

# Bucharest Stock Exchange and M&A valuation multiples





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The PwC Valuation and Economics team is delighted to publish the seventh edition of its analysis on the Bucharest Stock Exchange listed companies

The PwC study offers an extensive analysis of trading multiples trend spanning a 17-year period, from 2007 to 2023, focused on **84 companies primarily listed on the Bucharest Stock Exchange (BSE) main market** and their sector specific performance across nine analysed sectors including Consumer, Oil & Gas, Financial services, Healthcare, Industrial, Materials and Electricity, as well as two newly added, Information Technology & Communications (IT&C) and Real estate. Notably, the study excludes Erste Group Bank AG, which is primarily listed on the Vienna Stock Exchange and secondarily on the BSE. Starting with last year's edition, the study has expanded its coverage to include **the analysis of 49 companies listed on the Multilateral Trading System (MTS)/AeRO - Premium category**. In light of the increasing significance of the Multilateral Trading System (MTS) as a platform for companies exploring alternative listing options, the study endeavours to analyse the valuation multiples recorded by these companies in 2023. The inclusion of MTS listed companies adds a new dimension to the study, allowing for a broader assessment of the Romanian valuation landscape for listed companies.

The study is centered on the valuation multiples analysis and the BSE's response to a series of significant events that occurred since 2007. These events include the global financial crisis 2007-2010, the COVID-19 pandemic from 2020 to 2021, the ongoing Russia's war against Ukraine started in February 2022 as well as additional geopolitical and economical developments. By examining the multiples' trend and the BSE's reaction to these events, we aim to gain insights into the market dynamics and investor sentiment during challenging times. Furthermore, in 2023 the local capital market (encompassing both the Regulated Market and MTS), recorded a total traded value (excluding IPOs) of RON 24.7 billion (84% increase compared to 2022) – this level exceeded the all-time high recorded in 2007, indicating robust market activity, H2O listing and investor participation.

The study seeks to gain insights of:

- the overall performance of the Romanian equity market during 2007-2023 and in Quarter 1, 2024 (Q1 2024), approximated by the performance of benchmark indices, BET and BET-TR, analysed against the return on the Romanian government bonds as a proxy for Risk-free assets;
- the trend of valuation multiples across different sectors based on the analysis of companies listed on the Regulated Market;
- the trading multiples of companies listed on the MTS/AeRO Premium category in 2023;
- the evolution of valuation multiples derived from local transactions over the period 2007-2023.

With each edition, PwC Romania strives to enhance the content of the study by incorporating the latest research and industry trends on the valuation multiples of companies listed on BSE. We express our commitment to updating this study on an annual basis in order to provide value added for our readers.

Valuation and Economics

PwC Romania, Advisory - Deals

# Executive summary

# Macroeconomic outlook & Stock market performance

- While many EU countries, including Germany, Romania's largest trading partner, went into recession, our country recorded a 2.1% real GDP growth in 2023, half as compared to 2022, but the sixth highest rate within the 27 EU countries. The economic growth was triggered by private consumption and investments, both remaining strong. According to the latest European Commission's estimates, Romania's real GDP is expected to return to rates above 3% in both 2024 and 2025, decidedly above the EU expected growth of 1.0% in 2024, respectively 1.6% in 2025. On the other hand, the inflation rate in Romania was the fifth highest within the EU in 2023 and most probably will not come close to the 2.5% target in the next two years.
- Romania's equity market capitalisation to GDP ratio reached 19% at the end of 2023, thus lagging behind regional markets such as Czech Republic, Greece, Hungary and Croatia.
- Other BSE market highlights include:
  - The local capital market (Regulated and MTS segment) surpassed the RON 300 billion threshold by the end of 2023, marking an almost RON 100 billion increase as compared to the end of 2022.
  - BET index marked a strong 32% growth in 2023, with a boost brought by Hidroelectrica's listing in July. BET index continued its strong upward trend, with an almost 11% growth achieved during Q1 2024.
  - BET-TR index (reflecting also dividends of BET constituents) as at 31 December 2023 marked also an impressive growth of almost 40% compared to the previous year-end and similar growth as BET index in Q1 2024.

#### Most notable events on BSE during 2023

- The number of investors on the BSE continued to grow, from 133,000 in 2022 to 178,000 in 2023, a new all-time high for the Bucharest capital market.
- Starting March 2024, BSE received an important international (re)confirmation based on the inclusion of Electrica SA (EL) in FTSE Russell's Emerging Markets indices. Electrica's shares became part of the FTSE Global Equity Index series, namely FTSE All-World, Global All-Cap and Global Total-Cap indices. As a result, Romania's representation in the FTSE Russell indices

- dedicated to emerging markets expanded to a total of 15 companies (with 8 in the FTSE Global All-Cap indices and 7 in the FTSE Global Micro-Cap indices).
- Green financing continued to gain more visibility on the local capital market between April 2023 and March 2024, when another three issuances of green corporative bonds were completed.
- The median return of the BSE indices in excess of the Riskfree Rate over the period starting 31 December 2013 up to 31 March 2024 was of almost 5% for BET and 10% for BET-TR. In 2023, both BET and BET-TR provided investors with positive returns over the Risk-free rate.

#### BSE milestone - latest IPOs on main market

- In July 2023, Hidroelectrica (the Romanian leader in green electricity production) was successfully listed on BSE's main market under the ticker "H2O". The total proceeds raised in the initial public offering of RON 9.3 billion reached a new record on BSE, nearly 6 times the proceeds raised by Electrica's listing in its 2014 listing. H20 listing is an important step for BSE as more foreign investors were attracted to invest in the local capital market, which resulted in an increased market capitalization. Hidroelectrica is the largest initial public offering ever made on the Bucharest Stock Exchange and ranks the first largest IPO on a European exchange and the fourth largest among global listings in 2023
- In May 2024, another energy company, namely Premier Energy was successfully listed on BSE, raising almost RON 700 million and marking the largest listing in the last five years of an entrepreneurial company on the BSE.

# Valuation multiples – companies listed on the BSE

# Valuation multiples – listed companies on Regulated Market and MTS

This study focuses on the equity performance of the underlying nine industries analysed on the Regulated market and respectively seven on the MTS Premium segment. The main conclusions on the sectorial performance of the analysed listed companies in 2023 are:

#### **Regulated market**

- On the Regulated market the Electricity sector, posted the highest increase of the average market capitalisation as a result of Hidroelectrica's listing in July; other sectors with strong market capitalisation growth in 2023 are Oil & Gas and Healthcare:
- The Electricity sector recorded the highest median market capitalisation (RON 9,394 million) whereas the Industrial sector (RON 50 million) posted the lowest median;
- The highest median P/E multiple was displayed by the IT&C (17.5x) and Real estate (16.1x) sectors, whereas the lowest P/E was observed for companies operating in the Financial services (7.2x) and Electricity (7.5x) sectors;
- The P/E multiple of the **Industrial** sector was close to the last 16-year median (9.0x),

#### **MTS Premium**

- In 2023, the MTS Premium category included 49 companies with a market capitalisation ranging between RON 2 million and RON 769 million and an average of RON 90 million at the end of 2023, significantly below the average market capitalisation of companies listed on the main market (RON 2.5 billion).
- The largest six companies have a market capitalisation of over RON 200 million each and account together for almost half of AeRO Premium total market capitalisation. These companies include two companies from Agribusiness and Consumer and one from Materials and Industrial sectors.

#### **ESG** initiatives on BSE

In the last couple of years, BSE was committed to promote sustainability and ESG initiatives in order to develop a healthy framework for all listed companies and increase its visibility and attractiveness among local and international investors. As part of these initiatives, nine companies listed on the Regulated Market published their ESG score in 2021 for the first time, while in 2023 the number increased to 22 companies - 20 listed on the Regulated market, one listed on MTS (i.e. Norofert) and one company with sustainability-linked bond rating on the Regulated market (i.e. Autonom Service from the Regulated Market).

#### M&A multiples

The highest average EBITDA multiple during 2007 – 2023 was recorded in 2008 and 2013 (11.2x), whereas the lowest EBITDA multiple was observed in 2010 and 2011 (2.6x and 3.3x).

In 2023, the average EBITDA multiple derived based on completed transactions (10.6x) was above the median EBITDA multiple observed on the BSE' main market (8.0x) and MTS Premium category (8.7x). The gap might be explained by the fact that companies listed on the BSE market are generally perceived as more stable, whereas private transactions often refer to companies with lower profits but higher growth prospects.

# Scope and methodology

#### **Equity market return**

Romanian capital market performance is an indicator of prosperity and economic outlook stability. The increasing investment appetite for the companies listed on the Romanian capital market has enabled growth in one of the most important BSE indices, namely Bucharest Exchange Trading (BET) index, which reflects the growth of the most liquid shares listed on the BSE.

The purpose of this study is to provide a comprehensive analysis of the Romanian capital market from a valuation perspective focusing on both Regulated market and MTS/AeRO – Premium category.

In addition to the analysis of the multiples recorded by the listed companies on BSE, the study also covers the multiples derived based on local closed transactions (M&A).

For the first time in 2023, the analysis covers IT&C and Real estate sectors of the Regulated market. Thus, the analysis of the two BSE segments, Regulated and MTS, become more and more comparable.

Valuation multiples of listed companies on Regulated market Valuation multiples of listed companies on MTS, Premium category

#### Key sectors - Regulated market



Consumer



**Materials** 



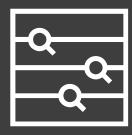
Healthcare



**Electricity** 



Financial Services



Aggregated



IT&C



Oil & Gas



Real Estate



Industrial



**Agribusiness** 

Key sectors – MTS Premium category

### Listed companies valuation multiples

#### Regulated market segment

- After conducting an initial assessment of the 85 companies listed on the BSE Regulated Market (comprising 82 local companies and 3 international entities—Erste Group Bank AG, Digi Communications N.V., and Purcari Wineries Public Company Ltd.), Erste Group Bank was excluded as its primary market is Vienna Stock Exchange, while BSE serves as a secondary market.
- Given the above context, the analysis for 2023 is centered on **84 companies grouped in nine sectors of activity**, i.e. Consumer, Electricity, Financial services, Healthcare, Industrial, IT&C, Materials, Oil & Gas and Real estate, as per the S&P Capital IQ industry classification. Main changes versus 2022 derive from the addition of two new issuers, Safetech Innovations and Arobs Transilvania Software, transferred from the MTS to the Regulated market in February, respectively September 2023 (both included in the IT&C sector), the IPO of Hidroelectrica (included in Electricity sector) and the delisting of Cos Targoviste in January 2023 (previously included in the Materials sector).

#### Multilateral Trading System (MTS or AeRO), Premium category

• The study also includes the performance and valuation multiples analysis for **49 companies listed on the MTS** under the Premium category ad grouped in seven sectors, i.e. Agribusiness, Consumer, Financial services, Industrial, IT&C, Materials and Real estate. The analysis provides insights into the performance and sector-specific dynamics of smaller companies in 2023.

### M&A valuation multiples

From a total of approximately 1,800 transactions completed in Romania during 2007 – 2023, we selected a set of 660 transactions for which reliable financial information was publicly available. Over 20% of those deals were closed during 2023.

### **Understanding the results**

The financial data used in this study were derived from several sources, i.e. the BSE official website/Research Hub, Bloomberg, S&P Capital IQ platform, ISI Emerging Markets, Mergermarket, Sustainalytics and PwC internal database. While every care was taken in compiling this study, no responsibility is taken for errors or omissions. The data selected and used by PwC within its analysis was collected in a professional manner and best efforts were applied with a view to offering accurate and complete results; PwC has not verified, validated or audited the data compiled from public sources. Therefore, PwC will not be held liable for any damage or loss from the use of the information contained herein.

The time frame selected for our analysis covers the 17-year period from 2007 to 2023 and the first quarter 2024.

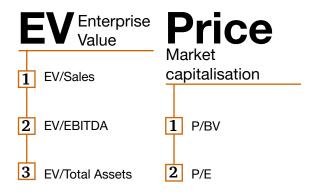
#### **Disclaimer**

The Content of this study is for informational purposes only, therefore you should not construe any such information as an investment, financial, or any other consulting advice/recommendation. Nothing contained within the study constitutes a recommendation with respect to any investment in shares, bonds and other type of securities.

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### Valuation based on market approach

 Market multiples are valuation metrics widely used to value businesses. Assuming that the selected peer companies have similar valuation multiples, appraisers may conclude that, by applying the industry multiple to a specific company's financial metrics, they can arrive at the company's market value (enterprise value or equity value, depending on the selected multiple).



- Within the listed companies' multiples analysis, we considered the following statistical measures:
- (a) **Quartiles** 1st, 2nd (median) and 3rd are statistical metrics describing a division of observations into four defined intervals based on the values in the sample. Each quartile contains 25% of the total observations.

