

DRS nr.444 /25.04.2018

# Appraisal report - Excerpt

**IAR S.A**

**-2018-**

## 1. SUMMARY OF THE MAIN FACTS AND CONCLUSIONS

### *Scope of the appraisal*

Estimation of the market value of the shares of IAR S.A, used in the procedure of withdrawal of a minority shareholder. The appointment was made on the basis of Resolution no. 5144 / 08.03.2018 File 9622 / 19.02.2018 National Trade Register Office. The withdrawal action takes place in accordance with the provisions of art. 134 of Law 31/1990, corroborated with art. 91 of Law 24/2017.

The enterprise value (definition according to SEV 200): the total amount of equity plus the amount of its interest-bearing loans / debt minus any cash / cash equivalents available to pay up such debts.

### *Subject of the appraisal:*

IAR S.A. with headquarters in Braşov County, 34, Hermann Oberth Street, Fiscal Code EN 1132930, J8 / 4/1991, [www.iar.ro](http://www.iar.ro)

### *Participation submitted to appraisal*

Minority interest% of the equity of the valuation subject.

### *Activity of the analysed company:*

The company IAR SA has as its main activity the Manufacture of aircraft and spacecraft, according to NACE code 3030.

### *Appraisal instructions*

According to the DRS contract no.440 / 23.03.2018

### *Premises of the appraisal:*

The company was assessed on the assumption of the principle of continuity of activity.

### *Type of the estimated value:*

Market value as defined in the 2017 Benchmarking Standards, which are in line with the International Valuation Standards (IVS) 2013.

### *Date of the appraisal:*

31.12.2017

### *Assumptions and special assumptions*

The main assumptions and special assumptions that have been taken into account in the preparation of this appraisal report are detailed in subchapter 1.8.

### *Results of the appraisal*

Income approach (DCF method) - 9.34 lei / share.

Approach through the market - 9,25 lei / share

### *Conclusions of the appraisal:*

The market value of an action belonging to the Company. IAR S.A., estimated according to the valuation standards of the 2017 edition, is 9.34 lei / share.

**DARIAN DRS SA**  
**Adrian Popa-Bochis**  
**Managing Partner**

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## **2. TERMS OF REFERENCE TO THE APPRAISAL**

### **2.1 Identification and competence of the assessor**

The appraisal outlined in this report was made by SC DARIAN DRS SA and no significant assistance from any other person other than those identified below was received:

- the property / company was inspected by Doina Nicolau, holder of identification card ANEVAR no. 14686, being accompanied by Banea Neculai
- the other stages of the appraisal process were conducted by Andrei Bucur, no. 11002, Șerban Ana-Maria with identification card ANEVAR no. 18574, Emilia Fintoiu with identification card ANEVAR 18730, Doina Nicolau with IC number 14686.
- observance of the internal quality procedures of DARIAN DRS SA, was verified by Andreea Suciachi MAA EI identification card 16425

The assessor is qualified and competent to carry out this appraisal, which can be verified by interested parties in the Association's Scoreboard (<http://nou.anevar.ro/pagini/tablou-asociatiei>).

The statements made and supported in this report are true and correct; the analyses, opinions and conclusions presented are limited only by the assumptions (including the special ones) considered and they are the analyses, opinions and personal conclusions of the Assessor, being professionally unbiased. In conducting the entire appraisal process that led to the reported opinion, the Assessor was not constrained or influenced in any way. The amount of payment for this report has nothing to do with the statement in relation to a certain value (valuation) or range of values that favor any stakeholder and is not affected by the occurrence of a subsequent event. The Assessor has no present or future interest in the ownership of the present appraisal report and no interest or influence on the parties involved. Thus the assessor could offer an objective and impartial value.

### **2.2 Identification of the client and any other designated users**

According to the contract and the data recorded in the Assessor's own database, this Appraisal Report can only be used by the IAR S.A. Company as Client and Consignee and contains appropriate information only for their needs. The assessor shall not transmit copies of this report or parts thereof, to any third party unless it has been designated in writing as a possible user and cannot be held responsible for any damage caused to the parties the right where a third party would own and use such a copy. The Assessor's responsibility is only for the designated users and cannot be extended to any third party.

### **2.3 Purpose of the appraisal**

This appraisal report will be used solely for the purpose of complying with the contractual provisions as set out in the Service Contract no. 440 /23.03.2018.

The purpose of the appraisal is to estimate the market value of the shares of IAR Company S.A. with a view to selling the shares held by the minority shareholder in the withdrawal procedure. Appointment was made on the basis of Resolution No. 5144 / 08.03.2018 File 9622 / 19.02.2018 National Trade Register Office. The withdrawal action takes place in accordance with the provisions of art. 134 of Law 31/1990, corroborated with art. 91 of Law 24/2017.

The appraisal report may not be used for any purpose other than the declared one; the assessor assumes no responsibility and under no other circumstance or context in which the appraisal report could be used.

### **2.4 Identifying the asset or liability under appraisal**

In accordance with the contract and data stored in its own database of the Assessor, the object of the appraisal refers to the entire equity of the company IAR S.A., based in Brasov, 34, Hermann Oberth Street, Fiscal Code EN 1132930, J8 / 4/1991, [www.iar.ro](http://www.iar.ro). The Company IAR SA is a joint stock company, having a share capital of 47,197,132.50 lei allocated to 18,787,853 nominative shares with a nominal value of 2.5 lei / share.

## 2.5 Value type

Taking into account the purpose of this appraisal, the appropriate value type is the "market value" as defined by SEV 100 - General Framework (IVS 100 - General Framework) as:

**"the estimated amount for which an asset or liability could be changed at the date of the appraisal between a determined buyer and a determined seller in an impartial transaction after appropriate marketing and in which the parties each acted in complete awareness, prudently and without constraint."**

This value, as a rule, due to the volatility of market conditions, is limited to the date of appraisal and cannot be achieved in the event of future default, when both market conditions and sales situations may differ from this point in time.

The appraisal report is valid in economic, fiscal, legal and political terms as of the date of its drafting. If these conditions change, the conclusions of this report may lose their validity.

## 2.6 Date of appraisal

The conclusion on the recommended value as a final opinion in this appraisal report was determined in the context of the specific market conditions of December 2017; date of appraisal is 31.12.2017; the exchange rate valid on this date is 4.6597 RON for 1 EUR. The date of the report is 25.04.2018.

## 2.7 Documentation required to carry out the appraisal

Upon the appraisal process, which is synonymous with the preliminary discussions with the company's management, the Assessor had access to the company's financial statements and other elements that could influence the valuation process.

## 2.8 Nature and source of the information used

### A. Information received from the client

- Secured information
  - the company's financial statements for the period from 31.12.2015 to 31.12.2017
  - an analytical balance as of 31.12.2017
  - centralized information within the questionnaire on:
    - the company's operational activity
    - the commercial activity of the company
    - the legal status of the company and its patrimony
    - the patrimonial situation
    - assets in exploitation / out of exploitation

The responsibility for such information lies entirely with the Customer.

- Information on which the value conclusion is based:
  - Predicted revenue and expense items for the company under review, based on the data provided by the company's management.
  - Any relevant data whose consideration may influence the outcome of the applied methodsThis information was taken by the Assessor as a result of comparison with those resulting from market research; for significant differences, adjustments were applied.

### B. Information collected by the Assessor

- Data on the evolution of players in the aircraft manufacturers sector and adjacent branches; in conjunction with the evolution of the market as a whole.
- Market players data (EBITDA margins, business figures, working capital, etc.)

The Assessor used only the information and documents he/she had at his/her disposal to estimate the value, possibly with the existence of other information or documents that the Assessor was unaware of.

The Assessor has obtained information, opinions, estimates from sources considered to be correct and reliable, but does not assume any responsibility if they prove to be incorrect;

## **2.9 Assumptions and special assumptions**

The value stated in the appraisal report is estimated under the conditions of the following assumptions, and especially if the situations referred to below do not result in any restrictions other than those expressly stated in the report and the impact of which is expressly written that it was taken into account. If it is shown that at least one of the assumptions as per which the report is made and which are detailed below is not valid, the estimated value becomes invalidated.

