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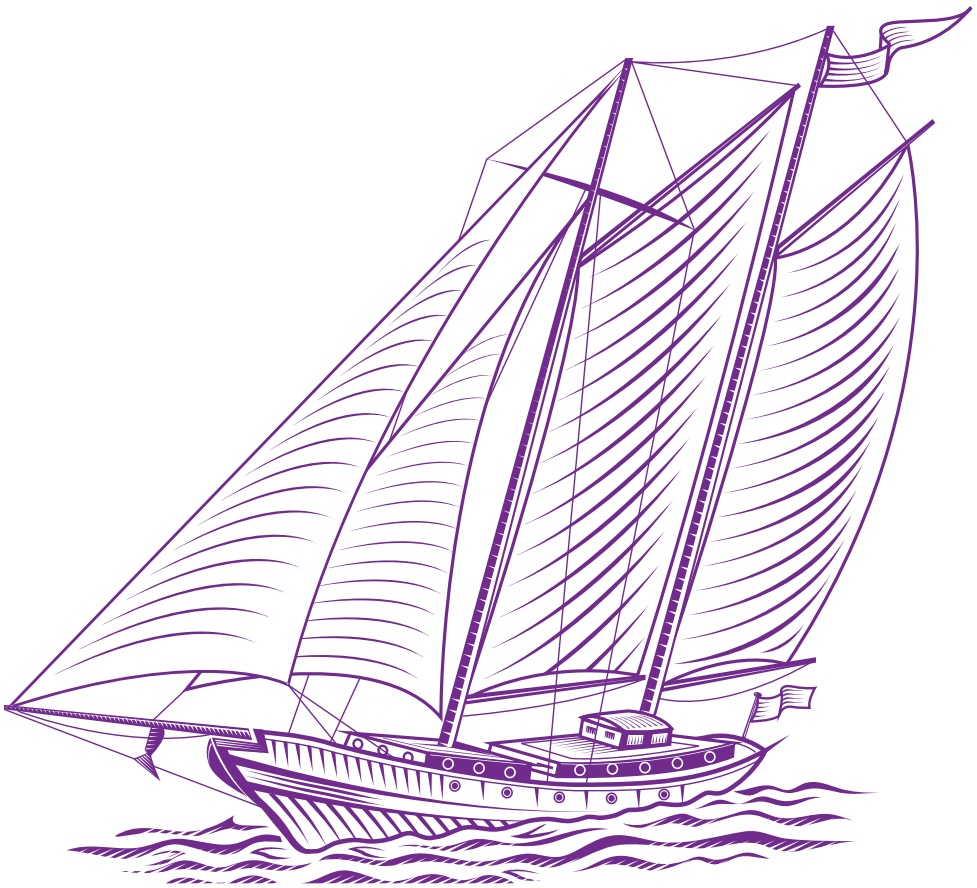

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WHY BRAD PITT?

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Erika KULCSÁR[1], János LÁZÁR[2]

ABSTRACT. The study of visual identity elements is a popular area for researchers as they can make a key contribution to the commercial success of a particular brand. Personas/characters, in turn, are one of the most important elements of visual identity, because through them the brand communicates to the target segment those values that define its (i.e. the brand's) personality. Brad Pitt is an internationally known celebrity: a much discussed global phenomenon. However, investigations into the correlation between Brad Pitt's professional life and celebrity endorsement represent a gap. This paper is based on the following main objectives: to identify (1) those traits, characteristics that define the actor Brad Pitt and (2) those aspects, values that can be captured in the advertising campaigns included in the analysis.

Keywords: Brad Pitt, celebrity endorsement, authenticity

JEL Classification: **M31**

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Introduction and Review of Literature

As mentioned in the literature, the elements of a brand's visual identity include: brand name, logo, slogan, characters, packaging, colours and soundtrack. Fragrance is also a substantial component of brand building (Ujvári, 2015). The typology of characters that brands can use - in the process of promoting their offer - is diversified, they can be (a) fictional animated or human characters, (b) known or unknown human characters. The design and use of fictional characters to represent the brand to society is "often the result of companies' desire to associate their brands with various personality traits in the minds of consumers" (Moisescu, 2012, p. 100). Actors, similarly, "can have 'brand associations' in the minds of consumers, based on previous consumption experiences" (Kerrigan, 2016, p. 181). Due to the fact that they are consumers - where - authenticity presents a major criterion, influencing the purchase decision (Törőcsik, 2006) marketers should:

(1) take into account that "stability and rarity positively" (Moulard et al., 2015, p. 173) have a major impact on celebrity authenticity,

(2) choose celebrities to support the brand in advertising campaigns "after considering how constituents from within their key target markets are likely to connect with the chosen celebrity" (Tran et al., 2019, p. 923),

(3) to analyse celebrities "not only as endorsers but also as brands" (Kowalczyk, 2011).

As such, certain characteristics and features of a celebrity are so unique, so personal that it is impossible to acquire them: the celebrity becomes a brand in its own right. In the movie *The Intern*, one of the characters[3] asks a little puzzled, why isn't he Brad Pitt? This question surprises the other character, because they think that the answer is obvious, does not need to be explained, it is self-evident. Still in this context the following should be mentioned:

(1) Brad Pitt was the first man to represent the Chanel brand No. 5, 2012 (Mackinney, 2013).

(2) Brad Pitt "was found to be highly familiar with a student population" (Kowalczyk, 2011, p. 88).

[3] The casting takes place in this sequence of the film.

Material and Method(s)

Brad Pitt is a renowned American actor, producer and social activist (https://ro.wikipedia.org/wiki/Brad_Pitt), known as one of the most attractive men in the world: People's magazine has awarded him - twice - the title "Sexiest Man Alive". Brad Pitt appeared on the cover of the magazine for the first time in 1995, due to his film roles: *Legends of the Fall* and *Interview with the Vampire: The Vampire Chronicles* (https://www.insider.com/who-has-been-sexiest-man-alive-people-2018-11#2021-paul-rudd-37). For his roles in the films:

(1) *Legends of the Fall* (Tristan Ludlow), was nominated (Golden Globe Awards) for Best Actor in a Motion Picture Drama, respectively.
(2) *Interview with the Vampire: The Vampire Chronicles* (Louis de Pointe du Lac), was nominated (MTV Movie & TV Awards) for Best Male Performance, and Most Wanted Male, winning both categories (https://www.no-regime.com/ru-ro/wiki/List_of_awards_and_nominations_received_by_Brad_Pitt).

In 2000, Brad Pitt again won the title "Sexiest Man Alive" for his performance in the film *Fight Club* (Tyler Durden) (https://www.insider.com/who-has-been-sexiest-man-alive-people-2018-11#2021-paul-rudd-37).

In addition:

(1) in 1996, Brad Pitt won (MTV Movie & TV Awards) the Most Desirable Male category for his role in the film *Seven* (David Mills),
(2) in 2005, he was nominated (MTV Movie & TV Awards) for Best Male Performance for his role as Achilles in the film *Troy:* (https://www.no-regime.com/ru-ro/wiki/List_of_awards_and_nominations_received_by_Brad_Pitt), being the most commercially successful film (https://ro.wikipedia.org/wiki/Brad_Pitt),
(3) according to The Trend Spotter he is considered the Sexiest Man Alive (https://www.thetrendspotter.net/sexy-men/),
(4) he enjoys increased media attention (https://ro.wikipedia.org/wiki/Brad_Pitt).

A. Films included in the analysis:

1. Since the quality of an actor's performance, the role played[4], the physical appearance of the actor and the popularity of the film are the factors that determine the "success" of an actor with the public, the following are the most representative films - from the marketers' point of view:
    - *Legends of the Fall* (epic western: 1994),
    - *Interview with the Vampire*: *The Vampire Chronicles* (gothic horror: 1994),
    - *Seven* (neo-noir psychological: 1995),
    - *Fight Club* (drama/thriller: 1999),
    - *Troy* (epic historical war: 2004).
2. It is also worth noting that the films do not have a so-called "warranty period". For example, in the case of *Legends of the Fall*, some comments were written two days before the data was collected: this was on 10 August 2022. Another aspect to mention is that the roles played over the years contribute significantly to the image of a celebrity, and this does not disappear over time.
3. Data collection period:
    - *Legends of the Fall*: 10 August 2022,
    - *Interview with the Vampire*: *The Vampire Chronicles*: 19 September 2022,
    - *Seven:* 21 September 2022,
    - *Fight Club*: 22 September 2022,
    - *Troy*: 23 September 2022.
4. Data source:
    - *Legends of the Fall*: https://www.youtube.com/watch?v=en7Z6v2PvmU,
    - *Interview with the Vampire*: *The Vampire Chronicles*: https://www.youtube.com/watch?v=LIm8HfwnmVE,
    - *Seven:* https://www.youtube.com/watch?v=znmZoVkCjpI,

[4] The films included in the analysis are those in which Brad Pitt played the lead role or was one of the lead actors, because this gives us a (significantly) greater opportunity to better understand the qualities, characteristics and values that define Brad Pitt as an actor, compared to the films in which he played a supporting role.

- *Fight Club*: https://www.youtube.com/watch?v=NHXXqlcCxPs,
- *Troy*: https://www.youtube.com/watch?v=3LfBuyonkUY&t=4s.

5. Those comments were included in the analysis which:
   - referred to Brad Pitt's physical appearance,
   - rated Brad Pitt's acting performance,
   - were related to the role/character played by Brad Pitt.
6. Those comments were not included in the analysis which:
   - had an equivocal content,
   - were written in Arab, Chinese, Indonesian languages,
   - appreciated – in general – the films.
7. The graphs present opinions on the variables analysed (see point no. 5 above).

B. Commercials included in the analysis:

1. The analysis included the latest commercials, in which Brad Pitt appears as the new brand ambassador of the supported brand. These include:
   - De'Longhi Perffecto (2021),
   - Brioni Spring/Summer -, respectively Fall/Winter collection (2020).
2. Data collection period:
   - De'Longhi Perffecto commercial: 01 August 2022,
   - Brioni commercials: 06 September 2022.
3. Data source:
   - De'Longhi Perffecto commercial: https://www.youtube.com/watch?v=h2fZoXDqGYM, https://fb.watch/g7Au-VtbmL/.
   - Brioni commercial: https://www.youtube.com/watch?v=iNoUEdkTcsc - Spring/Summer, https://www.youtube.com/watch?v=1KSuGc831Fw - Fall/Winter.
4. Comments that provided a general assessment of these commercials were not included in the analysis.

Results and Discussions

People have always been attracted to beautiful objects, but the desire to look good, to be beautiful is a global phenomenon that has taken on new dimensions (Madan et al., 2018), since "substantial benefits accrue to those who are attractive" (Bloch and Richins 1992, p. 3) with the remark that cultural and social factors influence the perception/interpretation of beauty (Yin and Pryor, 2012). Thus, the psychological effect of embodying beauty in marketing communications "can be profound and wide ranging in a culture" (Vacker and Key, 1993, p. 471). Furthermore, if the brand communicates internationally then marketers need to be aware "of how the portrayal of body ideals and cultural background of endorsers can affect marketing communications" (D'Alessandro and Chitty, 2011, p. 843). It should not be lost sight of the reality that attachment to a brand begins with winning hearts and then minds (McEwen, 2008), consequently the physical appearance of the endorser can direct consumer behaviour. In order to know the opinions - as a first step - we collected those data that refer to Brad Pitt's appearance. The categorisation of the comments is illustrated in Figure 1.

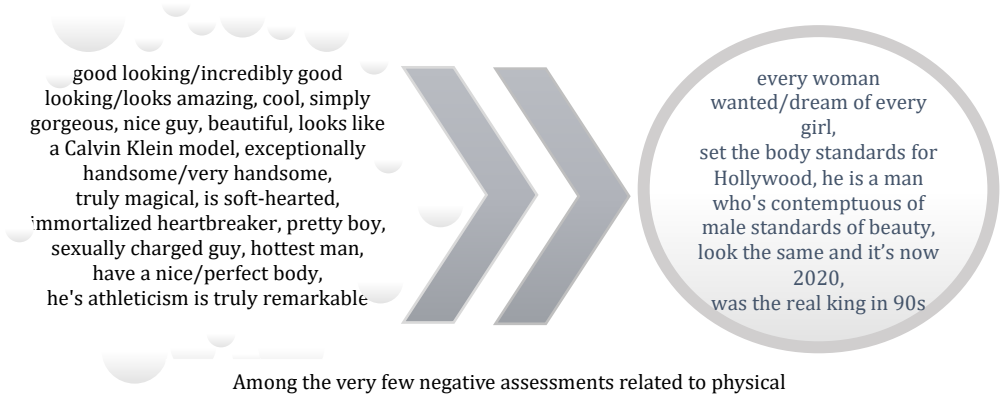

Figure 1. Appreciation of Brad Pitt's physical appearance
Source: authos' compilation, based on the comments made on the films included in the analysis

The second step was to collect data on the performance of Brad Pitt (Figure 2), as the quality of the actor's performance, i.e. the effort put into creating a legendary/epic performance, embodies Integrity in the brand-consumer relationship (McEwen, 2008). Integrity is really about the brand's attitude towards the consumer when a problem needs to be solved.

* the number of those expressing dissatisfaction was extremely low

Figure 2. Brad Pitt's acting performance rating
Source: authors' compilation, based on opinions of the actor's performance

The characters played materialize those values that can be attributed to the actor, consequently to the brand supported. In relation to the characters played by Brad Pitt (Figure 3): Tristan Ludlow (*Legends of the Fall*), Louis de Pointe du Lac (*Interview with the Vampire: The Vampire Chronicles*), Tyler Durden (*Fight Club*) David Mills (Seven), Achilles (*Troy*), the following was outlined:

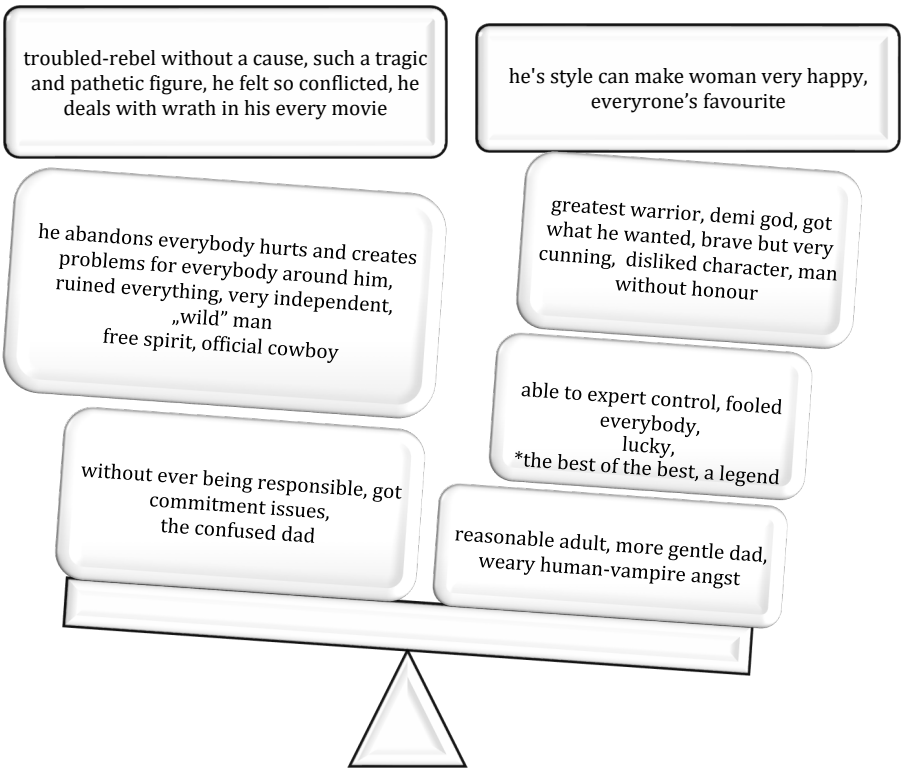

Figure 3. Appreciation of the characters played by Brad Pitt
Source: authors' compilation, based on comments made about the characters played by Brad Pitt

At the end of 2019, the Brioni brand officially announces that the new brand ambassador will be Brad Pitt, who first appears in the advertisement presenting the Spring/Summer collection and then the Autumn/Winter collection in 2020. Following the content analysis (Table 1) of the commercials, the following can be noted:

Table 1. Content analysis of the Brioni commercials

The role Brad Pitt plays	Values endorsed by Brad Pitt
A man: 1. mature, attractive appearance, very masculine, 2. professionally accomplished, 3. with a very well-defined, refined style: apparently simple, but complex in its details, 4. who is aware of his own values.	1. Pleasure (the pleasure of expressing personality through attire). 2. Self-esteem (the brand he supports). 3. Freedom, independence (individual choice of outfits, without the help of an assistant). 4. Achievement/success/luxury (the visual setting is predominantly white). 5. Imagination, intelligence (combination of garments, typology of garments worn).

Source: own, based on the Brioni commercials https://www.youtube.com/watch?v=iNoUEdkTcsc, https://www.youtube.com/watch?v=1KSuGc831Fw

After categorising the data collected (comments on the Brioni commercials), the following can be concluded:

- Brad Pritt is a character who becomes more and more attractive as the years go by: he is a public figure who manages to attract people's attention (regardless of gender), becoming a true gentleman, an icon.
- Brad Pitt is an actor of unparalleled talent.
- Brad Pitt is a refined man with a remarkable masculine intelligence.
- Brioni has made a good match with Brad Pitt[5].
- Brad Pitt is always the best, he is aware of his power of attraction.
- Brad Pitt is a stylish man, a boss man.
- The soundtrack, as an element of visual identity, appears as an element of contour in the commercial.

In the year 2021, Brad Pitt appears in the De'Longhi Perffecto commercial, directed by Damien Chazelle. Based on the content analysis (Table 2) of the commercial, the following can be concluded:

[5] There was a single opinion expressing disagreement with that choice.

Table 2. Content analysis of the De'Longhi Perffecto commercial

The role Brad Pitt plays	Values endorsed by Brad Pitt
A man: 1. with an individual household, 2. professionally accomplished, 3. mature, wise and in harmony with himself, 4. handsome/attractive with a well-defined style.	1. Freedom, independence, peace (motorcycle, soundtrack[6]). 2. Self-respect (buying a quality brand). 3. Small pleasures that make life more beautiful (coffee ritual). 4. Comfortable living (interior design of home). 5. Inner harmony, happiness, wisdom (facial expressions, behaviour/manner of expression). 6. Accomplishment/success (size of home, interior- exterior design).

Source: own, based on the De'Longhi Perffecto commercial https://www.youtube.com/watch?v=h2fZoXDqGYM

Based on the comments regarding the De'Longhi Perffecto commercial, the following can be stated:

- The character is one of the most appreciated elements of visual identity. Overall, Brad Pitt's character received far more positive than negative reviews. He is considered an attractive man who has starred in iconic films, his appearance in the commercial being in (perfect) harmony with the characters played in *Legends of the Fall*, *Interview with the Vampire: The Vampire Chronicles*, *Seven*, *Troy*.
- Is an "unreal" character who is "perfect in every way": a "perfect endorser".
- Brad Pitt is compared to George Clooney (another two-time "Sexiest Man Alive" winning actor) celebrity endorser of the Nespresso brand... What else?
- The soundtrack is another important element of visual identity, as many of those who viewed the ad were interested in its origin.

[6] This element of visual identity was created by Justin Hurwitz, an American film composer who won the 2016 Academy Award for Best Soundtrack for the film La La Land (https://en.wikipedia.org/wiki/Justin_Hurwitz).

- The commercial is not obvious to everyone: it is not clear whether the De'Longhi brand is a coffee machine brand, or also a coffee brand?
- The character (Brad Pitt), and the lifestyle presented, delimit the target segment.

Conclusion

Based on the analyses, the following conclusions can be drawn:

- ✓ Brad Pitt is one of those actors who sets the standards in terms of beauty, masculinity. The passing of the years does not affect the image of him negatively, on the contrary, his appearance is increasingly attractive. He represents an accomplished man, who knows his own values, who knows what he wants.
- ✓ He is a unique actor who cannot be reproduced by anyone else: Brad Pitt is a brand by himself.
- ✓ Brad Pitt's effort to play a certain character in an authentic way turns into Integrity, which means that the brand Brad Pitt endorses "will take responsibility for its products" (McEwen, 2008, p. 104).
- ✓ Even though the characters played are also endowed with negative characteristics, Brad Pitt is an attractive character because he is thus more real/more human and identification is easier.
- ✓ There is harmony between the way he acts/plays in the analysed films and the segment the supported brand addresses (e.g. Brad Pitt is a unique actor and the Brioni brand offers exclusive business products).
- ✓ A link can be seen between the values that determine the characters played in the films analysed and the values supported in the commercials analysed (e.g. personal freedom is very important for the character Tristan. In the De'Longhi Perffecto commercial, the motorcycle appears as a symbol of independence, of freedom.

According to what has been presented (1) the modern consumer is an informed consumer, who analyses advertising campaigns, based on accumulated knowledge, in order to capture the authenticity of the celebrity endorsement, (2) today, masculinity represents a remarkable differentiating element especially in a situation where the feminisation of men - in the world of brands - is not unusual.

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THE DEVELOPMENT OF A HUMAN CAPITAL MEASUREMENT AND DISCLOSURE RESEARCH INSTRUMENT FOR THE ZIMBABWEAN MINING COMPANIES

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Queen MPOFU[1], Daniel P. SCHUTTE[2]

ABSTRACT. Purpose: The aim of this study is to develop a research instrument to measure and disclose human capital value in the financial statements. The study has been motivated by a lack of guidelines that determine key aspects of human capital despite its contribution to value creation and financial performance. **Methodology**: This study adopted a post-positivist research philosophy which endorses a quantitative research approach. Quantitative data were collected using the survey questionnaire instrument from the six listed mining companies in Zimbabwe. A convenience sampling technique was utilised and a human capital measurement and disclosure instrument was validated using the exploratory factor analysis. **Findings:** The paper established eight factors namely; human capital measurements, profitability measures, employee competencies, value drivers, performance-related factors, market-related factors, employee exposures and structure-related factors. The developed questionnaire instrument can be of use to other scholars and policymakers if their studies are aiming to investigate the respondents' perceptions towards human capital reporting. This will also, provide a basis for the development of a standardised universal approach to measuring human capital value.

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Keywords: human capital; measurement; disclosure; mining companies; Zimbabwe

JEL Classification: J24, D19

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Literature review and background

The fourth industrial revolution (Industry 4.0) emerged as a game changer in all spheres of the economy. Brown-Martin (2018) observed that the world is experiencing a transformation to Industry 4.0. This era is linked to artificial intelligence, robotics, and Internet of Things (IoT) and 3-D printing. Despite the emergence of the fourth industrial revolution, the majority of Zimbabwean mining companies are still heavily dependent on their workforce. The study focused on large-scale mining companies that are listed on the Zimbabwean Stock Exchange (ZSE). These companies have financial information that is easily accessible due to the listing rules and regulations. Furthermore, Zimbabwe is among the countries with the largest known deposits of platinum groups of metals. The Chamber of Mines of Zimbabwe (2020) affirms that the aforementioned minerals contribute largely to the gross domestic product (GDP) and reduction of poverty. Furthermore, the mining industry is a significant regional employer that provides employment to many.