Quartiles have been determined by sorting the data from the lowest to the highest values and taking the data point at  $\frac{1}{4}$  of the sequence for the 1st quartile, at  $\frac{1}{2}$  for the 2nd quartile (median) and at  $\frac{3}{4}$  for the 3rd quartile.

- (b) **Mean** is the sum of the values divided by the total number of the companies included in the data set. It is one of the most commonly-used measures of central tendency and it is the preferred multiples proxy when the distribution is set to be normal. Otherwise, the median is the preferred central tendency measure, as it is not influenced by outliers.
- (c) **Coefficient of variation** equals the standard deviation divided by the mean and it is a measure of the dispersion of a data set from its own mean. The more spread out the data, the higher the deviation. When the deviation is too high, the mean multiple is not relevant.
- The multiples selection considers the robustness of the data available within the data set while focusing on the multiples that best represents the sector/subindustries.

- Given the exhaustive analysis of the nine sectors, the selection of the best indicator from the median and the mean considers the dispersion test. Outliers, defined for the purpose of this report as multiples exceeding 50, were excluded from our analysis.
- Various methods can be used to value a company. In practice, business valuation is often a combination of different approaches. The market approach (comparable listed companies and comparable transactions) is generally used in addition to other valuation approaches, mainly as a cross-check of the applied estimation procedures. Put simply, within the market approach, a company's sales or profits (or other financial indicator) are multiplied by an industry average/median multiplier as basis for estimating the Market Value of the business or the market value of the equity.

Current financial multiples include historical multiples based on standardized financials for the last completed fiscal period: Last Twelve Months (LTM). Current multiples based on per-share metrics (such as P/E or P/BV) are calculated using the last closing equity price, whereas current multiples based on company-level metrics (such as net sales, EBITDA or Total assets) are calculated using the Enterprise Value (EV).

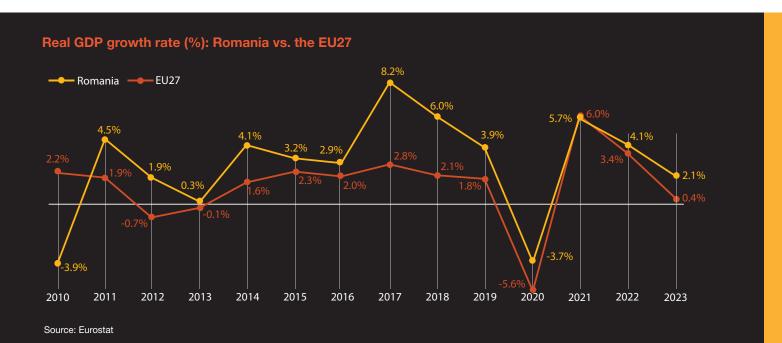
- It must be stressed, however, that any conclusions derived from using such multiples could be misleading and would need to be thoroughly reviewed, primarily for the following reasons:
  - In reality, there is no such thing as 'twinsecurity', e.g. a perfect comparable company with the same risk exposure as the valuation target. In essence, that means that companies with risk profiles different from that of the valuation target are used to estimate its value;
  - There are usually a number of strategic reasons for acquiring a particular company in a specific market. Such considerations lead to prices that are not aligned with the typical values of the most frequently used multiples such as price-to-earnings ratio (P/E) and the price-to-book value of equity ratio (P/BV).



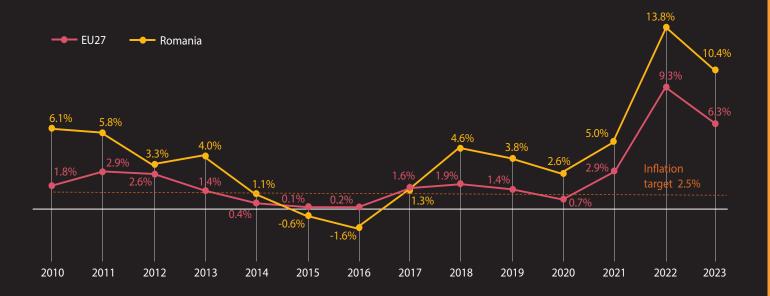
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# Macroeconomic outlook

- The economic growth within EU slowed down to 0.4% in 2023, while the inflation rate contained from 9.3% in 2022 to 6.3% in 2023. Reduced energy prices and lower inflation rate are expected to boost households' consumption and to stimulate the economic growth in the EU countries in the coming years. While declining inflation allows central banks to consider rate cuts, geopolitical risks remain high, with two conflicts, in Ukraine and Middle East, close to EU borders.
- While many EU countries, including Germany, Romania's largest trading partner, went into recession, our country recorded a 2.1% real GDP growth in 2023, half as compared to 2022, but the sixth highest rate within the EU countries. The economic resilience displayed by the Romanian economy was mainly attributable to strong private consumption and robust investments (inflows from the Recovery and Resilience Plan and other EU funds). According to the European Commission's estimate (European Economic Forecast, Spring 2024) Romania's real GDP is expected to return to rates above 3% in both 2024 and 2025, decidedly above the EU expected growth of 1.0% in 2024, respectively 1.6% in 2025.
- Historically, Romania has demonstrated a consistent track record of achieving higher GDP growth rates compared to the average of the EU27 countries. This pattern has created favourable conditions for economic convergence, indicating progress towards narrowing the GDP per capita gap between Romania and the EU27 average. Over the past ten years, Romania's GDP per capita, measured in purchasing power standards (PPS), has experienced significant improvement, growing from 56% of the EU27 average in 2014 to 78% in 2023.
- According to Eurostat, the unemployment rate in Romania remained constant at 5.6% in the period 2021 – 2023, while the EU average decreased from 7.1% to 6.0% in the same period.



#### Inflation Rate (%) - Romania vs. the EU27



Source: IMF World Economic Outlook - April 2024

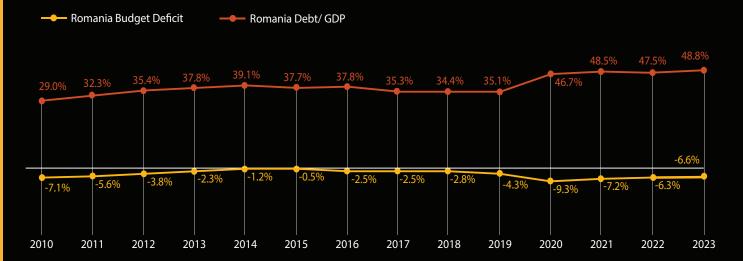
- Gross fixed capital formation (investments), expressed as a percentage of GDP, increased from 23% in 2019 to 27% in 2023, while investments in the public infrastructure played a significant role in the real GDP growth achievement in 2023. Looking ahead, investments are expected to continue at a brisk pace and to support the economic development, encouraged by the inflow of European Union funds.
- Private consumption, the main economic growth driver in Romania in recent years, posted a 13% increase in 2023 compared to 2022. Over the past decade, private consumption in Romania doubled (in real terms), demonstrating remarkable expansion from EUR 88 billion in 2013 to EUR 202 billion in 2023. Moreover, the growth in private consumption in Romania was 2.5 times higher than the average growth observed in the European Union during the same period.
- In 2023, both the exports and imports of goods and services decreased as percentage of GDP, to 39.1% and 43.9%, respectively, while the trade balance deficit reduced in 2023 to 4.8% of GDP, from 6.7% in 2022.
- After a peak of 13.8% recorded in 2022, Romania's average inflation rate decreased to 10.4% in 2023. Before 2022, the latest year with double-digit inflation was 2004, i.e. 11.9%.
- Between 2021 and 2023, an upward inflationary trend was evident not only in Romania but also in several other EU member states. This trend was primarily fuelled by rising energy, food, and raw material prices, along with supply chain bottlenecks. In Romania, the inflationary pressures were further exacerbated by nominal wage increases that exceeded the EU27 average thus leading to increased consumer spending and contributing to inflation.
- To address the rising inflation rate by limiting consumption, the National Bank of Romania (NBR) gradually raised the monetary policy interest rate from 2% in January 2022 to 7% in January 2023. After the 7% maximum set in January 2023, the rate was reduced to 6.75% in July 2024.
- According to the IMF's World Economic Outlook released in April 2024, Romania's inflation rate is expected to decrease
  to 6.0% in 2024 and 4.0% In 2025. Although inflation rate is still high and among the highest in the EU, Romania aims to
  achieve long-term stability, with a 2.5% inflation rate target set by the NBR.

According to the Eurostat, Romania's budgetary deficit reached 6.6% of GDP at the end of 2023, up from 6.3% in the previous year and above the 3% limit set in the Maastricht Treaty for the fifth consecutive year. The expectations are that the budgetary deficit will continue to remain high, with sanctions for excessive deficit becoming more and more likely. The budgetary deficit represents the gap between government expenditures and revenues, indicating the extent to which a country is borrowing to finance its activities.

Also according to the Eurostat, Romania's general government consolidated gross debt as % of GDP grew by 1.3pp in 2023 as compared to the previous year. Although public debt tripled in the last 10 years, Romania's public debt as percentage of GDP maintains within the Maastricht Treaty 60% limit and below the EU27 average public debt of over 80%.



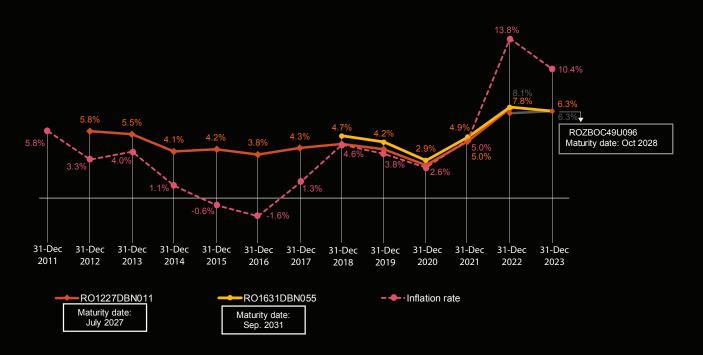
### Romania's Debt/ GDP and government budget deficit evolution (%)



Source: Eurostat

- The risk-free rate (RfR) represents the return expected by an investor from investing in a risk-free asset. The common proxy used for RfR in Romania is the yield to maturity of a liquid long-term Romanian Government Bond. The domestic government debt (including issuance, redemption, interest payments, etc.) is handled by the Ministry of Finance (MF). The National Bank of Romania (NBR) acts as the MF's agent overseeing the management of government securities, in both national and foreign currencies, on the domestic market.
- As of June 2024, the NBR reported a total of 28 outstanding government bonds denominated in the local currency. These bonds were issued over a span of 12 years, from 2012 to 2024. Half of those bonds have a residual maturity of at least 1 but less than 5 years, eight of them of at least five but less than ten years, four bonds have a maturity longer than ten years and only two mature within one year. According to the December 2023 report published by the MF Public Debt Management Office, the most actively traded government bond denominated in the local currency is the bond with ISIN number ROZBOC49U096. This bond was issued in November 2022 and initially had a maturity of 6 years. As of December 31, 2023, its yield to maturity stood at 6.2%, based on data from the S&P Capital IQ platform. However, an analysis spanning the period from 2011 to 2023 revealed that a seasoned bond issue-specifically, the bond with ISIN
- number RO1227DBN011 (traded since 2012 and maturing in 2027) is among the most actively traded bonds denominated in the local currency.
- The analysis conducted over the period 2011-2023 reveals that the risk-free rate (RfR), approximated by the yields to maturity of government bonds, has shown fluctuations in response to the economic and geopolitical context. Prior to 2018, government bonds offered investors positive real returns, meaning that the returns exceeded the inflation rate, providing a risk-free investment option with additional value.
- However, during the period 2018 2021, the real returns on government bonds decreased and even became negative in 2022 - 2023, with yields to maturity close to or above the inflation rate.