The main assumptions that have been taken into account in the preparation of this appraisal report are as follows:

### 1. Assumptions

- ✓ The legal aspects are based solely on the information and documents provided by the representatives of the IAR S.A Company through the specialized personnel regarding the company's patrimonial-economic situation and were presented without additional inquiries or investigations. Ownership of shares is considered valid and marketable;
- ✓ The analysis of the financial statements of the company subject to appraisal under this report does not imply that we have conducted an audit, limited review or due diligence for this company. We assume no responsibility for the completeness, accuracy or exactness of any financial information received from or on behalf of the company;
- ✓ It has been assumed that the current legislation will be maintained and no changes that may occur in the next period are taken into account;
- ✓ The Assessor used only the information he/she had at his/her disposal to estimate the value, and there may be other information that the Assessor was unaware of.
- ✓ Entry into possession of a copy of this report does not imply the right to publish it;

The present appraisal process that is the subject of this synthesis was drafted on the basis of the following special assumptions:

- ✓ Investments in progress, remaining unfinished as a result of the NB3 development program of the company in Brasov, in partnership with the former USSR, of the helicopter Ka 126 were kept in Accountancy Value and registered as assets outside exploitation. Due to the lack of typo-dimensional information and recoverable materials, they were retained in the Book Value. If the information is available to the Assessor for ongoing investments, their value will need to be reconsidered
- ✓ The value of the holdings held in other companies was taken to book value; we did not have other information and financial statements at 31.12.2017
- ✓ Unmanaged stocks over the past 5 years and hard to sell were considered net zero recoverable value. In case the assessor provides typo-dimensional information and type of material, their value will have to be reconsidered

## **2.10 Declaration of conformity of EVS assessment**

General Standards:

- The definitions and concepts on which this assessment is based are those in EVS 100 - General Framework (IVS - General Framework)
- The appraisal mission was defined in accordance with the provisions of the SEV 101 - Terms of Reference (IVS 101) and conducted in accordance with the provisions of EVS 102 - Implementation (IVS 102)
- This appraisal is prepared in accordance with the requirements of EVS 103 - Reporting (IVS 103).
- SEV 104- Types of Value
- EVS 400- Verification of the appraisal

**Asset Standards:**

- The subject of the appraisal being a company (company IAR SA), the valuation process also took into account the provisions of EVS 230 - Real estate rights (IVS 230), GEV 630 - Real estate appraisal, SEV 200 - Enterprises and participations in enterprises (IVS 200), GEV 600 - Enterprise Appraisal, SEV 220 - Machinery, Equipment and Installations (IVS 220), GEV 620 - Appraisal of movable goods of machines, equipment, installations and stock

According to the contractual provisions and appraisal instructions, no deviation from any of these standards was required.

## **2.11 Description of the report**

The appraisal report is a narrative, detailed, compiled in accordance with EVS 103 and includes, in addition to the terms of reference, a description of all relevant data, facts, analyses, calculations and judgments on which the opinion on the reported value was based, no exclusion or deviation from that Standard.

### 3. PRESENTATION OF DATA - DIAGNOSTIC ANALYSIS

Detailed information can be found in the appraisal report. This is the summary.

#### 3.1 General presentation

Name of the company: IAR S.A.

Headquarters: Ghimbav City, 34, Hermann Oberth Street, county: Braşov

Website: [www.iar.ro](http://www.iar.ro)

Office of the Trade Registry no. J8 / 4/1991

Sole registration code RO1132930

The main activity carried out by the company is that provided for in class 3030 - "Manufacture of aircraft and spacecraft", belonging to group 303 - "Manufacture of aircraft and spacecraft", division 30 "Manufacture of other transport equipment"

**The object of activity (both main and secondary)**, stipulated by the Constitutive Act of IAR SA, consists of activities defined and codified in accordance with the Classification of Activities in the National Economy - NACE, as updated by the Order no. 337 / 20.04.2007, issued by the President of the National Institute of Statistics.

Short presentation:

- IAR S.A. was founded on January 28, 1991, through the restructuring of the Ghimbav Aeronautical Construction Company, the legal foundation being H.G. 1200/1990.
- There is no question of significant mergers or reorganisations during the financial year 2017
- In 2017, IAR S.A. has neither alienated assets nor acquired valuable assets in relation to its share capital.
- The economic and financial results recorded by the company at the end of 2017 show that IAR S.A. has made profit both from its operating activity and from the whole of its activity, and the company continues to be a profitable company. (data presented according to the Auditors' Report 2017)

#### 2.12 Organization type

IAR S.A is organized as a joint stock company. At the date of the appraisal the subscribed and paid-up share capital is 47,197,132.50 lei (divided into 18,787,853 shares with a nominal value of **2.5 lei / share**). Data taken from the constitutive act and published on the bvb.ro site, IARV symbol.

#### 2.13 Owners

The share capital, at the date of the appraisal, according to the information provided by the client in the appraisal questionnaire, is held by the following shareholders:

Shareholder	Number of shares owned	Share in the share capital
The Romanian State		
through the Ministry of Economy	12,250,488	64.89%
Other shareholders	6,628,365	35.11%

Based on the public information, presented on the Bucharest Stock Exchange website, the following evolution of the trading of the shares of IAR Company S.A. during the year 2017 can be found:



Total no. of transactions	Total no. of transacted shares	Total value of transacted shares (lei)	Price variation (%)
7,695	2,354,955	20,062,723.68	+25%

It can be seen that the market value of shares of IAR Company S.A. resulting from the transactions carried out during 2017, found a positive evolution, reaching a minimum of 6.50 lei / share and a maximum of 10.90 lei / share. Data taken from the Annual Report 2017.

## 2.14 Legal diagnosis

### 2.14.1 Organization of exploitation activity

IAR S.A. Brasov is a traditional aeronautical company, founded on August 6, 1925 as joint stock company, it was the "first Romanian airplane factory", bearing the name "Romanian Aeronautic Industry-IAR Braşov".

As a result of the successive development of this plant, by licensing and owning several types of aircraft, it becomes, in 1939, an aviation concern by manufacturing structures, engines, avionics, armament installations.

Among the famous achievements of that period are Morane-Saulnier, Savoia-Marchetti, Messerschmidt, PZL, IAR 47, IAR 80, IAR 81, and others.

The tradition of the IAR is reborn in 1968, when ICA GHIMBAV, the current IAR SA, was set up for the purpose of helicopter, gliders, motorgliders and airplane manufacturing, which mainly co-operated with Western companies such as Aerospatiale and Turbomeca in France, Britten Norman in the UK.

In 1970, IAR S.A. Brasov becomes the only helicopter manufacturer in Romania, both military and civilian. Since 1978, it has remained the world's only manufacturer of the Puma helicopter military version, whose license agreement was signed in 1974.

IAR S.A. Brasov has produced and delivered more than 360 Puma and Alouette III helicopters under the Aerospatiale license (today integrated with Airbus Helicopters former Eurocopter SAS), 830 gliders and motorgliders, as well as 136 light aircraft in their own design.

Aviation products made since the establishment of IAR S.A. are: gliders and motorgliders (IS-23A, 7/12, 28, 29B, 29D, 24, 29E, 28B, 28B2, 29D2, 30, 32, 33, 28M2GR, 28M2G, 822, 823, 825, 827, 828, 831, 35, 46), helicopters (IAR316B ALOUETTE III, IAR330 PUMA, IAR317 AIRFOX, KA126, IAR330 PUMA upgraded according to Socat / SM / Naval / NATO / VIP programs).

Currently, IAR SA is a company specialized in maintenance, repair, overhaul (MRO), upgrade for 330 Puma helicopters and 316B Alouette III, the main activity as per NACE Code is 3030-Manufacture of aircraft and spacecraft as well as class 3316 of the NACE Code - "Repair and maintenance of aircraft and spacecraft".

IAR S.A. has the experience, certifications and full capacity to develop, manufacture and maintain aeronautical products.

IAR S.A. Brasov develops upgrading programs, performs periodic inspections, overhauls and ground and flight tests; provides multiple after sales services: maintenance, spare parts and equipment replacement, technical assistance; trains pilots and technicians; "Follow-on-Support" program for the Puma and Alouette III helicopters.

Also, IAR S.A. is involved in the manufacture of assemblies, subassemblies and parts for various manufacturers in the world aeronautical industry (aircraft structures, electrical wiring, etc.).

The main beneficiaries of the Puma and Alouette III helicopters manufactured / repaired in Brasov are: the Ministry of National Defense (Air Force and Naval Forces in Romania), the Romanian Intelligence Service, the Ministry of Interior, Eurocopter (Airbus Helicopters), Denel - South African Republic, the Air Force of the UAE,

Pakistan Armed Forces and Forces, Sudan Air Force (1982-1984), Ivory Coast Defense Ministry, Lebanon Air Force, Oman Air Force, etc.