According to Chukwunenye & Igbok (2011) human capital is viewed as a key factor in the value creation of mining companies. Apparently, it is not clear whether there is any research instrument for effectively measuring the value of human capital key aspects in the financial statements of mining companies. It follows that the development of an effective and reliable instrument will contribute immensely to practice (accounting profession and mining industry), scholars as well as policymakers. They will use this instrument to appropriately and fully

measure the value of human capital. This implies that if the key aspects of human capital are measured reliably, the quality of the financial statements will be enhanced. Against this background, the study seeks to develop and validate a research instrument that effectively measures human capital value.

Defining human capital

Becker (1974) defines human capital as skills, experience, talent and knowledge that have economic value to organisations which enables them to be productive and adaptable. This implies that the intangible asset value embodied in human capital includes knowledge, skill, innovativeness, and the ability of each individual employee to meet the allocated task(s) (Schutte *et al.,* 2021). According to Higson (2016) human capital is considered a significant information system in the 21st century that informs management on the changes that occur over time to the human resources of the business. This implies that the human capital is a key factor in the recruitment, selection, and training of employees conducted by the management. Newman (1999) further asserts that human capital is embodied in individual employees, taking into account the employees' competencies to create and retain a company's value and competitive advantage.

In addition, the definition of human capital value is context-based and influenced by the researcher's academic discipline and philosophies. Consequently, this has resulted in inconsistent reporting practices in the financial statements. By proposing the development of an instrument, this study attempts to provide information that will harmonise human capital terminology and disclosure practices.

Significance of human capital

According to Lin *et al.* (2010), human capital has the ability to drive a company toward a competitive advantage. In the mining sector, skills inherent in human resources, as exhibited by geologists, miners and the marketing and processing of ore to finer products, are essential competitive forces to gain a competitive advantage in the world market. Stahle (2014) advanced that the human capital element inherent in

intellectual capital (IC) is an intangible asset. Stahle (2014) furthermore noted that human capital as an asset in some organisational resources leads to stronger competitiveness and better performance since they are valuable, rare, inimitable, and non-substitutable. Moreover, Moloi & Adelowotan (2019) noted that measuring human capital may lead to the development of key performance indicators. However, Choudhury (2010) argued that even if human capital is measured properly, it has little value if it is not linked to the company's strategy. Labra & Sanchez (2013) corroborated the above by noting that human capital contributes to a company's true market value, which cannot be ascertained without measuring the intellectual capital component of the company's assets. Mondal & Ghosh (2012) found that intellectual capital is an important determining factor of profitability and that human capital is a significant contributor to a company returns.

Chen *et al.* (2021) stressed the importance of measuring and disclosing the actual value of human capital to the stakeholders of a company. In this regard, Rowe & Widener (2011), as well as Tan (2014), suggested that the measuring and disclosing human capital in the financial statements provide clearer information about the real value of the organisation. Furthermore, Suadiye (2012) asserted that the reporting of human capital has a positive contribution towards the transparency of organisations. However, some of the annual reports of mining companies lack comprehensive reporting on human capital. It is, therefore, evident that the key aspects of human capital measurement and disclosure in the Zimbabwean mining sector remain uncertain.

Methodology

This paper adopted a post-positivistic research philosophy which endorses a quantitative research approach. The population comprised management, professional and technicians' stakeholder groups at six listed mining companies in Zimbabwe. Quantitative data was collected through a survey questionnaire. A sample of 400 participants was selected from a population of 15,174 employees in the Zimbabwean mining sector. A convenient non-probability sampling technique was

adopted to identify the key informants. The research utilised factor analysis and to enhance the quality of the results, ten responses were established for each construct.

This study administered the questionnaire instrument using a 5-point Likert scale. In addition to an online questionnaire, the researcher distributed questionnaires for respondents to complete in their own time, after which the responses were collected by the researcher. In a further attempt to avoid a low response rate, the researcher sent the permission letters to the respective companies in advance.

Development of a questionnaire instrument

Prior to the development of the questionnaire instrument, the researcher critically reviewed a large number of published related papers on human capital disclosure practices. This paper then created a questionnaire for measuring and disclosing human capital based on the previous studies, taking into consideration the contextual settings of the studies. A pilot study, expert analysis and peer review were conducted to test the validity and reliability of the questionnaire instrument in accordance with the guidelines outlined by Zhou *et al.* (2019). This enabled the researcher to refine the research instrument to ensure that data was gathered to answer the research question of the study.

Discussion of the results

The data analysis process involved coding questionnaire responses, editing, classification and tabulation of the collected data. Confirmatory factor analysis was performed to determine how well the model fits the data and the explanatory reliability of the used data. The Cronbach Alpha value calculated for this study was 0.757. According to Gerber & Hall (2017), the minimum acceptable value for Cronbach Alpha is 0.6. The Cronbach Alpha value for this study is therefore considered reliable and acceptable.

Factor analysis

According to Hair *et al.* (2014), the main purpose of factor analysis is to examine the interdependence among the variables. It is vital to note that variables play a critical role in any multivariate analysis. Extant literature outlines that factor analysis provides the tools for analysing the structure of the correlation among the variables. The factors to measure human capital were extracted using the principal component analysis. The eight factors identified in this study were interpreted using the orthogonal factor rotation. The orthogonal rotational approach was adopted because it is widely used and easily interpreted (Hair *et al*., 2014).

Eigenvalues

This paper utilised the latent criterion to retain all eight factors with eigenvalues greater than 1. These factors represented a 51.20% cumulative loading of the variance of 44 questionnaire statements. According to Fook *et al*. (2015), a cumulative loading above 50% is considered sufficient and acceptable. According to Hair *et al.* (2014), factors with latent roots (eigenvalues) greater than one are significant and those with values less than one are insignificant and should be disregarded. Furthermore, Field (2005) adduces that for a factor to be considered satisfactory, it should have three or more extracted variables for interpretation purposes.

Table 1. Results for extraction of component factors

Component	Initial eigenvalues		Cumulative %
	Total	% of Variance	
1	3.593	8.17	8.17
2	3.518	7.99	16.17
3	3.501	7.96	24.12
4	3.149	7.16	31.29
5	2.613	5.94	37.23
6	2.574	5.85	43.08
7	1.999	4.54	47.62
8	1.579	3.59	51.20

Source: authors' calculations

Table 2 below illustrates the rotated component analysis factor matrices. This study considered all variables with a factor loading above 0.4 to be significant. According to Gerber and Hall (2017), loadings above 0.40 is significant and/or meaningful. From the table, the factor loadings for the 44 variables remain almost identical, exhibiting both the same pattern and almost the same values for the loadings. From the data analysis, almost all loadings are above 0.70, representing more than half of the variance.

Table 2. Rotated component analysis factor matrices

Reduced Set of Variables	
	Factor 1
Cost of resignation	0.753
Workforce turnover	0.752
Return on employee investment	0.74
Return on Investment training	0.732
Comments on the abilities of key employees	0.704
Cost of absence	0.671
Employees' qualifications, experience and skills	0.656
	Factor 2
After tax return on sales	0.759
Overall response to competition	0.731
Relationship between expenses and income	0.719
Future prospects	0.714
Profit growth	0.698
Profit Margin	0.682
Sales growth	0.655
	Factor 3
Commitment	0.735
Creativity	0.734
Capabilities /Abilities	0.711
Team work	0.699
Skills and Expertise	0.695

Reduced Set of Variables	
Personal Experience	0.691
Professional Experience	0.685
	Factor 4
Employee health, wellness and safety	0.806
Employee motivation	0.767
Employee training and development	0.745
Relationship between employees and management	0.712
Low level of employee turnover	0.667
Positive employee behaviour	0.636
	Factor 5
Cost Effectiveness	0.743
Training Return on Investment	0.737
Liquidity of the company	0.737
Employee Return on Investment	0.726
Return on Equity	0.668
	Factor 6
Lobby groups pressure	0.775
Media Exposure	0.774
Level of Debt (Leverage/Gearing)	0.702
Credit Pressure	0.666
Government Pressure	0.662
	Factor 7
Human error (negligence)	0.75
Fraudulent/criminal activities by employees	0.738
Lack of recognition	0.714
Poor overall corporate culture	0.618
	Factor 8
Audit Committee	0.846
Board Size/composition	0.739
Assets-in-place (e.g. fixed or non-current assets)	0.563

Source: authors' calculations

Naming of factors

The naming of factors was done after satisfactory factors were derived. The process involved a substantive interpretation of the pattern of factor loadings for the variables (Hair *et al.,* 2014). All the factor loadings were substantially above the (+/-) 0.4 threshold and this made the interpretation quite straightforward. The naming of the factor was based on the variables with higher loadings.

Table 3. Factor naming

Factor	Name of the Factor	Questionnaire Statement Number (Variable number)	Questionnaire Statement (Reduced and Extracted variable)
1	Human capital measurements	6.1.8	Workforce turnover
		6.1.6	Return on employee investment
		6.1.7	Reurn on employee investment
		6.1.5	Comments on the abililities of key employees
		6.1.10	Cost of absence
		6.1.4	Employees' skills and expertise
2	Profitability measures	4.2.6	After tax return on sales
		4.2.8	Overall response to competition
		4.2.10	Relationship between expenses and income
		4.2.4	Future prospects
		4.2.2	Profit growth
		4.2.9	Profit margin
		4.2.3	Sales growth
3	Employee competencies	4.1.4	Creativity

Factor	Name of the Factor	Questionnaire Statement Number (Variable number)	Questionnaire Statement (Reduced and Extracted variable)
		4.1.5	Commitment
		4.1.6	Capabilities/Abilities
		4.1.7	Professional experience
		4.1.8	Personal experience
		4.1.9	Skills and expertise
		4.1.10	Team work
4	Value drivers	5.2.8	Employee wellness, health and safety
		5.2.7	Employee motivation
		5.2.6	Employee training and development
		5.2.5	Relationship between employees & management
		5.2.9	Low level of employee turnover
		5.2.10	Positive employee behaviour
5	Performance-related factors	3.2.4	Cost effectiveness
		3.2.8	Return on training investment
		3.2.2	Liquidity of the company
		3.2.7	Employee return on investment
		3.2.3	Return on equity
6	Market-related factors	3.3.7	Lobby groups pressure
		3.3.8	Media exposure
		3.3.6	Level of debt
		3.3.10	Credit pressure
		3.3.9	Government pressure

Factor	Name of the Factor	Questionnaire Statement Number (Variable number)	Questionnaire Statement (Reduced and Extracted variable)
7	Employee exposures	4.3.2	Human error
		4.3.5	Fraudulent/criminal activities
		4.3.10	Lack of recognition
		4.3.9	Poor overall corporate culture
8	Structure-related factors	3.1.6	Audit committee
		3.1.5	Board size/composition
		3.1.7	Assets-in place

Source: authors' compilation

Factor 1: Human capital measurements

This factor is made up of six significant variables that are highly correlated. These variables consist of factor loadings above the 0.4 threshold and are as follows: 6.1.8 workforce turnover, 6.1.6 return on employee investment, 6.1.7 return on investment training, 6.1.5 comments on the abilities of key employees, 6.1.10 cost of absence, 6.1.4 employees qualifications, experience and skills. A five-point Likert scale was used, starting from 1 - not useful at all, 2 - little useful, 3 - neutral, 4 – useful, and 5 - very useful. Seven insignificant variables were dropped, and these were 6.1.1, 6.1.2, 6.1.3, 6.1.9, 6.1.11, 6.1.12 and 6.1.13. The KMO-MSA value is well greater than 0.4 with a value of 0.865 and this indicates a significant correlation structure to perform exploratory factor analysis (EFA). Also, as indicated earlier in the chapter, the Bartlett's test of sphericity examines the correlation among all dependent variables and evaluates whether, collectively, significant inter-correlation exists. In this study, under factor 1, a significant degree of inter-correlation does exist (Significance = .000).

Factor 2: Profitability measures

Factor two is made up of seven variables and these variables had the highest factor loadings. These include 4.2.2 profit growth, 4.2.3 sales growth, 4.2.4 future prospects, 4.2.6 after-tax return on sales, 4.2.8 overall response to competition, 4.2.9 profit margin, 4.2.10 relationship between expenses and income. The managers' and employees' responses were rated on a scale ranging from: 1 - strongly disagree, 2 - disagree, 3 - neutral, 4 – agree, and 5 - strongly agree. From the factor analysis, six variables were deleted, including variables 4.2.1, 4.2.4, 4.2.5, 4.2.7, 4.2.11 and 4.2.12. The KMO-MSA and Bartlett's test of sphericity show that variables under consideration are significantly correlated with values of 0.840 (significance = 0.000).

Factor 3: Employee competencies

Factor 3 is made up of seven variables with the highest factor loadings and the naming of the factor highly depended on the variables with significant loadings. The naming of the factor was quite straightforward and the study named factor 3 employee competencies. The competencies have been proven to be significantly related to the companies' financial performance. These were 4.1.4 creativity, 4.1.5 commitment, 4.1.6 capabilities/abilities, 4.1.7 professional experience, 4.1.8 personal experience, 4.1.9 skills and expertise and 4.1.10 teamwork. From the factor analysis, 5 variables were dropped as they were not correlated to the extracted factor. These included variables 4.1.1, 4.1.2, 4.1.3, 4.1.11 and 4.1.12. This question focused on the linkage between human capital and the financial performance of the company. The KMO-MSA value shows a strong enough correlation among variables, with the value of 0.858 and Bartlett's test of sphericity shows the existence of a significant degree of inter-correlation (significance = 0.000).

Factor 4: Value drivers

Factor 4 contains six variables rated on a 5-point Likert scale rating from strongly agree to strongly disagree. The reduced and extracted variables consisted of 5.2.8 Employee health, wellness and safety, 5.2.7

employee motivation, 5.2.6 employee training and development, 5.2.5 relationship between employees and management, 5.2.9 low level of employee turnover and 5.2.10 Positive employee behaviour. The following 5 variables were deleted because they had insignificant factor loadings to the factor under consideration. These were variable 5.2.1, 5.2.2, 5.2.3, 5.2.4 and 5.2.11. The KMO-MSA value of 0.824 and Bartlett's test of sphericity of 0.000 show a significant correlation between the variables and this made it possible to conduct the factor analysis.

Factor 5: Performance-related factors

Factor 5 is made up of five variables rated on a 5-point Likert scale rating from strongly agree to strongly disagree. The reduced and extracted variables consisted of 3.2.4 cost-effectiveness, 3.2.8 training return on investment, 3.2.2 liquidity of the company, 3.2.7 employee return on investment and 3.2.3 return on equity. The following 3 variables were dropped because they had insignificant factor loadings to the factor under consideration. These were variables 3.2.1, 3.2.5 and 3.2.6. The KMO-MSA value of factor 5 is 0.798 and this indicates a strong enough inter-correlation of the structure of variables under consideration. Also, the Bartlett's test of sphericity shows a high degree of inter-correlations among all variables.

Factor 6: Market-related factors

Factor 6 is made up of five variables with the highest factor loadings and the naming of the factor highly depended on the variables with significant loadings. The naming of the factor was quite straightforward and the study named factor 6 importance of external stakeholder groups' pressure. The influence of these groups has been proven to be significantly related to human capital reporting. These were 3.3.7 lobby groups pressure, 3.3.8 media exposure, 3.3.6 level of debt (leverage/gearing), 3.3.10 credit pressure and 3.3.9 government pressure. From the factor analysis, 5 variables were dropped as they were not correlated to the extracted factor. These included variables 3.3.1, 3.3.2, 3.3.3, 3.3.4 and 3.3.5. The KMO-MSA value is way above 0.4 with a value of 0,769 and this indicated a significant correlation structure to perform EFA. Factor 6 shows that a significant degree of inter-correlation does exist (Significance = .000).

Factor 7: Employee exposures

This factor is made up of four significant variables. These are 4.3.2 human error (negligence), 4.3.5 fraudulent/criminal activities by employees, 4.3.10 lack of recognition and 4.3.9 poor overall corporate culture. Six variables were dropped because they were insignificant and not correlated to the formation of the factor under consideration. The dropped variables are 4.3.1, 4.3.3, 4.3.4, 4.3.6, 4.3.7 and 4.3.8. The KMO-MSA value of 0.695 and Bartlett's test of sphericity show a significant correlation.

Factor 8: Structure-related factors

Factor 8 contains 3 variables out of 7 and they were rated on a 5-point Likert scale rating from strongly agree to strongly disagree. The reduced and extracted variables consist of 3.1.6 audit committee, 3.1.5 board size/composition and 3.1.7 assets-in-place (e.g. Fixed or Non-current assets). The following 4 variables were deleted because they had insignificant factor loadings to the factor under consideration. These are variable 3.1.1, 3.1.2, 3.1.3 and 3.1.4. The KMO-MSA value shows a strong enough correlation among variables, with a value of 0.524 and Bartlett's Test of Sphericity shows the existence of a significant degree of inter-correlation (significance = 0.000)

Mean scores and Standard Deviation

Table 5 illustrates the mean scores of the questionnaire survey used in this study. The summated mean scores for the eight human capital measurement factors show that employee wellness and work environment was ranked the highest with a mean score of 4.3699. This was followed by the employee competencies factor with a mean score of 4.3517, and employee performance indicators (mean=4.3301). These were followed by the profitability measures with a mean score of 4.2738 in fourth position, followed by costs, cash-flows and investment management with a mean score of 4.2072 and human error and poor corporate culture of 4.0827. Factor 6 had a mean score of 4.0757 and the importance of committees and capital employed factor had the lowest rank with a mean score of 3.9788. The analysis shows that mean scores

range between agree and strongly agree ratings on the five-point Likert scale for all eight factors. This indicates that both the managers and employees seem to have a positive perception on human capital being measured and disclosed in the financial statements.

Table 4. Mean scores, standard deviation and rank order of human capital measurement

Factor	Mean score	Standard deviation	Position in a rank order
1. Human capital measurements	4.3301	0.48871	3
2. Profitability measures	4.2738	0.51708	4
3. Employee competencies	4.3517	0.48524	2
4. Value drivers	4.3699	0.50232	1
5. Performance-related factors	4.2072	0.54003	5
6. Market-related factors	4.0757	0.6128	7
7. Employee exposures	4.0827	0.56382	6
8. Structure-related factors	3.9788	0.64669	8

Source: authors' calculations

Conclusion

A research instrument was developed and validated for this study to measure the mining stakeholders' group perspective towards human capital being measured and disclosed in the financial statements. The study, through factor analysis, established 8 new factors with a total of 44 variables. The developed questionnaire instrument can be of use by scholars and policymakers if their studies are aiming to investigate the respondents' perceptions towards human capital reporting. This will also, provide a basis for the development of a standardised universal approach to measure human capital value.

The study was limited to the selected SADC countries, South Africa and Zimbabwe mining industries. The SADC has 15 member states with economies relying on mining and is also facing similar problems in measuring and disclosing human capital in their financial statements to provide value relevance of accounting information to stakeholders for decision making. Future studies might include all mining companies in selected Southern African countries as well as other parts of the world.

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THE EFFECTS OF THE MACROECONOMIC FACTORS ON THE BUCHAREST STOCK EXCHANGE DURING THE COVID-19 PANDEMIC

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ABSTRACT. The purpose of the paper is to observe and analyze how the dynamics of macroeconomic factors influence the evolution of the Bucharest Stock Exchange (BVB) through the lens of the main stock indices (BET, BET-Plus, BET-FI), but also of the stock market capitalization. The research carried out consists of four stages. First, the monthly values of the macroeconomic factors considered were collected (inflation rate, reference interest rate, unemployment rate, RON-EURO and RON-USD exchange rates, producer price index, gold price, average salary and the Covid-19 number of cases) during the period 2020-2021, as well as the monthly values of the Bucharest Stock Exchange market indices (BET-Plus, BET and BET-FI) and of the stock market capitalization. These data were collected from the websites: www.bvb.ro (Bucharest Stock Exchange), www.bnr.ro (National Bank of Romania), www.innse.ro (National Institute of Statistics) and www.ms.ro (Ministry of Health). Then, the descriptive statistics was used to describe the collected data (mean value, standard deviation, minimum/ maximum value). This step is followed by the use of the Pearson correlation to capture the correlation between each stock market index and the macroeconomic factor included in the

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analysis. And finally, multiple regression was used to see exactly how the Romanian stock market indices are influenced by any changes of macroeconomic factors.

Keywords: macroeconomic factors, Bucharest Stock Exchange, stock market indices, Covid-19 pandemic

JEL Classification: B22, C32, G10

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Introduction and literature review

It is a common belief that asset prices are sensitive to economic news. Daily life appears to be consistent with the idea that various unanticipated events influence individual asset prices, with some events having a more pervasive impact than others.

Fama investigated the connection between economic activity and stock returns in the US and concluded that stock returns have a positive relationship with the gross national product, money supply, industrial production, capital spending, and interest rate, but a negative relationship with inflation rate (Fama, 1981).

In the years 1975 to 1984, Ta & Teo (1985) had previously noted a strong relation between the Singapore market indices and the overall market return.

Chen et al. (1986) used the APT model to link US stock market returns to a linear function of different macroeconomic variables. They argued that economic factors have an impact on the discount rate, the individual cash flows of businesses and upcoming dividend payments.

Aggarwal (1981) discovered a direct correlation between share price changes and US exchange rate changes, but Soenen & Hennigar (1988) discovered a negative correlation.

When in 1989, Martinez & Rubio looked at the performance of the Spanish stock market, they discovered that there was no discernible correlation in terms of pricing between stock returns and macroeconomic variables.

After examining the long-term relationships in Taiwan between stock returns, inflation, gross national product and money supply, Fung and Lee (1990) came to the conclusion that the efficient market hypothesis is invalid also in case on an emerging market.

For instance, Mukherjee & Naka (1995) looked into the effects of 18 specific macroeconomic factors on the British stock market. The authors examined the correlations between the inflation rate, exchange rate, government bond rate on a long term, money supply, real economic activity, call money rate and the Japanese stock market. They came to the conclusion that stock prices contributed to the co-integrating relationship, which existed.

Cheung & Ng (1998) have also observed the relationship between money supply, oil prices and gross domestic product in Germany, Italy and Japan.

Kwanchanok (2000) looked at the associations between Thailand's stock market indices and the gross domestic product, current account balance, money supply, volume and value of trading in securities, value of the Thai Baht, and system of currency exchange.

Macroeconomic factors' effects on the stock markets in South Africa, Zimbabwe, and Botswana in Africa were examined by Jefferis & Okeahalam (2000). They discovered that stock prices in South Africa, Zimbabwe, and Botswana have favorable short-and long-term relationships with real gross domestic product, real exchange rates, and real interest rates. Even so, between the interest rates and the stock prices there is a negative relationship in South Africa.

Gjerde & Saettem (1999) conducted research in Norway on the relationships between stock market returns and macroeconomic factors. The extent to which significant observations about the correlations between stock returns and macroeconomic variables from significant markets are applicable in Norway was their main concern.

For a group of Asian nations, Granger et al. (2000) find no proof of co-integration between stock prices and exchange rates. However,

using impulse response functional analysis and Granger causality tests, the study discovers significant short-run feedback effects.

In the United States, inflation and expected real stock returns are statistically significant and move in opposite directions in response to contractionary monetary policy shocks, according to Park & Ratti (2000).