#### Risk free rate evolution for selected bonds denominated in RON vs. inflation rate (%)

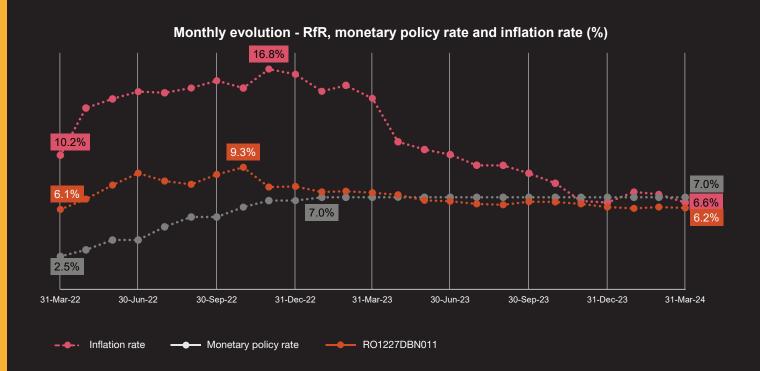


Note: Risk free rate depicted in the graph was approximated by the yield to maturity at the end of each year and is a proxy for a bond's return if held until maturity

Source: S&P Capital IQ, IMF, PwC Analysis

- The monthly analysis of the selected bond's return reveals a gradual increase in the risk-free rate (RfR) until in October 2022 when the analysed bond (RO1227DCN011) reached a maximum return of 9.3%, while the inflation rate peaked at 16.8% in November 2022. After those periods, both the return and the inflation rate were on a downward trend, i.e. return reduced from 9.3% to 6.2% in March 2024 and inflation rate from 16.8% to 6.6% in March 2024. While the RfR and inflation rate evolved in tandem, the difference between the two indicators grew from 4pp in March 2022 to 8 9 pp at the end of 2022 beginning of 2023 and reduced below 2pp only after Oct 2023. At the end of March 2024, the inflation return gap was below than 0.5 pp.
- During the last year, the inflation rate has declined sharply, from 14.5% at the end of March 2023 to 6.6% one year later, while the monetary policy rate was kept flat all that period.
- Although for many months the return on risk-free assets as approximated by the government bonds were not sufficient to compensate for the high inflation rate, in the recent period the gap between the two reduced considerably and the prospects for government bond investments to generate positive real returns become genuine.

#### Monthly evolution of RfR, monetary policy rate and inflation rate (%)



Note: RfR (or yield to maturity) for each of the bonds included in the analysis was calculated as of the last day of the month.

Source: S&P Capital IQ, NBR, NIS, PwC Analysis

Bucharest Stock Exchange (BSE) – at a glance

### Key events 2023 - Q1 2024

#### 1. BSE performance

- In 2023, the Romanian capital market witnessed unprecedented achievements across multiple fronts. Record highs were reached in various areas, including the value of stock and bond transactions, daily average liquidity, stock market indices, and overall market capitalization of companies. The local capital market (Regulated and MTS segment) has surpassed the RON 300 billion threshold by the end of 2023, marking an almost RON 100 billion increase as compared to the end of 2022.
- In 2023, the Romanian capital market achieved a significant milestone by successfully listing S.P.E.E.H. Hidroelectrica SA, the state-owned hydropower company. This listing, valued at RON 9.3 billion, stands as the largest among the listings on the European stock markets. The successful listing of S.P.E.E.H. Hidroelectrica SA bolstered BSE's position within the European financial arena, sparking substantial interest and fostering confidence in Romania's capital market.
- As 2023 drew to a close, the BSE flagship index BET surged to 15,371 points, marking an impressive 32% growth compared to the previous year. This remarkable progress highlights the outstanding performance of the 20 most actively traded stocks listed on the Bucharest Stock Exchange. More specifically, on December 8, the index surpassed the historic milestone of 15,000 points for the first time ever. Nevertheless, BSE demonstrated its potential for growth compared to other international equity markets given that BET index growth was above the one shown by the S&P 500 in the US or the STOXX 600 in the EU. At the end of Q1 2024, BET index surpassed the level of 17,000 points, thus displaying an increase of approx. 11% compared to the closing level recorded in 2023.
- The BET-TR index, which reflects in addition to BET the dividends granted, closed 2023 at 31,745 points, thus displaying an impressive 40% growth compared to the performance recorded in the last trading day of 2022. By the end of Q1 2024, BET-TR index closed the last trading session at 35,326 points, displaying an 11% increase compared to the level recorded at 31 December 2023. This achievement not only reflects the evolution of stock prices but also encompasses the total impact of dividends paid by the constituent companies within the index.
- Based on the latest publicly available data from the Investor Compensation Fund, the number of investors on the BSE continued to grow in 2023 when it surpassed the level of 178.000 investors - a new all-time high for the capital market in Romania. By comparison, at the end of 2022 there were approximately 133,000 investors.
- Starting March 2024, BSE received an important international (re) confirmation based on the inclusion of Electrica SA (EL) in FTSE Russell's Emerging Markets indices. Electrica's shares became part of the FTSE Global Equity Index series, namely FTSE All-World, FTSE Global All-Cap and FTSE Global Total-Cap indices. This inclusion was announced by the global index provider on 27 February 2024 during their quarterly review. As a result, Romania's representation in the FTSE Russell indices dedicated to emerging markets expanded to a total of 15 companies (with 8 in the FTSE Global All Cap indices and 7 in the FTSE Global Micro Cap indices). The growing number of companies listed on the Bucharest Stock Exchange and their inclusion in the FTSE Russell indices signal positive developments in the Romanian capital market and the trend reflects heightened interest and confidence from international investors in Romanian businesses, the local economy, and the overall business environment.





#### 2. Bonds' market - growing perspectives

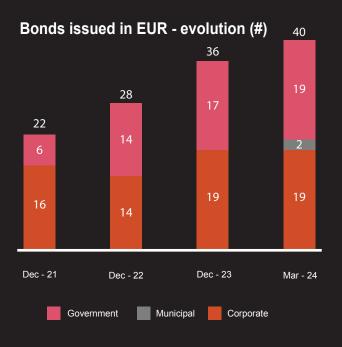
Starting 2021, the bond market saw some dynamics as a result of the listing
of the Government Bonds programme Fidelis, addressed only to individuals.
The analysis of bond listings on the BSE indicates a gradual rise in the count of
bonds denominated in both RON and EUR from 2021 to Q1 2024. Notably, the
number of EUR-denominated bonds nearly doubled during this period.

Issuance of bonds during 2021-2023 recorded an upward trend, with 21 new bonds issued in 2021, 23 bonds in 2022 and 27 in 2023, as follows:

- 2021: 14 bonds denominated in RON (8 government / 6 corporate) and 7 bonds denominated in EUR (4 government / 3 corporate);
- 2022: 14 bonds denominated in RON (7 government / 6 corporate / 1 municipal)) and 9 bonds denominated in EUR (8 government / 1 corporate);
- 2023: 16 bonds denominated in RON (12 government / 3 corporate / 1 municipal) and 11 bonds denominated in EUR (8 government / 3 corporate).

#### **Bonds issued in RON - evolution (#)**





Source: BSE - Main Market, monthly reports

Over the period December 2021 – March 2024, on average more than 80% of the total issued amount was represented by government bonds denominated in RON. When looking at bonds denominated in EUR, the analysis reveals that in December 2021 government bonds represented only 21% but the proportion shifted in the following years, with government bonds accounting for approx. 44% of total issued amount in EUR in March 2024.

In the last years, green financing has garnered greater attention within the local capital market, making it increasingly appealing to both domestic and international investors, as well as to businesses and local authorities, in response to Romania's climate-focused agenda. Between 31 March 2023 and 31 March 2024, there were three issuances of green corporative bonds, as follows:

- Banca Comerciala Romana (AT0000A34CN3) issued a bond amounting to EUR 700 million for green projects with a positive environmental impact in the following three eligible categories: (i) Green Buildings - Residential, (ii) Green Buildings - Commercial and (iii) Renewable Energy;
- Banca Transilvania (XS2641792465) issued a bond amounting to EUR 200 million whereas approximately 90% of the proceeds are to be used to finance green mortgage loans;
- Impact Developer & Contractor (ROV5ZNMLOC69) issued a bond amounting to EUR 3 million whereas the proceeds are to be used for green projects, but no guarantee in this sense.



#### Overview

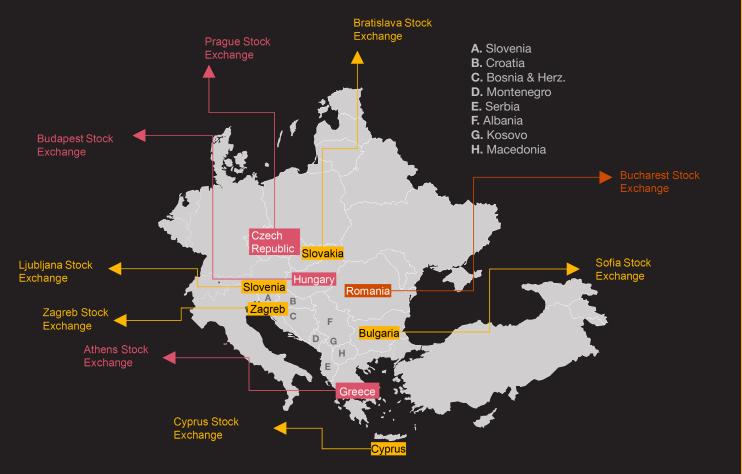
Based on an FTSE Russell review, equity markets are classified as: Developed, Advanced Emerging, Secondary Emerging or Frontier.

For a more comprehensive analysis of the BSE's regional position, we looked at similar capital markets in terms of their volatility and the correlation between economic growth and indices value. The stock exchanges selected in our analysis are: (a) Advanced Emerging markets – Greece, Hungary and Czech Republic (b) Frontier markets – Bulgaria, Croatia, Slovakia, Slovenia and Cyprus. Bucharest Stock Exchange is included in Secondary Emerging market since September 2020.

Romania's equity market capitalisation to GDP ratio was 19.1% at 31 Dec 2023, yet lagging behind regional markets such as those in Greece, Croatia and Hungary. The market capitalisation (including both the main segment and MTS) increased by approximately 46% in 2023 vs. 2022, reaching EUR 62 billion (equivalent of RON 309 billion) following the listing of Hidroelectrica on 12 July 2023, which was the largest IPO in Europe in 2023. For all analysed exchanges except Prague Stock Exchange, we considered the total market capitalisation both on the main and alternative stocks trading segments, although each stock exchange has different structures.

With a significantly higher number of listed companies and an average market capitalisation of EUR 175 million, companies listed on BSE seem to be smaller as compared to those listed on other regional exchanges, except Bulgaria, Slovakia and Cyprus.



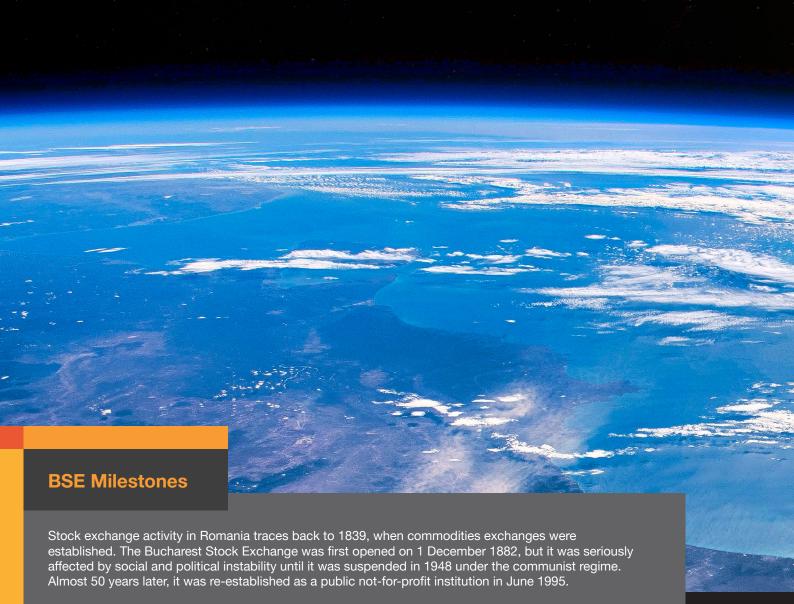


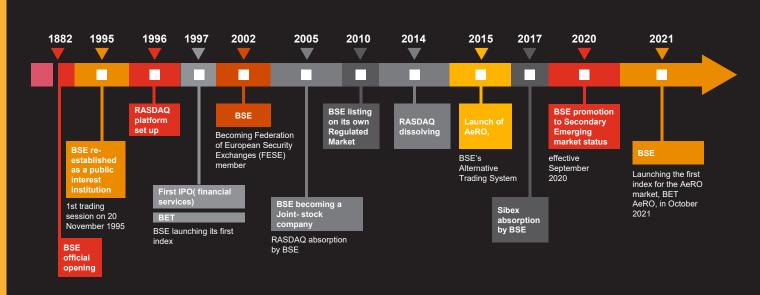


Country	Stock Exchange	GDP per capita (EUR), 2023	Market cap. (EUR million)	Capitalisation 31 Dec 2023 (% GDP 2023)	No. of companies
Croatia	Zagreb Stock Exchange	19,950	22,922	30,0%	87
Greece	Athens Stock Exchange	20,920	87,502	39,7%	137
Bulgaria	Sofia Stock Exchange	14,580	7,702	8,2%	237
Czech Republic	CEESEG - Prague	28,580	49,710	16.3%	30
Hungary	Budapest Stock Exchange	20,480	38,921	19,8%	67
Romania	Bucharest Stock Exchange	17,030	62,136	19,1%	356
Slovenia	Ljubljana Stock Exchange	39,750	9,159	14,5%	23
Cyprus	Cyprus Stock Exchange	32,150	3,815	12,8%	50
Slovakia	Bratislava Stock Exchange	22,210	1,901	1,5%	31

Note: The market capitalisation for Prague Stock Exchange does not include free market. Market capitalisation for Prague and Bucharest stock exchanges includes also Erste Group, which is primarily listed on a different stock exchange

Source: Eurostat, S&P Capital IQ, Official website for each stock Exchange.