The Quality System implemented from the development phase to the Customer Support is certified in accordance with SR EN ISO 9001: 2008 and SR EN ISO 9100: 2010 standards. IAR SA is an EASA Part 145 Authorized Maintenance Center and for Manufacturing under EASA Part 21.

### **2.15 Financial diagnosis**

The economic and financial analysis of the company IAR S.A. represents a methodological study of the situation and the evolution of the commercial company, regarding the financial structure and the profitability, starting from the balance sheet, the results account, the annexes thereto, corresponding to the period 2015-2017, made available by the management of the company.

When making the analysis, we considered only the accounting records of the **IAR S.A.** In this context, this analysis aims to capture the main aspects of **IAR SA's** business from an economical and financial point of view, to interpret their evolution and to observe the trends that future evolution can fit. The analysis responds to general demands claimed by the context in which it is developed.

An important tool of the financial analysis is the analysis of the indicators that represent the ratio between two positions or groups either from the balance sheet or from the profit and loss account or one of the balance sheet and the other from the profit and loss account.

The financial analysis was conducted on a comparative basis, analyzing the subject with the average market levels. The comparative group was selected according to relevance and used several data sources: Infionals, Amadeus databases. The purpose of this comparative financial analysis was to highlight the differences in performance between the company and other similar companies operating on that market. It was made clear that the legislative environment and the regulation of the construction and repair of aircraft might differ from one country to another, with significant impact on the performance of the companies analyzed.

### **2.16 SWOT ANALYSIS**

The purpose of the SWOT analysis is to highlight the conclusions, analyses of the internal environment resulting from Strengths and Weaknesses, and the conclusions of the external environment analysis concretized in Opportunities and Threats.

The strengths of a firm are those advantages that it has in comparison to other companies in the branch or other companies in the locality. Weaknesses represent those unsatisfactory parts of the company's activity compared to similar companies in the branch or companies in the region.

The opportunities the external environment presents for a particular firm are those environmental data that can contribute to the company's business development and can have positive influences on it. The risks or hazards of the external environment are those aspects of the company's evolving environment that can adversely affect its business.

## **ANALYSIS OF THE INTERNAL ENVIRONMENT**

### **STRENGTHS:**

- + The age and the recognition of the company on the specific market;
- + Constant customer portfolio (both external and internal) based on a long-term relationship;
- + Very good liquidity and solvency rates;
- + Does not have a high degree of indebtedness to financial institutions;
- + Major investments in location and asset modernization and rehabilitation

- + The company has implemented the Quality Management System (SMQ).
- + IAR S.A. is authorized by the Romanian Civil Aeronautical Authority, both as an EASA Part 21G production organization and as an EASA Part 145 maintenance organization
- + Company is certified by Airbus Helicopters Romania SA as a supplier for Military or maintenance structure for Puma and Alouette III helicopters, equipment maintenance for Puma helicopters, manufacturing parts for Puma and Alouette III helicopters, testing laboratory, metrology, and for manufacturing spare parts and subassemblies for Airbus Helicopters, former Eurocopter SA
- + IAR SA is certified by the military body within the Ministry of National Defense of Romania-OMCAS in accordance with the requirements of NATO-AQAP2110 for design and production of aircraft systems and equipment aviation, upgrade of aeronautical products, parts for aircraft checks, testing, maintenance and repair of aeronautical products
- + Since 2004, the company has made a profit
- + The technical condition of the production lines and equipment is generally good, which allows the execution of the activity according to the standards in the field
- + Stability of qualified staff
- + Experienced staff of over 20 years in helicopter systems and installations and integrating new systems into the helicopter base configuration.

#### WEAKNESSES:

- The range of products it offers is limited
- Active in relatively specialized markets
- The need for massive investments in relation to the turnover achieved
- Dependency of the company on a single customer or group of customers. Internal beneficiaries of IAR Company S.A. products and services are components of the National System of Defense, Public Order and National Security (M.O.D., MIA and RIS). In order to fulfill the conditions for the operability of the helicopter fleets held by these internal customers, it is necessary to carry out, with a certain periodicity a series of works and services for maintenance / repairs / overhauls / upgrade, so the budgetary allocations for these institutions have a strong impact on IAR SA

### **EXTERNAL ENVIRONMENTAL ANALYSIS**

#### OPPORTUNITIES taken from the auditors' report in 2017

##### **- internal market**

1. The manufacturing of spare parts (for SA316 B Alouette III and SA330 Puma products) and aircraft components could significantly increase in the coming years through Airbus Helicopter Romania S.A. (formerly Eurocopter Romania S.A.) for the international distribution chain of Airbus Helicopter.
- 3 Involvement of IAR SA in the future helicopter acquisition programs of the institutions within the National Defense System

#### RISKS:

Below we present associated risks and data about the subject company:

**Currency risk:** The Company is exposed to exchange rate fluctuations for disposals, receivables and payables denominated in other currencies, mainly USD and Euro.

The company also has transactions in other currencies than the functional currency (Ron), ie in euros and dollars. The company, depending on its availability, at a given moment in different currencies, buys the currencies it needs to make payments for active completion of imports from different vendors. The Company did not use derivative financial instruments to protect against fluctuations in the course.

**Interest rate risk:** The Company's operating cash flows are not affected by changes in the interest rate on the banking market, as the company currently has fixed rate negotiated contracts for the issued bank guarantees.

IAR S.A. exposure to the risk of changes in the interest rate on its bank deposits is insignificant, mainly due to the low interest rates on bank deposits in lei.

**Liquidity risk:** The management of the Company has provided and provides prudent liquidity risk management, continuously pursuing sufficient cash maintenance so that it can honor on time all due payments.

**Legislative environment:** Policies and policy instability, products and services that the company exploits both internally and externally are primarily intended for state budget users that are part of the national security and security systems. That is why the volume of contracts depends on budget allocations.

## 4.THE COMPANY APPRAISAL

The approaches recommended by the 2017 Estimation of Goods Standards, which are in line with IVS (International Valuation Standards) 2013, for the appraisal of an enterprise are:

- ✓ Income-based approach
- ✓ Market-based approach
- ✓ Asset-based approach. It is only recommended for start-up or non-business start-up companies.

### 4.1 INCOME-BASED APPROACH

It is assumed that the company's value is estimated on the basis of future free cash flow that the current shareholders could expect in terms of business continuity. The method is based on a concept of summing up the current earnings related to both the explicit and the non-explicit predictions, which are obtained by forecasting the financial results taking into account all the information available to the management and the majority shareholder of the company at the appraisal date. This approach will also recognize the value of the contribution of distinct non-identifiable intangible assets (brand, goodwill, or badwill) that cannot be taken into account in the asset-based approach.

The company's main activity has been and still generates profit; the revenue and expenditure budget focuses on management's expectations regarding the entity's future development in relation to current economic conditions. The income-based approach was applied based on the revenue and expenditure budget prepared by the company's management and verified by the assessor with market data related to the EBITDA operational margin, respectively the expected evolution of the field.

The two methods used in this approach are:

- The net cash flow method updated
- The income capitalization method.

The updated net cash flow method was applied to capture both the impact of the evolution of the specific market and the alignment of the company's business with a trend of stability in terms of business turnover.

The discounted cash flow (DCF) assessment method is based on the ability of the business to generate positive cash flows that are ultimately available to investors.

The main steps of the method are:

- ✓ Substantiation of revenue and expenditure forecasts
- ✓ Estimation of the discount rate
- ✓ Estimation of the financial flows available to investors for an explicit period
- ✓ Estimation of the residual value
- ✓ Update of the financial flows and of the residual value
- ✓ Adding non-operating assets (off exploitation)
- ✓ Obtaining the value of shareholders' equity after deducting the amount of net financial liabilities
- ✓ Dividing the share capital value into the number of shares resulting in the market value of a share.

#### 2.16.1 Substantiation of revenue and expenditure forecasts

IAR S.A. forecasts were made based on the components of the Income and Expense Budget drawn up by the company's management. Annexed to the appraisal report itself. Account was taken of the current situation of

the company, the history of the activity and the information known at the time of the appraisal of the future evolution of the specific market. The predicted statements included: turnover, the main categories of operational expenditure and the possible profit.

