

$P/E = \text{Price per share (P)} / \text{Earnings per share (EPS)}$

**Where:**

- **P** shall be the weighted-average price as of the last trading session, on which the respective issue was traded;
- **EPS** shall be the net profit of the company for the last four quarters divided by the number of weighted average number of shares outstanding.

**Notes:**

- When calculating the ratio on the grounds of the data in a **consolidated report**, the consolidated net income (excluding earnings from noncontrolling interest) shall be taken into consideration;
- **P/E of indices SOFIX, BGBX40, BGREIT and CGIX** shall be the sum of the market capitalizations of all issues included in the index, adjusted with the free-float factor and weight factor of each of them for the respective quarterly period divided by the sum of their net incomes, adjusted with the free-float factor and weight factor of each issue for the same quarterly period;
- **P/E of BGTR30 index** shall be the average value of the P/E ratios of all issues included in the index;
- If a company included in the indices prepares a **consolidated report**, the respective net income of that report shall be taken into consideration.

#### 10. PRICE-TO-SALES RATIO (P/S)

$P/S = \text{Price per share (P)} / \text{Sales per share (S)}$

**Where:**

- **P** shall be the weighted-average price as of the last trading session, on which the respective issue was traded;
- **S** shall be the revenues (sales) of the company for the last four quarters divided by the number of shares outstanding.

**Notes:**

- When calculating the ratio for a **bank**, the net operating income shall be used (instead of revenues or sales);
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- When calculating the ratio for a holding company, both financial and non-financial revenues shall be included.

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### 11. PRICE-TO-BOOK RATIO (P/B)

$$P/B = \text{Price per share (P)} / \text{Book value per share (B)}$$

#### **Where:**

- **P** shall be the weighted-average price as of the last trading session, on which the respective issue was traded;
- **B** shall be the common equity of the company as per the last financial report divided by the number of shares outstanding.

#### **Notes:**

- When calculating the P/B Ratio based on the data from the **consolidated report**, the noncontrolling interest in the common equity shall not be taken into consideration.
- **P/B ratio of an index** shall be the average value of the P/B ratios of all issues included in the respective index.
- If a company included in the index prepares a **consolidated report**, the respective P/B ratio shall be taken into consideration.

#### **N.B:**

- \* **Last report** shall indicate the respective date of the reported data used for calculation of the ratios;
  - \* „**cons**” shall indicate the ratios calculated on the base of consolidated reports;
  - \* If a company is in capital increase process, the respective ratios shall be marked in red;
  - \* If a ratio has a negative value, no value shall be visualized.
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