### **BSE** operates two markets:

# 1. Regulated Market/Main market, where the following financial instruments were traded at 31 December 2023:

- Equities of 85 companies, of which three included in the International tier (Erste Group Bank AG, Purcari Wineries Public Company Limited and Digi Communications NV), 30 included in the Premium segment and 52 in the Standard segment. To be included in the Premium segment, a minimum free-float of EUR 40 million is required.
- Debt instruments (corporate, municipal and government bonds issued by Romanian entities and international corporate bonds)
   122 bond issues were listed and traded on the BSE regulated market as at 31 December 2023, i.e. 41 corporate bonds, 35 municipal bonds and 46 government bonds.
- UCITs (shares and fund units), structured products, tradable UCITS (ETFs) - very few alternative products were listed on the BSE as at 31 December 2023: ETFs: Patria-Tradeville Energy, Patria-Tradeville BET and close-end funds: STK Emergent, and BET-FI Index Invest.
- 2. The MTS (also known as AeRO) segment, launched in February 2015, following the closure of RASDAQ, with the purpose of accommodating the trading of early stage companies, such as start-ups and SMEs. RASDAQ was the unregulated segment of the BSE, launched in 1996, where Romanian entities resulting from the mass privatisation programme were listed. It was dissolved based on a parliament decision in October 2014. As a consequence of RASDAQ's closure, the companies listed on that segment had one year to decide whether to migrate to the regulated market or to the MTS, or go private. The

last trading day for the RASDAQ-listed companies was in October 2015. According to the information published by BSE, a total of 286 companies were operating on the MTS segment as at the end of 2023.

The Bucharest Stock Exchange (BVB) calculates and distributes in real-time 11 indices – BET, BET-TR, BET-TRN, BET-XT, BET-XT-TR, BET-XT-TRN, BET-BK, BET-FI, BET-NG, BET Plus, BET AeRO – and one index developed together with Vienna Stock Exchange – ROTX index.

BET, the first index developed by BSE in 1997, represents the reference index for the local capital market, including Blue Chip Companies; the BET index reflects the performance of the top 20 most-traded companies listed on the BSE, with the most recent change being the introduction of S.P.E.E.H H. Hidorelectrica S.A. and the removal of Alro S.A..

The main selection criterion for constituents' inclusion in the BET index relates to the liquidity coefficient. BET index constituents are adjusted quarterly to update their weights as a result of corporate events (share capital increases, splits, consolidations, etc.), changes of the index composition following the inclusion / exclusion of a company, index constituents' shares market price evolution.

Symbol	BET Constituents	Weight in BET, 31 Dec 2023	Weight in BET, 31 March 2024
TLV	Banca Transilvania S.A.	20.3%	19.7%
H2O	S.P.E.E.H.Hidroelectrica S.A.	18.1%	18.0%
SNP	Omv Petrom S.A.	16.9%	17.2%
SNG	S.N.G.N. Romgaz S.A.	9.1%	9.3%
BRD	BRD - Groupe Societe Generale S.A.	7.9%	8.6%
SNN	S.N. Nuclearelectrica S.A.	4.7%	4.2%
FP	Fondul Proprietatea	2.8%	3.3%
TGN	S.N.T.G.N. Transgaz S.A.	2.8%	2.9%
DIGI	Digi Communications N.V.	2.8%	2.6%
EL	Societatea Energetica Electrica S.A.	2.5%	2.5%
ONE	One United Properties	2.4%	2.1%
М	Medlife S.A.	2.3%	2.1%
TTS	TTS (Transport Trade Services)	1.8%	1.7%
TEL	C.N.T.E.E. Transelectrica	1.4%	1.2%
TRP	Teraplast S.A.	1.1%	1.1%
BVB	Bursa de Valori Bucuresti S.A.	0.8%	1.0%
WINE	Purcari Wineries Public Company Limited	0.7%	0.7%
AQ	Aquila Part Prod COM	0.7%	0.7%
SFG	Sphera Franchise Group	0.6%	0.6%
COTE	Conpet S.A.	0.4%	0.4%

Source: BSE



**BET-TR** is the first total return index launched by the BSE based on the BET structure. This index tracks price changes of component shares and is adjusted to reflect the dividends paid by its constituent companies. BET-TR includes the 20 most-traded companies listed on the BSE and has the same constituents as the BET.

In addition to BET and BET-TR, other indices are available. Those include: BET-XT and BET-XT-TR, which track the price changes of the 30 most-traded companies listed on the BSE's Regulated Market, including financial investment companies, and the corresponding total return; three sectorial indices (BET-FI for financial investment companies, BET-NG for energy and utilities, and BET-BK a benchmark index for asset managers and other institutional investors), BET-Plus that is a free float market capitalisation-weighted index of the Romanian companies excluding investment companies and ROTX, which is an index developed by BSE together with Vienna Stock Exchange for all "blue chip" shares traded on the regulated market.

In 2021, BSE launched other three indices, namely **Bucharest Exchange Trading Net Total Return** (BET-TRN - net total return version of market reference index BET), **Bucharest Exchange Trading Extended Net Total Return** (BET-XT-TRN - net total return version of BET-XT index), respectively **Bucharest Exchange Trading AeRO** (BET-AeRO) that reflects the price performance of companies listed on the AeRO market that meet the free-float, market capitalization and liquidity criteria. The last index

was designed as a benchmark for AeRO listed companies. BET-AeRO is reviewed quarterly on March, June, September and December.

- As it can be observed on the graph, BET index quickly responded to the challenging mix of events that took place over 2018 - Q1 2024. The three main events identified as causing a sudden fall in the BET index are:
  - Emergency Ordinance 114 issuance at the end of December 2018, affecting the profitability of local companies, especially those operating in energy, telecom and banking sectors - BET index saw a 15% decrease during the month of December 2018, triggered by the negative news about increased taxation;
  - COVID 19 outbreak, leading to restrictions and worldwide panic - BET index lost 25% during 1 February – 1 April 2020
  - Russian invasion of Ukraine in February 2022, causing instability and fear - BET index dropped by 17% during the period 23 February - 7 March 2022
  - Partial military mobilisation was declared in Russia on 21 September 2022 – BET index lost approx. 6% until end of September 2022
  - BET index increased by almost one third during 2023 and continued the upward trend in Q1 2024, when it additionally gained over 10% compared to its 2023 closing.

# Overview of Romanian IPOs – a retrospective analysis

The scarcity of IPOs in Romania might be explained by the low appetite for transactions in the context of global uncertainties, especially in the period 2008-2012, the postponing of public listings for state-owned companies and the lack of experience regarding raising financing via primary capital markets. The mass privatization process from 1995-1996 was preferred for accelerating the privatisation of state-owned companies and helping to build the foundation of local IPO culture. In the context of alternative equity providers (e.g. private equity and venture capital equity funds), some companies decided not to go public on the BSE, thus keeping the number of domestic IPOs at low levels. In recent years, the BSE has been committed to holding financial seminars and campaigns to increase awareness regarding trading on a capital market and the inherent advantages.

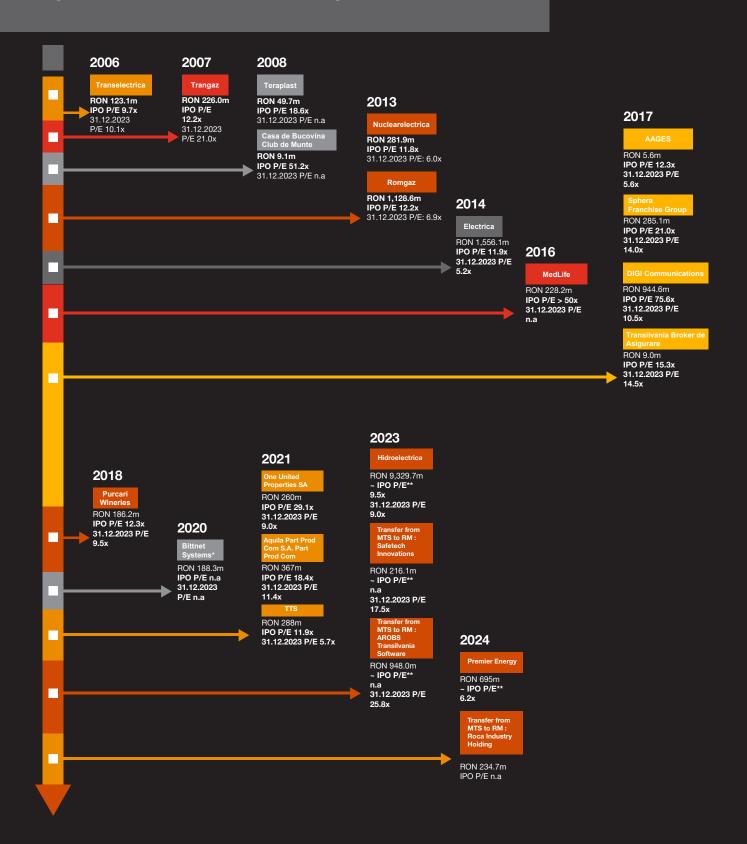
The timeline showcases successful IPOs of companies listed on the regulated segment of the Bucharest Stock Exchange from 2006 to 2023, together with the transfer of listed companies from MTS to the Regulated Market. It includes the IPO value and an estimated P/E ratio calculated based on the IPO price and as at 31.12.2023. After a year with no IPOs on the Regulated Market, in 2023 and the first half of 2024 two successful IPOs were completed, i.e. Hidroelectrica and Premier Energy, respectively.

2023 IPO Hidroelectrica: Hidroelectrica, the Romanian leader in green electricity production, was successfully listed on BSE's main market in July 2023 under the ticker "H2O" following Fondul Proprietatea's decision to exit (19.94% equity interest). Romanian State remained Hidroelectrica's majority shareholder with an 80% interest. Once admitted to trading, Hidroelectrica's shares were included in the BSE's BET index. The total proceeds from the IPO were of RON 9.3 billion (EUR 1.9 billion), thus marking a new record on BSE after Electrica's listing in 2014. Hidroelectrica listing is an important step for BSE given that more foreign investors were attracted to invest in the local capital market which resulted in an increased market capitalization (higher liquidity and visibility). Hidroelectrica is the largest initial public offering ever made on the Bucharest Stock Exchange and ranks the first largest IPO on a European exchange in 2023 and the fourth largest at the global level in the same year. Furthermore, Hidroelectrica's successful listing positions the BSE closer to a potential promotion to the status of an Emerging Market by MSCI. Soon after the IPO, H2O shares were included in several international indices developed by FTSE, i.e. FTSE All-World Index, FTSE Global Large Cap Index and FTSE Emerging Index, as well as in the MSCI Frontier and MSCI Romania indices.

In April 2023, Agricover announced its intention to list on the BSE. The listing process was stopped one month later due to the lack of enough interest from the investors, which were waiting for Hidroelectrica's IPO.

2024 IPO Premier Energy: Premier Energy is a producer, balancer, distributor, and provider of electricity, as well as a natural gas supplier and distributor; the company was successfully listed on BSE in May 2024 under the ticker "PE" and raised c. RON 695 million (EUR 140 million). This IPO marks the largest listing of an entrepreneurial company on the BSE in the last five years according to a BSE communicate.

# Retrospective analysis of successful IPOs on the Regulated market ("RM"), including transfers from MTS



Source: BSE website (www.bvb.ro)

Romgaz and Electrica were both listed on the Bucharest Stock Exchange and the London Stock Exchange; The presented timeline displays the IPO value raised only on the Bucharest Stock Exchange, regardless of global depositary receipts traded on London Stock Exchange.

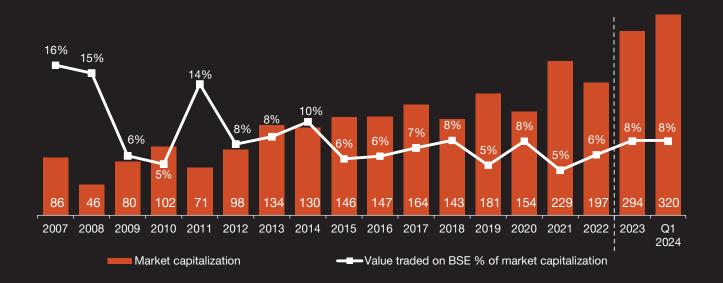
\*Bittnet Systems, Safetech Innovations, Roca Industry Holding and AROBS Transilvania Software were initially listed on MTS and transferred to BSE main segment; the proceeds displayed in the above timeline refer to the market capitalization recorded in the last day on MTS.