The premises of the method are:

- The 3-year forecast according to the budget approved and received from the customer. It has been assumed that after this period, the evolution of the business would fit into a quasi-maintenance trend. In addition, we consider that this is the time-span for which the degree of accuracy of forecasts can remain within acceptable limits as to the future development of the enterprise.
- The projected budget and financial flows were prepared based on the estimated budget provided by IAR SA, based on signed or negotiated contracts, and consistent with the historical evolution and production capacities installed, as well as with the specific market trends as they are presented at the appraisal date
- As the income and expenditure budget is denominated in nominal terms, all indicators were expressed in nominal value - lei, taking into account the inflation rate published by the Macroeconomic Forecasting Commission
- The results of this approach are valid subject to specific non-fulfillment of some of the elements taken into account, for reasons unlikely to be taken into account at the time of the appraisal.

Financial flows available to investors were estimated from:

- Income and Expense Budget estimated by the company's management.
- Investment activity.
- Variation in the working capital.

Here we present the estimation of financial flows available to investors, which was used in the income-based approach:

(lei)	DCF Historical values						
	2015	2016	2017	An 1	An 2	An 3	VT
Total income (nominal currency)	121,617,755	159,739,443	203,346,051	250,000,000	254,750,000	203,800,000	208,895,000
% nominal increase		31.3%	27.3%	22.9%	1.9%	-20.0%	2.5%
Operational Costs	111,267,975	124,495,672	160,378,220	208,353,000	218,751,312	174,901,312	173,433,800
% CA	-91.5%	-77.9%	-78.9%	-83.3%	-85.9%	-85.8%	-83.0%
EBITDA	10,349,780	35,243,771	42,967,831	41,647,000	35,998,688	28,898,688	35,461,200
% total incomes	8.5%	22.1%	21.1%	16.7%	14.1%	14.2%	17.0%
Minus: Amortiz. And Provision (tangible and intangible assets)	1,328,454	3,915,663	4,416,362	4,600,000	5,100,000	5,700,000	5,842,500
Minus: current assets value adjustment	0	0	0	0	0	0	0
Minus: Adjustments on provisions for risks and expenses	5,124,250	15,574,752	8,198,688	15,509,337	8,198,688	8,198,688	14,100,413
% Total income	5.3%	12.2%	6.2%	6.2%	6.2%	6.2%	6.8%
EBIT	3,897,076	15,753,356	30,352,781	21,537,663	22,700,000	15,000,000	15,518,288
Minus: Tax on profit	5,473,574	6,082,473	6,065,035	3,446,026	3,632,000	2,400,000	2,482,926
Ebit / CA %	3%	10%	15%	9%	9%	7%	7%
Net operational profit (EBIT – Tax on profit)	-1,576,498	9,670,883	24,287,746	18,091,637	19,068,000	12,600,000	13,035,362
Plus: Amortization and depreciation	1,328,454	3,915,663	4,416,362	4,600,000	5,100,000	5,700,000	5,842,500
Minus: investments in assets	3,000,000		6,200,000	10,000,000	12,000,000	14,000,000	5,842,500
Capx / dep		1.07%	3.05%	4%	5%	7%	4%
Minus: variation of net work capital		57%	140%	217%	235%	246%	100%
				10,523,692	1,875,783	-20,120,237	2,012,024
Cash flows available to the investors				2,167,945	10,292,217	24,420,237	11,023,338

## Income and Expenditure Budget

The income and expenditure budget for the period 2018 - 2020 was estimated starting from managerial expectations regarding the future evolution of the activity of the analyzed entity. The net turnover of the

company is generated by the products / services presented in Chapter 3.8.2 among which we briefly mention that at the end of 2017 contracts were signed with the Air Force Staff, being finalized by the end of 2018 at the value of 68,832.98 thousand lei.

Also in 2017, Framework Agreements with the National Security System (MIA and RIS) were concluded for a period of 4 years, aiming at the upgrade of the IAR 330 Puma helicopters as well as the repair, maintenance and supply of spare parts and mechanical assemblies required to maintain IAR 330 Puma and IAR 316B Alouette helicopters.

The forecasts for the period 2018 - 2020 were analyzed by the assessor based on a series of market indicators such as EBITDA margin, the expected evolution of the sector, etc. As a result of this verification we can conclude the following:

- Income is generally driven by a steady growth trend of approx. 22-27%, in line with the expected evolution of the sector.
- The turnover was forecast taking into account the earliest contracts as of the appraisal date. According to the data received from the management of the company: for the year 2019, the estimation was based on reliable revenues amounting to 60% of the total IEB, and for 2020, the estimate is based on revenues from contracts under negotiation.
- The EBITDA operating margin in the historical period, respectively 2015-2017, is 17.5%, above the market average in some financial years, therefore, the average operational margin on the market (reasonable EER efficiency) was used perpetually, to eliminate temporary concessions, temporarily advantageous contracts.
- At the specific market level, the EBITDA margin was 13.6-17.4%. Following data filtering and selection of companies with a high level of comparability, 17.4% was used, see chapter 3.11 for the selection criteria

Profitability indicators	2015	2016	2017	MARKET Infanciales	MARKET Amadeus Romania, CAEN 3030	MARKET Amadeus UE, CAEN 3030, CA intre 100.000-200.000 th ron	TextronINC. Results as at 2017	Damodaran, Air Transport
EBITDA / CA	8%	23%	22%	14.0%	14.0%	17.4%	11.6%	13.6%

## Investment activity

CAPEX-type investments were made available by the customer, according to the budget approved by the company's management. The CAPEX level ensures that assets are kept in the current state and yield to support the expected Turnover. In the foreseeable forecast period, the CAPEX budget is 3-7% of CA slightly above the market level in 2020.

lei	2015	2016	2017	An 1	An 2	An 3
Total income (nominal currency)	121,617,755	159,739,443	203,346,051	254,750,000	250,000,000	203,800,000
Investments and assets	3,000,000		6,200,000	10,000,000	12,000,000	14,000,000
Capex/CA %	1.07%		3.05%	4%	5%	7%

In 2015-2016, due to the complexity of some objectives, the investment plan was carried out over two years. See details on investment in headline 3.8.7 Investment dynamics.

Capex% according to Professor Damodaran / Aerospace & Defense is 5.4%.

## Amortization and depreciation

The budget received in the forecasting period is in the synthetic form, therefore data related to amortization and provisions were received by e-mail.

At the same time, we analyzed the relation between amortization and capex in the specific market, based on Prof. Damodaran's information:

Capex/Dep	
Damodaran Aerospace/Defense	117.39%
Damodaran Air transport	126.53%

The amortization flow takes into account fixed asset receptions from the previous period. Perpetually, we worked with 4% of our turnover.

A peculiarity of the field of activity in which the company operates is represented by the setting-up of provisions. According to the Financial Diagnosis chapter, these are for:

According to Article 26 "Provisions / Adjustments for Impairment and Reserves", airline companies in Romania have the obligation to make provisions for covering the maintenance and repair costs of the aircraft fleet and its related components, according to the aircraft maintenance programs, duly approved by the Romanian Civil Aeronautical Authority.

- provision for goodwill guarantees granted to internal customers under the contracts concluded therewith,
- provision for employee participation to profit,
- provision for depreciation of raw material stocks,
- provision for retirement bonuses,
- provision for hedging, guarantees of good execution of the concluded contracts
- provision for finished goods stocks,

Therefore, the earnings achieved also have an impact on this balance sheet item. We analyzed the evolution of the balance sheet item Adjustments on provisions in historical and forecasted terms.

In the estimation of Cash Flows at the disposal of investors, in the provisions chapter, the net flows considered as the difference between the provisioned provisions and the provisions reversed during the period, according to the situation recorded in December 2017, were taken over. Perpetually, we kept the same level / ratio respectively 6 , 8% equal to the historical average.

### Variația capitalului de lucru / Variation in the working capital

The share of working capital, unaffected by the intragroup activity (which in some cases represents sources of financing) and other debts such as payable dividends, is above the median found on the market (historical median 39.5% for the analyzed company versus the 37% in the case of other similar companies in Romania). In what follows, we summarize the estimated working capital (WK) for each year of forecast:

Working Capital (lei)	2015	2016	2017	medie	An 1	An 2	An 3	VT
Receivables	18,109,861	35,270,452	93,019,623					
Stocks	36,624,387	48,459,209	115,650,817					
Expenses paid in advance	0	0	0					
<b>Total current assets</b>	<b>54,734,248</b>	<b>83,729,661</b>	<b>208,670,440</b>					
% CA	42%	55%	108%					
Commercial debts	3,661,501	12,565,273	113,056,740					
Cumulated debts	5,683,198	9,250,766	49,969					
Other debts	19,730,683	11,395,220	7,362,018					
<b>Total current debts</b>	<b>29,075,382</b>	<b>33,211,259</b>	<b>120,468,727</b>					
% CA	22%	22%	63%					
<b>Work capital</b>	<b>25,658,866</b>	<b>50,518,402</b>	<b>88,201,713</b>	<b>54,792,994</b>	<b>98,725,405</b>	<b>100,601,187</b>	<b>80,480,950</b>	<b>82,492,974</b>
% CA	19.6%	33.2%	45.8%	39.5%	39.5%	39.5%	39.5%	39.5%

As far as the year 2017 is concerned, the advances received on the orders account (419) were also taken into



account in the operational debts. Also, compensatory payments are assimilated to wage obligations, therefore they have been considered as operating challenges.