Using data from Greece, Papapetrou (2001) investigated the dynamic relationship between the price of oil, real stock prices, interest rates, real economic activity, and employment. According to the study, a sudden increase in the price of oil has a detrimental immediate effect on the stock market, industrial output and employment. In other words, real stock returns are decreased by a positive oil price shock.

Using the Granger non-causality, Bhattacharya & Mukherjee (2002) examine the causal relationship in the case of India's stock market and three macroeconomic variables. Exchange rate, foreign exchange reserves, and trade balance are examples of macroeconomic variables. The findings imply that there is no causative relationship between stock prices and the three variables under scrutiny.

Flannery & Protopapadakis (2002) looked at the correlations between US stock prices and economic announcements on a daily basis (1980-1996) and showed that economic news significantly raises stock market volatility, which has an impact on stock returns.

According to Oberuc (2004), among the economic factors frequently taken into account by researchers, and typically linked to stock price movement, are included dividend yield, industrial production, interest rate, term spread, default spread, inflation, exchange rates, money supply, gross national and domestic product and prior stock returns.

For the Istanbul Exchange, Erdem et al. (2005) find contradictory results; they find that while industrial output volatility does not affect stock returns, interest rates and inflation volatility do.

Shaoping (2008) analyzed the impact that money supply has on stock prices and found a very strong correlation between the two in the circumstances of the Chinese market between 2005 and 2007. On the Chinese market, Yuanyuan & Donghui (2004) obtained comparable results.

Ngoc (2009) looked into how the prices of Vietnamese stock returns were affected by a macroeconomic indicator of interest rates. In this paper were also examined the correlations between the macroeconomic indices from US and the stock prices from the Vietnamese market.

In their study, Oskenbayev et al. (2011) looked at the correlation between the Kazakhstan Stock Exchange and macroeconomic indicators like the index of industrial production, inflation, exchange rate, oil price volatility, volume of trade, and long- and short-term interest rates.

Geetha et al. (2011) looked into the correlations between the gross domestic product in Malaysia, the US, and China and the stock market, expected inflation rate, unexpected inflation rate, exchange rate, and interest rate.

Sarbapriya (2012) showed that the foreign exchange reserves have a positive impact on the stock market capitalization in India.

Researchers are therefore interested in studying the factors that affect capital markets (Sabau-Popa et al., 2014; Cevik et al., 2016; Celebi & Hoenig, 2019), but there is not a consensus list of these factors in the empirical literature as yet (Tsaurai, 2018). According to Lupu & Calin (2014) and Tsaurai (2018), a number of macroeconomic factors are thought to have an impact on the capital markets. According to Celebi & Hoenig (2019) and Dumitrescu & Horobet (2009), there are connections between macroeconomic factors and stock prices.

Regarding the emerging financial markets from Central and Eastern Europe, Romania and Hungary are the focus of a second comparative study (Nicolescu, 2020). The stock exchange markets and mutual fund markets are two of these countries' capital markets that are examined in the paper along with the effects on the two components under consideration of five macroeconomic factors: population, gross domestic product per capita, inflation, unemployment and savings. The study concludes that macroeconomic factors had a stronger impact on Romania's capital markets than Hungary's during the studied period, and that stock exchange growth was more influenced by macroeconomic factors than mutual fund growth.

Balint (2010) released her research findings, showing a weak and insignificant correlation between macroeconomic variables and 30 stocks listed on the Bucharest Stock Exchange. This finding was supported by research by Lupu & Calin (2014), who found that, with the exception of Slovenia's stock indexes, all other European countries included in the study showed very little correlation between macroeconomic variables and stock indices.

Another study by Sabau-Popa et al. (2014) aims to show how the real gross domestic product, stock market indices, interest rate, RON-USD exchange rate and inflation rate affect the capital market index in Romania. As a result, a significant correlation has been found between the Romanian gross domestic product and the benchmark index of the Bucharest Stock Exchange.

Research methodology

The study is focused on analyzing the influence of eight macroeconomic variables (inflation rate, bank interest rate, unemployment rate, RON-EURO and RON-USD exchange rates, producer price index, gold price, average salary and the Covid-19 number of cases) on the Bucharest Stock Exchange market indices and stock market capitalization during the Covid-19 pandemic.

Therefore, the research carried out consists of four stages:

1. Data collection: the monthly values of the macroeconomic factors taken into account were collected (inflation rate, reference interest rate, unemployment rate, RON-EURO and RON-USD exchange rates, producer price index, gold price, average salary and the Covid-19 number of cases) in the period January 2020 – December 2021, as well as the monthly values of the stock market indices (BetPlus, BET and BET-FI) and the stock market capitalization in the same period. These data were collected from the websites: www.bvb.ro (Bucharest Stock Exchange), www.bnr.ro (National Bank of Romania), www.innse.ro (National Institute of Statistics) and www.ms.ro (Ministry of Health).

2. Using the main indicators of descriptive statistics to describe the collected data (mean value, standard deviation, minimum/ maximum value).

3. Using the Pearson correlation to capture the correlation between each analyzed stock market index and macroeconomic factor included in the analysis.

4. Using multiple regression to see exactly how stock market indices are influenced by changes in macroeconomic factors. The relationship between these two types of variables is captured by the estimation equation:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \cdots + \beta_n X_n + \varepsilon$$

where:

Y = dependent variable;
$X_{1...n}$ = independent variables;
β_0 = is the value of Y when all of the independent variables (X_1 through X_n) are equal to zero
$\beta_{1...n}$ = regression coefficients;
ε = standard error.

At the same time, in order to limit the degree of data distortion and to be able to compare them with each other, it is necessary that they be brought to a common denominator. Thus, each monthly value of the indices and macroeconomic factors from the analyzed period was replaced by its natural logarithm. The collected data were entered into the SPSS program.

Results and discussion

- ***Descriptive statistics***

- **Bucharest Stock Exchange**

During 2020-2021, the BET index had a mean return of 0.0112 and a standard deviation of 0.062. BetPlus, on the other hand, had returns ranging from -0.1784 to 0.0921 and an average return of 0.0112, similar to BET. BetPlus return values deviate from the average of 0.0112 by 0.0614. Over the two years considered, BET-FI had returns between -0.1445 and 0.0920. The average return of this index was 0.0039, with a standard deviation of 0.0584.

The average return on market capitalization was 0.0099. The minimum recorded during this period was -0.2988, and the maximum was 0.1669. At the same time, the return on stock market capitalization deviates from the average of 0.0099 by 0.0861. If we were to look at the standard deviation from the perspective of volatility, it can be seen that this time, the market capitalization carries the highest risk, followed by the BET index, BetPlus and BET-FI. As for the highest return obtained,

still the market capitalization ranks first, followed by the three market indices. The values for BET and BetPlus are very closed as the companies from the reference index (BET) are the ones that will influence the most the entire market.

Table 1. Descriptive statistics for the Bucharest Stock Exchange (2020-2021)

	N	Minimum	Maximum	Mean	Std. Deviation
BET	24	-0.1791	0.0924	0.0112	0.0620
BetPlus	24	-0.1784	0.0921	0.0112	0.0614
BET-FI	24	-0.1445	0.0920	0.0039	0.0584
Market capitalization	24	-0.2988	0.1669	0.0098	0.0861

Source: Authors' processing based on research data

- **Macroeconomic factors**

In the period 2020-2021, the inflation rate took values between 2.06% and 8.19%. Inflation values deviate from the average of 3.83% with 1.89. The interest rate, on the other hand, recorded an average value of 1.59% and extremes of 1.25% and 2.5%. The values of this macroeconomic variable deviated from the average by 0.38. The unemployment rate during the 24 months analyzed had an average value of 5.8%, with a deviation of 0.45 and values between 4.9% and 6.7%. Regarding the RON-EURO exchange rate, its average value was 4.8788 in the period 2020-2021. The values of this macroeconomic factor fluctuated between 4.7785 and 4.9489, with a deviation from the mean of 0.0514. The other exchange rate taken into consideration (RON-USD) recorded over the observed period an average value of 4.2022, with a deviation of 0.1388 and a minimum/ maximum of 4.0005, respectively 4.4469. In the case of the producer price index, the values of this macroeconomic variable were between -0.022 and 0.058 in the two years analyzed. Their average was 0.010, with a deviation of 0.019. The average value of the gold price was 0.008, and the values it took over the 24 months under consideration were between -0.037 and 0.073. At the

same time, the gold price values deviate from the average of 0.008 by 0.029. In the period 2020-2021, the average salary gain took values between -0.062 and 0.062. Also, their average value was 0.006, with a deviation of 0.031. From a volatility perspective, the inflation rate ranks first, with the highest volatility, reflected by the highest standard deviation value. Then there is the interest rate, unemployment rate, average salary, gold price, producer price index, RON-USD exchange rate and RON-EURO exchange rate.

Table 2. Descriptive statistics for the macroeconomic variables (2020-2021)

	N	Minimum	Maximum	Mean	Std. Deviation
Inflation rate	24	2.0600	8.1900	3.8392	1.8944
Interest rate	24	1.2500	2.5000	1.5938	0.3817
Unemployment rate	24	4.9000	6.7000	5.8083	0.4577
RON-EURO exchange rate	24	4.7785	4.9489	4.8788	0.0514
RON-USD exchange rate	24	4.0005	4.4469	4.2022	0.1388
Producer price index	24	98.0000	133.3300	107.4592	10.9191
Gold price	24	216.3300	259.0300	241.0579	10.6019
Average salary	24	5118.0000	6327.0000	5584.8750	284.0467
Covid-19 number of cases	24	.0000	1808891.0000	667347.7500	611302.9899

Source: Authors' processing based on research data

- ***Pearson correlation***

The BET index and BetPlus have a strong direct link in 2020-2021. A significant direct relationship exists between the stock market indices, as well as between the BET and BetPlus indices and market capitalization (Table 3).

Only a few macroeconomic variables have a statistically significant correlation with the BET index, namely the RON-EURO exchange rate and

the Covid-19 number of cases. However, in both cases, the correlation is indirect. The correlation coefficients for the other macroeconomic variables are very low and not statistically significant.

During the examined period, the BetPlus index's situation is strikingly similar to that of the BET index. As a result, BetPlus has direct but weak links with the following macroeconomic factors: inflation rate, bank interest rate, and PPI. The BetPlus index is inversely linked to the unemployment rate, the RON-EURO and RON-USD exchange rates, the price of gold, the average salary, and the number of people infected with Sars-Cov-2. Among them, the indirect link between BetPlus and the RON-EURO exchange rate crosses the -0.3 threshold, indicating a medium intensity. Between the Covid-19 factor and this index there is a link of medium intensity, also indirect, the value of the correlation coefficient being -0.582.

The evolution of the BET-FI index is comparable to that of the indices that were previously studied. The correlation coefficient, which is close to -0.3 at -0.305, shows a more intense relationship between it and the unemployment rate. Additionally, the connections between BET-FI and both the Covid-19 factor and the RON-EURO exchange rate are also considered to be of medium intensity.

In terms of market capitalization, the correlation with macroeconomic factors is medium and indirect in this case, when looking at the RON-EURO exchange rate (-0.548) and the number of Covid-19 cases (-0.684). There are also exceptions in the case of PPI, where the connection is direct (0.292) and the reference interest rate (0.330), with a coefficient very close to the 0.3 threshold, but these are not statistically significant.

The types of existing links between the analyzed macroeconomic variables are as follows (Table 3):

- Moderate/ direct correlation: inflation rate with PPI; interest rate and both the RON-USD exchange rate and PPI; unemployment rate and Covid-19 number of cases and RON-EURO exchange rate with Covid-19 number of cases (all are statistically significant)
- Moderate/ indirect correlation: inflation rate with unemployment rate; reference interest rate with both RON-EURO exchange (not statistically significant) and Covid-19 number of cases; unemployment rate with PPI (not statistically significant); PPI with Covid-19 number of cases and gold price with average salary.

Table 3. Pearson correlation between the macroeconomic factors and stock market indices (2020-2021)

	BET	***BetPlus***	***BET-FI***	***Market capitalization***	***Inflation rate***	***Interest rate***	***Unemployment rate***	***RON-EURO exchange rate***	***RON-USD exchange rate***	***Producer price index***	***Gold price***	***Average salary***	***Covid-19 number of cases***
BET	1	1.000**	.799**	.915**	0.045	0.151	-0.151	-.470*	-0.086	0.229	-0.127	-0.058	-.588**
BetPlus	1.000**	1	.802**	.916**	0.042	0.155	-0.153	-.470*	-0.083	0.230	-0.121	-0.061	-.591**
BET-FI	.799**	.802**	1	.658**	0.015	0.195	-0.305	-.415*	-0.070	0.227	-0.061	-0.127	-.526**
Market capitalization	.915**	.916**	.658**	1	0.124	0.292	-0.188	-.548**	-0.018	0.330	-0.024	-0.121	-.684**
Inflation rate	0.045	0.042	0.015	0.124	1	-0.104	-.446*	-0.070	-0.054	.484*	-0.194	-0.115	-0.145
Interest rate	0.151	0.155	0.195	0.292	-0.104	1	-0.036	-0.307	.495*	.602**	0.170	0.168	-.504*
Unemploy-ment rate	-0.151	-0.153	-0.305	-0.188	-.446*	-0.036	1	-0.001	0.117	-0.347	0.055	0.140	.448*
RON-EURO exchange rate	-.470*	-.470*	-.415*	-.548**	-0.070	-0.307	-0.001	1	0.127	-0.133	-0.128	0.130	.623**
RON-USD exchange rate	-0.086	-0.083	-0.070	-0.018	-0.054	.495*	0.117	0.127	1	0.142	0.140	-0.101	-0.091
Producer price index	0.229	0.230	0.227	0.330	.484*	.602**	-0.347	-0.133	0.142	1	-0.184	0.205	-.463*
Gold price	-0.127	-0.121	-0.061	-0.024	-0.194	0.170	0.055	-0.128	0.140	-0.184	1	-.577**	-0.035
Average salary	-0.058	-0.061	-0.127	-0.121	-0.115	0.168	0.140	0.130	-0.101	0.205	-.577**	1	0.090
Covid-19 number of cases	-.588**	-.591**	-.526**	-.684**	-0.145	-.504*	.448*	.623**	-0.091	-.463*	-0.035	0.090	1

**. Correlation is significant at the 0.01 level (2-tailed)
*. Correlation is significant at the 0.05 level (2-tailed).
Source: Authors' processing based on research data

- ***Multiple regresion model***

- **Macroeconomic factors and BET-Plus index**

The model's equation is as follows when the variables are replaced by the relevant factors:

$$\textbf{BET-Plus} = \beta_0 + \beta_1 * inflationrate + \beta_2 * interestrate + \beta_3 * unemploymentrate + \beta_4 * RON - EUROexchangerate + \beta_5 * RON - USDexchangerate + \beta_6 * productionpriceindex + \beta_7 * goldprice + \beta_8 * averagesalary + \beta_9 * Covid - 19numberofcases + \varepsilon$$

The BET-Plus index and macroeconomic factors are moderately correlated with one another in the 2020–2021 timeframe, according to the value of the correlation coefficient R. According to the coefficient of variation, the variation in the observed macroeconomic factors is responsible for 45.4% of the variation in the BET-Plus index.

Table 4. Regression statistics (macroeconomic factors and BET-Plus index)

R	R^2	$Adjusted\ R^2$	*Std. error of the Estimate*
$.674^a$	0.454	0.104	0.058131261

Source: Authors' processing based on research data

Table 5 shows that the rate of inflation has little effect on BetPlus; for every unit increase, the stock market index only falls by 0.093 units. The RON-USD exchange rate exhibits the same pattern.

During the studied period, the unemployment rate had an impact on BetPlus' evolution. As a result, BetPlus will increase by 0.207 for every unit that this macroeconomic factor increases. The value of the BetPlus index will rise the most (0.812 units) for every unit increase in the PPI and fall the most (4.217 units) for each unit increase in the RON-EURO exchange rate.

Additionally, a one-unit increase in the price of gold causes BetPlus to drop by 0.392 units. Similar effects on the value of the stock market index are caused by the average wage and the interest rate, where the macroeconomic variable will decrease the index's value by 0.265 and 0.222 units, respectively. Last but not least, the coefficient related to the number of Covid-19 cases is very small (-0.028), indicating that this factor has a negligible inverse impact on the development of the BetPlus index.

When it comes to the p-value for macroeconomic variables, the RON-USD exchange rate (0.969) is very close to 1 whereas the p-value for the Covid-19 number of cases is 0.128.

Table 5. Regression outputs between macroeconomic factors and BETPlus index (2020-2021)

	Unstandardized coeff.		*Standardized coeff*	*p-value*
	B	**Std. error**	**Beta**	
(Constant)	0.028	0.022		0.216
Inflation rate	-0.093	0.147	-0.207	0.536
Interest rate	-0.222	0.325	-0.317	0.506
Unemployment rate	0.207	0.440	0.137	0.645
RON-EURO exchange rate	-4.217	8.256	-0.172	0.617
RON-USD exchange rate	-0.045	1.122	-0.012	0.969
Producer price index	0.812	1.314	0.258	0.546
Gold price	-0.392	0.595	-0.189	0.521
Average salary	-0.265	0.569	-0.137	0.648
Covid-19 number of cases	-0.028	0.017	-0.311	0.128

Source: Authors' processing based on research data

- **Macroeconomic factors and BET index**

The model's equation is as follows when the variables are replaced by the relevant factors:

$$\textbf{BET}= \beta_0 + \beta_1 * inflationrate + \beta_2 * interestrate + \beta_3 * unemploymentrate + \beta_4 * RON - EUROexchangerate + \beta_5 * RON - USDexchangerate + \beta_6 * productionpriceindex + \beta_7 * goldprice + \beta_8 * averagesalary + \beta_9 * Covid - 19numberofcases + \varepsilon$$

A moderate level of prediction is indicated by the multiple correlation coefficient of 0.674, and the independent variables (macroeconomic factors) account for 45.5% of the variability of the dependent variable, the BET index. It can be seen that the values obtained so far are almost the same as those obtained for the BETPlus index.

Table 6. Regression statistics (macroeconomic factors and BET index)

R	R^2	$Adjusted\ R^2$	*Std. error of the Estimate*
.674[a]	0.455	0.104	0.058685900

Source: Authors' processing based on research data

During the pandemic, the RON-EURO exchange rate had a greater impact on the BET index (Table 7). Therefore, for every unit increase in this rate, the BET index will decrease by 4.307 units.

The BET index's value is negatively impacted by the inflation rate because it decreases by 0.093 points for every unit increase in this macroeconomic factor. The BET index continues to fall as the interest rate rises, but only by 0.226 units this time. BET is more sensitive to the unemployment rate. For every unit increase in the macroeconomic variable, the stock index will rise by 0.213 points.

For every unit increase in the value of the RON-USD exchange rate, the BET index will only fall by 0.048 units. The impact of the gold

price over the observed time period is -0.404 units. Another change (a 0.265-unit decrease in the index's value) is observed in terms of average wage earnings.

The number of Sars-Cov-2 infections at this time has a detrimental effect on the BET index's evolution. For every additional unit in Covid-19 cases, the BET value will drop by 0.028 units. As one unit change in the macroeconomic factors causes the BET index to increase by 0.831, the PPI factor has the greatest impact on the index.

Furthermore, in the first two years of the pandemic, the p-values for the macroeconomic factors considered are only higher than the 0.05 cutoff, indicating no meaningful significance. The p-value for the RON-EURO exchange rate is close to one.

Table 7. Regression outputs between macroeconomic factors and BET index (2020-2021)

	Unstandardized coeff.		*Standardized coeff*	*p-value*
	B	**Std. error**	**Beta**	
(Constant)	0.028	0.022		0.216
Inflation rate	-0.093	0.148	-0.204	0.541
Interest rate	-0.226	0.328	-0.320	0.502
Unemployment rate	0.213	0.444	0.140	0.638
RON-EURO exchange rate	-4.307	8.335	-0.174	0.613
RON-USD exchange rate	-0.048	1.132	-0.012	0.967
Producer price index	0.821	1.327	0.258	0.546
Gold price	-0.404	0.601	-0.193	0.512
Average salary	-0.265	0.574	-0.135	0.652
Covid-19 number of cases	-0.028	0.018	-0.610	0.128

Source: Authors' processing based on research data

- **Macroeconomic factors and BET - FI index**

The model's equation is as follows when the variables are replaced by the relevant factors:

$$\textbf{BET - FI}= \beta_0 + \beta_1 * inflationrate + \beta_2 * interestrate + \beta_3 * unemploymentrate + \beta_4 * RON - EUROexchangerate + \beta_5 * RON - USDexchangerate + \beta_6 * productionpriceindex + \beta_7 * goldprice + \beta_8 * averagesalary + \beta_9 * Covid - 19numberofcases + \varepsilon$$

The variation in the macroeconomic factors accounts for 38.5% of the variation in the BET-FI index, the lowest when compared to the other indices, explaining why the adjusted R2 value is negative.

Table 8. Regression statistics (macroeconomic factors and BET-FI index)

R	R^2	$Adjusted\ R^2$	*Std. error of the Estimate*
.621[a]	0.385	-0.010	0.058702311

Source: Authors' processing based on research data

Apart from the PPI (0.788), all other macroeconomic variables have an indirect effect on the BET-FI index. The Covid-19 number of cases had the least impact on the index (-0.009).

The BET-FI index was more significantly impacted by the RON-EURO exchange rate than the BET index was. Every unit increase in the exchange rate results in a 7.317 unit drop in the BET-FI index.

The index's value is negatively impacted by the inflation rate because it decreases by 0.153 for every unit increase in this macroeconomic factor. With rising interest rates (0.081) and the RON-USD exchange rate (0.032), the BET index keeps falling. In comparison to the unemployment rate (0.342), gold price (0.466), and average salary earnings (0.454), the BET-FI index's value will decline more.

In the 2020–2021time frame, the p-values for the macroeconomic factors taken into account are higher than the 0.05 cutoff. Therefore, it can be concluded that there is no meaningful relationship between the BET index and the investigated macroeconomic factors.

Table 9. Regression outputs between macroeconomic factors and BET-FI index (2020-2021)

	Unstandardized coeff.		*Standardized coeff*	*p-value*
	B	**Std. error**	**Beta**	
(Constant)	0.023	0.022		0.301
Inflation rate	-0.153	0.148	-0.356	0.321
Interest rate	-0.081	0.328	-0.121	0.809
Unemployment rate	-0.342	0.444	-0.238	0.454
RON-EURO exchange rate	-7.317	8.337	-0.313	0.395
RON-USD exchange rate	-0.032	1.133	-0.009	0.978
Producer price index	0.788	1.327	0.263	0.562
Gold price	-0.466	0.601	-0.236	0.450
Average salary	-0.454	0.575	-0.246	0.442
Covid-19 number of cases	-0.009	0.018	-0.202	0.622

Source: Authors' processing based on research data

- **Macroeconomic factors and market capitalization**

When the variables are changed to the appropriate factors, the model's equation is as follows:

$$\textbf{Market capitalization} = \beta_0 + \beta_1 * inflationrate + \beta_2 * interestrate + \beta_3 * unemploymentrate + \beta_4 * RON - EUROexchangerate + \beta_5 * RON - USDexchangerate + \beta_6 * productionpriceindex + \beta_7 * goldprice + \beta_8 * averagesalary + \beta_9 * Covid - 19numberofcases + \varepsilon$$

During the pandemic period, there is a strong correlation between stock market capitalization and macroeconomic factors, with a coefficient of 0.730. The high coefficient of variation value indicates that 53.3% of the variation in stock market capitalization during this time period was caused by macroeconomic factors.