### **Liquidity analysis – BSE regulated market**

- In the last couple of years, BSE consolidated its position and became more attractive to investors after the promotion to the Secondary Emerging market status in September 2020.
- During 2014 2023, the total market capitalisation on the regulated market (including domestic and international tiers) ranged between RON 130 - 294 billion, while the value traded as percentage of market capitalisation ranged between 5% and 10%. Before that period, the capital market evolution and trading activity was less predictable, with higher fluctuations observed.
- In 2023, both the market capitalisation and the traded value were boosted by Hidroelectrica's listing. While BSE market capitalisation increased by 49% in 2023, reaching a new record of RON 294 billion, almost 60% of the gain is attributed to Hidroelectrica, whose market capitalisation accounted for 20% of the main market total market cap at the end of 2023. The traded value almost 90% growth can be primarily attributed to the new listed company, i.e. Hidroelectrica. Excluding this equity issue, a 10% decline in traded value would be observed.
- The number of companies listed on the regulated market (including Erste Group) slightly changed from 82 companies as at 31 December 2022 to 84 as at 31 December 2023, following the transfer of Safetech Innovations and Arobs Transilvania

- Software from MTS to main market, delisting of COS Targoviste and the listing of Hidroelectrica. Of the 84 currently listed companies on BSE regulated segment, one company was suspended for more than 10 years (UCM Resita) but resumed trading in 2022.
- BSE market capitalisation as at 31 March 2024 exceeded the RON 300 billion threshold and posted a 9% growth compared to the end of 2023, whereas the traded value in Q1 2024 was 2.6 times higher compared to Q1 2023.
- BSE's weakest performance in the last 17 years was recorded in 2008 during the financial crisis when market capitalisation almost halved. The RON 46 billion market capitalisation recorded at the end of 2008 represents only 16% of the market capitalisation recorded as at the end of 2023.

### Evolution of market capitalisation and traded value on BSE main segment, 2007 - Q1 2024 (end period)



Annualised value traded for Q1 2024



• The top five most traded shares on the regulated market changed in 2023, with Hidroelectrica S.A. (BVB:H2O) taking the lead and accounting for over half of the total traded value and with BRD - Groupe Société Générale S.A. leaving the top 5 ranking. The next four companies in the top are Fondul Proprietatea (BVB: FP), Banca Transilvania S.A. (BVB: TLV), OMV Petrom S.A. (BVB: SNP), and Romgaz (BVB: SNG). The trades of the five companies' shares account for 85% of total traded value in 2023. The most traded companies are from Electricity, Oil & gas and Financial services sectors, similar to the previous year.

Company	Sector	Ticker	Traded value in 2023 (RON ths.)	% in traded value
Hidroelectrica S.A.	Electricity	BVB:H2O	12,695,809	53%
Fondul Proprietatea SA	Financial	BVB:FP	3,187,958	13%
Banca Transilvania S.A.	Financial	BVB:TLV	1,957,850	8%
OMV Petrom S.A.	Oil & gas	BVB:SNP	1,655,601	7%
SNGN Romgaz SA	Oil & gas	BVB:SNG	809,187	3%

Source: S&P Capital IQ, PwC Analysis

#### **Overview of MTS market**

As at 31 December 2023, 286 companies were listed on the MTS market segment, of which 15 were included in the International segment, 49 in the Premium segment and 222 in the AeRO Standard segment. During 2023, two companies were transferred from MTS (Safetech Innovations and Arobs Transilvania Software) to the Regulated market and three companies were delisted from AeRO (Clujana SA Cluj Napoca, Mecanica 94 SA DR. T. Severin and Martens SA Galati). An additional delisting (Exploatare Portuara Drobeta SA Orsova) took place in March 2024. Of the 286 issuers on MTS as at 31 December 2023, 20 were suspended from trading. During 2023 - H1 2024, two new listings were concluded on the MTS market, of which one company, Millenium Insurance Broker (MIB) Broker de Asigurare-Reasigurare, was included in the premium segment and one, Daimler Truck Holding AG, in the international segment.

Of the companies listed on the MTS market, excluding the International segment, approximately one third are included in Industrial and one quarter in the Consumer sectors.

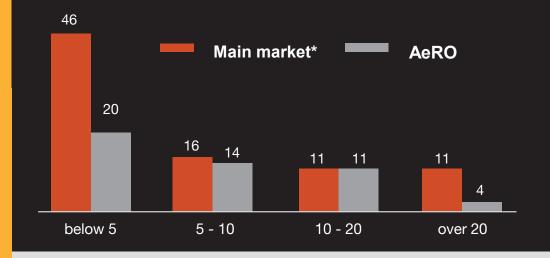
The market capitalisation of the AeRO premium segment increased by 19% during 2023, reaching RON 14.9 billion, although the

number of companies remained unchanged. While the number of companies listed on the premium AeRO segment accounts for less than 20% of the total number of companies on MTS, the market capitalization of the AeRO premium segment accounts for 30% of the total.

MTS traded value (excluding IPOs) has decreased constantly in the last few years, one of the causes being the transfer of the larger companies on the Regulated segment. The traded value of all 49 companies included in the Premium segment as at 31 Dec 2023 accounted for almost half of total value traded recorded on the BSE MTS market.

In 2023, the liquidity of the shares listed on BSE's AeRO premium segment remains slightly higher as compared to liquidity of companies on the main market of BSE, i.e. 31% of the companies listed on AeRO premium segment recorded a traded value of at least 10% of the average market capitalisation vs. 26% for companies on the Regulated segment.

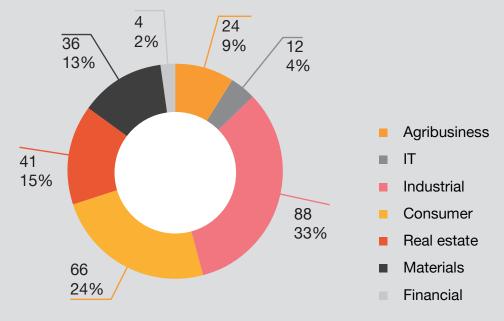
# Regulated market vs. AeRO Premium\* - Number of companies grouped based on % Traded value in average market capitalisation



Source: BSE monthly bulletins for MTS and BVB 2023, PwC Analysis

\* Erste excluded Note: Average market capitalisation was computed based on the average of market capitalisation as at 31 December 2022 and as at 31 December 2023, respectively

MTS (excluding International segment) - number of listed companies by sector



# Romanian stock market performance

# Stock market indices performance vs. Romania's Credit Default Swap (CDS)

A country-specific CDS is an indicator for the default risk perception of sovereign debt instruments issuers, its evolution being driven by the changes in local economic fundamentals. A country's stock market has long been viewed as an economic barometer.

- Stock market returns were analysed based on the performance of the BET and BET-TR indices, compared to the Risk Credit Default Swap (CDS). The development of BET, BET-TR and CDS, as depicted in the graph, shows that the BSE indices are sensitive to the country risk, which also influences foreign capital investments.
- In July 2007, when the BET index reached a new high of 10,813.59 points, the CDS for Romanian government bonds reached a new low of 30 basis points. Once the financial crisis had started to take its toll, the CDS recorded a historic high of 762 points in February 2009, whereas the BET index reached a new low of 1,887.14 points following an 80% collapse from its 2007 high.
- Between 2010 and 2011, the CDS recorded an average level of 300 points and fewer fluctuations. The beginning of 2012 brought some tensions and, amid worsening economic

- conditions in the EU28 zone, Romania's CDS jumped to approximately 500 points. The context had improved by the end of 2012, with the CDS dropping by about half to approximately 260 points. In April 2014, the CDS was around 160 points, with BET index growth showing investors' increasing appetite for the Romanian capital market.
- The data depicted in the graph indicates an inverse correlation between Romanian 10-year CDS and BET and BET-TR indices over a period with a challenging mix of events: (a) financial crisis in 2008 and (b) pandemic context in 2020 and (c) the military conflict in Ukraine in Q1 2022.
- From 2015 to 2019, CDS volatility was lower, thus presenting a downward trend. During 2018 and 2019, the CDS averaged 135 points, although Romania was considered riskier than other countries in the region. On 19 December 2018, the BET dropped by 11.2%, thus wiping out the entire growth achieved during 2018. The BET decrease in December 2018 was the second largest fall after 2009, when Romania entered recession, and was associated with rumours regarding additional taxation in banking, energy and telecom sectors, as well as changes in the Pillar II pension system, whereas the developments in 2020 were triggered by the pandemic and the than BSE's promotion by FTSE Russell.





— Romania CDS 10-yr (basis points)

— BET (% change, y-o-y)

— BET-TR (% change, y-o-y)

Source: S&P Capital IQ

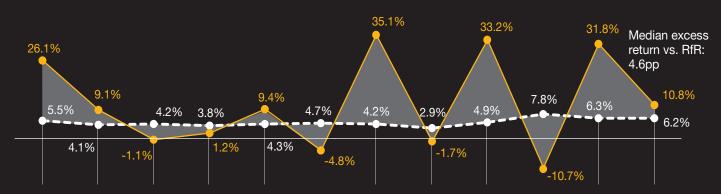


- In order to ensure that its indices are representative and relevant to the stock market, the BSE launched the BET-Total Return index (BET-TR) in September 2014. This index accounts not only for capital gains but also for the dividends paid by constituent companies. The average dividend yield for BET constituent companies was 8.1% in 2023 and 8.9% in 2022, above the average dividend yield for all companies on the Regulated market of 7.9% in 2023 and 4.6% in 2022.
- The performance of BET and BET-TR indices decreased significantly in February and March 2022, while the CDS (insurance against non-payment of Romania's debt) increased thus, the indices and CDS evolution was opposite. The situation has changed during 2023 when the indices regained strength and provided consistent returns. According to the data provided by the S&P Capital IQ platform, Romania's average insurance cost for its debt, as measured by the 10-year CDS (Credit Default Swap), was 284 bps in 2022, decreased to 244 bps in 2023 and further declined to 211 bps in the first quarter of 2024. The Romanian CDS dynamic has been closely linked to the CDS evolution in the region over the period 1 December 2007 - 31 March 2024. Risk premiums have increased considerably in 2008, after the onset of the financial crisis, both in countries with Frontier stock exchanges and in those with Emerging stock markets. In 2019 and 2020, the CDS of many analysed countries, including Romania, hovered at reduced levels compared to years before, but still above the levels recorded until 2007, prior to the financial crisis outbreak. After reaching a 10-year minimum in February 2020 (108 basis points), Romania's CDS (ten years term, mid-price) grew in the pandemic context up to a maximum of 208 basis points in May 2020, but decreased by the end of 2021 to 121 basis points. In a difficult geopolitical context after the Ukrainian war outbreak, Romania's CDS ramped up to a 10year maximum of 452 basis points in October 2022. By the end of March 2024, Romania's CDS was of 219 bps.
- In light of the above, we performed an analysis of the returns on capital invested in bonds market vs. equity market, focusing on the evolution of the Risk-free Rate (RfR), as approximated by the yields on long-term Romanian Government Bonds denominated in local currency and main BSE indices. The two graphs display the evolution of the vield to maturity of one of the mosttraded Romanian bonds (i.e. RO1227DBN011) in comparison with the performance of the two most representative indices, i.e. BET and BET-TR, during the period 2013 - Q1 2024. After reaching a low at the end of 2020 (2.9%), the RfR increased significantly and by the end of 2022 it peaked at 7.8%. During 2023, the RfR started to decrease, reaching 6.3% by the end of 2023, a level that remained guite constant at the end of Q1 2024 (c. 6.2%). With annual returns ranging between -10.7% and 35.1% displayed by BET, respectively -1.9% and 46.9% by BET-TR, the local equity market provided superior returns as compared to RfR in 2013, 2014, 2017, 2019, 2021, 2023 and in Q1 2024.

• This analysis covering a timespan of 11.3 years (2013 – Q1 2024) shows that the period median excess return over the Risk-free Rate was 4.6pp for the BET index and 9.8pp for the BET-TR index. These levels can be regarded as proxies for the return surplus associated with stock market investment vs. the investment in government bonds, thus compensating investors for taking on the relatively higher risk of equity investing. The size of the premium varies depending on the level of risk in a particular portfolio.



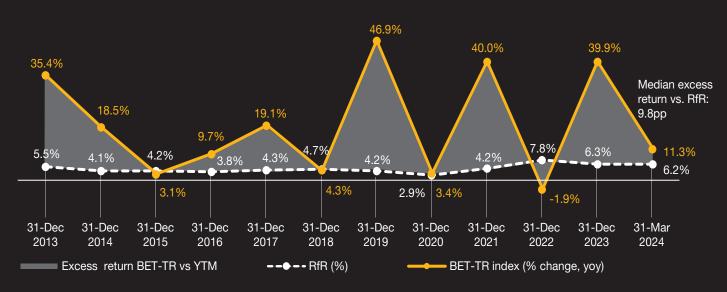
#### **Evolution of BET index vs. RfR (%)**



31-Dec-13 31-Dec-14 31-Dec-15 31-Dec-16 31-Dec-17 31-Dec-18 31-Dec-19 31-Dec-20 31-Dec-21 31-Dec-22 31-Dec-23 31-Mar-24

Source: S&P Capital IQ, BSE, PwC analysis

#### **Evolution of BET-TR index vs. RfR (%)**



Source: S&P Capital IQ, BSE, PwC analysis

ESG factors – investment perspective

In the last couple of years, traditional investment approaches have shifted towards sustainable investments that incorporate Environmental, Social and Governance (ESG) factors. Although ESG has become a "buzzword" in finance and some investors have already decided to apply these non-financial metrics, the ESG factors are not mandatory metrics in financial reporting statements.