According to the Amadeus database we have:

WC %	Source	
	Amadeus.4 comparable	27.95%
	Amadeus CA, NACE, Ro	30.75%
	Amadeus, Eu, 3030, CA between 150.000-200.000 thron	36.68%

## 2.16.2 Estimation of the update rate

In what follows we present the estimation of the discount rate that was used in the income-based approach.

Considering that the discount rate or otherwise, the cost of invested capital is not directly observable, various models, assumptions and approximations have been developed leading to the corresponding value. Thus, the most widely used path currently used is the WACC (Weighted Average Cost of Capital), which is considered Cost of Equity, estimated by the CAPM (Capital Asset Pricing Model) model, corroborated with the Cost of Debt and the average market debt ratio for the Debt / Equity indicator .

### Estimation of Cost of Equity

The calculation relation for the Cost of Equity estimation through CAPM is:

$$R_a = R_f + ERP \times \beta_{adj} + CRP + SP + \alpha$$

where,  $R_a$  –update rate

$R_f$  – risk-free base rate

ERP – market risk premium

$\beta_{adj}$  - adjusted coefficient of systematic risk assessment

CRP – country risk premium

SP – the size risk premium

$\alpha$  – risk premium that is strictly related to the company and the projected forecasting scenario

Applying this approach rigorously in Romania is difficult due to the lack or insufficiency of public information regarding the estimation of the main components and here we refer in particular to **the risk premium** and the  **$\beta$  coefficient**.

We mention that the financial flows available to investors were made in nominal terms; so the estimated update rate is a nominal one (considering the expected inflation).

Below we will estimate each of the 6 components of the upgrade rate:

### 1. Risk-free base rate ( $R_f$ )

The risk-free base rate is that investment that determines the remuneration of the invested capital under minimal risk conditions. For companies operating in Romania the risk-free base rate was calculated:

- maturity yield on government bonds issued for Germany maturing at 30 years (yield at the appraisal date: 1.16%), of which the long-term inflation rate of 2.4% for Germany was lowered and added, at the long-term inflation rate for Romania in the long term (2.5%), resulting in a base rate of nominal value for the national currency of 1.26%:

## 2. Market risk premium

For the estimation of the market risk premium, the market risk premium for a mature market (ERP) is the country risk of Romania (CRP).

$$(R_m - R_f) = ERP + CRP$$

Where:

ERP - risk premium for a mature market, 5% according to the Damodaran Study: <http://pages.stern.nyu.edu/~adamodar/KPMG> and Duff & Phelps study

CRP - Romania's Country Risk Premium, 3.13% according to Damodaran Study: Country Risk Premium Section <http://www.stern.nyu.edu/~adamodar/pc/datasets/ctryprem.xls>

## 3. Coefficient $\beta$

- ✓ The database of <http://pages.stern.nyu.edu/~adamodar/> was used to estimate the coefficient  $\beta$ . Aerospace & Defense 0.98 Unlevered Beta, D / E 21%

## 4. Coefficient $\alpha$

We have not considered an additional risk, given that it is a company's share and the business is regulated.

## 5. COE Estimate - Cost of Ownership (Kcpr) = 10.9%

## 6. Estimated Weighted Average Cost of Capital (WACC)

The calculus is:

$$WACC = Kcpr * E/(D+E) + Kdat * D/(D+E) * (1-imp/p)$$

- a. Estimated cost of borrowed capital (Kdat) = 5.08 bnro.ro source  
b. Estimated WACC update rate (weighted average cost of capital)

The resulting weighted **average cost of capital (WACC)** is **9.75%**

WACC	=	Kcpr	*	E/(D+E)	+	Kdat	*	D/(D+E)	*	(1-imp/p)
WACC	=	10.90%	*	82.64%	+	5.08%	*	17.4%	*	84%
WACC		=							9.75%	

Conform bazei de date Duff&Phelps costul mediu ponderat al capitalului pentru sectorul

Aerospace&Defense este 9,7%

According to the Duff & Phelps database, the weighted average capital cost for the Aerospace & Defense sector is 9.7%

### 2.16.3 Estimation of the financial flows available to investors

**Financial Flows to Investors (CFI)** are composed as main parts of Operating Flows and Investment Flows. Under the CFI (Cash-flow available to investors), the flows related to the financing activity are not taken into account.

The flow from the current activity has as input the gross profit of the current activity and as output, the profit tax and the changes in the working capital structure (the variation of the working capital requirement). The gross profit and corporation tax were taken from the projected budget. The changes in the working capital structure were estimated according to the provisions of the previous subchapters.

Investment Flows - CAPEX Investments were estimated by the Assessor based on customer forecasts for the 2018-2020 period, CAPEX level, which ensures that the assets are kept in the current state and yield to support the expected evolution of the Turnover

In the following we present the financial flows at the disposal of the up-to-date investors, respectively the terminal value:

(lei)	DCF						
	Valori istorice			An 1	An 2	An 3	VT
	2015	2016	2017				
Total venituri (moneda nominala)	121,617,755	159,739,443	203,346,051	250,000,000	254,750,000	203,800,000	208,895,000
% creștere nominala		31.3%	27.3%	22.9%	1.9%	-20.0%	2.5%
Costuri operaționale	111,267,975	124,495,672	160,378,220	208,353,000	218,751,312	174,901,312	173,433,800
% CA	-91.5%	-77.9%	-78.9%	-83.3%	-85.9%	-85.8%	-83.0%
<b>EBITDA</b>	<b>10,349,780</b>	<b>35,243,771</b>	<b>42,967,831</b>	<b>41,647,000</b>	<b>35,998,688</b>	<b>28,898,688</b>	<b>35,461,200</b>
% Total venituri	8.5%	22.1%	21.1%	16.7%	14.1%	14.2%	17.0%
Minus : Amortiz. și proviz. (imob. corp. si necorp.)	1,328,454	3,915,663	4,416,362	4,600,000	5,100,000	5,700,000	5,842,500
Minus : Ajustarea valorii activelor circulante	0	0	0	0	0	0	0
Minus : Ajustări privind proviz. pentru riscuri si cheltuieli	5,124,250	15,574,752	8,198,688	15,509,337	8,198,688	8,198,688	14,100,413
% Total venituri	5.3%	12.2%	6.2%	6.2%	6.2%	6.2%	6.8%
<b>EBIT</b>	<b>3,897,076</b>	<b>15,753,356</b>	<b>30,352,781</b>	<b>21,537,663</b>	<b>22,700,000</b>	<b>15,000,000</b>	<b>15,518,288</b>
Minus : Impozit pe profit	5,473,574	6,082,473	6,065,035	3,446,026	3,632,000	2,400,000	2,482,926
Ebit/CA %	3%	10%	15%	9%	9%	7%	7%
<b>Profit operational net (EBIT - Impozit pe profit)</b>	<b>-1,576,498</b>	<b>9,670,883</b>	<b>24,287,746</b>	<b>18,091,637</b>	<b>19,068,000</b>	<b>12,600,000</b>	<b>13,035,362</b>
Plus : Amortizare si depreciere	1,328,454	3,915,663	4,416,362	4,600,000	5,100,000	5,700,000	5,842,500
Minus : Investiții în imobilizări	3,000,000		6,200,000	10,000,000	12,000,000	14,000,000	5,842,500
		1.07%	3.05%	4%	5%	7%	4%
Capx/dep		57%	140%	217%	235%	246%	100%
Minus : Variația capitalului de lucru net				10,523,692	1,875,783	-20,120,237	2,012,024
<b>Fluxuri de numerar la dispoziția investitorilor</b>				<b>2,167,945</b>	<b>10,292,217</b>	<b>24,420,237</b>	<b>11,023,338</b>
WACC	9.75%						
Perioada de actualizare				1.0	2.0	3.0	
Factorul de actualizare				0.91	0.83	0.76	
<b>Fluxuri de numerar actualizate</b>				<b>1,975,361</b>	<b>8,544,868</b>	<b>18,473,300</b>	

#### 2.16.4 Estimation of terminal value

**The terminal (residual) value** is an important component of value estimation by the DCF method, which is the business value of the non-explicit prediction period. In view of the continuity of business, we estimated the residual value by capitalizing the cash flow available to investors for the first year of the non-explicit forecast period, also taking into account the estimated annual growth rate for that period of 2.5% (assimilated to term inflation long for the national currency). The terminal value was estimated based on the Gordon-Shapiro model.