Table 10. Regression statistics (macroeconomic factors and market capitalization)

R	R^2	$Adjusted\ R^2$	*Std. error of the Estimate*
$.730^a$	0.533	0.234	0.075347273

Source: Authors' processing based on research data

Table 11 demonstrates that the unemployment rate (0.370) has the second-largest impact on market capitalization (0.812), after the PPI (0.812). These are also the only macroeconomic variables with which the index has a direct correlation. The stock market capitalization decreased for all the others due to the factors' one-unit changes, with the RON-EURO exchange fluctuation causing the biggest decline. Even though there is an inverse correlation between the inflation rate and the Covid-19 number of cases, it is still very weak.

P-values are still higher than 0.05 for stock market capitalization and macroeconomic variables. Only the Covid-19 number of cases, with a p-value of 0.088, is within striking distance of this 0.05 threshold. This suggests that, if the null hypothesis were correct, similar results would occur 8.8/100 times.

Table 11. Regression outputs between macroeconomic factors and the market capitalization (2020-2021)

	Unstandardized coeff.		*Standardized coeff*	*p-value*
	B	**Std. error**	**Beta**	
(Constant)	0.035	0.028		0.228
Inflation rate	-0.030	0.191	-0.047	0.879
Interest rate	-0.109	0.421	-0.111	0.800
Unemployment rate	0.370	0.570	0.175	0.527
RON-EURO exchange rate	-5.101	10.701	-0.148	0.641
RON-USD exchange rate	-0.279	1.454	-0.052	0.851
Producer price index	0.812	1.703	0.184	0.641
Gold price	-0.354	0.771	-0.122	0.653
Average salary	-0.460	0.738	-0.169	0.543
Covid-19 number of cases	-0.041	0.023	-0.641	0.088

Source: Authors' processing based on research data

Conclusions

The results of the Pearson correlation analysis indicate that there is a weak to moderate relationship between the BET and each of the macroeconomic factors that were looked at. The RON-EURO exchange rate and the Covid-19 number of cases are the only exceptions, where there is a medium and indirect correlation. Since the BET companies are the ones with the highest weight in the composite index (BetPlus), the BetPlus index follows the same trend as the reference index from BVB (BET).

With the exception of the RON-EURO exchange rate and the Covid-19 number of cases, the last analysed index, BET-FI, also exhibits similar changes, but the correlations with all of the macroeconomic factors over the entire period are weaker.

The Covid-19 numer od cases had an impact not only on the Romanian capital market (indirect and moderate correlation), but also on the majority of the macroeconomic variables studied (moderate correlations, both direct and indirect). The only exceptions, where there is no correlation is between th Covid-19 number of cases and inflation rate, RON-USD exchange rate gold price and average salary.

Regarding the relationship between the Covid-19 number of cases and the RON-EURO exchange rate in 2020–2021, a moderately strong relationship is found between these two variables.

Multiple regression analysis' findings indicate a favorable correlation between market indices and both the unemployment rate and PPI. The remaining variables have an inverse effect on the analyzed indices, with the RON-EURO exchange rate having the highest value and the Covid-19 number of cases having the lowest one.

The same situation can be seen when examining the relationship between market capitalization and macroeconomic factors; however, in this instance, the p-value for the Covid-19 number of cases is nearly equal to the 0.05 cutoff, which has never happened before.

Three of the analyzed factors—the RON-EURO exchange rate, the number of Covid-19 cases, and PPI—show the same trend when results from the regression model and Pearson correlation are compared. The coefficients for the producer price index are basically the same in both scenarios.

In order to broaden the research and create a much more accurate picture, the following concepts can be taken into account: a larger number of shares listed on the Bucharest Stock Exchange, a larger number of macroeconomic factors, observe and analyze the market over a longer period of time, and use additional models to test potential existing trends.

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HOTEL COMPANIES AT BUCHAREST STOCK EXCHANGE. WHAT DO THEY OFFER TO INVESTORS?

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ABSTRACT. Hotel groups listed on various security exchanges have the tendency to be representative for their respective country and/or to be emblematic worldwide. They expand and evolved from an owner-operator business model, still dominant in the 1980s, toward a sophisticated combination of the owner-operator model and asset-light business model. In the case of Romania, the owner-operator business model is dominant and is the common ground for the hotel companies listed at Bucharest Stock Exchange.

The present paper has the following objectives: a) to investigate which of the former hotel companies listed on Rasdaq were chosen to be transferred on the new alternative trading system; b) if new hotel companies were willing to become publicly traded on BVB or in AeRO; c) to identify the portfolio of hotels for the listed companies, and d) to investigated the trading frequency, volume and value, and extract potential patterns. The period under scrutiny is May 2015 – May 2023.

Based on the findings of the present paper the Romanian listed hotel companies do not attract the investors' attention since they do not offer too much. Some of the problems might be generated by the low free-float and controlling shareholders/groups. Though, the main problems seem to be

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related to the companies' lack of proper transparency regarding their activities (and profit centers), hotel/lodging portfolios, and the absence of (at least) domestic known brand.

Keywords: hotel companies, Bucharest Stock Exchange, shareholders, free-float

JEL Classification: Z31, Z33, G10

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Introduction and literature review

Hotel groups listed on various security exchanges have the tendency to be representative for their respective country and/or to be emblematic worldwide. In the last category can be mentioned: InterContinental Hotels Group (also InterContinental Hotels & Resorts) listed at London Stock Exchange and on NASDAQ USA, and Accor (or Accor Group) listed on Euronext and on OTC US market. Not all countries and their respective security exchanges can present their investors with similar hotel groups. Though, it is expected that the listed hotel companies to be significant on their domestic and/or regional markets.

As of 2020 and 2021 based on Hotels (2021, 2022) data, the top 10 hotel groups concentrate about 57%, respectively 61% of the rooms operated by top 200 hotel companies. Their expansion evolved from owner-operator business model, still dominant in the 1980s, toward a sophisticated combination of the owner-operator model and asset-light business model (ALBM), according to Seo et al. (2021), Bourke et al. (2020), van Ginneken et al. (2017). The owner-operator (or asset-heavy) model is based on the owner acquiring or building and operating the hotel (Seo et al., 2021; Gannon et al., 2010). This asset-heavy model allows for the complete control of the owner over hotel operations, while blocking an important portion of the capital in real estate/fixed assets (Seo et al., 2021; Bourke et al., 2020). Hence the owner-operator model proved to have a low flexibility when faced with a challenging and changing

economic environment and hotel companies gradually (going through lease contracts and sale and leaseback transactions) shift toward ALBM gradually over the first two decades of the 21st century (Gannon et al., 2010; van Ginneken et al. (2017); Dogru, 2017). ALBM or fee-based model favors the expansion of a hotel company through management agreements and franchising. A consequence of ALBM adoption was the divesting of many hotel companies from their property assets, though maintaining the ownership in a limited number of hotels considered to be in prime locations and/or representing the 'brand builders' (Bourke et al., 2020; Roper, 2015). The results of this trend are well exemplified by the fact that at the end of 2020, Marriott operated 98.88% of the branded rooms under management contracts or franchise agreements, while for Hilton the figure was 98.10% (Seo, 2021). The divested hotel properties were acquired by private equity funds or real estate investment funds (REITs), the later gradually specializing in hotel REITs (2021_Seo).

This evolution was reflected by the study of Lee & Upneja (2007) which showed the undervaluation of US lodging (hotel) stocks during the 1990s, citing the lack of investors' understanding of the dual lodging business. There always was the question: 'what do one values in a hotel company?' since there was a combination between a real estate investment and the operation of the respective real estate as a hotel. As divestment occur, separating the ownership from hotel operations, investors in security markets started to reassess the (lesser) risks of ALBM and the possibility of this fee-based model to improve the hotel company's profitability (Gannon et al., 2010; Seo et al., 2021). ALBM started to be investigated by academic literature, however the results are discordant mainly due to the absence of a common base for evaluating this asset-light model (Seo et al., 2021). Barreda & Kizidag (2015) shows a better investors' perception of the North American and European hotel companies, known for their propensity toward the adoption of ALBM, while the Latin America hotel companies suffer from the lack of investors' trust. The study of Aliano et al. (2023) which examines 46 hotel stocks listed worldwide between 2000 and 2021 suggest that the hotel stocks have a positive contribution to the asset allocation process, though Covid-19 pandemic influence made the research result less obvious. These studies can be viewed as a confirmation of the ALBM positive effect over the listed hotel companies and the changes in investors' conception toward hotel groups/companies.

The studies concerning hotel companies at country level are not very numerous and cover a wide range of studies. Some academic studies investigate the listed hotel company various financial ratios and various factors influencing the like Bhamorasathit & Katawandee (2014) for Thailand, Murugescu (2013) for 11 listed hotel companies at Colombo Stock Exchange in Sri Lanka, Al-Homaidi et al. (2019) for 30 listed hotel companies at Bombay Stock Exchange or Olagunju et al. (2020) for Nigerian listed hotel companies. Other studies are focused on evaluating the risk for the listed hotel companies like the study of Huy (2019) for Vietnam or examine the connectedness of the hospitality stocks as in the case of Hadi et al. (2022) work which considers top 10 worldwide listed companies. Some other studies touch less common topics like Lee (2021) paper which consider the effect of tourism expansion on Japanese listed hotel companies or Thottoli & Al Harthi (2022) work focused on how corporate branding influences the performances of hotel companies listed at Muskat Stock Exchange (Oman) or the study of Fullana et al. (2022) linking the CEO compensations with the financial performances of EUROSTOXX. Given the important negative impact of the recent Covid-19 pandemic on listed hotel companies, this is studied in a new series of academic papers like Anguera-Torrell et al. (2021) for 20 worldwide publicly listed hotel companies, Garcia-Gomez et al. (2021) for a selected sample of US listed hotel companies, Roska (2021) for Croatian listed hotel companies or Kanamura (2023) for Japan and US hotel stocks. The results of these studies also highlighted the importance of economic policies and government support during the pandemic. The study of 2021_Gracia also showed that the selected hotel companies using ALBM were in a better position in dealing with the effects of the pandemic.

In the case of Romania, the owner-operator business model is dominant. However, there are no academic studies (to the best of author's knowledge) to support this statement. Nonetheless, the stated is supported by the database offered by the Ministry of Tourism1 (MoT henceforth) where the economic operator is also the owner of the accommodation facility/facilities or has direct link with the owner (the owner being the main shareholder of the economic operator). Moreover, there are few economic lodging operators which manage more than 1-2 accommodation units. Furthermore, there are no well-known established Romanian hotel

brands[2] that are franchised or operated under management agreements. This owner-operator model is the common ground also for the hotel companies listed at Bucharest Stock Exchange (BVB henceforth).

Regarding the Romanian listed hotel companies the academic literature is spare to nonexistent. Searches on Google scholar using "Romanian listed hotels" and "hotel companies at Bucharest Stock Exchange" returned with 0 results.

The present paper has the following objectives: a) to investigate which of the former hotel companies listed on Rasdaq were chosen to be transferred on the new alternative trading system; b) if new hotel companies were willing to become publicly traded on BVB or in AeRO; c) to identify the portfolio of hotels for the listed companies, and d) to investigated the trading frequency, volume and value, and extract potential patterns. To the best of author's knowledge, this is the first paper which investigate both the hotel companies listed on BVB main market and on AeRO segment after (May 2015) this segment started to include the companies from then closing Rasdaq market.

Data and methodology

The present paper studies the listed hotel companies on BVB main/regulated market and on the alternative AeRO segment for the period May 2015 and May 2023. The beginning of the period is set for the month when from the former Rasdaq market the listed hotel companies started to be transferred on AeRO segment.

For the present paper used the secondary data provided by BVB, MoT, and companies websites (where available). The companies were identified and selected using the NACE codes, crossed with the names of the companies. For the trading data the daily and monthly reports for the main/regulated market and for the alternative/multilateral trading

[2] To the best of author knowledge only Continental Hotels (Romania, https://continentalhotels.ro/) tried to establish the brand Continental for its 3 star hotels and Continental Forum for its 4 star hotels. Though, the number of Continental Hotels is small and these two brands are not well-known. Also, relative recently, the Phoenicia Hotels (https://www.phoeniciahotels.ro/) is emerging as a hotel group using two names for its hotels: Phoenicia and Majestic and one can say it is too early to speak about brands. Similar

system were used. The identification of hotel portfolios was made using annual downloaded databases provided by MoT (available at: https://turism.gov.ro/web/autorizare-turism/) and when possible the information was crossed with the information provided by the respective company's website.

The daily trading data for the identified companies proved to be extremely uneven, varying from 6 to over 1,700 observations from a potential total of 2,014, as Table 4 shows in No. of obs. column. Therefore it was chosen to not even try to bring the daily data at the same level since it would introduced too many 0 return days and this situation would have distorted the data. Furthermore, the number of companies included in the study is also small and does not allow investigations using this viewpoint. Consequently, with no data for valid modeling it was chosen to present the situation as a descriptive case study where the data were analyzed, the results were presented in tables and the findings were extracted.

Findings and discussions

Between May 2015 and May 2023 a total number of 28 listed companies were identified to have as main activity "Hotels and similar accommodation". The identification of these companies was made based on NACE code 5510 (for 27 companies) and on name called SIF Hoteluri (but with NACE code 5630 "Beverage serving activities").

Of the 28 companies, 4 are listed on BVB regulated/main market, while the remaining 24 are listed on the alternative trading system AeRO. The difference between the regulated/main market and AeRO segment is given by the capitalization (lower in the case of AeRO), the required free-float (about 30% for the main market, about 10% for AeRO), and the daily price fluctuation, limited at ±15% for the main/regulated market (https://www.bvb.ro/info/Rapoarte/Ghiduri/Ghid_AeRO_RO.pdf).

Table 1, below, includes the list of identified companies within the hotel sector and some general information. More detailed information are included in Annex 1, where each company has a dedicated description.

The companies are included in Table 1 in the order of the listing date, the date the companies were introduced for trading on the respective market segment.

Of the 28 identified companies, only BCM was listed following a public offerings. The remaining 27 were transferred from Rasdaq, an alternative trading platform (see Pop et al., 2014), where a about 200 hotel companies were listed between the October/November 1996 and October 2015. It is interesting to mention that 2 (ARO and BALO)2 of the 27 companies had a relative brief listing period (between 2014/2015 and 2017) on SIBEX, a smaller exchange in Sibiu absorbed by BVB in 2018.

Table 1. General information regarding the hotel companies at BVB

No.	Symbol	Name	NACE	Trading segment	Listing date	Delisted
1	**EFO**	Turism Hoteluri, Restaurante Marea Neagra SA	5510	Main/regulated market – standard tier	August 15th, 2002	NO
2	**TUFE**	Turism Felix SA	5510	Main/regulated market – standard tier	March 21st, 2007	NO
3	**BCM**	Casa de Bucovina-Club de munte SA	5510	Main/regulated market – standard tier	May 12th, 2008	NO
4	**CAOR**	SIF Hoteluri SA	5630	Main/regulated market – standard tier	May 11th, 2012	NO
1	**RCHI**	Grand Hotel Bucharest SA	5510	AeRO – premium tier	May 14th, 2015	NO
2	**NORD**	Nord SA	5510	AeRO – standard tier	May 14th, 2015	NO
3	**DOIS**	Dorna Turism SA	5510	AeRO – standard tier	June 5th, 2015	NO
4	**PACY**	Palace SA	5510	AeRO – standard tier	June 5th, 2015	NO
5	**RESI**	Resib SA	5510	AeRO – standard tier	June 5th, 2015	July, 18th, 2017
6	**TUAA**	Turism Covasna SA	5510	AeRO – standard tier	June 5th, 2015	NO

No.	Symbol	Name	NACE	Trading segment	Listing date	Delisted
7	**TUSI**	Turism Hoteluri si Restaurante Prahova SA	5510	AeRO – standard tier	June 19th, 2015	February, 22th, 2016
8	**ATPA**	Athenee Palace SA	5510	AeRO – standard tier	June 26th, 2015	January, 28th, 2021
9	**BIBU**	BTT SA	5510	AeRO – standard tier	July 17th, 2015	NO
10	**ANTA**	Romanta Estival 2002 SA	5510	AeRO – standard tier	July 29th, 2015	NO
11	**BLEA**	Balea Estival 2002 SA	5510	AeRO – standard tier	July 29th, 2015	NO
12	**BNAT**	Banat Estival 2002 SA	5510	AeRO – standard tier	July 29th, 2015	NO
13	**CLUB**	Hotel Club Estival 2002 SA	5510	AeRO – standard tier	July 29th, 2015	NO
14	**PRAH**	Prahova Estival 2002 SA	5510	AeRO – standard tier	July 29th, 2015	December 14, 2022
15	**BALN**	Tratament Balnear Buzias SA	5510	AeRO – standard tier	July 29th, 2015	NO
16	**NEOL**	Neptun Olimp SA	5510	AeRO – standard tier	July 29th, 2015	NO
17	**PARC**	Parc SA	5510	AeRO – standard tier	August 5th, 2015	February 9th, 2022
18	**TERA**	Terra Estival 2002 SA	5510	AeRO – standard tier	August 5th, 2015	NO
19	**ORTU**	Orizont Turism SA	5510	AeRO – standard tier	August 21st, 2015	February, 22th, 2016
20	**TSND**	Tusnad SA	5510	AeRO – standard tier	September 7th, 2015	NO
21	**RSCA**	Rusca SA	5510	AeRO – standard tier	September 9th, 2015	November, 27th, 2015
22	**UCET**	Clabucet Estival 2002 SA	5510	AeRO – standard tier	October 2nd, 2015	NO
23	**ARO**	Aro-Palace SA	5510	AeRO – standard tier	July 31st, 2017	NO
24	**BALO**	Balneoclimaterica SA	5510	AeRO – standard tier	November 23rd, 2017	March 20th, 2020

Source: author's compilation based on www.bvb.ro

Of these companies (NORD) was excluded from the analysis due to the fact that it was impossible to identify any accommodation facility owned by the respective company in MoT databases for 2015-2023. The same situation was mentioned by Balint & Pop (2015). Furthermore, the last annual report (http://nordsa.ro/wp-content/uploads/2023/04/Raport-anual-Nord-SA-2022-site.pdf) also mentions that despite the announced NACE of 5510 in fact the main income comes from renting various real estate properties (none being in the range of accommodation facilities). Just as an observation: it is not clear why NORD does not change the NACE according to its main activity.

As one can observe, of the remaining 27 companies, 82 were delisted 3 between November 2015 and December 2022. It is also interesting to note that no new listing occurred since November 2017, when SIBEX companies were transferred on AeRO. Furthermore none of the companies use their listing at BVB to launch share and/or bond offerings.

As of May 2023, the number of active hotel companies at BVB (excluding NORD) is of 19, of which 4 traded on the BVB main/regulate market and 15 on AeRO segment.

Based on the profiles for each company presented in Annex 1, for the 27 companies under analysis, the structure based on the number of owned accommodations is the following:

a) 14 companies own/owned 1 hotel (BCM, RCHI, **RESI**, **TUSI**, **ATPA**, BIBU, ANTA, BLEA, BNAT, **PRAH**, **PARC**, **ORTU**, **RSCA**, UCET);
b) 5 companies own/owned 2 hotels (TSND, TERA, PACY, DOIS, CLUB);
c) 8 companies own/owed 3 hotels/accommodation facilities or more (EFO, TUFE, CAOR, BALN, NEOL, TUAA, ARO, **BALO**).

As of May 23, the situation for the 19 remaining listed companies, the situation based on the identified accommodations is:

a) 3 companies own 1 hotel (BCM, RCHI, BIBU);
b) 4 companies own 2 hotels (DOIS, PACY, BALN, TSND);
c) 5 companies own 3 hotels/accommodations or more (EFO, TUFE, CAOR, TUAA, ARO);

d) for 7 companies the ownership of hotels/accommodations could not be confirmed using the MoT database for May 2023 (UCET, TERA, NEOL, CLUB, BNAT, BLEA, ANTA).

A natural question that arises when accommodation facilities are discusses is: how many of them operate under a known brand?

Annex 2 comprises the hotel brands and hotel consortia identified in 2016 (the situation for 2015 could not be redone) and in May 2023 to be present in Romania. However, when looking at the listed companies, their relation with branded hotels is modest.

For the 4 companies listed on BVB main/regulated market, the situation was the following:

a) BCM owns a hotel which operates under Best Western brand at least since 2005;
b) CAOR owned between 2015 and 2022 a hotel in Oradea which was operated under Double Tree by Hilton; in May 2023 this hotel appeared to be sold to another owner.

In the case of the 23 companies listed on AeRO, the situation is the following:

a) RCHI own a landmark hotel in Bucharest operated since the communist period under InterContinental brand. In December 2021 the contract was discontinued and RCHI changed its name. As mentioned in the dedicated description of RCHI (Annex 1) it is not very clear why the relation with InterContinental Hotels Group ceased.
b) **ATPA** was related to Athenee Palace Hotel which was operated under Hilton brand until the company was delisted (January 2021). Since the second half of 2022, Athenee Palace Hotel is operated under InterContinental brand.
c) **BALO**, another delisted company, operated two of its hotels under Danubius Hotels brand.

Based on the information presented above, the listed hotel companies cumulate only 4 hotels (817 rooms) representing a very small corner of the branded Romanian hotels between 2016 and 2022: 8.16% of the hotels and 10.91% of the rooms. By May 2023 due to delisting and changes only

BCM remains with its hotel operated under Best Western and representing an almost negligible portion of branded Romanian hotels: 1.43% of hotels and 1.33% of rooms.

It is interesting to mention, as noted in Annex 1, the case of NEOL company which mentions on its website the 5 villas it is supposed to own (http://www.neptunolimp.com/vile-olimp.php), though the MoT database for May 2023 registers the respective villas as owned by another company. As mentioned in Introduction, in Romania the number of companies specialized only in operating accommodations (without owning them) is not a common feature. Therefore the situation of NEOL is ambiguous: does it only operates the villas or owns the villas (even indirectly via the new owner registered by the MoT database)? The website does not offer any clarification. Another situation that could be imagined is that a sale and lease-back transaction (SLBT) took place. However, it is improbable since these SLBTs are also rarely used in Romania and when they take place usually they involve a financial institutions not a limited liability company. A brief inquiry regarding the new owner of the villas indicate that the company has its headquarters in Galati, declares the 5510 NACE since 2018 and has an equity capital of RON 200. Unfortunately this information does not bring more clarification. Furthermore, NEOL does not have a section dedicated to investors and no reports to present the situation. Anyone wanting to trade NEOL has no clear answer to the question: what does one buy when one wants to invest in NEOL?

