The Main Indicators Used in the Analysis of Commodity Exchanges

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Abstract
In this paper are presented the main elements relating to the organisation of the capital market in our country. Thus, it is analyzed the system of Bucharest Stock Exchange (BVB), at the Sibiu Monetary Financial and Commodities Exchange (SMFCE), the Central Depository, as well as that of the Bucharest Clearing House S.A.

Also in the article are analyzed the main specific indicators of the Romanian capital market. Thus, I am legally analyze technical indices such as BET, BET-BK, BET-FI, BET-C.

Key words: Bucharest Exchange Trading, composite index, Sector Index for Investment Funds, Energy & Related Utilities Index, Extended Index, Romanian Traded Inbox, Exchange Monetary - Financial and Commodities Sibiu Central Depository, Clearing House SA Bucharest, Institute of Governance corporate, investor Compensation Fund; brokers Association

To characterize the activity in the stock exchange activity is necessary to establish the main indices that are calculated in this institution.

- BET (Bucharest Exchange Trading)

BET was launched on 19 September 1997 and is the benchmark stock market in our country. BET is a price index weighted by free-float capitalization, which reflects the overall trend of the shares issued by the top ten companies, ranked according to their liquidit. The prices recorded in each trading session are relative to corresponding prices recorded in the trading session reference, using for this purpose the following formula
\[ \text{BET}_T = \frac{\sum_{i=1}^{N} p_{i,T} \cdot q_{i,T} \cdot F_{fi} \cdot R_i \cdot c_{i,T}}{\sum_{i=1}^{N} p_{i,T-1} \cdot q_{i,T} \cdot F_{fi} \cdot R_i \cdot c_{i,T-1}} \]

Where:
- \( \text{BET}_T \) = BET value at the current time, T
- \( \text{BET}_{T-1} \) = BET value at the previous time, T-1
- \( p_{i,T} \) = price for the shares of the company "i" at the current time T
- \( p_{i,T-1} \) = closing price of the shares corresponding "i" at time T-1;
- \( q_{i,T} \) = number of shares at the current time T;
- \( F_{fi} \) = company's free float factor corresponding "i" index and calculated to two decimal places, can take the following values: \{0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1\}
- \( R_i \) = factor representing a maximum of 20% for the index basket components corresponding to the shares "i" is calculated to three decimal places and belongs to (0,1];
- \( c_{i,T} \) = correction factor corresponding to the shares price "i" at time t, in the days operational review, is calculated with six decimal places;
- \( c_{i,T-1} \) = correction factor corresponding to the shares price "i" at time T-1, in the days operational review, is calculated to six decimal places.
- \( N \) = number of companies included in the index basket

According to the data specified in the latest quarterly review of the BET (March 2013), the ten companies taken into account in determining its value are: SC Property Fund S.A. - Bucharest (22.26%), OMV Petrom S.A. (21.28%), BRD - Groupe Societe Generale S. A. (18.60), BT S. A. (18.19%), S.N.T.G.N. TRANSGAZ S.A. (7.19%), C.N.T.E.E. Transelectrica (4.35%), Biofarm S.A. (3.91%), SC BSE S. A. (2.22%), Electromagnetica S. A. (1.39%), S.S.I.F. Broker S.A. (0.60%).

- **BET-BK (Bucharest Exchange Trading Benchmark Index)**
  
  BET-BK was released on July 3, 2012 and is a price index weighted by free-float capitalization of the most liquid companies listed on the regulated market of the BSE, which is used as a benchmark by fund managers as well and other institutional investors.

- **BET – C (Bucharest Exchange Trading – Composite Index)**

  BET - C is a composite index of BSE that was launched in April 1998. BET - C is a price index weighted by the market capitalization of companies in its composition that reflects the evolution of all companies listed on the BSE regulated market, excluding investment companies (SIF).

- **BET – FI (Bucharest Exchange Trading – Sector Index for Investment Funds)**
BET-FI was launched in October 2000 and reflects the overall trend in prices registered investment funds (SIF) on the regulated market BSE (SIF Transilvania, SIF Oltenia SA, SIF Banat Crișana, SIF Muntenia SA, SIF Moldova). The weighting of companies in the index is free-float capitalization of their site. BET-FI methodology allows its use as underlying for derivatives and structured products.

- **BET-NG (Bucharest Exchange Trading Energy & Related Utilities Index)**
  BET-NG is a sector index launched in July 2008 that follows the price movement of companies traded on the BSE regulated market, whose main business activity is associated with the energy sector and related utilities. The maximum weight of a symbol in the index is 30%. Methodology allows to be underlying for derivatives and structured products.

- **BET-XT (Bucharest Exchange Trading Extended Index)**
  BET-XT launched on 1 July 2008, is a blue-chip index to reflect price trends for the 25 most liquid stocks traded in the regulated market, including the SIFs, the maximum weight of a symbol in the index is 15%. Methodology allows to be underlying for derivatives and structured products.