#### Estimation of the Constant Growth Rate (g)

The constant growth rate (g) was projected using the following method: considering the reinvestment rate and the financial profitability, based on the following model:  $g = b * ROE$ , b - profit reinvestment rate, ROE - financial profitability.

Considering the estimated update rate of 9.75% and i.e. the 2.5% constant expected increase, the capitalization rate used to estimate the terminal value is **7.25%**.

Hereinafter we present the updated terminal value:

Terminal value (lei)	
Cash flows – terminal year	11,023,338
Constant grterminal year - g	2.5%
EBITDA - terminal year	35,461,200
Terminal value	152,060,494
Update period	3.0
Update factor	0.76
<b>Updated terminal value</b>	<b>115,029,967</b>
<i>%company value</i>	<i>80%</i>

### 2.16.5 Estimation of the market value of equity

Summing up the updated cash flow from the explicit prediction period with the updated terminal value results in EV (Enterprise Value).

The value of EV was added the net debts of:

- Financial debts, from which the amount of 746,744 lei was paid for dividends
- Assets out of exploitation:

In the following, we summarize the net debt ratio (ROL):

Output		M. U.
<b>Company value</b>		
Updated cash-flows	28,993,528	
<b>Terminal value</b>	152,060,494	
Update factor	0.76	
<b>Updated terminal value</b>	<b>115,029,967</b>	
<i>% company value</i>	<i>80%</i>	
Company value	144,023,495	
<b>Company value-majority package</b>	<b>144,023,495</b>	
Minus: Total Financial Debts	<b>746,744</b>	
Plus: Cash and non-operating assets	<b>76,038,014</b>	
Net debts	-75,291,270	
<b>Shareholders Capital Value – majority package</b>	<b>219,314,770</b>	lei
<b>Shareholders Capital Value – minority package after applying DLC</b>	<b>175,451,816</b>	lei

Non-operating assets consist of:

- Cash availability = 63,574,862 lei (Petty-cash and accounts with banks)
- Respectively the following goods

Assets in exces	20,146,554.77	Remarks
Buildings and associated lands in conservation / demolition / scrapping	12,012,534.38	1-Real estate appraisal. CALCULATION SHEET IN ANNEX 1
Stocks with minimal capitalization, no movement in the past 5 years	0	They have been assimilated to net achievement value 0 primarily because they are uninterrupted in the past 5 years and have a minimal potential for capitalization. No weight / material information was received. At the company level,

		there is a policy on the provisioning of different stock categories. See Special Hypotheses
Equipment under conservation	84,389.00	2-The evaluation of movable assets that do not participate in the turnover is presented in Appendix 2.
The ongoing investments remained unfinished following the termination in 1990 of NB3 development program of the company, which aimed at the realization in Brasov, in partnership with the former USSR, of the helicopter Ka 126	366,229.00	See Special Hypotheses, page 8
<b>Net Achievable Value</b>	<b>12,463,152.38</b>	<b>lei</b>

In the following we present the estimation of the share capital value based on the data summarized above:

Company value	144,023,495	
<b>Company value-majority package</b>	<b>144,023,495</b>	
Minus: Total Financial Debts	<b>746,744</b>	
Plus: Cash and non-operating assets	<b>76,038,014</b>	
Net debts	-75,291,270	
<b>Shareholders Capital Value – majority package</b>	<b>219,314,770</b>	<b>lei</b>
<b>Shareholders Capital Value – minority package after applying DLC</b>	<b>175,451,816</b>	<b>lei</b>
Value of the shareholders capital	<b>37,653,000</b>	<b>euro</b>
Number of shares	<b>18,787,853</b>	<b>share</b>
<b>Share/market value</b>	<b>9.34</b>	<b>lei/share</b>
<b>Multiplicators</b>		
Company value	144,023,495	lei
Turnover 2017	203,346,051	lei
EBITDA 2017	42,967,831	lei
<b>EV / CA</b>	<b>0.7x</b>	
<b>EV / EBITDA</b>	<b>3.4x</b>	

Since the value of the company resulting from the DCF model represents the value of the enterprise as a whole, it is necessary to estimate an adjustment factor for the lack of control (minority stake).

Thus, a discount of 20% for lack of control was estimated, according to Bvresources (see data attached to the report).

According to the Property appraisal Standards, 2017 we have: "Discount for Lack of Control - A sum or a low percentage of a pro-rata value of a share in a 100% equity package of an enterprise to reflect the lack of one or all of the control authority's prerogatives. "

"C7. A non-controlling interest may be less in value than a controlling interest. A majority stake is not necessarily a controlling shareholding. Voting rights and other rights attaching to equity participation will be determined by the legal framework in which the entity operates. Often there are different classes of capital invested in the enterprise, each of which carries different rights. As a result, in such a case, it is possible that a minority shareholding nevertheless ensures control or a right of veto over certain measures. "

The assessment of the appropriateness of an adjustment will be made taking into account the controlling power of the rated participant holders to determine whether or not they have the decision-making power to modify the items to be adjusted.

An investor intending to acquire a minority share package is in a disadvantageous position over those who buy at least 50% plus one of the total ordinary shares of an enterprise.

The discount for lack of control is calculated indirectly, starting from the size of the control premium, by the formula:

$$\text{Discount for lack of control} = 1 - (1 / (1 + \text{control premium}))$$

Some of the prerogatives include:

- Capacity to make all managerial decisions
- Ability to benefit from synergies available through combinations with other entities
- Ability to change the cost of capital to the entity by changing the capital structure
- Capital cost reduction due to greater diversification and size

And other strategic decisions. In the opposite sense, the lack of these prerogatives translates into a disadvantage of the minority package owner and therefore it is necessary to adjust accordingly.

For the Discount Review for lack of control, we looked at several studies at market level. In the following we present the data extracted from BVResources sources. Ro, the sectors: Aircraft Manufacturing, Other Aircraft Parts and Auxiliary Equipment

- The average is 18% and the median of 21.5% for all public transactions with a minimum of 0.89% and a maximum of 38.46%
- By selecting recent transactions and eliminating the range extremes we selected DLC 20%

Date of transaction	Control premium	Discount for lack of control
2002	2	1.96%
2005	17.3	14.75%
2007	10.2	9.26%
2008	0.9	0.89%
2012	47.4	32.16%
2013	8	7.41%
2016	62.5	38.46%
2016	60.3	37.62%
2017	30.3	23.25%
2017	27.4	21.51%
2017	52.3	34.34%
average		20%

The market value of an IAR S.A. minority share through this approach is:

$$V_{DCF} = 9,34 \text{ lei/ share}$$

We mention that the subject company is listed on the stock exchange and according to www.BVB.ro, the last transaction made at the date of the report was 9.0 lei / share, with the maximum value of trading recorded in the last 12 months of 10.8 lei / action.

Regarding the sensitivity of market value to changes in unobservable data, we examined comparatively situations where the particular alpha risk varies between 0 and 1. These working hypotheses have produced

the following results:

Alfa	g	Capex, VT	Ebitda, VT	Market value lei/share
0	2.5	Equalling amortization	market	9,34
1	2.5	Equalling amortization	market	8,72

Given the favorable aspects of the economy and the company's tendencies to implement regulations and standards, internal measures to achieve investment objectives, the ability of the company to seize new markets, we selected the working hypothesis where Ebitda% is at the market level and the growth rate is equal to 2.5%. In estimating the Cost of Own Capital, we did not take into account a particular alpha risk but given the fact that we have identified off-balance-sheet assets at the book value, the influence of the provisioning / inventory policy in estimating the terminal value we considered a particular potential risk, that is why we conducted the sensitivity analysis. The market value range of a minority share is between 8.72 and 9.34 lei.

## 2.17 MARKET-BASED APPROACH

A market comparison approach involves comparing the rated entity with other similar and relevant entities that have been traded on the market, and ultimately estimating the value of the company evaluated using "conversion keys," or in other words, multiplier coefficients. Trading prices are analyzed using appropriate comparisons and in many situations are appropriately adjusted for comparisons between comparable companies as to the rated entity (subject company). The key elements of the transaction price differences are: the size of the companies (turnover, total assets or total capacities, stock market capitalization), the most recent transaction date (as of the appraisal date), sales conditions, prices, the size of the share package, expected growth, profitability, date of establishment, etc.