Another case is that of TSND which appears to own two hotels according to MoT database for May 2023. However, on the company website only one hotel is mentioned, while the second hotel (the 4 star hotel) appear with a dedicated website (https://o3zone.ro/) and with no direct link from TSND website. Therefore, any potential investor should be asking: what is the situation? Is the 4 star hotel owned by TSND and operated under a lease contract (or any other form of agreement) by another company? Was the 4 star hotel sold and the other owner was not registered by the MoT database yet? Similar to NEOL, TSND does not have a section dedicate to investors within its website and therefore no reports to clarify the situation. The same question asked for NEOL by any investor should be asked for TSND.

EFO presents a different situation that generate confusion. The hotel portfolio decreased from 23 hotels in 2015 to 11 hotels in May 2023. While divesting is an international trend, it does not appear that EFO has any type of agreements for operating the former owned hotels. Furthermore, the identified 11 hotels as of May 2023 might be completed with some other hotels that were intended to be sold and the selling did not occur and with hotels closed due various works and/or under the intention to be sold. The reports of this company are not clear and it is impossible to find a complete list of the owned lodgings. Moreover, informal discussions suggest that the profitability of the company derives rather from the asset selling than from an efficient management of the respective assets.

Table 2, below, presents the simplified structure of hotel companies' shareholders. As can be observed, the majority of hotel companies at BVB are dominated by majority shareholders, mainly Transilvania Investment Alliance (TRANSI)2, and controlling groups, mainly the one represented by Micula brothers. These dominant positions have a direct influence on the companies' free-float which often is well beyond the threshold established by BVB. Of the 4 companies listed on BVB main/regulated market (EFO, TUFE, BCM, CAOR) only BCM has the required free-float. For the companies listed on AeRO, excepting the delisted ones – marked with red, only 4 companies (TSND, RCHI, DOIS, PACY) have a free-float higher than 10%. As the trading activity will show, the low free-float seems to influence the buying and selling of hotel companies.

Relating the shareholders' structure with the number of hotels owned by the companies, it can be seen that all the companies controlled by Micula brothers have either 1 hotel (5 of them) or 2 hotels (2 of them). At the other end are the companies where the dominant shareholder is TRANSI. All these companies have a minimum of 2 hotels up to 11 hotels (the case of EFO) as of May 2023.

While the main focus of this paper is not the relationship between the shareholders' structure and the way the hotel companies are managed, it must be also noted that the companies where Micula brothers have the dominant positions are the ones with no dedicated websites. The only other company with no website was **RESI**, delisted since November 2015. Though the existence of a website for a company does not guaranty good information and transparency, the absence of a website at this point in time should raise many questions for any willing investor.

Table 2. Majority shareholder(s)/controlling groups and free float

Majority shareholder(s) or control group	Symbol	% of majority shareholder(s)/control group	% free float
The Romanian State	**BIBU**	87.92%	1.44%
	NEOL	52.22%	6.60%
Transilvania Investment Alliance SA (TRANSI) - former SIF3 Transilvania	**EFO**	78.80%	21.20%
	TUFE	63.77%	6.96%
	TUAA	92.95%	5.14%
	TUSI	89.52%	10.48%
	BALN	91.87%	8.13%
	ORTU	93.06%	6.94%
	TSND	76.41%	23.59%
	ARO	85.74%	3.89%
Lion Capital SA (LION) - former SIF1 Banat-Crisana	**CAOR**	98.99%	0.98%
	RSCA	99.23%	0.34%
SIF4 Muntenia (SIF4)	**BCM**	69.25%	30.75%
Adamescu family through Mountbay Limited Nicosia, Cyprus The Nova Group Investments Romania SRL	**RCHI**	48.61%	11.40%
Ana Hotels (George Copos & family through) Ana Hotels SRL Ana Holding Limited, Cyprus	**ATPA**	64.69%	35.31%
Ioan Micula and Viorel Micula trough Bucegi SA Certinvest SRL Rieni Drinks SA Comtexin SA Star SA	**ANTA**	93.69%	6.31%
	BLEA	93.65%	6.35%
	BNAT	93.65%	6.35%
	CLUB	93.68%	6.32%
	PRAH	93.65%	6.35%
	TERA	74.84%	6.32%
	UCET	93.65%	6.35%
Vezeteu Olimpia	**DOIS**	50.00%	17.99%
Cozma Angela-Cornelia	**PACY**	32.00%	16.64%
Serban Mariana	**RESI**	95.35%	4.65%
Constantinescu Petrisor	**PARC**	51.08%	0.83%

Majority shareholder(s) or control group	Symbol	% of majority shareholder(s)/control group	% free float
Danubius, Hungary (Danubius Szalloda es Gyogyudulo Zartkoruen Mukodo Reszvenytarsasag)	**BALO**	100.00%	0.00%

Source: author's compilation based on www.bvb.ro. For the companies still listed as of May 2023 (in black) the date for the shareholders' structure is December 31st, 2022. The same date is considered for **PRAH** which was delisted on December 14th, 2022. In the cases of the delisted companies the dates are: December 31st, 2015 for **TUSI, ORTU**, and **RSCA**; December 31st, 2016 for **RESI**; December 31st, 2019 for **BALO**; December 31st, 2020 for **ATPA**, and December 31st, 2021 for **PARC**.

Taking into consideration the dividends for these hotel companies, the situation is as follow:

a) 17 companies never paid dividends; all these companies are listed on AeRO;
b) 4 companies paid dividends only once; all these payment took place before 2015; the companies are CAOR (main market) and BIBU, DOIS, and **ATPA** (AeRO);
c) one company, ARO (AeRO), paid dividends twice, in 2021 and 2022;
d) TUSI has an ambiguous situation; its page announce dividends paid in 2000, 2003, and 2008; though for 2008 the amount is not announced;
e) 4 companies (**BALO** – AeRO, EFO, TUFE, BCM – on main market) paid dividends multiple times, though there was not continuity.

For EFO, TUFE, and BCM the dividends paid after 2015 are detailed in Annex 1 and their evolution hint toward a trial of these companies to built a dividend policy attractive for investors at least through its consistency. It seems that being listed on BVB main/regulated market represent a challenge for paying dividends whenever possible.

Table 3, below, presents the total trading activity by each company. In Annex 1 each company has a detailed trading activity by each year. The companies/symbols are in the same order as presented in Table 1.

Table 3. Total trading activity between May 2015 and May 2023

Symbol	Listing days	Trading days	Trades	Volume	Value (RON)
EFO	2,014	1,798	25,186	355,167,956	38,772,221.05
TUFE	2,014	1,060	4,656	231,410,153	64,467,157.31
BCM	2,014	1,219	7,699	101,854,312	8,272,739.61
CAOR	2,014	226	620	305,365	622,410.33
RCHI	2,014	756	2,942	401,167,165	70,772,879.77
DOIS	1,999	94	152	30,453	75,250.87
PACY	1,999	166	268	6,063,111	2,759,294.52
RESI	533	0	0	0	0.00
TUAA	1,999	627	1,636	12,148,950	579,854.72
TUSI	171	17	30	118,879	11,533.61
ATPA	1,397	220	484	1,739,033	2,267,741.46
BIBU	1,969	116	176	16,948	49,593.94
ANTA	1,961	14	19	3,992	1,573.35
BLEA	1,961	16	21	1,748	868.53
BNAT	1,961	9	9	208	25.45
CLUB	1,961	30	39	12,035	6,938.67
PRAH	1,847	6	9	1,812	1,107.94
BALN	1,961	119	167	15,916,823	955,853.31
NEOL	1,961	248	791	2,209,449	549,214.45
PARC	1,629	0	0	0	0.00
TERA	1,956	0	0	0	0.00
ORTU	126	0	0	0	0.00
TSND	1,933	428	1,139	21,001,290	1,214,700.31
RSCA	119	0	0	0	0.00
UCET	1,914	9	12	2,423	1,579.78
ARO	1,458	118	193	357,393	121,727.62
BALO	576	30	41	7,929	73,852.10
Total BVB	2,014	2,014	6,526,716	72,672,698,658	92,363,591,087
% of BVB hotel comp.	-	-	0.5847%	0.9477%	0.1214%

Symbol	Listing days	Trading days	Trades	Volume	Value (RON)
Total AeRO	2,014	2,014	770,237	3,273,724,892	2,707,452,782
% of AeRO hotel comp.	-	-	1.0553%	14.0757%	2.9343%

Note: The totals for BVB and AeRO refer only to the traded shares.

Source: author's compilation based on www.bvb.ro

Table 3 reveals 4 groups of companies based on the trading frequency (the number of trading days or the days when the respective company was traded):

a) **5 companies,** listed on AeRO, were never traded (**RESI, PARC**, TERA, **ORTU, RSCA**); of these 5 companies 4 were delisted and one (TERA) is suspended since it was introduced on AeRO (see details for this company in Annex 1); of the delisted companies, **RSCA** and **ORTU** were listed for a short period of time: about 2 months and respectively 6 months; **PARC** was never traded neither on AeRO, nor previously on Rasdaq and is the only company for which the ownership of the hotel could not be confirmed between 2015 and May2023.

b) **8 companies,** listed on AeRO, were traded between 6 and 30 days; these companies are: **TUSI**, ANTA, BLEA, BNAT, CLUB, **PRAH**, UCET, **BALO**; the interest for trading **TUSI** and **BALO** could have been higher but the companies were delisted after 8 months, respectively 28 months; the remaining 6 companies are all part of the cluster controlled by Micula brothers, companies with no websites and for which the ownership of their hotels could not be confirmed since 2017, respectively since 2015 for the delisted **PRAH**; the details in Annex 1 for each of these companies show an occasional trading activity that seems not to be influenced by the problems generated by 2020-2022 pandemic. The companies in this group registered between 9 and 41 trades, the trading volume was between 208 shares and 118,879 shares, while the trading value was between RON 25.45 and RON 73,852.10.

c) **11 companies,** of which 10 listed on AeRO, were traded between 94 and 756 days; these companies are: CAOR (main market), RCHI, DOIS, PACY, TUAA, **ATPA**, BIBU, BALN, NEOL, TSND, ARO; the trading activity for these companies was moderately intense with trades between 152 and 2,942; the range for the volume of shares is very wide, between 16,948 and more than 401 million shares in the case of RCHI; the same situation is registered for the trading value, extending from RON 49,593.94 to over RON 77 million in the case of the same RCHI; these large numbers for RCHI were generated by several deal (or negotiated) transactions registered for the period under scrutiny.

d) **3 companies**, all on BVB main market, were traded between 1,060 days and 1,798 days; these companies are EFO, TUFE, and BCM; they registered the highest number of trades and the highest volume; though in term of value they were over-passed by RCHI due to the related deal transactions.

To the information provided by the annual transactions, the descriptive statistics for price and price returns add an interesting perspective. Table 4, below, presents these descriptive statistics.

Table 4. Descriptive statistics for prices and price returns for the traded hotel companies

Prices (RON)								
Symbol	**Mean**	**Mode**	**Median**	**Q1**	**Q3**	**Min**	**Max**	**No.of obs**
EFO	0.1180	0.0900	0.0990	0.0851	0.1320	0.0580	0.2990	1,798
TUFE	0.2706	0.3300	0.2760	0.2190	0.3200	0.1544	0.3780	1,060
BCM	0.0799	0.0750	0.0772	0.0738	0.0850	0.0640	0.1130	1,219
CAOR	2.0037	1.7000	1.7700	1.3575	2.4000	0.9350	4.0000	226
RCHI	0.1231	0.1700	0.1235	0.0700	0.1520	0.0480	0.2940	756
DOIS	2.9462	2.9800	2.9000	2.0850	3.4000	1.0000	6.0000	94
PACY	0.4557	0.4600	0.4500	0.3345	0.4700	0.1120	1.0200	166
TUAA	0.0561	0.0445	0.0500	0.0440	0.0599	0.0040	0.1160	627

TUSI	0.1204	0.1100	0.1100	0.1000	0.1600	0.0702	0.1700	17
ATPA	1.2880	1.1500	1.2000	1.1000	1.3000	0.8200	4.5000	220
BIBU	2.3422	1.3000	2.0000	1.3975	3.0800	0.6400	6.5000	116
ANTA	0.6055	0.1000	0.2380	0.1050	0.4285	0.0600	4.7600	14
BLEA	0.6440	0.9500	0.9000	0.2875	0.9500	0.0200	1.0000	16
BNAT	0.1570	n/a	0.1140	0.0890	0.2200	0.0820	0.2860	9
CLUB	0.8719	n/a	0.5775	0.3980	0.9975	0.0100	3.1800	30
PRAH	0.3248	n/a	0.0750	0.0352	0.6850	0.0200	0.8900	6
BALN	0.0906	0.0800	0.0900	0.0800	0.0993	0.0100	0.2700	119
NEOL	0.2728	0.2500	0.2470	0.1800	0.3280	0.0100	0.9200	248
TSND	0.0514	0.0400	0.0410	0.0385	0.0479	0.0214	0.1520	428
UCET	0.4644	n/a	0.5050	0.3000	0.6250	0.0100	0.8900	9
ARO	0.3076	0.3800	0.3480	0.2195	0.3800	0.1100	0.5000	118
BALO	9.9033	10.0000	9.5000	8.9250	10.0000	5.6000	19.0000	30
Price returns (%)								
Symbol	**Mean**	**Mode**	**Median**	**Q1**	**Q3**	**Min**	**Max**	**No.of obs**
EFO	0.1173	0.0000	0.0000	-0.8845	0.9302	-11.2782	14.8837	1,798
TUFE	0.1231	0.0000	0.0000	-1.2271	1.3953	-14.5349	15.0000	1,060
BCM	0.0590	0.0000	0.0000	-0.9187	1.1315	-14.8984	14.8148	1,219
CAOR	0.6393	0.0000	0.0000	-6.6575	8.1081	-15.0000	15.0000	226
RCHI	0.3821	0.0000	0.0000	-0.6623	1.3378	-29.8077	32.0000	756
DOIS	3.1856	0.0000	0.0000	-5.5652	6.0033	-78.4615	180.3571	94
PACY	7.1279	0.0000	0.0000	-2.1623	19.3750	-75.6522	316.0714	166
TUAA	1.8375	0.0000	0.0000	-3.3756	3.6867	-92.5926	675.0000	627
TUSI	6.3135	0.0000	0.0000	-1.1799	10.0000	-36.1818	56.6952	17
ATPA	0.9762	0.0000	0.0000	-5.9388	7.5858	-65.4891	50.2099	220
BIBU	3.3834	0.0000	0.0000	-1.5385	2.9441	-44.6154	337.5000	116

ANTA	279.5779	0.0000	0.0000	-29.7294	17.7778	-30.0000	3,349.2754	14
BLEA	335.2535	0.0000	0.0000	-0.2747	1.3889	-90.4000	4,066.6667	16
BNAT	-.71844	n/a	-2.0979	-26.8182	4.4944	-29.1925	30.0000	9
CLUB	204.5680	-30.0000	-0.7392	-29.6026	29.3279	-97.7778	4,900.0000	30
PRAH	743.4004	n/a	-0.5618	-29.9809	173.3444	-80.0000	4,350.0000	6
BALN	19.6132	0.0000	0.0000	-8.8465	12.7206	-89.9497	1,450.0000	119
NEOL	15.7262	0.0000	0.0000	-8.1429	8.5920	-94.0000	1,319.0476	248
TSND	0.6931	0.0000	0.0000	-2.6316	2.6359	-46.5000	86.9159	428
UCET	483.3697	n/a	-25.9259	-29.7753	68.3333	-83.3333	4,350.0000	9
ARO	1.9084	0.0000	0.0000	-2.5561	4.1667	-51.4286	80.1802	118
BALO	3.2457	0.0000	0.0000	-5.0000	5.4825	-41.0526	100.0000	30

Note: the return for the first day of trading was calculated based on the last price registered by the company on Rasdaq for the AeRO companies, while for the 4 companies on BVB main/regulated market, the price previous to May 14th 2015 was taken into consideration.

Source: author's calculation based on data available at www.bvb.ro

The data regarding the prices indicate, for most cases, average values lower than RON 1. The maximum prices does not exceed RON 10 but in the case of **BALO**. The low prices are, of course, the key factor that generate the relative low trading values presented in Table 3. Though low prices might be a trigger for some investors. However, the impossibility to follow (in the case of AeRO companies) the historic PER (price-earnings ratio) and P/Bv (price to book value), both absent from the AeRO monthly reports, combined with the absence of a dividend policy for most listed AeRO companies, represent more factors that contribute to a relative low trading activity. Adding to these factors the difficulties to

determine how many hotels and hotel rooms these companies operate, it is no surprise that the hotel companies listed on AeRO register a relative marginal trading activity. The situation is a bit different in the case of the 4 hotel companies listed on BVB main/regulated market, for which PER and P/Bv are available. However, as the details in Annex 1 show, these companies have a poor communication with the investors and, also, present difficulties in identifying the hotels in their portfolios, with the exception of BCM (which owns only 1 hotel).

The second part of Table 4 shows the price returns. In the case of the 4 companies listed on BVB main/regulated market, the gap between the minimum and maximum price is from -15.0000% to +15.0000%, the maximum allowed and ensured through volatility breaking mechanisms. However, these mechanisms do not apply for AeRO transactions and one can observe negative price returns close to -95.0000%, while the positive swings go up to 4,900.0000%. These very high returns in combination with a low trading frequency generate very high average returns (between 204.5680% and 483.3697%) or high average returns (between 15.7262% and 19.6132%). Five of the companies with a very high price volatility are controlled by Micula brothers, did not have websites, and since 2017 the ownership of their hotels could not be confirmed. Furthermore, these are the companies with the lowest trading frequencies. This situation seems to suggest that the low trading activity can be associated with very high price volatility. Though, the situation for other companies suggest rather a high volatility associated with low trading frequencies. Given the important discrepancies in trading frequencies (see no.of observations), this suggested relation could not be further investigated as also argued in Methodology section.

Nonetheless, it is worth mentioning that this very high jump in prices occurred simultaneously for several companies in a single day, as Table 5 shows. As one can observe, for 7 companies, in the same day, a very high price jumps were registered. Furthermore, these price jumps were generated by 1 or 2 trades and a very modest number of shares. This situation points toward questionable transactions, mainly in the case of the 5 companies ANTA, BLEA, CLUB, **PRAH**, and UCET which have a 0 transparency (no websites) and their hotels could not be found in MoT databases since 2017. Hence, the normal question: why someone will by

those shares at an increased price? While this jump in price can be considered a simple anomaly, further information hint at a pattern: 4 of these companies were traded on June 6th, 2019, and for July 3rd, 2019 either 1 trade occurred with 10 shares or 2 trades with 12 or 20 shares. Furthermore, for 2 of these companies (ANTA and CLUB) a new jump in price occurred years later, again associated with just 1 trade, but a slightly higher number of shares. A possible answer to this problematic transactions might be given by the desire of the controlling persons (Micula brothers) to increase the value of their investments. Unfortunately, very low trading frequencies combined with very high price jumps for their companies speaks volume and for any normal investor raise a lot of questions. To this one must briefly add that Micula brothers are presented as controversial business persons by mass media. The same mass media and informal discussions with persons working in hotel industry also point toward contentious practices in acquiring the hotels related with the controlled companies and questionable management practices, as the suspension of company TERA shows.

For BALN, the situation request further investigation, but the company registered wild price swings between March and the end of July 2019, being traded only once a month during this period. The price jump of July 3rd seems to be a coincidence. NEOL presents a similar pattern to BALN. The other companies were included in Table 5 just for comparison.

Table 5. Price returns anomalies vs normal returns for selected AeRO companies

Symbol	Trading date	Closing price (RON)		Price return (%)	Date of previous closing price	Trading details	
		Previous	Current trading			Trades	Volume
ANTA	July 3rd, 2019	0.1200	0.8900	641.67	June 6th, 2019	2	12
BLEA	July 3rd, 2019	0.0240	1.0000	4,066.67	December 12th, 2017	2	20
CLUB	July 3rd, 2019	0.0100	0.5000	4,900.00	June 6th, 2019	1	20
PRAH	July 3rd, 2019	0.0200	0.8900	4,350.00	June 6th, 2019	1	10

Symbol	Trading date	Closing price (RON)		Price return (%)	Date of previous closing price	Trading details	
		Previous	Current trading			Trades	Volume
UCET	July 3rd, 2019	0.0200	0.8900	4,350.00	June 6th, 2019	1	10
BALN	July 3rd, 2019	0.0100	0.1550	1,450.00	May 29th, 2019	1	75
NEOL	July 3rd, 2019	0.2600	0.9000	1,138.10	June 27th, 2019	2	657
ARO	July 3rd, 2019	0.1800	0.2900	61.11	April 12th, 2019	2	67
BIBU	July 3rd, 2019	2.0000	2.9000	45.00	June 18th, 2019	1	1
RCHI	July 3rd, 2019	0.2360	0.2220	-5.93	July 1st, 2019	1	300
PACY	July 3rd, 2019	0.4580	0.4580	0.00	June 27th, 2019	1	20
DOIS	July 3rd, 2019	2.8800	2.9000	0.69	May 9th, 2019	1	5
ATPA	July 3rd, 2019	1.2000	1.2900	7.50	June 21st, 2019	1	10
Follow up for 3 companies controlled by Micula brothers							
ANTA	March 1st, 2023	0.1380	4.7600	3,349.28	May 12th, 2022	1	53
CLUB	Dec. 15th, 2022	0.2040	2.1000	929.41	December 23rd, 2021	1	10
UCET	July 25th, 2022	0.3000	0.5050	68.33	November 11th, 2021	1	57

Source: author's compilation based on the data available at www.bvb.ro

The oscillations of annual transactions are presented in Annex 1 for each company. It is interesting to note that 8 of the active companies registered an increase in traded value for the period influenced by Covid-19 pandemic suggesting the need to investigated the events that triggered the situation. One possible answer can be provided by the fact that some of these companies' hotels were used to host quarantined persons.

Table 3, above, shows the small corner represented by the listed hotel companies within BVB main market and respectively within AeRO market segment. The low position is further confirmed by Table 6 where the hotel companies' capitalization was taken into consideration. The very low percentage position of the 4 hotel companies listed on BVB main market comes from two sources: a) they capitalization is low; they could be included in the class of nano-capitalization, as proposed by Pop & Balint (2013) for BVB; and b) the comparatively high capitalization of other companies listed on BVB main market (mainly those included in Premium category). The higher percentage position of hotel companies listed on AeRO comes from their number and the much lower capitalization of AeRO segment. It is interesting to mention that the 4 hotel companies on BVB main market have almost the same capitalization as the far higher number of hotel companies listed on AeRO (except for the period 2017-2019). This situation might arise from the fact that BVB main market is older and tends to concentrate a more intense trading activity, reflected also in Table 3. Overall, as also details in Annex 1 show, despite their low trading activity, the capitalization of the hotel companies grew (slowly) between May 2015 and the end of 2022.