- **ROTX (Romanian Traded Inbox)**
  The index (introduced in March 2005) is a price index weighted by market capitalization, reflecting the real time movement of the "blue chip" traded on BSE. This index is determined both in domestic and in U.S. Dollars and Euros and disseminated in real time by the Vienna Stock Exchange (Wiener Borse AG). According to data from BSE in the latest revision of this index for determining the ROTX are taken into account the results obtained from the following companies: Petrom SA, Banca Transilvania, BRD - Groupe Societe Generale SA, Rompetrol SA, Impact Developer & Contractor SA, CNTEB Transelectrica Biofarm SA, Antibiotics SA, Carpathian Commercial Bank SA, Turbomecanica SA and Flamingo International S. A.

- **RASDAQ – C (RASDAQ – Composite)**
  RASDAQ - C was launched in August 1998 and includes in its formula for calculating all companies doing business in the market RASDAQ. The methodology for calculating this index is similar to that applied to BET that capitalization weighting.

  The main elements used to determine RASDAQ - C are:
  - divider at the reference date (t = 0)
\[ D_0 = \frac{\sum_{i=1}^{N} p_{i0} w_{f_{i0}}}{I_0} \]

• current value of the index:

\[ I_t = \frac{\sum_{i=1}^{N} p_{it} w_{f_{it}}}{D_t} \]

where:
- \( D_0 = \) divider in the reference moment;
- \( D_t = \) divider at current date;
- \( p_{i0} = \) share’s closing price at reference moment \((t = 0)\);
- \( w_{f_{i0}} = \) appropriate weighting factor issuer action "i" in reference trading session;
- \( w_{f_{it}} = \) weighting factor appropriate action issuer "i" to the current date
- \( I_0 = \) baseline index;
- \( I_t = \) current value of the index;
- \( N = \) the number of companies included in the index portfolio.

According to the methodology of calculation of RASDAQ-C, the formation of an economic participation is limited to 25% of the total capitalization of the symbols included in RASDAQ - C.

- **RAQ – I**

Stock index RAQ - I was launched in October 2002 with the introduction of tiers on RASDAQ Market to reflect the evolution of prices of top companies listed in the market category I.

- **RAQ – II**

Stock index RAQ-I was released in October of 2002 to reflect the evolution of prices of top companies listed in the market category I.

**Sibiu Monetary -Financial and Commodities Exchange (SMFCE)**

As discussed previously, SMFCE was established in 1994 and authorized as a stock exchange company in 2003. In this market were issued first derivatives in our country namely term futures contracts (1997) and options contracts (1998). In 2004, the derivatives market of the SMFCE decision has been officially approved by the National Securities Commission.

**Central Depository**

Central Depository is a fundamental institution of modern capital market, an institution that provides clearing and settlement of exchange
transactions and record-keeping issuing company. Central depositary share represents an entity that provides services to issuers, intermediaries and financial instruments holders.

Central depository institution provides depository, registry, clearing and settlement of securities transactions and other transactions in connection therewith, as defined by Law no. 297/2004 regarding the capital market and NSC Regulation no. 13/2005 on the authorization and functioning of the Central Depository, clearing houses and central counterparties, being a manager of a payment system that provides clearing and settlement funds in financial instruments in accordance with the provisions of Regulation No. 1/2005 on payment systems ensuring funds clearing.

**Bucharest Clearing House S.A.**

Bucharest Clearing House S.A. institution is a member of BSE Group, carrying out recording operations, guaranteeing, clearing and settlement of derivatives transactions concluded on the regulated market within (Derivatives Market) administered by the Bucharest Stock Exchange. Bucharest Clearing House S.A. above actions ensured that the performance of the functions of central counterparty clearing house, as well as risk management faced by a clearing house through the use of technical mechanisms and instruments. It should also be noted that the Institute conducts on admission and continued membership and clearing agent clearing - settlement, and monitoring their work.

**Institute of Corporate Governance**

Institute of Corporate Governance, also a member of the BSE has the object of preparing corporate governance and sustainable development of companies, especially those listed, and capital market participants.

**Investor Compensation Fund**

FCI was established in June 2005 in order to compensate investors if members fail to return the funds and/or financial instruments owed or belonging to investors, which were held on their behalf, when providing services financial investment or managing individual investment portfolios. The compensation is performed in the limits set in accordance with NSC and the maximum 01.01.2012, within which investors are compensated in a fair and non-discriminatory is 20,000 EURO / investor, payable in USD.

FCI is a legal entity established as a joint stock company, the articles of association, approved in advance by the NSC.

**Brokers Association**

This association has been ESTABLISHED since the time of the Romanian capital market (in 1995) being Called at the time the National Association of Securities Companies (NASC). The role of this association
was to establish, manage and monitor RASDAQ market. Subsequently NASC promoted fusion of BSE and RASDAQ Society, fusion that has been achieved in late 2005.

Currently Brokers Association acts as Employers and professional organization bringing together 91% of the investment services companies active on the stock market in our country. Its main purpose is to promote environment conducive to capital market development and actively engaged in the process of economic policy - Fiscal and Financial impact on the capital market in Romania.

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