The three methods used in this approach are:

- The method of comparison with share transactions of listed companies - involves the use as source of information of the capital market on which securities of comparable companies are traded;
- The method of comparison with transactions of unlisted companies - involves the use as a source of information of the market of mergers and acquisitions of enterprises as a whole;
- The method of comparison with previous transactions of own shares - involves the use as a source of information, of the history of trades in own shares (volume, closing price, etc.) if the company is listed and the sale price of a merger or takeover of a business subject, if the case.

From among the benchmarking methods, the benchmarking method for listed companies was applied to compare the listed companies with the information on comparable listed companies being more transparent than for takeovers and business combinations and leading to more relevant results market-based approach.

In essence, the method of comparison of shares transactions of public companies, taken as a basis of comparison, is part of those methods that use information provided by the stock exchange, which the valuer processes and adjusts to determine the market value of such companies. Companies listed on the stock exchange are evaluated on a daily basis through the demand-offer mechanism, in conjunction with the stock price level.

An observation to be made is related to the applicability of this method, namely that it is convincing only when sufficient market information is available. The credibility of this method is affected in the event of rapid changes in market conditions or rarely sold businesses / shares.

The method of comparisons with stock transactions of listed companies is based on the following hypotheses:

- Quotations of listed companies that are part of the same industry and are actively traded on a free market may be a relevant indication of value when companies meet the criteria of similarity and relevance to allow the correct and relevant application of the comparison method;
- The database [www.bvb.ro](http://www.bvb.ro) was searched for to identify comparables with the same field of activity, but there are few comparable companies listed on the Romanian stock exchange, with the statements published in 2017, and the variation coefficient is considerably high for all the stock market indicators, thus the market value that would be obtained, would not be reasonable.



Company	BVB Symbol	Statements published at	P/BV	Variation of the transaction price on the appraisal date, (1 week)	Net turnover 2016 as per mfinante.ro, lei	Average no. of employees in 2016, s per mfinante.ro	PER	EPS
S IAR S.A	IARV	2017	1,56	1,10%	152.096.365	316	7.1	1.28
S.C Aerostar S.A	ARS	2017	3,69	-2.72%	356219105	1719	14.32	0.35
S.C Turbomecanica S.A	TBM	2017	2.25	0.89%	83030250	430	7.39	0.04
S.C AVIATIA UTILITARA BUCURESTI SA	AVUT	2017	1.52	-	3078931	38	32.27	0.04
SC. Avioane Craiova SA	AVIO	2017	-0.04	-35.71	23.378.109	255	-2.28	-8.28
	average		1.24				13	-2.0
	median		1.52				11	0.0
	deviation		1.17				15	4.2
	Variation coefficient		0.94				1.13	-2.15

The second way to choose relevant multipliers and similar businesses was to correlate information from multiple databases to create a sample of companies of high relevance at regional and international level.

The sources of information used in this approach were:

- Infinancials database
- Database published by Damodaran
- Amadeus database
- Reuters
- Duff&Phelps
- Bloomberg

Duff & Phelps, Reuters and Damodaran databases were used to analyze industry / sector specific indicators. With the help of the Amadeus databases, Infinancials has selected the sample of comparable companies taking into account several criteria such as: NACE code, location, turnover, etc.

### Stages of evaluation

The market assessment process involves several stages, namely:

- ✚ Establishing market-based assumptions. This approach has been applied observing the principle of continued activity, therefore we have selected only those comparable companies that comply with this principle.
- ✚ Choice of Multipliers: Considering the size of the company's subject (Very Large company), we have chosen as the first criteria the Turnover and Ebitda% as they highlight the performance and potential of the company. At the same time, the P / Book, P / Sales, Ev / Ebit indicators were studied.
- ✚ Considering that some of the companies do not have the data published in 2017 and in 2017 the subject company recorded a maximum in both the turnover and the EBITDA margin, the 2016 financial variables were used and multipliers selected at 2016
- ✚ For the selection of the relevant multipliers the statistical analysis of the frequency distributions and the variation indicators was carried out. Thus, the EV / EBITda and EV / Sales multipliers were found to be relevant
- ✚ In the first phase, the intervals obtained with **unadjusted** multipliers are:
  - EV / EBITDA ranging from 10 to 14.66
  - EV / EBIT ranging between 16.19 - 27.48

- Sales range between 1.24 - 1.48
- Sales ranging between 1.3 - 3.19
- P / Book ranging from 1.53 to 2.94

Given that Romania has an increased country risk (Baa3), and countries with a stable economy have a lower associated risk, adjusted multipliers are expected to be lower.

It is necessary to present the initial data as the first starting point, but after the adjustments the minimum and maximum values may be half.

The extent of this range is quite high, as it is necessary to select comparables according to turnover, country of origin (selection of countries with a stable economy), the main activity of the company (in the case of companies operating in the service sector, logistics EV / Ebitda indicator is higher than 5, generally in the production sector the level is below 5).

- ✚ The advantage of using the Infocriations database is its ability to filter and select more in-depth comparisons: the first selection was the object of activity. Considering the field in which the subject company operates, the specifics of the industry / industry as a whole, we have found that several lines of activity interpenetrate in the operational activity of comparable companies: renting, aircraft production, aircraft subassembly production, maintenance and repair.

Company	EfCode	Detalii companie
Airbus Group SE	30170EN	Airbus SE is involved in the design, manufacture, delivery and supply of aerospace products, space and related services. Through its subsidiaries, it operates through the following segments: Airbus Commercial Aircraft; Airbus Helicopters; Airbus Defense and Space; and Other / HQ / Consolidated.
Saab AB	30068SS	In Africa, leader in the field of defense and civil security in the countries in which it operates. Main objects of activity: aviation and support solutions.
Dassault Aviation SA	99037EF	It is a French company to build military, regional and business aircraft.
Meggitt PLC	91125EX	It is a British engineering business specializing in aerospace equipment.
Latecoere SA	30207EF	Latecoere SA is a French-based company mainly engaged in the production of aircraft equipment. The company manufactures aero-structures such as fuselage sections as well as passenger luggage and luggage for Airbus, Boeing, Dassault, Bombardier and Embraer. It also provides on-board electrical wiring and airplanes as well as camcorder systems. In addition, the company provides design and engineering services for its customers.
MTU Aero Engines AG	30845ED	MTU Aero Motors engine manufacturer engages in the development, manufacture and support of commercial and military aircraft engines in all push and power categories and stationary gas turbines.
FACC AG	40062EA	FACC AG (formerly Fischer Advanced Composite Components) is a Chinese-Austrian manufacturer of interior airplane components and not only.
Safran SA	00464EF	Safran SA is engaged in the design, manufacture and sale of aircraft and defense technology and communications. It operates through the following segments: Aerospace Propulsion, Aircraft Equipments, Defense, Security and Holding Company and others. The aerospace propulsion segment designs, develops, manufactures and markets propulsion systems for commercial jets, military transport, training and combat aircraft, rocket engines, civil and military helicopters, tactical missiles and drones. The Aircraft Equipment segment is specialized in mechanical, hydromechanical and electromechanical equipment. The defense segment includes all enterprises serving the naval, terrestrial and aviation industries.
The Boeing Company	30022NU	We recall the main sectors in which it operates, commercial airplanes, helicopter defense AH-6, AH-64, H-60, aerospace.
Korea Aerospace Industries, Lt...	41649FK	Co-development Bell 427 Bell 429., production KAI KUH-1 Surion and planes.
Embraer S.A.	31163LB	Brazilian civilian, military and private aircraft manufacturer. The company also provides services related to aeronautics.
Textron Inc.	30425NU	It has five divisions of which Bell. It is a leading manufacturer in the commercial and military aircraft industry, unmanned and manned, and the pioneer of the revolutionary tiltrotor aircraft.
IAR SA	40288ER	Subject company, unknown data on Infocriations in 2016 and 2017
AAR CORP.	32653NU	AAR is an independent aviation provider to commercial and governmental customers in more than 100 countries
Spirit AeroSystems Holdings In...	40125NU	American company designs and builds airframes for both commercial and defense customers