Table 6. Market capitalization of hotel companies on BVB main market and AeRO

Year	BVB capitalization (RON mil.)	BVB hotel companies' capitalization (RON.mil)	% of hotel companies in BVB capitalization	No. of hotel listed companies
2015	146,002.48	218.72	0.1498%	4
2016	146,549.75	214.38	0.1463%	4
2017	164,376.16	246.49	0.1500%	4
2018	142,986.11	244.71	0.1711%	4
2019	180,853.63	318.58	0.1762%	4
2020	154,365.40	277.88	0.1800%	4
2021	229,078.50	338.33	0.1477%	4
2022	197,182.07	324.21	0.1644%	4

Year	AeRO capitalization (RON mil.)	AeRO hotel companies' capitalization (RON.mil)	% of hotel companies in AeRO capitalization	No. of hotel listed companies
2015	3,854.08	194.14	5.0372%	19
2016	4,241.61	175.82	4.1452%	17
2017	6,215.61	414.43	6.6675%	18
2018	7,392.35	410.55	5.5537%	18
2019	8,927.50	560.49	6.2782%	18
2020	9,739.36	336.54	3.4555%	17
2021	19,801.81	340.97	1.7219%	16
2022	13,565.08	399.37	2.9441%	15

Note: For **PARC** the capitalization was not calculated since it was never traded and no price was available

Source: Author's calculation based on data available at www.bvb.ro

The findings above show a relative gray picture for the listed hotel companies. Every of the companies presented in this paper deserve a case study for a better understanding of the situation. Nonetheless, the overall view presented here points toward a low capacity of these companies to attract investors given their lack of transparency regarding their hotel/lodging portfolios and their performances at least by profit centers.

Conclusions

The present paper identified the listed hotel companies on BVB main market and on the alternative AeRO segment. Only 1 of the 27 companies under analysis was listed after a public offering (BCM) that took place during December 2007. Of the remaining companies, 24 were transferred from Rasdaq between August 2002 and October 2015, the 4 companies listed on BVB main market (EFO, TUFE, CAOR) being the first

to be transferred from Rasdaq between August 2002 and May 2015; the remaining 20 companies were transferred on AeRO between May and October 2015. The last 2 companies were transferred from SIBEX before the exchange was absorbed by BVB in 2017.

Between May 2015 and May 2023 neither of the listed companies used their position to publicly issue either new shares or bonds. Of 4 listed companies on BVB main market, 3 diminished their equity capital. Of the 23 companies listed on AeRO, 1 company (**PARC**) diminished its equity capital, 1 company did a positive split-stock (**ORTU**) and 3 companies increased their equity capital due to the conversion of preferred stocks and allocation of preemptive rights (TUAA), the conversion of bonds in shares (TSND), while in the case of **BALO** no information was given. This situation shows that the managers of these listed hotel companies are either not aware of the benefits brought by being publicly listed or prefer to ignore those benefits.

Confirming the owner-operator model briefly discussed in Introduction, the dominant companies are those owning just 1 hotel (14 of 27 or about 52%) and just 3 of them operated their hotels under an international brand (BCM, **ATPA**, RCHI), while no domestic brand is available for any type of operating agreements. As of May 2023 only BCM is operating its hotel under Best Western umbrella, while RCHI chose to discontinue the contract with InterContinental brand. Only one of the remaining 13 companies (CAOR) had 1 hotel operated under Double Tree by Hilton, while all the others had nor developed a distinctive brand neither affiliated their hotels to an international brand.

Table 3 and Table 6 show that both in the case of BVB main market and AeRO segment, the listed hotel companies represent only o small corner of trading activity and market capitalization. While trading frequencies seems to be higher for 3 (EFO, TUFE, BCM) of the companies listed on BVB main market, the number of are daily trades are only 4 for TUFE and 6 for BCM, though EFO exhibit 14 trades on average per day. This suggest a relative shallow market for these 3 companies. The case of the fourth company, CAOR, the potential relation between the very low free-float (0.98%) and the low trading activity cannot be discarded.

In the case of AeRO listed companies the trading frequency is substantially lower (the most traded company, RCHI, registered transactions

for about 38% of the total listing days). Up to a point, the observations seem to show a relation between trading frequency and free float. However, the dominant shareholder or the controlling group seems to play also a role mainly in the case of the companies under the rule of Micula brothers (see Table 2). With the lack of liquidity also came high price volatility (see Table 4 and 5) and questionable/problematic transactions.

Moreover, the majority of AeRO companies constantly did not paid dividends.

Furthermore, for far too many companies it is difficult to confirm their hotel/lodging portfolio. To this the poor general communication with the investors should be added. In the case of the companies listed on BVB main market this situation is showed by the low Vektor index (see Annex 1). AeRO companies are not provided with this score but, as shown above, they either do not have a website or the website does not include a section dedicated to investors or this section is difficult to find.

Based on all the above, it is not a surprise that Romanian listed hotel companies do not attract the investors' attention. Some of the problems might be generated by the low free-float and controlling shareholders/ groups. Though, the main problems seem to be related to the companies' lack of proper transparency regarding their activities (and profit centers), hotel/lodging portfolios, and the absence of (at least) domestic known brand.

The free-float problems might be easily solved via requests formulated by BVB for the majority shareholders to sell a part of their share in order to reach the required threshold. Further, the price variation on AeRO might also be limited via BVB regulations. However, the main problem remain with the companies. While listed on BVB or on Rasdaq since the end of the 1990s, the hotel companies under scrutiny in this paper did not create domestic brands and/or did not choose to specialize in various operating agreements. One reason could be the slow privatization process which created delays in various types of needed investments at lodging level. Another reason could be the lack of sophistication of Romanian financial market combined the lack of complexity of the potential users. This situation generated a reluctance of hotel companies to use financial operations that could assist an asset-light model. Furthermore, the owner-operator model predominant in Romania is also linked with the culture

of ownership that grew stronger after the fall of communism and also with the desire of hotel owners to have a tight control over the lodging operations. Both phenomena are not extensively investigated but occur in almost any informal discussion with the professional in the field.

Overall, something has to change inside Romanian listed hotel companies in order to become more attractive to potential investors. Based on the findings of this paper the Romanian listed hotel companies have a long way ahead in order to be considered representative for Romanian hotel industry.

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Annex 1: Details regarding the listed hotel companies, May 2015-May 2023

Listed at BVB on the main (regulated) market – all within Standard category

EFO
Turism Hoteluri, Restaurante Marea Neagra SA
Listed since August 15th, 2002
(website: https://thrmareaneagra.ro/)

note: under EFRI (Eforie SA) the company was listed on Rasdaq since January 13th, 1997 until August 8th, 2002

Shareholder structure as of December 31st, 2022	
Transilvania Investment Alliance SA (TRANSI) (former SIF3 Transilvania)	78.80%
Other investors (free float)	21.20%

Vektor index for the communication with the investors (from 0 to 10)	2019	2020	2021	2022
	1.50	1.50	1.50	0.50

Dividend history	Paid dividends in 2000, 2001, 2002, 2003, 2012, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2022
Dividends since 2015	2015 : 0.0054 RON/share 2016 : 0.0068 RON/share 2017 : 0.0015 RON/share 2018 : 0.0085 RON/share 2019 : 0.0235 RON/share 2020 : 0.0070 RON/share 2022 : 0.0217 RON/share

Year	Capitalization (RON mil.)	EPS	PER	DIVY	P/Bv	Liq (%)
2015	49.09	0.01	8.47	4.13	0.23	0.19
2016	47.82	0.01	10.95	6.54	0.20	0.07
2017	56.74	0.01	12.73	6.94	0.24	0.13
2018	53.84	0.00	31.82	1.56	0.23	0.75
2019	75.84	0.02	7.72	6.47	0.31	0.30

Year	Capitalization (RON mil.)	EPS	PER	DIVY	P/Bv	Liq (%)
2020	71.79	0.01	12.84	18.88	0.29	0.47
2021	101.95	0.01	n/a	3.95	0.46	0.24
2022	116.93	-0.02	n/a	3.45	0.52	0.06

Trading activity by year between May 14, 2015 and May 31, 2023

Year	Listing days	Trading days	Trades	Volume (mil.)	Value (RON mil.)	Last price (RON)
2015	160	141	1,727	15.40	1.01	0.0848
2016	253	229	5,177	53.11	4.56	0.0826
2017	248	240	3,298	19.66	1.79	0.0980
2018	249	202	2,257	32.31	2.56	0.0930
2019	249	233	2,947	52.06	5.47	0.1310
2020	249	230	3,228	100.16	10.82	0.1240
2021	252	245	4,720	57.47	7.82	0.1770
2022	251	191	1,209	22.53	4.13	0.2030
2023 (May)	103	87	623	2.47	0.62	0.2500

Note: the price for May 14th, 2015 was 0.0609 RON (per share).
The last price is the one registered for the last trade within the respective year

Hotel portfolio

End of 2015	May 2023
Based on the MoT database	*Based on the MoT database and EFO website*
23 hotels; 3,881 rooms	11 hotels; 2,324 rooms
smallest: 30 rooms; largest: 283 rooms	smallest: 30 rooms; largest: 283 rooms
Hotel classification	*Hotel classification*
2 stars: 15 hotels	2 stars: 2 hotels
3 stars: 7 hotels	3 stars: 7 hotels
4 stars: 1 hotel	4 stars: 2 hotel

Note: Between May 2015 and May 2023, the company constantly sold hotels from its portfolio. This was done in a trial to get financial resources for the remaining hotels. Currently, according to https://www.horeca.ro/news/hoteluri-de-2-3-si-4-sunt-scoase-la-vanzare-in-eforie-nord-si-eforie-sud/, 4 of the 11 hotels were announced for sale in January. Furthermore, two other hotels were announced for sale, while these hotels cannot be identified in the MoT database. It is not clear if some deals were reached or not. Currently, according to the company website (https://thrmareaneagra.ro/licitatii/) another hotel, which does not appear in MoT database since 2016, is for sale.

TUFE
Turism Felix SA
Listed since March 21st, 2007
(website: https://www.felixspa.com/ro/)

note: listed on Rasdaq under the same symbol and name between December 20th, 1996 and March 9th, 2007 (estimate)

Shareholder structure as of December 31st, 2022	
Transilvania Investment Alliance SA (TRANSI) (former SIF3 Transilvania)	63.77%
SIF5 Oltenia (currently Infinity Capital Investments SA; symbol SIF5)	29.27%
Other investors (free float)	6.96%

Vektor index for the communication with the investors (from 0 to 10)	2019	2020	2021	2022
	0.00	0.00	7.00	3.00

Dividend history	Paid dividends in 2001, 2002, 2003, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2022
Dividends since 2015	2015 : 0.0064 RON/share 2016 : 0.0058 RON/share 2017 : 0.0045 RON/share 2018 : 0.0093 RON/share 2019 : 0.0101 RON/share 2022 : 0.0087 RON/share

Year	**Capitalization (RON mil.)**	**EPS**	**PER**	**DIVY**	**P/Bv**	**Liq (%)**
2015	106.18	0.01	28.65	1.83	0.58	0.01
2016	108.16	0.01	23.90	2.94	0.58	0.02
2017	108.66	0.01	19.69	2.65	0.58	4.43
2018	148.84	0.01	40.41	1.50	0.73	0.02
2019	183.58	0.02	17.90	2.51	0.87	0.01
2020	156.78	0.03	11.03	3.20	0.71	0.01
2021	170.97	0.00	15.42	2.93	0.87	0.04
2022	126.73	0.01	24.50	3.95	0.62	0.01

Trading activity by year between May 14, 2015 and May 31, 2023						
Year	**Listing days**	**Trading days**	**Trades**	**Volume (mil.)**	**Value (RON mil.)**	**Last price (RON)**
2015	160	87	408	5.32	0.86	0.2140
2016	253	154	1,041	2.20	0.46	0.2180
2017	248	132	857	63.94	13.23	0.2190
2018	249	106	277	0.98	0.24	0.3000
2019	249	100	296	0.78	0.24	0.3700
2020	249	146	609	11.78	4.07	0.3160
2021	252	154	572	1.45	0.47	0.3480
2022	251	130	445	0.97	0.29	0.2580
2023 (May)	103	51	151	143.98	44.63	0.3000

Note: the price for May 14th, 2015 was 0.1540 RON (per share). The last price is the one registered for the last trade within the respective year

Hotel portfolio	
End of 2015	**May 2023**
Based on the MoT database	*Based on the MoT database and TUFE website*
7 hotels; 1,329 rooms	5 hotels; 987 rooms
smallest: 78 rooms; largest: 360 rooms	smallest: 78 rooms; largest: 360 rooms
Hotel classification	*Hotel classification*
2 stars: 3 hotels	2 stars: 1 hotels
3 stars: 3 hotels	3 stars: 3 hotels
4 stars: 1 hotel	4 stars: 1 hotel

Note: The portfolio of the 2015 remains unchanged until 2021 when 2 hotels, classified at 2 stars, were not registered by the MoT database and in May 2023 these hotels are not mentioned on the TUFE website. It is not clear if the two hotels were sold or they are undergoing some works.

BCM
Casa de Bucovina-Club de munte SA
Listed since May 12th, 2008
(website: https://bestwesternbucovina.ro/)

note: never listed on Rasdaq; it was introduced at BVB through a public offering in December 2007

Shareholder structure as of December 31st, 2022	
SIF4 Muntenia (SIF4)	69.25%
Other investors (free float)	30.75%

Vektor index for the communication with the investors (from 0 to 10)	2019	2020	2021	2022
	1.00	1.00	2.50	0.50

Dividend history	Paid dividends in 2009, 2011, 2013, 2014, 2015, 2016, 2017, 2019
Dividends since 2015	2015 : 0.0030 RON/share 2016 : 0.0034 RON/share 2017 : 0.0040 RON/share 2019 : 0.0140 RON/share

Year	Capitalization (RON mil.)	EPS	PER	DIVY	P/Bv	Liq (%)
2015	13.22	0.00	21.30	4.18	0.36	0.16
2016	12.12	0.00	23.35	4.14	0.35	0.04
2017	12.32	0.00	20.23	4.62	0.35	0.45
2018	11.96	0.00	17.79	5.59	0.32	0.32
2019	16.73	0.00	302.14	4.00	0.43	0.78
2020	12.99	0.02	4.56	17.50	0.31	0.59
2021	15.91	-0.01	n/a	14.29	0.42	0.33
2022	11.77	0.00	n/a	19.31	0.31	0.00

Trading activity by year between May 14, 2015 and May 31, 2023

Year	Listing days	Trading days	Trades	Volume (mil.)	Value (RON mil.)	Last price (RON)
2015	160	83	307	1.21	0.09	0.0790
2016	253	123	363	0.97	0.07	0.0724
2017	248	211	1,605	15.04	1.09	0.0736
2018	249	126	538	6.07	0.43	0.0715
2019	249	141	1,059	19.65	1.62	0.1000
2020	249	191	1,809	18.80	1.57	0.0800
2021	252	168	1,028	14.77	1.33	0.0980
2022	251	116	732	12.47	0.98	0.0725
2023 (May)	103	60	258	12.88	1.10	0.0900

Note: the price for May 14th, 2015 was 0.0752 RON (per share). The last price is the one registered for the last trade within the respective year

Hotel portfolio	
End of 2015	**May 2023**
Based on the MoT database	*Based on the MoT database and BCM website*
1 hotels; 130 rooms; Gura Humorului, Suceava county	5 hotels; 987 rooms
Hotel classification	*Hotel classification*
4 stars: 1 hotel	4 stars: 1 hotel
Note: The hotel is operated under Best Western brand (affiliation contract).	

CAOR
SIF Hoteluri SA
Listed since May 11th, 2012
(website: https://sif-hoteluri.ro/)

*note 1: under **CAOR** (Calipso SA) the company was listed on Rasdaq since February 22nd, 1997 until May 4th, 2012 (estimate)*

note 2: while listed on Rasdaq, the company owned bars and restaurants

Shareholder structure as of December 31st, 2022	
Lion Capital SA (LION) - former SIF1 Banat-Crisana	98.99%
The Romanian State	0.03%
Other investors (free float)	0.98%

Vektor index for the communication with the investors (from 0 to 10)	2019	2020	2021	2022
	1.50	1.00	2.00	0.50

Dividend history	Paid dividends in 2004 (0.8900 RON/share)

Year	Capitalization (RON mil.)	EPS	PER	DIVY	P/Bv	Liq (%)
2015	50.23	0.01	249.00	0.00	0.78	0.00
2016	46.29	-0.30	n/a	0.00	0.50	0.00
2017	68.78	0.11	18.73	0.00	0.70	0.01
2018	30.05	-0.04	n/a	0.00	0.30	0.21
2019	42.43	-0.07	n/a	0.00	0.43	0.00

Year	Capitalization (RON mil.)	EPS	PER	DIVY	P/Bv	Liq (%)
2020	36.32	0.05	24.04	0.00	0.37	0.02
2021	49.50	-0.42	n/a	0.00	0.61	0.00
2022	68.78	0.20	10.50	0.00	0.77	0.00

Trading activity by year between May 14, 2015 and May 31, 2023						
Year	**Listing days**	**Trading days**	**Trades**	**Volume (mil.)**	**Value (RON mil.)**	**Last price (RON)**
2015	160	26	41	0.01	0.02	2.4400
2016	253	21	32	0.00	0.00	1.4400
2017	248	14	21	0.01	0.02	2.1400
2018	249	32	85	0.08	0.10	0.9350
2019	249	22	42	0.03	0.04	1.3200
2020	249	23	48	0.04	0.05	1.1300
2021	252	24	41	0.01	0.02	1.5400
2022	251	24	46	0.01	0.03	2.1400
2023 (May)	103	40	264	0.10	0.33	3.1600

Note: the price for May 14th, 2015 was 2.0100 RON (per share). The last price is the one registered for the last trade within the respective year

Hotel portfolio	
End of 2015	**May 2023**
Based on the MoT database	*Based on the MoT database and CAOR website*
1 hotel; 147 rooms; Oradea, Bihor county	3 hotels; 141 rooms; Timisoara, Timis county; Cluj-Napoca, Cluj county, Baia Mare, Maramures county
-	smallest: 30 rooms; largest: 64 rooms
Hotel classification	*Hotel classification*
2 stars: -	2 stars: 1 hotels
3 stars: -	3 stars: 2 hotels
4 stars: -	4 stars: -
5 stars: 1 hotel	5 stars: -

Note: The hotel owned in 2015 was operated under Double Tree by Hilton brand. In 2016 the hotel portfolio grew at 5 (361rooms). In 2017 one 3 star hotel was sold and replaced with another, in another location; this new hotel was still affiliated to Best Western in 2017. The hotel rooms in portfolio grew to 391 due to the new hotel. In between 2018 and 2022, the hotel portfolio remains unchanged: 5 hotels, 391 rooms. The hotel classification was: 2 stars – 1 hotel; 3 stars – 3 hotels; 4 stars – 1 hotel. The 4 star hotel was operated under Double Tree by Hilton brand. By May 2023 CAOR sold two hotels: the one operated under Double Tree by Hilton brand and a 3 star hotel.

Listed at BVB on AeRO (alternative) market

RCHI
Grand Hotel Bucharest SA
(former Compania Hoteliera Intercontinental Romania SA until July/August 2022)
Listed since May 14th, 2015
(website: www.grandhotelbucharest.ro)

*note 1: under **RCHI** (Compania Hoteliera Intercontinental Romania SA) the company was listed on Rasdaq between March 25th, 2003 and the date before the transfer to AeRO*

*note 2: under **CHI** (Compania Hoteliera Intercontinental Romania SA) the company listed on BVB various segments between February 12th, 1998 and March 10th, 2003*

Shareholder structure as of December 31st, 2022	
Mountbay Limited Nicosia, Cyprus	32.90%
Lion Capital SA (LION) - (former SIF1 Banat-Crisana)	29.99%
The Nova Group Investments Romania SRL	15.71%
Lido SA Bucuresti, Romania	10.00%
Other investors (free float)	11.40%

Dividend history	The company never payed dividends

Year	Capitalization (RON mil.)	EPS	PER	DIVY	P/Bv	Liq (%)
2015	55.85	These ratios could not be redone for the period under scrutiny. They are not available in the reports dedicated to AeRO. Also, no consistent information is available for a correct calculation.				
2016	77.19					
2017	103.78					
2018	150.04					
2019	183.38					
2020	152.54					
2021	112.53					
2022	104.19					

Trading activity by year between May 14, 2015 and May 31, 2023						
Year	**Listing days**	**Trading days**	**Trades**	**Volume (mil.)**	**Value (RON mil.)**	**Last price (RON)**
2015	160	85	286	77.14	3.43	0.0670
2016	253	169	822	18.55	1.71	0.0926
2017	248	153	832	94.94	9.15	0.1245

Year	Listing days	Trading days	Trades	Volume (mil.)	Value (RON mil.)	Last price (RON)
2018	249	92	325	4.84	0.76	0.1800
2019	249	50	204	37.90	7.97	0.2200
2020	249	47	93	7.51	1.16	0.1830
2021	252	58	97	0.40	0.06	0.1350
2022	251	64	153	137.37	41.01	0.1250
2023 (May)	103	37	130	22.53	5.53	0.2200

Note: the price for May 14th, 2015 was 0.0550 RON (per share). The last price is the one registered for the last trade within the respective year

Hotel portfolio	
End of 2015	**May 2023**
Based on the MoT database	*Based on the MoT database and RCHI website*
1 hotels; 257 rooms	1 hotels; 257 rooms
Hotel classification	*Hotel classification*
5 stars: 1 hotel	5 stars: 1 hotel

Note: The company RCHI owned the building considered to be a landmark for Bucharest under the brand Intercontinental. The brad was used until 2007 under a franchise contract that dated back to the communist period (1972/1973). Since, the ownership of Intercontinental brand changed several times. In 2007, InterContinental Hotel Groups signed a management contract with RCHI for the Intercontinental brand. By the end of 2001, according to press releases, both companies agreed not to continue the cooperation and the building of the hotel was renamed Grand Hotel Bucharest. The motives for discontinuing the collaboration are not clear, but some media outlets hinted to much needed (and very expensive) works for the hotel building. Some of these works will be performed in the following years but it is not clear if the hotel will be entirely closed or only partially closed.

DOIS
Dorna Turism SA
Listed since June 5th, 2015
(website: www.dornaturism.ro)

note: under the same symbol and name, the company was listed on Rasdaq between December 11th, 1996 and the date before the transfer to AeRO

Shareholder structure as of December 31st, 2022	
Vezeteu Olimpia	50.00%
Transilvania Investment Alliance SA (TRANSI) (former SIF3 Transilvania)	32.01%

Other investors (free float)	17.99%
Dividend history	Paid dividends only once, in 2008: (0.1000 RON/share)

Year	Capitalization (RON mil.)	EPS	PER	DIVY	P/Bv	Liq (%)
2015	6.83	These ratios could not be redone for the period under scrutiny. They are not available in the reports dedicated to AeRO. Also, no consistent information is available for a correct calculation.				
2016	5.41					
2017	3.56					
2018	1.42					
2019	2.35					
2020	2.28					
2021	2.85					
2022	3.84					

Trading activity by year between June 5, 2015 and May 31, 2023

Year	Listing days	Trading days	Trades	Volume (mil.)	Value (RON mil.)	Last price (RON)
2015	160	4	5	0.000	0.002	4.8000
2016	253	14	21	0.002	0.008	3.8000
2017	248	19	30	0.002	0.008	2.5000
2018	249	11	18	0.004	0.008	1.0000
2019	249	12	16	0.001	0.002	1.6500
2020	249	10	23	0.005	0.009	1.6000
2021	252	18	33	0.016	0.038	2.0000
2022	251	4	4	0.000	0.001	2.7000
2023 (May)	103	2	2	0.000	0.000	2.5200

Note: the price for June 5th, 2015 was 2.9000 RON (per share). The last price is the one registered for the last trade within the respective year

Hotel portfolio

End of 2015	May 2023
Based on the MoT database	*Based on the MoT database and DOIS website*
2 hotels; 296 rooms; Vatra Dornei, Suceava county	2 hotels; 300 rooms
smallest: 146 rooms; largest: 150 rooms	smallest: 146 rooms; largest: 154 rooms
Hotel classification	*Hotel classification*
3 stars: 2 hotels	3 stars: 2 hotels

Note: The only change that occurred was the increase in the number of rooms with 4 rooms.