ESG factors have gained more importance in recent years for several reasons:

- They help in identifying and mitigating risks that a company may face and provide better indications compared to traditional financial metrics related to companies able to generate superior returns;
- They promote a sustainable business model as companies and investors look at society and the environment in a more responsible way;
- As economies are changing very fast, so too are the business models – in this respect, investors and companies must shift their vision/strategy/objectives from short-term perspectives of risks and returns to sustainable, long-term sustainable business models that generate profitability.

ESG factors are incorporated within a wide range of investing approaches, each including a different set of financial indicators and social metrics. The traditional investment approach takes into account only the financial indicators intended to maximise shareholder profit or value. However, as a result of modern economic dynamics, new approaches have been considered by investors which are now more focused on ESG and societal investments – this type of investments provide returns that are linked to environmental or social benefits (including human and employee rights, gender equality, race, age, social background, etc.).

Incorporating ESG factors in valuing a company has evolved considerably over the past couple of years, with a Value Creation Ecosystem factoring in ESG drivers being developed as a result.

ESG investing is an approach that seeks to incorporate Environmental, Social and Governance factors into asset allocation and risk decisions with the intention of generating sustainable, long-term financial returns. There are several publicly available studies indicating a positive correlation between ESG factors and a company's share price increase.



### Why integrate ESG in investment strategy?

#### Macro level

- Mitigate risk
- Apply fiduciary duty
- Consider economic perspective
- · Assess the impact and apply ethics
- · Analyse client demand perspective
- · Apply regulatory perspective

## **Financial materiality**

- Efficiency and productivity
- Reduced risk of fines and state intervention
- Reduced negative externalities
- Improved ability to benefit from sustainability megatrends



## **ESG Challenges**

- Data availability disclosure, limited understanding of ESG information
- Modelling ESG factors have a long term financial impact and are difficult to quantify and to include in a financial model
- Valuation techniques adjusting discount rate or cash flows for ESG risks
- Estimating societal challenges, environmental issues and externalities is difficult and at a certain extent may rely only on professional judgement
- IVSC has published a "Perspectives paper ESG and Business Valuation", "Perspectives paper – A Framework to assess ESG Value Creation" and "Perspectives paper – ESG and Real Estate valuation")
- The updated 2024 IVS draft valuation standards include specific requirements for consideration of ESG factors in IVS 104 "Data and Inputs".
- ESG analysis is often qualitative in nature, requiring complex analysis and calibration between the methods used, input data, etc.

#### **ESG** initiatives on BSE

Equity markets play a strategic role in the shift towards a more comprehensive ESG reporting framework. Well functioning equity markets enable economic growth via the mobilisation of financial resources and brings together those who need capital for growth with those wanting to invest. In order to have a financial market that is secure, transparent and equitable, regulators should encourage transparency and require listed companies to fulfil ESG requirements. In the last eight years, the BSE has been committed to invest in sustainability and ESG initiatives in order to develop a framework for all listed companies and increase its visibility and attractiveness among local and international investors.



#### **BSE - key ESG milestones**



- On March 2015, BSE became a partner exchange to the United Nations Sustainable Stock
   Exchanges (SSE) initiative, ranking the 19th member to join the initiative globally and the 4th EU exchange alongside Deutsche Borse, London Stock Exchange and Warsaw Stock Exchange.BSE made the first step towards ESG commitment on 15 September 2020 when it launched the Environmental, Social and Governance focused initiative using Sustainalytics' flagship ESG Risk Ratings. This initiative aims encouraging all listed companies to align their business models with ESG practices in order to increase their value for all stakeholders.
- Listed companies on BSE with ESG risk score
  - **2021:** 9 companies published their score based on 2021 data (all listed on the Regulated market);
  - 2022: 21 companies published their score based on 2021-2022 data (19 listed on the Regulated market, one listed on MTS, i.e. Norofert and one company with sustainability-linked bond rating on the Regulated market, i.e. Autonom Service).
  - 2023: 22 companies published their score based on 2021-2023 data (20 listed on the Regulated market, one listed on MTS, i.e. Norofert and one company with sustainability-linked bond rating on the Regulated market, i.e. Autonom Service).
- The data provided on the BSE Research Hub is centred on five ESG scoring levels based on Sustainalytics methodology, i.e.:

#### ESG Risk Score -

measures the magnitude of a company's unmanaged risks.

Interpretation: a lower score corresponds to a smaller amount of unmanaged ESG risks.

**Exposure -** assesses the extent to which a company is exposed to different material ESG issues.

Interpretation: a higher score shows that the company has more exposure to material ESG issues.

Momentum - measures the evolution of the ESG Risk Score compared to the report issued for the previous period.

Interpretation: a negative momentum score shows an improvement of the ESG risk assessment.

**ESG Risk Ranking Score –** presents the ranking of the company among other players in the same sub-industry.

Interpretation: a higher ranking means better ESG performance compared to similar companies in the Sustainalytics-covered universe.

Management - management refers to how well a company is managing its relevant ESG issues (programmes, policies, etc)

Interpretation: a higher score shows a better performance in managing ESG risks.



# ESG risk rating - Sustainalytics methodology

- Based on Sustainalytics methodology, the ESG Risk Ratings scores are a measure of unmanaged risk (defined as material ESG risk that has not been managed by a company).
- The unmanaged risk includes: (1) unmanageable risk, which cannot be addressed by company initiatives and (2) the management gap which refers to those risks that could potentially be managed by a company.
- The ESG Risk categories based on the scores provided by Sustainalytics falls in the following five categories:
  - negligible (score between 0-10)
  - low (score between 10-20)
  - medium (score between 20-30)
  - high (score between 30-40)
  - severe (score above 40).
- Each category captures a level of material financial impacts driven by ESG factors.
- The ESG ratings published by Sustainalytics are designed to provide the relevant data on financially material ESG risks; there ratings are further analysed by inventors and embedded in their decision-making process.
- The ESG Risk rating provides an overall company score based on an assessment of how much of a company's exposure to ESG risk is unmanaged. When a company has a greater risk that is unmanaged, then its ESG Risk score will be higher.



Source: ESG Risk Ratings - Methodology Abstract Version 2.1, January 2021

- A company's risk rating is updated annually by Sustainalytics based on the review of:
  - corporate publications and regulatory filings (e.g. Annual Reports and Corporate Sustainability Reports);
  - news and other media;
  - NGO reports/websites;
  - multi-sector information sources (e.g. Global Reporting Initiative, Carbon Disclosure Project reports);

- · company feedback;
- assessment of management indicators o Includes a review of ESG controversies;
- processing any issuer feedback on draft ESG report;
- Quality and peer review.



Note: Ratings are sourced from Sustainalytics are classified into five risk levels: negligible (0-10), low (10-20), medium (20-30), high (30-40) and severe (40+);

the sub-industry includes the total number of companies, with an industry-wide ESG score, selected by Sustainalytics as comparable to the subject company

	Sector	ESG Sco			sk gory	Rank		companies (industry)
Sphera Franchise Group S.A.	Consumer	18	3.7	Lo	ow	2%	ı	125
Antibiotice S.A.	Healthcare	24	.5	Med	lium	5%		473
OMV Petrom S.A.	Oil & Gas	22	2.5	Med	lium	5%		55
BRD - Groupe Société Générale S.A.	Financial services	15	5.4	Lo	)W	6%		409
SC Rompetrol Well Services S.A.	Oil & Gas	19	).2	Lo	)W	8%		84
Banca Transilvania S.A.	Financial services	17	7.0	Lo	ow	10%		376
S.N. Nuclearelectrica S.A.	Electricity	23	3.0	Med	lium	13%		302
S.N.T.G.N. Transgaz S.A.	Oil & Gas	27	7.3	Med	lium	24%		112
Teraplast S.A.	Materials	22	2.7	Med	lium	25%	П	143
Alro S.A.	Materials	29	).4	Med	lium	28%	П	36
Societatea Energetica Electrica	Electricity	29	).9	Med	lium	28%		302
One United Properties S.A.	Industrial	20	0.0	Med	lium	28%		280
Impact Developer & Contractor S.A.	Industrial	18	3.7	Lo	ow .	29%		87
SC Farmaceutica REMEDIA S.A.	Healthcare	16	5.7	Lo	ow .	33%		46
S.C. Romcarbon S.A.	Materials	17	7.6	Lo	ow	44%		63
Aquila Part Prod Com S.A.	Industrial	22	2.4	Med	lium	54%		95
TTS (Transport Trade Services) S.A.	Industrial	24	.8	Med	lium	62%		95
Bursa de Valori București	Financial services	23	3.1	Med	lium	69%		49
Electromagnetica S.A.	Industrial	18	3.1	Lo	)W	76%		139

Source: BSE Research HUB, PwC Analysis

### **Conclusion - ESG Ranking**

2022: 6 of 19 Romanian companies ranked in top 10% firms included in the specific sub-industry and in 2023 only 6 of 20 Romanian companies are ranked in top 10%.

Note: [1] ESG risk score evolution between 2023 and 2022 (for those companies with no change it means that

no updated ESG reports were available)
[2] Real Estate sector has a very low degree of representation on the local capital market, with only two companies listed - One United Properties S.A and Impact Developer & Contractor S.A.; due to the reduced number of listed companies on this sector, the aforementioned companies were considered part of the industrial sector

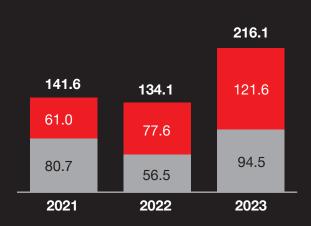
	Sector	ESG Risk Score	Risk category	Evolution vs. 2022	Rank	#companies (industry)	
Sphera Franchise Group S.A.	Consumer	18.7	Low	No change	2%	125	
Antibiotice S.A.	Healthcare	22.2	Medium		6%	443	
OMV Petrom S.A.	Oil & Gas	24.6	Medium	<b>^</b>	5%	61	
BRD - Groupe Société Générale S.A.	Financial services	14.4	Low	V	6%	492	
SC Rompetrol Well Services S.A.	Oil & Gas	16.9	Low	<b>V</b>	7%	85	
Banca Transilvania S.A.	Financial services	17.0	Low	No change	10%	376	
S.N. Nuclearelectrica S.A.	Electricity	23.0	Medium	No change	13%	302	
S.N.T.G.N. Transgaz S.A.	Oil & Gas	27.6	Medium	^	28%	117	
Teraplast S.A.	Materials	23.4	Medium		32%	159	
Alro S.A.	Materials	29.4	Medium	No change	28%	36	
Societatea Energetica Electrica	Electricity	29.9	Medium	No change	28%	302	
One United Properties S.A.	Industrial	18.4	Medium	V	32%	284	
Impact Developer & Contractor S.A.	Industrial	18.7	Low	No change	29%	87	
SC Farmaceutica REMEDIA S.A.	Healthcare	16.7	Low	No change	33%	46	
S.C. Romcarbon S.A.	Materials	17.6	Low	No change	44%	63	
Aquila Part Prod Com S.A.	Industrial	22.4	Medium	No change	54%	95	
TTS (Transport Trade Services) S.A.	Industrial	21.8	Medium	<b>V</b>	62%	103	
Bursa de Valori București	Financial services	23.1	Medium	No change	69%	49	
Electromagnetica S.A.	Industrial	18.1	Low	No change	76%	139	
S.N.G.N. Romgaz S.A.	Oil & Gas	29.0	Medium	n.a.	94%	16	

# Listed companies with ESG risk score – representation on BSE's Regulated market

Market capitalization of all listed companies on Regulated market\*, by ESG Risk score (RON bn)

\*): Market capitalisation sourced from BSE official website; Erste Group was excluded because is listed primary on Vienna Stock Exchange

Source: BSE official website, BSE Research HUB, PwC Analysis



Listed companies on BSE, ESG rating

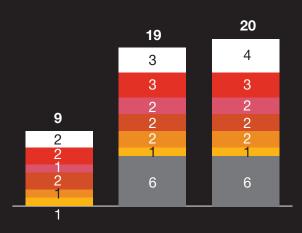
Sectorial representation, all listed companies with ESG risk score

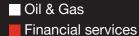
■ Listed companies on BSE, with no ESG rating



Top

Top sectors, % market capitalization of companies with ESG score 2023



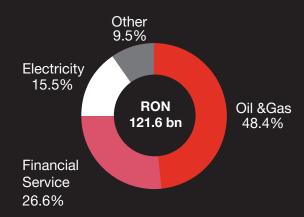


Electricity



MaterialsConsumer





# Key remarks - 2022

• The 4 companies with an ESG score in the oil and gas sector plus the 3 companies in the financial services sector and the 2 companies in the energy sector had a cumulative market capitalization of RON 110 billion (~ 90% of the total capitalization of RON 121.6 billion attributable to all listed companies with an ESG score on BVB).