- ✚ Detecting similar and relevant businesses: The selection was made from different databases for those businesses whose economic and financial parameters are publicly available and reasonably accessible, as well as those businesses that have the field of activity, potential growth, profitability, similar to the subject matter. In addition, the primary criteria underlying the selection of comparables were: the market on which it operates, the products offered, the size of the enterprise. It is a matter of fact that the market on which the company operates is an international market, reelected in many countries in the European Union, with the main customers in the structure of the National Security System and international government entities.
- ✚ The selection of comparables also took into consideration the data provided by the customer, see Chapter 3.9.3.3. Mentioning that Airbus Helicopters SA is not listed and the parent company has been identified in the international database.
- ✚ By filtering the 15 companies initially selected, following a series of qualitative and quantitative criteria, four companies were eliminated due to a lack of data on multiplier coefficients (The Boeing Company, Korea Aerospace Industries, Spirit AeroSystems Holding)
- ✚ Airbus Group, Facc AG recording extreme values of indicators and limiting dispersion.
- ✚ When the market values of multipliers of companies operating in the same industry are close, it means that those multipliers are commonly used and preferred in the ratings of companies in the respective industry. Thus, multipliers with similar values for different types will be given greater importance than other multipliers with values that deviate from the average of the sector.
- ✚ In order to analyze the degree of dispersion, several statistical indicators were determined: average, median, standard deviation and variation coefficient. The standard deviation is used to determine the average variation ranges, these intervals being obtained by subtracting and adding the standard deviation to / from the sample mean. The variation coefficient has been used to determine the degree of confidence that is given to multipliers. A maximum threshold of 35% was considered for this indicator, so it may be considered relevant to use multipliers whose variation coefficient is lower than this threshold.
- ✚ If the variation coefficient = 0 the series is perfectly homogeneous, all the terms of the series are equal to each other and are equal to the mean: in this case there is no variation. If  $v \leq 5\%$ , the series is very homogeneous, the variance is very small, the average is very representative, and the grouping was very well executed (in the case of the frequency distribution series). If  $v \leq 35\%$ , the series is homogeneous. If  $v \geq 70-75\%$ , the series is heterogeneous, the variation is very high, the average is not representative, and the grouping needs to be rebuilt.

	Tara	E.V	EV/Net Sales	EVEBITDA	EVEBIT	P/Book	Total Risk Premium,	Ajustare risc de tara	Ev/Sales	Ev/Ebitda	EV/Ebit	P/Book
Company		Current (in millions USD)	Last	Last	Last	Last						
Saab AB	Suedia	4,599	1.23	13.17	18.26	2.80	5.69	64.51%	0.44	4.67	6.48	0.99
Dassault Aviation SA	Franta	15,334	2.56	7.36	23.97	3.41	6.40	72.56%	0.70	2.02	6.58	0.94
Meggitt PLC	UK	6,064	2.11	8.40	14.40	1.31	6.25	70.86%	0.61	2.45	4.20	0.38
Latecoere SA	Franta	635	0.78	9.92	14.27	1.29	6.40	72.56%	0.21	2.72	3.92	0.35
MTU Aero Engines AG	Germania	9,972	1.61	10.70	14.57	3.56	5.69	64.51%	0.57	3.80	5.17	1.26
Safran SA	Franta	45,899	2.10	7.99	11.33	3.44	6.40	72.56%	0.58	2.19	3.11	0.94
Textron Inc.	USA	17,857	1.26	13.07	19.08	2.69	5.69	64.51%	0.45	4.64	6.77	0.95
AAR CORP.	USA	1,668	0.94	12.59	20.96	1.66	5.69	64.51%	0.33	4.47	7.44	0.59
		media	1.57	10.40	17.11	2.52	6.03	0.68	0.49	3.37	5.46	0.80
		mediana	1.44	10.31	16.42	2.75	5.97	0.68	0.51	3.26	5.83	0.94
		abalarea	0.63096	2.36	4.18	0.97	0.36	0.04	0.16	1.15	1.58	0.32
		ccoficient variatie	0.40093	0.23	0.24	0.38	0.06	0.06	0.33	0.34	0.29	0.40
IAR SA	Romania	26	0.58	1.13	4.60	1.53	8.82					

- ✚ It is noted that the Ev / Ebitda and Ev / Sales multipliers have a close variation coefficient and the P / Book is slightly above this level, so the first two multipliers
- ✚ Adjustment of multipliers for Country Risk Difference: This adjustment was made because the

selected comparisons are specific to international markets, with differences in the economic conditions in which businesses operate and possible differences in investor perceptions.

✚ Sorin Stan and Anghel Ion<sup>1</sup> believe that the lack of information and market transactions leads to the use of reference variables (in this case multipliers and comparable enterprises) in developed countries. In this case, these variables should be adjusted at least for country risk, otherwise their use is irrelevant. The same view is shared by Luis Pereiro. He considers multiples adjustments to be mandatory, as similar companies can be appraised differently according to the geographic area in which they operate. The differences are manifested between the financial reporting policies of different countries and, at the same time, between the capital markets in them. These capital markets differ because of the country risk differential perceived in different economic markets, or because markets can reap differently the same characteristics of a company.<sup>2</sup>

✚ Final adjustments - control premium and discounts: The first control on the subject company was not applied because a minority package is being evaluated. Being a listed company, there was no need for the discount for lack of liquidity.

Market-based approach		
	EV/ EBITDA	EV/Turnover
Multiplicator selectated at 2016	3.37	0.49
Pro rata	50%	50%
<b>Financial variable</b>	35,243,771	159,739,443
<b>Comapany value</b>	98,521,918	
Control premium	0%	
<b>Shareholders Capital Value after the Control Premium</b>	98,467,218	
Value of financial debts	746,744	
Cash and non-operating assets	76,038,014	
<b>Shareholders Capital Value (before DLOM and the control premium)</b>	173,758,490	
DLOM	0%	
<b>Shareholders Capital Value</b>	173,758,490	
Number of shares	18,787,853	
<b>Market value / share</b>	<b>9.25</b>	

So, in our opinion, the market value of a share, a minority package obtained through the market-based approach, is:

$$V_{\text{market}} = 9,25 \text{ lei/ share}$$

<sup>1</sup>Stan, S. A. (2013). Company appraisal – 5th edition revised. Bucharest: Iroval

<sup>2</sup>Pereiro, L. E. (2006, April). The Practice of Investment Valuation in Emerging Markets : Evidence from Argentina. Journal of Multination Financial Management, 16(2), 160-183

#### 4. ANALYSIS OF RESULTS AND CONCLUSION ON THE VALUE

The evaluation methods used were:

- ✓ *Income-based approach* - a general way of estimating the value of an enterprise, participations or shares by using one or more methods by which the value is estimated by converting anticipated benefits into capital value.
- ✓ *Market-based approach* - a general way of estimating the value of an enterprise, participations or shares by using one or more methods that compares the subject with other similar entities, equity interests or similar shares that have been sold

#### RESULTS OF THE APPLICATION OF THE INCOME-BASED APPROACH

Taking into account the aspects presented in the report, it can be considered that for the purpose of this appraisal and the relevance of the data and information used to apply the appraisal methods the outcome of **the income-based approach** is the most representative. Arguments on selecting the outcome of the income approach:

- ✓ The value obtained through the updated financial flows method takes into account both the potential of exploiting the company's assets based on the current activity within it and the impact of the intangible assets not clearly identifiable on the value of the company. The method is based on estimated cash flows according to the company's financial projections set up by the company management. Consequently, the value best reflects the expectations of potential investors about the company's future financial performance, under the reserves mentioned by the Assessor in presenting the application of the method, with reference to the risks that can have a significant impact on the evolution and future development of the company. Taking into account the aspects presented in the report, it can be considered that for the purpose of this appraisal and the relevance of the data and information used in the application of the appraisal methods, the result of the income approach, or of **the updated financial flow method**, is the most representative
- ✓ It takes into account all the specific aspects of the "IAR SA Company" activity, quantified by financial projections; this approach takes into account all elements of intangible assets that cannot be quantified separately;
- ✓ Financial forecasts have been prepared taking into account the current situation of the company, the history of the activity and the information known at the time of the assessment regarding the future evolution of the specific market and analyzed by us together with its management;
- ✓ Since the financial statements for 2017 are not available for all the companies in the sector, multiples and relevant benchmarking and benchmarking analyses may not be of high accuracy as at 2017 and require adjustments. At the same time, the expected evolution of the indicators and multipliers studied, the projection for 2017-2019, are not significant, so we used multipliers and financial variables calculations of 2016

The results are:

- Income-based approach: 9.34 lei / share
- Market-based approach: 9.25 lei / share

Thus, the Assessor's opinion on market value is:

**Market value of a share, minority share, is 9.34 lei / share**

S.C Darian DRS S.A