PACY
Palace SA
Listed since June 5th, 2015
(website: www.palacesinaia.ro)

note: under the same symbol and name, the company was listed on Rasdaq between October 24th, 1997 and the date before the transfer to AeRO

Shareholder structure as of December 31st, 2022	
Cozma Angela-Cornelia	32.00%
Broadhurst Investment Ltd, Cyprus	21.39%
CC-FC Investitii Imobiliare SA	15.43%
MHC Explorer SRL	14.54%
Other investors (free float)	16.64%

Dividend history	The company never payed dividends

Year	**Capitalization (RON mil.)**	**EPS**	**PER**	**DIVY**	**P/Bv**	**Liq (%)**
2015	4.23	These ratios could not be redone for the period under scrutiny. They are not available in the reports dedicated to AeRO. Also, no consistent information is available for a correct calculation.				
2016	17.69					
2017	17.39					
2018	21.92					
2019	17.01					
2020	12.63					
2021	24.95					
2022	37.23					

Trading activity by year between June 5, 2015 and May 31, 2023						
Year	**Listing days**	**Trading days**	**Trades**	**Volume (mil.)**	**Value (RON mil.)**	**Last price (RON)**
2015	160	24	36	0.012	0.003	0.1120
2016	253	36	61	0.142	0.041	0.4680
2017	248	21	29	0.001	0.000	0.4600
2018	249	2	2	5.832	2.683	0.5800
2019	249	16	32	0.004	0.002	0.4500
2020	249	23	32	0.030	0.011	0.3340

Year	Listing days	Trading days	Trades	Volume (mil.)	Value (RON mil.)	Last price (RON)
2021	252	23	38	0.036	0.015	0.6600
2022	251	16	27	0.004	0.003	0.9850
2023 (May)	103	5	11	0.002	0.002	1.0000

Note: the price for June 5th, 2015 was 0.2500 RON (per share). The last price is the one registered for the last trade within the respective year

Hotel portfolio	
End of 2015	**May 2023**
Based on the MoT database	*Based on the MoT database and PACY website*
2 hotels; 216 rooms; Sinaia, Prahova county	2 hotels; 216 rooms
smallest: 71 rooms; largest: 145 rooms	smallest: 71 rooms; largest: 145 rooms
Hotel classification	*Hotel classification*
3 stars: 1 hotel	3 stars: 1 hotel
4 stars: 1 hotel	4 stars: 1 hotel

Note: No changes in hotel portfolio for the period under investigation.

RESI
Resib SA
Listed since June 5th, 2015; Delisted: July, 18th, 2017
(website: no website)

note: under the same symbol and name, the company was listed on Rasdaq between May 13th, 1997 and the date before the transfer to AeRO

Shareholder structure as of December 31st, 2016	
Serban Mariana	95.35%
Other investors (free float)	4.65%
Dividend history	The company never payed dividends

Year	Capitalization (RON mil.)	EPS	PER	DIVY	P/Bv	Liq (%)
2015	0.93					

2016	0.93	These ratios could not be redone for the period under scrutiny. They are not available in the reports dedicated to AeRO. Also, no consistent information is available for a correct calculation.

Trading activity by year between June 5, 2015 and July 18, 2017						
Year	**Listing days**	**Trading days**	**Trades**	**Volume (mil.)**	**Value (RON mil.)**	**Last price (RON)**
The company was never traded was listed on AeRO						
Note: the price for June 5th, 2015 was 0.0300 RON (per share).						

Hotel portfolio	
End of 2015	**May 2023**
Based on the MoT database	**The company was delisted during July 2017**
No hotel owned by Resib SA is registered in MoT database. (one hotel of 74 rooms and classified at 3 stars, in Sibiu, is registered in 2014 database)	
Note: No hotel owned by Resib SA could be found in 2016 MoT database.	

TUAA
Turism Covasna SA
Listed since June 5th, 2015
(website: www.turismcovasna.ro)

note: under the same symbol and name, the company was listed on Rasdaq between December 16th, 1996 and the date before the transfer to AeRO

Shareholder structure as of December 31st, 2022	
Transilvania Investment Alliance SA (TRANSI) (former SIF3 Transilvania)	92.95%
The Romanian State	1.91%
Other investors (free float)	5.14%
Dividend history	The company never payed dividends

Year	**Capitalization (RON mil.)**	**EPS**	**PER**	**DIVY**	**P/Bv**	**Liq (%)**
2015	12.39	These ratios could not be redone for the period under scrutiny. They are not available in the				
2016	21.94					

2017	19.50	reports dedicated to AeRO. Also, no consistent information is available for a correct calculation.
2018	23.57	
2019	23.57	
2020	21.72	
2021	42.75	
2022	45.90	

Trading activity by year between June 5, 2015 and May 31, 2023

Year	Listing days	Trading days	Trades	Volume (mil.)	Value (RON mil.)	Last price (RON)
2015	160	57	138	1.61	0.055	0.0288
2016	253	54	83	0.69	0.025	0.0510
2017	248	74	146	0.49	0.021	0.0422
2018	249	58	85	0.91	0.034	0.0510
2019	249	131	500	4.52	0.191	0.0510
2020	249	108	290	2.13	0.104	0.0470
2021	252	90	257	0.77	0.059	0.0925
2022	251	45	114	0.98	0.085	0.0970
2023 (May)	103	10	23	0.05	0.005	0.0935

Note: the price for June 5th, 2015 was 0.0500 RON (per share). The last price is the one registered for the last trade within the respective year

Hotel portfolio

End of 2015	May 2023
Based on the MoT database	*Based on the MoT database and TUAA website*
3 hotels; 397 rooms; 1 camping; 47 rooms all in Covasna, Covasna county	3 hotels; 309 rooms; 1 camping; 54 rooms all in Covasna, Covasna county
smallest: 128 rooms; largest: 140 rooms	smallest: 106 rooms; largest: 129 rooms
Hotel classification	*Hotel classification*
-	4 stars: 1 hotel
3 stars: 3 hotels	3 stars: 2 hotels
1 star: 1 camping	1 star: 1 camping

Note 1: Between May 2015 and May 2023, one hotel undergone modernization and was upgraded from 3 stats to 4 stars, while the number of available rooms decreased from 140 to 106.
Note 2: Under TUAA1 a series of preferred shares were listed between February 20th, 2013 and May 18th, 2022. These shares were 100% owned by the Romanian State. This series of preferred shares was never traded during the listing period and no price was ever available. These shares were converted in ordinary shares.

TUSI
Turism Hoteluri si Restaurante Prahova SA
Listed since June 19th, 2015; Delisted: February, 22th, 2016
(website: www.thr.ro)

note: under the same symbol and name, the company was listed on Rasdaq between January 16th, 1997 and the date before the transfer to AeRO

Shareholder structure as of December 31st, 2015	
SIF3 Transilvania (currently Transilvania Investment Alliance SA -symbol: TRANSI	89.52%
Other investors (free float)	10.48%

Dividend history	Paid dividends in 2002, 2003. For 2008, the amount is not available and therefore is not clear if the dividends were paid or not.

Year	**Capitalization (RON mil.)**	**EPS**	**PER**	**DIVY**	**P/Bv**	**Liq (%)**
2015	32.16	These ratios could not be redone for the period under scrutiny. They are not available in the reports dedicated to AeRO. Also, no consistent information is available for a correct calculation.				

Trading activity by year between June 19, 2015 and February 22, 2016						
Year	**Listing days**	**Trading days**	**Trades**	**Volume (mil.)**	**Value (RON mil.)**	**Last price (RON)**
2015	160	17	30	0.119	0.012	0.1600

Note: the price for June 19th, 2015 was 0.0800 RON (per share). The last price is the one registered for the last trade within the respective year

Hotel portfolio	
End of 2015	**May 2023**
Based on the MoT database	**The company was delisted during February 2016**
1 hotels; 166 rooms, Ploiesti, Prahova county	
Hotel classification	
3 stars: 1 hotels	

Note: The hotel was transferred to FEPER SA (symbol FEP). FEPER SA is a company owned by former SIF3 Transilvania, currently TRANSI, which has the majority position with 85.80% (December 31st, 2022). FEPER SA has as main activity the manufacture of computers and peripheral equipment(s). It is not clear why this decision was taken. The hotel remains in all MoT databases between 2016 and May 2023, therefore open to the public.

ATPA
Athenee Palace SA
Listed since June 26th, 2015; Delisted: January, 28th, 2021
(website: www.athenee-palace.ro)

note: under the same symbol and name, the company was listed on Rasdaq between February 17th, 1997 and the date before the transfer to AeRO

Shareholder structure as of December 31st, 2020	
Ana Hotels SRL	45.62%
Ana Holding Limited, Cyprus	19.07%
Other investors (free float)	35.31%

Dividend history	Paid dividends only once, in 2000 (0.0170 RON/share)

Year	Capitalization (RON mil.)	EPS	PER	DIVY	P/Bv	Liq (%)
2015	7.12	These ratios could not be redone for the period under scrutiny. They are not available in the reports dedicated to AeRO. Also, no consistent information is available for a correct calculation.				
2016	6.96					
2017	6.96					
2018	6.33					
2019	7.15					
2020	5.69					

Trading activity by year between June 26, 2015 and January 28, 2021

Year	Listing days	Trading days	Trades	Volume (mil.)	Value (RON mil.)	Last price (RON)
2015	160	30	66	0.010	0.013	1.1250
2016	253	39	97	1.531	2.009	1.1000
2017	248	57	127	0.017	0.021	1.1000
2018	249	41	81	0.025	0.029	1.0000
2019	249	30	65	0.109	0.110	1.1300
2020	249	23	48	0.047	0.086	0.9000

Note: the price for June 26th, 2015 was 1.0000 RON (per share). The last price is the one registered for the last trade within the respective year

Hotel portfolio	
End of 2015	**May 2023**
Based on the MoT database	

While the company was always associated with Athenee Palace Hotel (Bucharest), between 2015 and 2021 the hotel appears in MoT database as being owned by the majority shareholder of ATPA, namely Ana Hotels SRL (former Ana Hotels SA). Therefore, ATPA could be considered only as an indirect owner of the hotel.	**The company was delisted during January 2021**
Note: Athenee Palace Hotel was operated under Hilton brand at least since 2005. However, at the end of 2022 the hotel became InterContinental Athenee Palace Bucharest. The company was probably delisted due to various administrative restructuring of Ana Hotels, one of the Romania's hotel groups.	

BIBU
BTT SA
Listed since July 17th, 2015
(website: www.btt.ro)

note: under the same symbol and name, the company was listed on Rasdaq between November 27th, 1997 and the date before the transfer to AeRO

Shareholder structure as of December 31st, 2022	
The Romanian State	87.92%
Transilvania Investment Alliance SA (TRANSI) (former SIF3 Transilvania)	10.64%
Other investors (free float)	1.44%

Dividend history	Paid dividends only once, in 2004; (2,102.4000 RON/share)

Year	**Capitalization (RON mil.)**	**EPS**	**PER**	**DIVY**	**P/Bv**	**Liq (%)**
2015	4.44	These ratios could not be redone for the period under scrutiny. They are not available in the reports dedicated to AeRO. Also, no consistent information is available for a correct calculation.				
2016	12.89					
2017	7.85					
2018	8.13					
2019	16.25					
2020	17.23					
2021	26.54					
2022	8.72					

Trading activity by year between July 17, 2015 and May 31, 2023						
Year	**Listing days**	**Trading days**	**Trades**	**Volume (mil.)**	**Value (RON mil.)**	**Last price (RON)**
2015	160	0	0	0.000	0.000	0.8200
2016	253	8	9	0.000	0.000	2.3800
2017	248	34	47	0.001	0.002	1.4500
2018	249	3	4	0.000	0.000	1.5000
2019	249	39	76	0.013	0.040	3.0000
2020	249	10	16	0.002	0.006	3.1800
2021	252	4	5	0.000	0.000	4.9000
2022	251	14	15	0.001	0.002	1.6100
2023 (May)	103	4	4	0.000	0.000	1.5800
Note: the price for July 17th, 2015 was 0.8200 RON (per share). The last price is the one registered for the last trade within the respective year						

Hotel portfolio	
End of 2015	**May 2023**
Based on the MoT database	*Based on the MoT database and BIBU website*
1 hotels; 139 rooms; Costinesti, Constanta county	1 hotels; 139 rooms
Hotel classification	*Hotel classification*
2 stars: 1 hotel	2 stars: 1 hotel
Note: No changes in hotel portfolio for the period under investigation.	

ANTA
Romanta Estival 2002 SA
Listed since July 29th, 2015
(website: no website)

note: under the same symbol and name, the company was listed on Rasdaq between October 7th, 2002 and the date before the transfer to AeRO

Shareholder structure as of December 31st, 2022	
Bucegi SA	54.03%
Certinvest SRL	39.66%
Other investors (free float)	6.31%
Dividend history	The company never payed dividends

Year	Capitalization (RON mil.)	EPS	PER	DIVY	P/Bv	Liq (%)
2015	0.37	These ratios could not be redone for the period under scrutiny. They are not available in the reports dedicated to AeRO. Also, no consistent information is available for a correct calculation.				
2016	0.61					
2017	0.61					
2018	0.61					
2019	2.45					
2020	1.72					
2021	1.72					
2022	0.85					

Trading activity by year between July 29, 2015 and May 31, 2023

Year	Listing days	Trading days	Trades	Volume (mil.)	Value (RON mil.)	Last price (RON)
2015	160	0	0	0.000	0.000	0.0600
2016	253	3	4	0.000	0.000	0.1000
2017	248	1	1	0.000	0.000	0.1000
2018	249	0	0	0.002	0.000	0.1000
2019	249	5	9	0.000	0.001	0.4000
2020	249	1	1	0.000	0.000	0.2800
2021	252	1	1	0.000	0.000	0.2800
2022	251	2	2	0.001	0.000	0.1380
2023 (May)	103	1	1	0.000	0.000	4.7600

Note: the price for July 29th, 2015 was 0.0752 RON (per share). The last price is the one registered for the last trade within the respective year

Hotel portfolio

End of 2015	May 2023
Based on the MoT database	*Based on the MoT database*
1 hotels; 275 rooms, Neptun, Constanta county	**Information not available**
Hotel classification	
2 stars: 1 hotel	

Note: The company (ANTA) does not appear owning a hotel in MoT database since 2017 until May 2023

BLEA
Balea Estival 2002 SA
Listed since July 29th, 2015
(website: no website)

note: under the same symbol and name, the company was listed on Rasdaq between October 4th, 2002 and the date before the transfer to AeRO

Shareholder structure as of December 31st, 2022	
Bucegi SA	54.03%
Rieni Drinks SA	39.62%
Other investors (free float)	6.35%

Dividend history	The company never payed dividends

Year	Capitalization (RON mil.)	EPS	PER	DIVY	P/Bv	Liq (%)
2015	0.10	These ratios could not be redone for the period under scrutiny. They are not available in the reports dedicated to AeRO. Also, no consistent information is available for a correct calculation.				
2016	0.10					
2017	0.12					
2018	0.12					
2019	5.05					
2020	4.60					
2021	4.55					
2022	4.80					

Trading activity by year between July 29, 2015 and May 31, 2023

Year	Listing days	Trading days	Trades	Volume (mil.)	Value (RON mil.)	Last price (RON)
2015	160	0	0	0.000	0.000	0.0200
2016	253	1	1	0.001	0.000	0.0200
2017	248	6	8	0.000	0.000	0.0240
2018	249	0	0	0.000	0.000	0.0240
2019	249	1	2	0.000	0.000	1.0000
2020	249	2	3	0.000	0.000	0.9100
2021	252	2	2	0.000	0.000	0.9000
2022	251	3	3	0.000	0.000	0.9500
2023 (May)	103	1	2	0.000	0.000	0.9500

Note: the price for July 29th, 2015 was 0.0200 RON (per share). The last price is the one registered for the last trade within the respective year

Hotel portfolio	
End of 2015	**May 2023**
Based on the MoT database	*Based on the MoT database*
1 hotels; 260 rooms, Neptun, Constanta county	**Information not available**
Hotel classification	
2 stars: 1 hotel	
Note: The company (BLEA) does not appear owning a hotel in MoT database since 2017 until May 2023	

BNAT
Banat Estival 2002 SA
Listed since July 29th, 2015
(website: no website)

note: under the same symbol and name, the company was listed on Rasdaq between October 7th, 2002 and the date before the transfer to AeRO

Shareholder structure as of December 31st, 2022	
Comtexin SA	54.03%
Rieni Drinks SA	39.62%
Other investors (free float)	6.35%

Dividend history	The company never payed dividends

Year	Capitalization (RON mil.)	EPS	PER	DIVY	P/Bv	Liq (%)
2015	0.86	These ratios could not be redone for the period under scrutiny. They are not available in the reports dedicated to AeRO. Also, no consistent information is available for a correct calculation.				
2016	0.86					
2017	0.86					
2018	0.86					
2019	0.86					
2020	1.12					
2021	0.32					
2022	0.32					

Trading activity by year between July 29, 2015 and May 31, 2023						
Year	**Listing days**	**Trading days**	**Trades**	**Volume (mil.)**	**Value (RON mil.)**	**Last price (RON)**
2015	160	0	0	0.000	0.000	0.2200
2016	253	0	0	0.000	0.000	0.2200
2017	248	0	0	0.000	0.000	0.2200
2018	249	0	0	0.000	0.000	0.2200
2019	249	0	0	0.000	0.000	0.2200
2020	249	1	1	0.000	0.000	0.2860
2021	252	5	5	0.000	0.000	0.0820
2022	251	0	0	0.000	0.000	0.0820
2023 (May)	103	3	3	0.000	0.000	0.0930
Note: the price for July 29th, 2015 was 0.2200 RON (per share). The last price is the one registered for the last trade within the respective year						

Hotel portfolio	
End of 2015	**May 2023**
Based on the MoT database	*Based on the MoT database*
1 hotels; 12 rooms, Olimp, Constanta county	**Information not available**
Hotel classification	
2 stars: 1 hotel	
Note: The company (BNAT) does not appear owning a hotel in MoT database since 2017 until May 2023	

CLUB
Hotel Club Estival 2002 SA
Listed since July 29th, 2015
(website: no website)

note: under the same symbol and name, the company was listed on Rasdaq between October 7th, 2002 and the date before the transfer to AeRO

Shareholder structure as of December 31st, 2022	
Star SA	54.03%
Certinvest SRL	39.65%
Other investors (free float)	6.32%

Dividend history	The company never payed dividends

Year	Capitalization (RON mil.)	EPS	PER	DIVY	P/Bv	Liq (%)
2015	0.76	These ratios could not be redone for the period under scrutiny. They are not available in the reports dedicated to AeRO. Also, no consistent information is available for a correct calculation.				
2016	3.41					
2017	3.41					
2018	3.41					
2019	15.17					
2020	9.10					
2021	1.55					
2022	15.92					

Trading activity by year between July 29, 2015 and May 31, 2023

Year	Listing days	Trading days	Trades	Volume (mil.)	Value (RON mil.)	Last price (RON)
2015	160	0	0	0.000	0.000	0.1000
2016	253	3	4	0.001	0.000	0.4500
2017	248	0	0	0.000	0.000	0.4500
2018	249	0	0	0.000	0.000	0.4500
2019	249	3	4	0.000	0.000	2.0000
2020	249	6	10	0.004	0.004	1.2000
2021	252	14	16	0.006	0.002	0.2040
2022	251	1	1	0.000	0.000	2.1000
2023 (May)	103	3	4	0.000	0.001	3.1800

Note: the price for July 29th, 2015 was 0.1000 RON (per share). The last price is the one registered for the last trade within the respective year

Hotel portfolio

End of 2015	May 2023
Based on the MoT database	*Based on the MoT database*
2 hotels; 388 rooms, Olimp and Neptun, Constanta county	**Information not available**
smallest: 163 rooms; largest: 225 rooms	
Hotel classification	
2 stars: 2 hotels	

Note: The company (CLUB) does not appear as owning the 2 hotels in MoT database since 2017 until May 2023

PRAH
Prahova Estival 2002 SA
Listed since July 29th, 2015; Delisted: December 14, 2022
(website: no website)

note: under the same symbol and name, the company was listed on Rasdaq between October 7th, 2002 and the date before the transfer to AeRO

Shareholder structure as of December 31st, 2022	
Comtexin SA	54.03%
Transilvania Investment Alliance SA (TRANSI) (former SIF3 Transilvania)	39.62%
Other investors (free float)	6.35%

Dividend history	The company never payed dividends

Year	**Capitalization (RON mil.)**	**EPS**	**PER**	**DIVY**	**P/Bv**	**Liq (%)**
2015	0.16	These ratios could not be redone for the period under scrutiny. They are not available in the reports dedicated to AeRO. Also, no consistent information is available for a correct calculation.				
2016	0.10					
2017	0.33					
2018	0.33					
2019	2.86					
2020	2.86					
2021	2.86					
2022	2.86					

Trading activity by year between July 29, 2015 and December 14, 2022

Year	**Listing days**	**Trading days**	**Trades**	**Volume (mil.)**	**Value (RON mil.)**	**Last price (RON)**
2015	160	0	0	0.000	0.000	0.0500
2016	253	2	2	0.001	0.000	0.0302
2017	248	1	2	0.000	0.000	0.1000
2018	249	0	0	0.000	0.000	0.1000
2019	249	3	5	0.001	0.001	0.8800
2020	249	0	0	0.000	0.000	0.8800
2021	252	0	0	0.000	0.000	0.8800
2022	251	0	0	0.000	0.000	0.8800

Note: the price for July 29th, 2015 was 0.0500 RON (per share). The last price is the one registered for the last trade within the respective year

Hotel portfolio	
End of 2015	**May 2023**
Based on the MoT database	**The company was delisted during December 2022**
Information not available In 2014 MoT database PRAH appears owning 1 hotel of 46 rooms in Neptun, Constanta county.	
Note: The company (PRAH) does not appear owning a hotel in MoT database since 2015 until May 2023. The reason for delisting the company in December 2022 was insolvency.	