# Listed companies valuation multiples



With three new entrants on the Regulated market and one delisting in 2023, the total market capitalization grew by over 60% in 2023 up to RON 216 billion, after a 5% decrease in 2022. One of the new entrants, Hidroelectrica, became the largest company traded on the BSE (excluding Erste) immediately after its IPO, with a 20% share in total market capitalisation as at 31 December 2023. The BET index posted an increase of over 30% increase during 2023, despite persistent economic and geopolitical uncertainties (e.g. large budget deficit, still high inflation and interest rates, war in Ukraine and Gaza, increased energy prices).

# **Key facts**

- The analysis conducted on the BSE regulated segment The analysis conducted on the BSE regulated segment indicates a high concentration of listed issuers, with the top five companies accounting for 68% of the total market capitalisation as at 31 December 2023. The top five companies are active in Electricity (e.g. Hidroelectrica and Nuclearelectrica), Oil & Gas (e.g. OMV Petrom, RomGaz) and Financial Services (e.g. Banca Transilvania) sectors. Those economic sectors' degree of representation on the local capital market is therefore low in the absence of several industry leaders.
- BSE flagship index, BET, is a barometer for the capital market performance, as confirmed by the strong correlation coefficient of 0.9 between total market capitalisation and the index performance over the last 17 years. As at 31 December 2023, the BET index increased to 15,371 points, posting a 31.8% growth compared to the previous year.
- The number of analysed listed companies fluctuated over the period 2007 2023 as a result of the suspension and / or delisting of some of the companies included in the study but also new listings (IPOs) and transfers from MTS. The current edition covers the analysis of 84 companies, grouped in eight sectors of activity, primarily listed on the BSE main segment (Erste Group was excluded from the analysis as its primary listing is on a different exchange Vienna Stock Exchange).
- Starting this edition, we present also the listed companies multiples for two new sectors: Information Technology & Communications (IT&C) and Real estate. The IT&C sector include the two companies transferred from AeRO in 2023 and two companies previously included in other sectors and now reclassified.

Top 3 sectors by market capitalisation (% of total market cap) as at 31 December 2023

- Electricity (36%)
- Oil & Gas (29%)
- Financial Services (19%)

Top 3 sectors by value traded (% of total value traded) as at 31 December 2023

- Electricity (56%)
- Financial Services (25%)
- Oil & Gas (11%)

Market cap as at 31 December 2023 and value traded in 2023 - by sectors

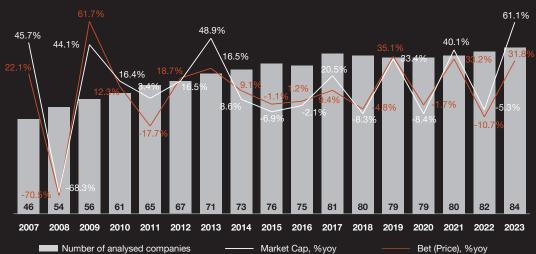
Sector	No. of Companies	Market Cap. (RON m)	Total value traded (RON m)	Value Traded % of market cap.
Electricity	4	78,569	13,490	17.2%
Oil & gas	9	62,165	2,703	4.3%
Financial	12	41,165	6,037	14.7%
Materials	12	9,100	250	2.7%
Industrial	26	6,840	493	7.2%
Healthcare	6	6,066	229	3.8%
IT&C	4	5,570	359	6.4%
Real estate	4	4,514	255	5.7%
Consumer	7	2,121	185	8.7%
Total	84	216,110	24,001	11.1%

Source: S&P Capital IQ, PwC analysis

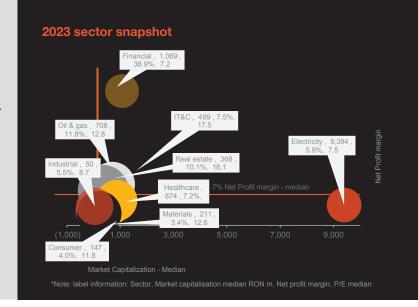


Number of analysed companies, evolution of market cap growth and BET performance over 2007-2023

Note: Market capitalisation as per S&P Capital IQ for 2016 – 2020 and as per BSE, for the period 2007 – 2015, and 2021-2023, respectively.



In 2023, the Electricity sector recorded the highest market capitalisation (RON 79 billion), followed by Oil & gas sector (RON 62 billion) and Financial services sector (RON 41 billion). The highest median market capitalisation (RON 9.4 billion) was recorded by the Electricity sector, while the lowest by the Industrial sector (RON 50 million). The highest median P/E multiple was reported by IT&C sector (P/E of 18x) while the lowest by the Financial Services sector (P/E of 7x).



Note: label information: Sector, Market Capitalisation median (RON million), Net profit margin, P/E median

Source: S&P Capital IQ, BSE website, PwC analysis

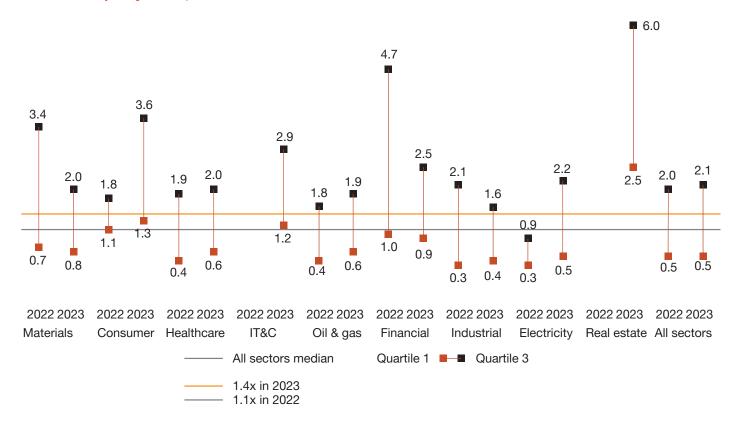
The market capitalisation of companies on the Regulated market ranged from RON 0.9 million (Compania Energopetrol S.A.) to RON 57,575 million (Hidroelectrica S.A.), with a median value of RON 245 million, as at 31 December 2023.

Net profit margin observed on the local capital market ranges from 4% (first quartile) to 18% (third quartile), with a median value of 7%.

Analysed sectors and number of companies	Top listed companies by market capitalisation in 2023	Sector net profit margin and P/E multiple				
Electricity (4 companies)	Hidroelectrica Nuclearelectrica Societatea Energetica Electrica	Net profit margin: 5% – 19% (quartiles), median 6% P/E multiple: 6x – 9x (quartiles), median 8x				
Oil & Gas (9 companies)	OMV Petrom S.A. SNGN Romgaz S.A. SNTGN Transgaz	Net profit margin: 8% – 15% (quartiles), median 12% P/E multiple: 10x – 19x (quartiles), median 13x				
Financial services (12 companies)	Banca Transilvania BRD - Groupe Société Générale Fondul Proprietatea	Net profit margin: 22% – 41% (quartiles), median 39% P/E multiple: 6x – 11x (quartiles), median 7x				
Industrial (26 companies)	TTS (Transport Trade Services) Aerostar Aquila Part Prod Com	Net profit margin: 4% – 10% (quartiles), median 4% P/E multiple: 6x – 14x (quartiles), median 9x				
Materials (12 companies)	Chimcomplex Borzesti Teraplast Alro	Net profit margin: 1% – 11% (quartiles), median 3% P/E multiple: 8x – 15x (quartiles), median 13x				
Healthcare (6 companies)	Medlife Zentiva Antibiotice	Net profit margin: 1% – 18% (quartiles), median 7% P/E multiple: 11x – 12x (quartiles), median 11x				
IT&C (4 companies)	Digi Communications Arobs Transilvania Software Bittnet Systems	Net profit margin: 6% – 19% (quartiles), median 7% P/E multiple: 14x – 22x (quartiles), median 18x				
Real estate (4 companies)	One United Properties Impact Developer & Contractor Mecanica Fina	Net profit margin: 4% – 19% (quartiles), median 10% P/E multiple: 13x – 20x (quartiles), median 16x				
Consumer (7 companies)	Sphera Franchise Group Purcari Wineries Turism, Hoteluri, Restaurante Marea Neagra	Net profit margin: 3% – 8% (quartiles), median 4% P/E multiple: 9x – 23x (quartiles), median 12x				

# Listed companies valuation multiples: Revenue & EBITDA multiple analysis

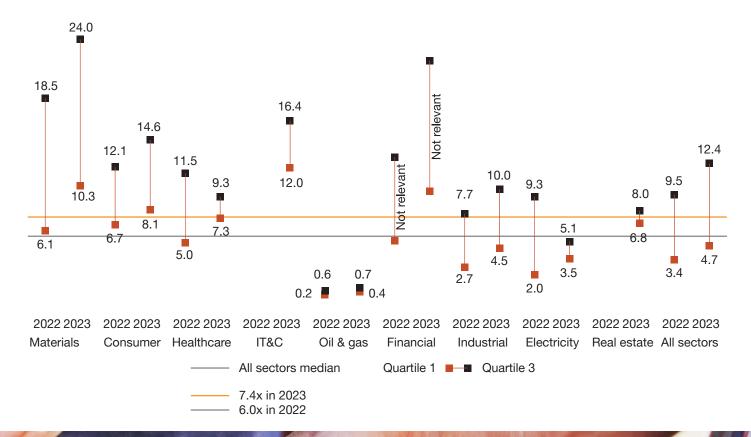
Revenue multiple by sector, 2022 - 2023



# Revenue multiple

- The aggregated median for Revenue multiple in 2023 is 1.4x, slightly higher than the level observed in 2022
- In 2023, the top-performing sectors were Real estate and Consumer with a median multiple of 4.5x and 1.9x, respectively, whereas the lowest revenue multiple was recorded by Industrial sector, with a median of 0.8x
- The upper limit of Revenue multiple strongly increased for Electricity and Consumer sectors, while for Materials, Financial services and Industrial sectors decreased
- Revenue multiple is quite a reliable metric as it is less volatile than P/E or EBITDA multiples and less susceptible
  to accounting manipulation; it is highly used by distressed, start-up and small companies with a low or negative
  EBITDA. Yet, it should be used with caution in cases where some products / services intermediaries could count
  revenue as either the commission charged or the value of products / services they intermediate

# EBITDA multiple by sector, 2022 - 2023



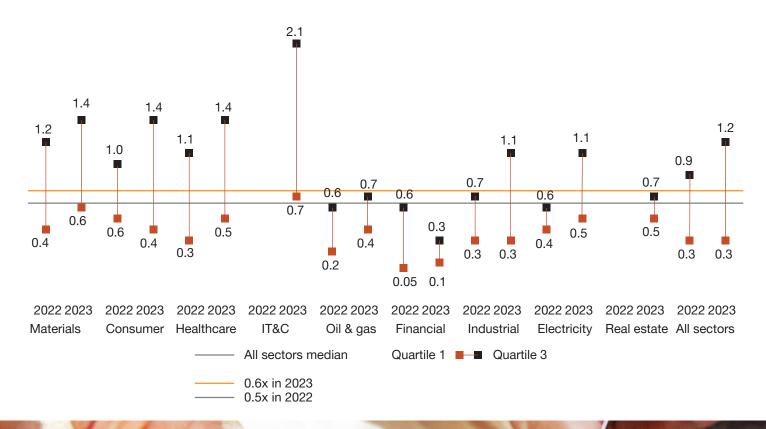
# **EBITDA** multiple

- The median EBITDA multiple increased in 2023 vs. 2022, with Consumer, Electricity, Materials and Oil & Gas sectors posting the highest volatility. Healthcare is the sector with the most stable median EBITDA multiple (7.6x in 2022, 7.8x in 2023)
- In 2023, the top-performing sectors were IT&C and Consumer, with median multiples of 14.6x and 13.1x, respectively, whereas the lowest EBITDA multiple was recorded by the Electricity and Oil & Gas sectors, with a median of 4.1x and 5.0x, respectively.
- The upper limit of EBITDA multiple steeply declined for Healthcare and Electricity and grew for Industrial, Oil & Gas, Consumer and Materials sectors
- This multiple is not meaningful for the Financial services Services sector as it is difficult to isolate the financing requirements of a financial institution from its wider operational activities
- It can be used to directly compare companies operating in the same industry, regardless of their debt level, and it is not affected by accounting choices regarding amortisation and depreciation
- EBITDA is a good proxy for cash, but its main drawback is that it cannot be used for comparisons across industries, given the variations in capital expenditure requirements

Note: The multiples of 2022 may fluctuate from the values presented in the previous edition as a result of updated financial information done by S&P Capital IQ since then. The companies included in the Industrial and Consumer sectors are not perfectly the same in 2023 and 2022, due to some reclassifications considered. IT&C and Real estate sectors were included for the first time in the analysis in 2023.

# Listed companies valuation multiples: Total assets and Net assets multiple analysis

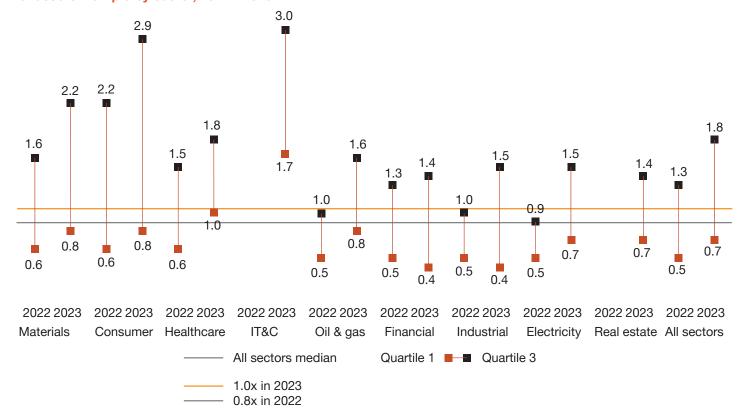
Total assets multiple by sector, 2022 - 2023



# Total assets multiple

- The aggregated median for Total assets multiple in 2023 is 0.6x, slightly above the level observed in 2022 (0.5x)
- In 2023, the top-performing sectors were IT&C and Healthcare, with median multiples of 1.3x and 1.1x, respectively, the only sectors with median Total assets multiples of over 1x
- Both in 2022 and 2023, the lowest multiple was recorded in the Financial services Services sector, with a median of 0.2x in both years.
- The upper limit of Total assets multiple increased for all sectors except Financial services, for which the upper limit almost halved.
- Total assets multiple is especially relevant for capital-intensive sectors, but should be applied with caution in the
  case of companies with significant intangible assets, as presumably they do not fully capture the future growth
  opportunities

# Net assets multiple by sector, 2022 - 2023



# Net assets multiple (P/BV)

- The aggregated median for Net assets multiple in 2023 was 1.0x, above the level observed in 2022 (0.8x)
- In 2023, the sectors posting the highest P/BV multiples, above 1.0x, were IT&C (2.4x), Consumer (1.6x) and Healthcare (1.4x), while the sectors with the lowest multiples were Financial services and Industrial, with a median multiple of 0.8x. For Materials and Electricity sectors, the median P/BV multiple was 1.0x
- The upper limit of Net assets multiple clearly grew for Electricity, Industrial, Oil & Gas, Healthcare, Consumer and Materials sectors, while for the Financial services sector remained approx. the same
- Net assets multiple is especially relevant for the financial services and real estate sectors. This multiple can be used to compare companies operating within the same industry and should be used with caution for the companies with significant intangible assets

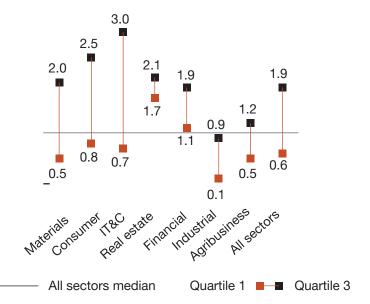
Note: The multiples of 2022 may fluctuate from the values presented in the previous edition as a result of updated financial information done by S&P Capital IQ since then. The companies included in the Industrial and Consumer sectors are not perfectly the same in 2023 and 2022, due to some reclassifications considered. IT&C and Real estate sectors were included for the first time in the analysis in 2023.

# Listed companies on BSE AeRO premium segment valuation multiples

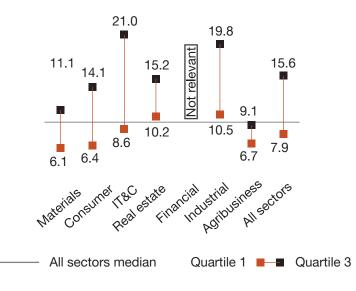
AeRO Premium segment of BSE includes 49 companies with market capitalisation as at 31 December 2023 between RON 2m and 769m, and an average of RON 90m, significantly below the market capitalisation of companies on the BSE's main market. As at 31 Dec 2023, there were only six companies with market capitalisation of over RON 200 million, with the top 3 companies

being Materials, Industrial and Agribusiness: Brikston Construction Solutions (RON 769m), Simtel Team (RON 338m) and Grup Serban Holding (RON 279m).

# Revenue multiples by sector, 2023



### EBITDA multiples by sector, 2023



- In 2023, the aggregated median for Revenue multiple was 0.9x, below the aggregated median multiple of companies on BSE main market of 1.4x
- The Real estate Sector was the top performer, with a median revenue multiple of 1.9x
- The lowest revenue multiple was recorded by the Agribusiness sector, with a median of 0.7x
- In 2023, the aggregated median for EBITDA multiple was 8.7x, above the 8.0x aggregated median multiple of companies on BSE main market
- The top performing sector was Real estate, with a median multiple of 12.1x
- The lowest EBITDA multiple was recorded by the Materials sector, with a median of 7.8x



# In 2023, the P/E multiples recorded increases for most sectors but Consumer and Financial services, which reached their 5-year minimum

Sector	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Volatility 2008 - 2023	Minimum 2019 - 2023	Maximum 2019 - 2023
Consumer	17.2	11.8	13.3	16.8	11.9	17.3	20.4	20.8	13.5	14.9	13.3	13.4	13.2	12.6	14.3	14.5	11.8	19%	11.8	14.5
Financial services	18.0	3.6	7.0	12.5	5.4	7.1	11.4	10.4	8.9	12.5	9.3	7.6	7.5	15.2	8.2	8.5	7.2	33%	7.2	15.2
Oil & Gas	16.4	8.1	10.3	8.8	6.8	6.1	10.3	9.3	8.8	9.5	11.7	7.5	10.0	15.4	14.4	6.9	12.8	27%	6.9	15.4
IT&C																	17.5		17.5	17.5
Real estate																	16.1		16.1	16.1
Healthcare	25.4	10.2	18.1	12.8	11.0	10.1	11.9	12.1	18.4	11.5	10.8	12.1	15.5	16.2	13.6	9.7	10.6	22%	9.7	16.2
Industrial	33.8	7.6	8.6	9.8	15.3	6.9	12.1	7.8	6.9	8.9	10.2	7.8	8.1	9.3	9.9	6.1	8.7	25%	6.1	9.9
Materials	24.1	5.8	34.5	16.5	9.6	11.4	8.4	7.3	5.7	10.7	9.8	9.0	8.9	9.7	16.8	8.1	12.6	60%	8.1	16.8
Electricity	38.4	9.1	2.7	25.0	9.3	19.4	5.6	13.3	11.6	12.5	15.9	14.3	12.9	11.0	13.7	3.9	7.5	48%	3.9	13.7
All sectors	25.4	7.0	10.3	12.7	9.5	8.0	11.6	9.8	9.6	10.9	11.2	9.0	10.5	10.9	13.2	7.7	10.3	17%	7.7	13.2
GDP growth Industrial production growth	7.2% 10.1%	9.3% 1.9%	-5.5% -5.0%	-3.9% 4.9%	1.9% 7.9%	2.6%	0.3% 7.4%	4.1% 6.3%	3.2%	2.9% 3.1%	8.2% 7.9%	6.0% 3.5%	3.9% -2.3%	-3.7% -9.2%	5.7% 7.1%	4.1% -1.8%	2.1% -4.8%	163% 259%	-3.7% -9.2%	5.7% 7.1%



- Financial services and Electricity sectors had the smallest median P/E multiples of all analysed sectors, i.e. 7.2x and 7.5x
- P/E is a very popular multiple among investors
- One limitation of the P/E multiple is that income is subject to non-monetary effects such as depreciation and amortization, which may vary depending on the chosen accounting policy.

Note: The multiples of 2022 may fluctuate from the values presented in the previous edition as a result of updated financial information done by S&P Capital IQ since then. The companies included in the Industrial and Consumer sectors are not perfectly the same in 2023 vs. previous years, due to some reclassifications considered. IT&C and Real estate sectors were included for the first time in the analysis in 2023.

# **Main findings**

- The Consumer and Healthcare sectors seem to be the most stable ones, with a lowest P/E multiple volatility (deviation from the average), while the Materials and Electricity sectors recorded the highest volatility of the P/E multiple (consideration given to rising prices for electricity and materials in the last few years 2023).
- The Industrial sector P/E multiple was close to the average of the last 16 years (9.0x).
- The P/E multiples of Electricity and Oil & Gas sectors recorded the highest increase in 2023 compared to 2022.
- The financial multiples reached their highest levels in 2007, reflecting the general optimism of the market at the time; in the volatility analysis, the year 2007 was excluded.

# Key highlights





The overall median EBITDA multiple for companies listed on AeRO Premium is above the level observed on the BSE main market. Analysed by sectors, only Real estate and Industrial display higher multiples on AeRO Premium vs. BSE main market.







The largest listed companies on the BSE main market are from Electricity, Oil & Gas and Financial services sectors, while the smallest are from the Industrial sector.



On the AeRO Premium market the best represented sectors are IT&C and Consumer, with a total of 22 companies, out of the total of 49 listed on this market.





The median market capitalisation on AeRO Premium is slightly below the first quartile of the market capitalisation on BSE main market.

Only four companies traded on AeRO Premium have a market capitalisation higher than the median market capitalisation on the BSE main market.





The P/E multiple in 2023 was above the 16-year average only for Oil & Gas and Materials sectors.

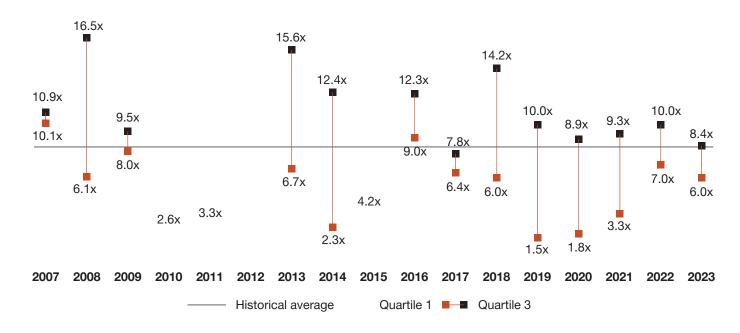
# M&A valuation multiples

Based on data sourced from Mergermarket, ISI Emerging Markets, S&P Capital IQ and a PwC internal database, approximately 1,800 transactions were disclosed over the period 2007 – 2023, for domestic companies operating in the following sectors: Industrial, Consumer, Healthcare, Information Technology & Communications (IT&C), Materials, Financial services, etc. Furthermore, the screening was adjusted to include only those transactions with: (1) disclosed deal value, and (2) robust financial information available. This study is therefore based on a set of 660 selected transactions, including 379

deals covering the period 2007 – 2021 (deals extracted from S&P Capital IQ and ISI Emerging Markets or obtained based on individual research of the target), 131 transactions closed in 2022 and 150 deals closed in 2023 (data was sourced from S&P Capital IQ, Mergermarket and ISI Emerging Markets).

Outliers were excluded from the initial screening in order to avoid distortions in the sample extract.

### **EV/EBITDA** multiple



Source: S&P capital IQ, ISI Emerging Markets, Mergermarkets, PwC Analysis

Note: The above graph depicts solely the transactions included in this analysis; selection criteria were based on the availability of data and the robustness of the financial information.

### EBITDA multiple analysis

The average EBITDA multiple in 2023 was 10.6x, above the historical average (8.3x).

The highest average EBITDA multiples were recorded in 2008 and 2013 (11.2x).

The lowest EBITDA multiples were recorded in 2010 (2.6x) and 2011 (3.3x).

Year 2012 was excluded from the analysis due to the lack of reliable information.

# General considerations about the EBITDA multiple

EBITDA multiple is not meaningful for the Financial services sector because it is difficult to isolate the financing requirements of a financial institution from its wider operational activities. It can be used to compare companies within the same industry regardless of their debt level and it is not affected by accounting choices regarding amortisation and depreciation. However, attention should be paid if companies are applying

different accounting standards or when comparing EBITDA multiple before and after 2019, when IFRS 16 – Leases came into effect.

EBITDA is a good proxy for cash, with the drawback that it cannot be used for comparisons across industries, due to variations in capital expenditure requirements.

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