BALN
Tratament Balnear Buzias SA
Listed since July 29th, 2015
(website: www.buzias.ro)

note: under the same symbol and name, the company was listed on Rasdaq between January 16th, 1997 and the date before the transfer to AeRO

Shareholder structure as of December 31st, 2022	
Transilvania Investment Alliance SA (TRANSI) (former SIF3 Transilvania)	91.87%
Other investors (free float)	8.13%
Dividend history	The company never payed dividends

Year	Capitalization (RON mil.)	EPS	PER	DIVY	P/Bv	Liq (%)
2015	5.71	These ratios could not be redone for the period under scrutiny. They are not available in the reports dedicated to AeRO. Also, no consistent information is available for a correct calculation.				
2016	7.93					
2017	12.68					
2018	14.90					
2019	17.44					
2020	20.92					
2021	16.64					
2022	16.01					

Trading activity by year between July 29, 2015 and May 31, 2023						
Year	**Listing days**	**Trading days**	**Trades**	**Volume (mil.)**	**Value (RON mil.)**	**Last price (RON)**
2015	160	14	18	6.296	0.231	0.0360

Year	Listing days	Trading days	Trades	Volume (mil.)	Value (RON mil.)	Last price (RON)
2016	253	4	5	0.006	0.000	0.0500
2017	248	25	43	6.339	0.468	0.0800
2018	249	10	14	1.787	0.134	0.0940
2019	249	12	17	0.068	0.006	0.1100
2020	249	21	24	0.496	0.047	0.1320
2021	252	16	25	0.632	0.054	0.1050
2022	251	12	16	0.289	0.015	0.1010
2023 (May)	103	4	5	0.004	0.001	0.1490

Note: the price for July 29th, 2015 was 0.0800 RON (per share). The last price is the one registered for the last trade within the respective year

Hotel portfolio	
End of 2015	**May 2023**
Based on the MoT database	*Based on the MoT database and BALN website*
3 hotels; 306 rooms; 1 villa; 24 rooms all in Buzias, Timis county	2 hotels; 185 rooms in Buzias, Timis county
smallest: 45 rooms; largest: 140	smallest: 45 rooms; largest: 140
Hotel classification	*Hotel classification*
2 stars: 1 hotel	2 stars: -
3 stars: 1 hotel	3 stars: 1 hotel
4 stars: 1 hotel	4 stars: 1 hotel
1 star: 1 villa	1 star: -

Note: The 2 star hotel is not registered in MoT since 2020 until May 2023. The villa does not appear in MoT database in May 2023. It is not clear of these two accommodation structures are for sale or are closed for various works.

NEOL
Neptun Olimp SA
Listed since July 29th, 2015
(website: www.neptunolimp.com)

note: under the same symbol and name, the company was listed on Rasdaq between June 17th, 1997 and the date before the transfer to AeRO

Shareholder structure as of December 31st, 2022	
The Romanian State	52.22%

Transilvania Investment Alliance SA (TRANSI) (former SIF3 Transilvania)	41.18%
Other investors (free float)	6.60%
Dividend history	The company never payed dividends

Year	Capitalization (RON mil.)	EPS	PER	DIVY	P/Bv	Liq (%)
2015	7.33	These ratios could not be redone for the period under scrutiny. They are not available in the reports dedicated to AeRO. Also, no consistent information is available for a correct calculation.				
2016	6.60					
2017	13.20					
2018	29.33					
2019	65.98					
2020	24.93					
2021	15.40					
2022	23.17					

Trading activity by year between July 29, 2015 and May 31, 2023

Year	Listing days	Trading days	Trades	Volume (mil.)	Value (RON mil.)	Last price (RON)
2015	160	4	10	0.013	0.002	0.1000
2016	253	10	12	0.023	0.003	0.0900
2017	248	9	10	0.004	0.001	0.1800
2018	249	6	11	0.004	0.000	0.4000
2019	249	11	15	0.010	0.002	0.9000
2020	249	23	43	0.268	0.109	0.3400
2021	252	112	524	1.625	0.367	0.2100
2022	251	45	103	0.211	0.053	0.3160
2023 (May)	103	28	63	0.052	0.012	0.1850

Note: the price for July 29th, 2015 was 0.1000 RON (per share). The last price is the one registered for the last trade within the respective year

Hotel portfolio

End of 2015	May 2023
Based on the MoT database	*Based on the MoT database and NEOL website*
5 villas; 5 rooms; all in Olimp, Constanta county	**Information not available**
each villa is considered to have 1 room with 6 bed-places	

Hotel classification	
4 stars: 5 villas	

Note 1: The portfolio of 5 villas remains unchanged, though 1 villa constantly does not appear in MoT database between 2015 and 2021.In 2022 MoT database all 5 villas appear with a new owner. The relation between this new company (Fair Impex 3 SRL) and NEOL is not clear. The five villas are mentioned on NEOL website. This raises the question if NEOL remains only with lodgings operating activities while selling the villas or trying a sale and leas back transaction or SLBT (though a SLBT is odd in relation with a limited liability company).
Note 2: In 2021 database a camping appears to become part of NEOL. However, in 2022, this camping appears with another owner. Since the camping was not registered previous to 2021 it was chosen to be considered a clerical mistake and not included as an asset owned by NEOL.

PARC
Parc SA
Listed since August 5th, 2015; Delisted: February 9th, 2022
(website: www.parcot.ro)

note: under the same symbol and name, the company was listed on Rasdaq between January 13th, 1998 and the date before the transfer to AeRO

Shareholder structure as of December 31st, 2021	
Constantinescu Petrisor	51.08%
Chelu Catalin	48.09%
Other investors (free float)	0.83%

Dividend history	The company never payed dividends

Year	**Capitalization (RON mil.)**	**EPS**	**PER**	**DIVY**	**P/Bv**	**Liq (%)**
2015	n/a	These ratios could not be redone for the period under scrutiny. They are not available in the reports dedicated to AeRO. Also, no consistent information is available for a correct calculation.				
2016	n/a					
2017	n/a					
2018	n/a					
2019	n/a					
2020	n/a					
2021	n/a					
2022	n/a					

Trading activity by year between July 29, 2015 and February 9, 2022						
Year	**Listing days**	**Trading days**	**Trades**	**Volume (mil.)**	**Value (RON mil.)**	**Last price (RON)**
The company was never traded while listed on AeRO. Also, the company registered no trading activity while listed on Rasdaq. There was no price to be used in calculating the capitalization.						

Hotel portfolio	
End of 2015	**May 2023**
Based on the MoT database	**The company was delisted during February 2022**
Information not available The company was presumed to own Parc Hotel from Caracal, Olt county.	
Note: Hotel Parc does not appear in MoT database between 2015 and May 2023. It could not be found in 2014 MoT database either.	

TERA
Terra Estival 2002 SA
Listed since August 5th, 2015
(website: no website)

note: under the same symbol and name, the company was listed on Rasdaq between October 7th, 2002 and the date before the transfer to AeRO

Shareholder structure as of December 31st, 2022	
Certinvest SRL	39.66%
Star SA	35.18%
Transilvania Complex SA	18.84%
Other investors (free float)	6.32%

Dividend history	The company never payed dividends

Year	Capitalization (RON mil.)	EPS	PER	DIVY	P/Bv	Liq (%)
2015	0.96	These ratios could not be redone for the period under scrutiny. They are not available in the reports dedicated to AeRO. Also, no consistent information is available for a correct calculation.				
2016	0.96					
2017	0.96					
2018	0.96					
2019	0.96					
2020	0.96					

2021	0.96	
2022	0.96	

Trading activity by year between July 29, 2015 and May 31, 2023						
Year	**Listing days**	**Trading days**	**Trades**	**Volume (mil.)**	**Value (RON mil.)**	**Last price (RON)**
The company was never traded during the AeRo listing period. The status of TERA is 'suspended' due to the fact that the Romanian Authority for Financial Supervision required information on company management. The suspension precedes the listing on AeRO; it was instated on February 11th, 2014 while the company was still listed on Rasdaq. It is not clear why was introduced on AeRO or why was maintained for about 8 years as a listed company.						
Note: the price for August 5th, 2015 was 0.0900 RON (per share). The last price is the one registered for the last trade within the respective year						

Hotel portfolio	
End of 2015	**May 2023**
Based on the MoT database	*Based on the MoT database*
2 hotels; 270 rooms, Neptun, Constanta county	**Information not available**
smallest: 28 rooms; largest: 242 rooms	
Hotel classification	
2 stars: 2 hotels	
Note: The company does not appear as owning the 2 hotels in MoT database since 2017 until May 2023	

ORTU
Orizont Turism SA
Listed since August 21st, 2015; Delisted: February, 22th, 2016
(website: www.orizontturismsa.ro; www.hotelorizont.ro)

note: under same symbol and name, the company was listed on Rasdaq between January 16th, 1997 and the date before the transfer to AeRO

Shareholder structure as of December 31st, 2015	
SIF3 Transilvania (currently Transilvania Investment Alliance SA -symbol: TRANSI	93.06%
Other investors (free float)	6.94%
Dividend history	The company never payed dividends

Year	Capitalization (RON mil.)	EPS	PER	DIVY	P/Bv	Liq (%)
2015	45.42	These ratios could not be redone for the period under scrutiny. They are not available in the reports dedicated to AeRO. Also, no consistent information is available for a correct calculation.				

Trading activity by year between August 21, 2015 and February 22, 2016						
Year	**Listing days**	**Trading days**	**Trades**	**Volume (mil.)**	**Value (RON mil.)**	**Last price (RON)**
The company was never traded while listed on AeRO						
Note: the price for August 21st, 2015 was 2.0000 RON (per share). The last price is the one registered for the last trade within the respective year						

Hotel portfolio	
End of 2015	**May 2023**
Based on the MoT database	**The company was delisted during February 2016**
1 hotels; 140 rooms, Predeal, Brasov county	
Hotel classification	
4 stars: 1 hotels	
Note: The hotel was transferred to FEPER SA (symbol FEP). FEPER SA is a company owned by former SIF3 Transilvania, currently TRANSI, which has the majority position with 85.80% (December 31st, 2022). FEPER SA has as main activity the manufacture of computers and peripheral equipment(s). It is not clear why this decision was taken. The hotel remains in all MoT databases between 2016 and May 2023, therefore open to the public.	

TSND
Tusnad SA
Listed since September 7th, 2015
(website: www.tusnad.ro)

note: under the same symbol and name, the company was listed on Rasdaq between December 24th, 1996 and the date before the transfer to AeRO

Shareholder structure as of December 31st, 2022	
Transilvania Investment Alliance SA (TRANSI) (former SIF3 Transilvania)	76.41%
Other investors (free float)	23.59%

Dividend history	The company never payed dividends

Year	Capitalization (RON mil.)	EPS	PER	DIVY	P/Bv	Liq (%)
2015	8.34	These ratios could not be redone for the period under scrutiny. They are not available in the reports dedicated to AeRO. Also, no consistent information is available for a correct calculation.				
2016	12.07					
2017	13.28					
2018	12.68					
2019	14.79					
2020	11.62					
2021	11.92					
2022	27.16					

Trading activity by year between September 7, 2015 and May 31, 2023

Year	Listing days	Trading days	Trades	Volume (mil.)	Value (RON mil.)	Last price (RON)
2015	160	23	61	0.98	0.04	0.0374
2016	253	30	59	0.68	0.03	0.0400
2017	248	55	110	1.25	0.05	0.0440
2018	249	59	126	1.90	0.08	0.0420
2019	249	41	58	0.29	0.01	0.0490
2020	249	45	97	3.82	0.15	0.0385
2021	252	84	300	5.49	0.20	0.0395
2022	251	72	289	6.15	0.63	0.0900
2023 (May)	103	19	39	0.44	0.03	0.0980

Note: the price for July 29th, 2015 was 0.0400 RON (per share). The last price is the one registered for the last trade within the respective year

Hotel portfolio

End of 2015	May 2023
Based on the MoT database	*Based on the MoT database and TSND website*
2 hotels; 225 rooms; Baile Tusnad, Harghita county	2 hotels; 225 rooms; Baile Tusnad, Harghita county
smallest: 108 rooms; largest: 117	smallest: 108 rooms; largest: 117
Hotel classification	*Hotel classification*
2 stars: 1 hotel	2 stars: 1 hotel
4 stars: 1 hotel	4 stars: 1 hotel

Note: No changes in hotel portfolio for the period under investigation according MoT database. However, the 4 star hotels appears to have a distinct website (https://o3zone.ro/) from the website mentioned above. It is not clear if TSND still owns and operate this hotel. For this research, the data in MoT database were considered.

RSCA
Rusca SA
Listed since September 9th, 2015; Delisted: November, 27th, 2015
(website: www.hotelrusca.ro)

note: under the same symbol and name, the company was listed on Rasdaq between January 15th, 1997 and the date before the transfer to AeRO

Shareholder structure as of December 31st, 2015	
SIF1 Banat-Crisana (currently Lion Capital SA - symbol LION)	99.23%
The Romanian State	0.43%
Other investors (free float)	0.34%

Dividend history	The company never payed dividends

Year	Capitalization (RON mil.)	EPS	PER	DIVY	P/Bv	Liq (%)
2015	6.27	These ratios could not be redone for the period under scrutiny. They are not available in the reports dedicated to AeRO. Also, no consistent information is available for a correct calculation.				
The data is for November 2015						

Trading activity by year between August 21, 2015 and February 22, 2016

Year	Listing days	Trading days	Trades	Volume (mil.)	Value (RON mil.)	Last price (RON)
The company was never traded while listed on AeRO						

Note: the price for September 9th, 2015 was 4.0000 RON (per share).

Hotel portfolio	
End of 2015	**May 2023**
Based on the MoT database	**The company was delisted during November 2015**
1 hotels; 103 rooms, Hunedoara, Hunedoara county	
Hotel classification	
3 stars: 1 hotels	

Note: It is not clear why RSCA was transferred on AeRO for less than 2 months listing. It is interesting to mention that Rusca Hotel was part of CAOR company portfolio between 2016 and 2022. In May2023 appears in MoT database with a new owner indicating that CAOR sold Rusca Hotel.

UCET
Clabucet Estival 2002 SA
Listed since October 2nd, 2015
(website: no website)

note: under the same symbol and name, the company was listed on Rasdaq between October 10th, 2002 and the date before the transfer to AeRO

Shareholder structure as of December 31st, 2022	
Star SA	54.03%
Certinvest SRL	39.62%
Other investors (free float)	6.35%

Dividend history	The company never payed dividends

Year	**Capitalization (RON mil.)**	**EPS**	**PER**	**DIVY**	**P/Bv**	**Liq (%)**
2015	0.17	These ratios could not be redone for the period under scrutiny. They are not available in the reports dedicated to AeRO. Also, no consistent information is available for a correct calculation.				
2016	0.17					
2017	0.17					
2018	0.17					
2019	2.50					
2020	2.28					
2021	0.84					
2022	1.42					

Trading activity by year between October 2, 2015 and May 31, 2023

Year	**Listing days**	**Trading days**	**Trades**	**Volume (mil.)**	**Value (RON mil.)**	**Last price (RON)**
2015	160	0	0	0.000	0.000	0.0600
2016	253	0	0	0.000	0.000	0.0600
2017	248	0	0	0.000	0.000	0.0600
2018	249	0	0	0.000	0.000	0.0600
2019	249	3	4	0.000	0.000	0.8900
2020	249	2	4	0.002	0.001	0.8100
2021	252	3	3	0.001	0.000	0.3000
2022	251	1	1	0.000	0.000	0.5050
2023 (May)	103	0	0	0.000	0.000	0.5050

Note: the price for October 2nd, 2015 was 0.0600 RON (per share). The last price is the one registered for the last trade within the respective year

Hotel portfolio	
End of 2015	**May 2023**
Based on the MoT database	*Based on the MoT database*
1 hotels; 242 rooms, Neptun, Constanta county	**Information not available**
Hotel classification	
2 stars: 1 hotel	
Note: The company (UCET) does not appear as owning a hotel in MoT database since 2017 until May 2023	

ARO
Aro-Palace SA
Listed since July 31st, 2017
(website: www.aro-palace.ro)

note1: under the symbol POST and name Postavarul SA, the company was listed on Rasdaq between November 27th, 1997 and December 5th, 2000

note2: under the same symbol (ARO) and name, the company was listed on SIBEX since February 28th, 2014, until July 2017 (the exact date could not be precisely identified)

Shareholder structure as of December 31st, 2022	
Transilvania Investment Alliance SA (TRANSI) (former SIF3 Transilvania)	85.74%
SIF4 Muntenia	10.37%
Other investors (free float)	3.89%
Dividend history	The company payed dividends in 2021 and 2022
Dividends since 2015	2021: 0.0100 RON/share 2022: 0.0200 RON/share

Year	Capitalization (RON mil.)	EPS	PER	DIVY	P/Bv	Liq (%)
2017	153.22	These ratios could not be redone for the period under scrutiny. They are not available in the reports dedicated to AeRO. Also, no consistent information is available for a correct calculation.				
2018	72.58					
2019	108.86					
2020	44.35					
2021	74.59					
2022	108.27					

Trading activity by year between July 31, 2017 and May 31, 2023						
Year	**Listing days**	**Trading days**	**Trades**	**Volume (mil.)**	**Value (RON mil.)**	**Last price (RON)**
2017	248	21	33	0.003	0.001	0.3800
2018	249	10	14	0.009	0.001	0.1800
2019	249	15	22	0.037	0.009	0.2700
2020	249	7	9	0.006	0.001	0.1100
2021	252	10	13	0.012	0.002	0.1850
2022	251	24	42	0.107	0.037	0.2700
2023 (May)	103	31	60	0.184	0.071	0.4380
Note: the price for July 31st, 2017 was 0.4000 RON (per share). The last price is the one registered for the last trade within the respective year						

Hotel portfolio	
End of 2015	**May 2023**
Based on the MoT database	*Based on the MoT database and ARO website*
6 hotels; 636 rooms; Brasov, Brasov county	5 hotels; 604 rooms; Brasov, Brasov county
smallest: 33 rooms; largest: 197	smallest: 63 rooms; largest: 198
Hotel classification	*Hotel classification*
1 star: 2 hotels	1 star: 1 hotel
2 stars: 1 hotel	2 stars: 1 hotel
3 stars: 2 hotels	3 stars: 2 hotels
4 stars: -	4 stars: -
5 stars: 1 hotel	5 stars: 1 hotel
Note: In 2016 the company (ARO) sold 1 hotel classified at 1 star. The portfolio remained unchanged since 2016 having the same structure as in May 2023. However, as of May 2023, the company website announce as open only the 5 star hotels and mentions that the other 4 hotels are going through various works.	

BALO

Balneoclimaterica SA

Listed since November 23rd, 2017; Delisted: March 20th, 2020

(website: www.balo.emitenti.ro)

note1: under the same symbol and name the company was listed on Rasdaq between December 17th, 1996 and September 2nd, 2015

note2: under the same symbol and name, the company was listed on SIBEX since September 23rd, 2015, until October 2017 when the SIBEX companies were transferred at BVB

Shareholder structure as of December 31st, 2019	
Danubius, Hungary (Danubius Szalloda es Gyogyudulo Zartkoruen Mukodo Reszvenytarsasag)	100.00%

Shareholder structure as of June 30th, 2019	
Danubius, Hungary	96.00%
The Romanian State	1.86%
Other investors (free float)	2.14%
Dividend history	The company payed dividends in 2008, 2009, 2014, 2017 and 2018
Dividends since 2015	2017: 0.6915 RON/share 2018: 1.4615 RON/share

Year	Capitalization (RON mil.)	EPS	PER	DIVY	P/Bv	Liq (%)
2017	56.55	These ratios could not be redone for the period under scrutiny. They are not available in the reports dedicated to AeRO. Also, no consistent information is available for a correct calculation.				
2018	63.20					
2019	73.84					

Trading activity by year between July 31 2017 and May 31, 2023						
Year	**Listing days**	**Trading days**	**Trades**	**Volume (mil.)**	**Value (RON mil.)**	**Last price (RON)**
2017	248	0	0	0.000	0.000	8.5000
2018	249	17	21	0.001	0.005	9.5000
2019	249	13	20	0.007	0.069	11.1000

Note: the price for November 23rd, 2017 was 8.5000 RON (per share). The last price is the one registered for the last trade within the respective year

Hotel portfolio	
End of 2015	**May 2023**
Based on the MoT database	**The company was delisted during March 2020**
3 hotels; 399 rooms; Sovata, Mures county	
smallest: 93 rooms; largest: 168	
Hotel classification	
2 stars: 1 hotel	
4 stars: 2 hotels	
Note: The 2 star hotels went through modernization works between 2018 and 2020/2021 and was added 6 rooms.	

Note: Vektor index for the communication with the investors (from 0 to 10): Not available for AeRO listed companies
Sources: author's compilations based on data available at www.bvb.ro, databases provided by MoT and companies' websites (where available) as mentioned in each details

Annex 2: Groups, brands, and consortia present on Romanian hotel market

Groups, brands & consortia	2016		May 2023	
	Hotels	Rooms	Hotels	Rooms
European groups, brands & consortia				
Total European	***25***	***4,006***	***36***	***4,752***
InterContinental Hotels Group	**2**	**421**	**3**	**550**
InterContinental	1	257	1	283
Crowne Plaza	1	164	1	165
Holiday Inn	-	-	1	102
Accor	**7**	**1,335**	**15**	**1,750**
Pullman	1	203	1	205
Novotel	1	258	1	258
Mercure	1	114	7	522
Ibis (Ibis Style & Ibis)	4	760	6	765
Louvre Hotel Group	**4**	**343**	**2**	**120**
Golden Tulip	4	343	2	120
NH Hotels	**1**	**76**	**1**	**83**
Danubius Hotels (brand Ensana in 2023)	**2**	**261**	**3**	**405**
Hunguest Hotels	**1**	**65**	**1**	**100**
K+K Hotels	**1**	**66**	-	-
Europa Group Hotels (Europa Royale)	**1**	**92**	**1**	**92**
Vienna International Hotels/Vienna House	**1**	**177**	**see Wyndham Hotels & Resorts**	
The Rezidor/Radisson Hotel Group	**2**	**764**	**4**	**999**
Radisson Blu	1	486	3	721
Park Inn by Radisson	1	278	1	278
Top International Hotels	**1**	**288**	**1**	**288**
Hotusa Hotels – Aqualis Hotels	**1**	**82**	**n/a**	**n/a**
Minotel	**1**	**36**	**1**	**36**

Groups, brands & consortia	2016		May 2023	
	Hotels	Rooms	Hotels	Rooms
Leonardo Hotels Central Europe	-	-	**1**	**78**
Batani Select Hotels	**-**	**-**	**1**	**189**
Relais & Chateaux	**-**	**-**	**1**	**45**
Historic Hotels of Europe	**-**	**-**	**1**	**17**
American groups, brands & consortia				
Total American	***24***	***3,484***	***34***	***5,051***
Wyndham Hotels & Resorts	**11**	**1,768**	**16**	**2,349**
Ramada	11	1,768	14	2,110
Vienna House Easy by Wyndham	-	-	1	177
Trademark Collection by Wyndham	-	-	1	62
Hilton Hotels & Resorts	**5**	**695**	**9**	**1,152**
Hilton	2	386	1	114
Double Tree by Hilton	3	309	4	393
Hampton by Hilton	-	-	2	226
Hilton Garden Inn	-	-	2	419
Marriott Hotels & Resorts	**1**	**402**	**5**	**1,267**
JW Marriott	1	402	1	402
Sheraton	-	-	1	270
Courtyard by Marriott	-	-	1	259
The Moxy Hotels	-	-	1	119
Autograph Collection Hotels	-	-	1	217
Starwood Hotels & Resorts	**1**	**270**	**See Marriott Hotels & Resorts**	
Sheraton	1	270		
Best Western	**6**	**349**	**4**	**283**

Sources: Pop et al. (2018) for 2016; MoT database and groups, brands, and consortia websites for May 2023