Business valuation based on RAS and IFRS

M N Kaloshina

Moscow Aviation Institute (National Research University), Volokolamskoe highway 4, 125993, Moscow, Russia

E-mail: kaf505@mai.ru

Abstract. International integration of Russian airlines involves the financial statements formation both in the Russian Accounting Standards (RAS) and in the International Financial Reporting Standards (IFRS). Financial reporting is an information basis for carrying out valuation activities. The article proposes for Russian and foreign air carriers the business valuation principles, which are based on the synergistic effect of applying economic indicators of financial statements (fixed assets cost, intangible assets, financial investments, etc.) considering RAS and IFRS.

1. Introduction

The fair assessment of the business valuation requires a thorough organizational, financial and technological retrospective analysis of the company, as well as its development prospects. The assessment methodology requires continuous improvement due to the business conditions variability, integration and globalist trends in the world market. The most sensitive are companies operating in international competition, including in the field of air transportation. In this regard, there is a need for the formation of unified and verified principles for business valuation, which allow obtaining isomorphic results for both Russian air carriers and their international competitors. The results convergence can be achieved by increasing the reliability of information certainty; it is proposed for this to study the IFRS and RAS features [1]. The transition to IFRS is mandatory in the Russian Federation for a number of Russian companies. The financial statements availability according to international standards are considered attractive to foreign investors [2].

The study purpose is to formulate business valuation principles for Russian and international air carrier companies whose shares are traded on the free market. It is necessary to use IFRS and RAS to increase the results reliability.

The study object is air carriers: PJSC UTair Airlines, PJSC Aeroflot, American Airlines and Spirit Airlines. The study subject is methodological approaches to business valuation.

2. Theoretical basis

Business valuation involves calculating the market value of a company’s assets. It is necessary to identify accounting principles that approximate the assets value to the dealers market expectations of dealers analyzing financial statements in accordance with RAS and IFRS. The IFRS valuation is carried out in order to reflect the real value of the fixed assets and initial reporting to adequately characterize the property status of the company. The obvious advantages of the IFRS valuation are revealed in the fact that accounting and reporting on their basis attract and retain to foreign and Russian investors and
lenders. Russian air carriers prepare reports simultaneously in two standards. In this regard, it became necessary to analyze the differences between RAS and IFRS [3, 4].

The methodological and actual quantitative analysis allows us to formulate the following conclusions on the main types of assets and financing sources.

Fixed assets and construction in progress.

1) Fixed assets are an asset that is not intended for sale according to the RAS rules (paragraph 4 in RAS 6/01 “Fixed Assets”). Moreover, there are the following calculation rules in the balance value:

- leasing objects are not considered in the tenant account;
- social objects and assets for resale are considered;
- “old” objects are not revalued;
- there are unreasonable terms of use apply.

2) Non-current assets that the company used and then decided to sell are recognized as a separate type of current assets in IFRS: (IFRS 5 “Long-term assets held for sale and discontinued operations”). Assets held for sale are not depreciated. There are the following rules based on IAS 16 “Fixed Assets” in IFRS:

- leased assets are accounted for in the lessee account;
- revaluation model is used;
- depreciation is recalculated according to the real useful lives of fixed assets;
- reserves for decommissioning and remediation are accrued;
- investment property is categorized and remeasured at fair value.

Air carriers use leasing actively, so the fixed assets cost in accordance with IFRS determines their value most adequately. As the reporting analysis of the selected companies shows, the fixed assets cost increases significantly compared to RAS.

Intangible assets.

1) Accounting is conducted in RAS in accordance with RAS 14/2007 “Accounting for intangible assets”:

- not all assets are recognized;
- licenses and non-exclusive rights are not included in intangible assets;
- R&D is recognized as a separate asset under RAS 17/02, which leads to an overstatement of assets;
- overvaluation for all intangible assets, since impairment is allowed, but it is used extremely rarely in practice;
- goodwill is not relevant to the actual measurement of a business, because it is calculated based on the carrying amount rather than the fair value of assets and liabilities.

There are the following rules according to IFRS 38 “Intangible assets”:

- intangible assets are recognized (trademarks, licenses, software; “deferred expenses” are completely eliminated due to re-qualification in intangible assets;
- research is written off in R&D;
- developments are tested for impairment;
- revaluation is carried out at the date of transition IFRS;
- impairment of intangible assets.
It is necessary to rely on the intangible assets cost in accordance with IFRS to calculate the business cost, while it is recommended to consider the results of research and development under RAS, which are not a priority for air carriers and have a value that is not significant for assessment.

Inventory.
1) Inventories are accounted in RAS in accordance with RAS 5/2001 “Accounting for inventories”:
   - illiquid, obsolete inventories may be reflected in the balance sheet;
   - book value of the finished product may include excess losses;
   - reserve underestimation by the markdown value of reserves to the current market value;
   - reflection of all inventory items in current assets;
   - article “Inventories” includes deferred expenses.

2) IFRS usually adjusts for compliance (IAS 2 “Inventories”):
   - estimate of all inventories at the lower of actual cost and net realizable value;
   - accrual method uses for late accounts of suppliers, their distribution on the inventory balance;
   - allocation of long-term reserves: an emergency, a strategic reserve;
   - reserves recognition depending on the transaction nature;
   - inventory transfer into non-current assets for creating the fixed assets;
   - full recalculation of all biological assets (IAS 41 “Agriculture”).

The inventory size is recommended to be taken according to RAS.

Financial assets.
1) Accounting for financial assets according to RAS is regulated by RAS 19/2002, “Accounting for Financial Investments”. There are the following results:
   - initial and subsequent valuation is carried out at actual cost according to primary documents and does not consider the money time value;
   - long-term assets overvaluation as a result of non-use of discounted value;
   - monetary documents (tickets, tickets, forms, etc.) are reflected in cash;
   - cash equivalents are recorded in other current assets (deposits of three months or less).

2) There is a different classification of financial assets in IFRS (IAS 39 “Financial Instruments: Recognition and Measurement”, IFRS 9 “Financial Instruments”), which leads to the following estimates:
   - carrying amount recalculation of all financial instruments;
   - full reserve calculation for receivables;
   - interest calculation and acquisition costs at the effective interest rate;
   - derivatives recognition;
   - expenses description or advances for vouchers and tickets;
   - transfer of short-term deposits to cash.

An important component of assets for calculating business value for Russian carriers is the vertical and horizontal integration of the company. The cost of subsidiaries, affiliates sometimes exceeds the parent organization price. Aeroflot's structure includes a large number of subsidiaries that have their own sector of growing business. Therefore, it is recommended to use RAS data to calculate business value [5, 6].

Financial liabilities.
1) There are no specific accounting rules in RAS regulating this section, therefore, one should be
guided by general norms, including the Finance Ministry of Russia order dated July 29, 1998 № 34n:
- initial and subsequent valuation at actual cost does not consider money time value according
to primary documents;
- issued guarantees and sureties for third parties are reflected in the balance sheet;
- derivatives are not recognized.

2) Accounting is carried out according to IFRS in accordance with IAS 39 (IFRS 9) and leads to the
following adjustments as a rule:
- classification for long-term and short-term can change;
- short-term component of long-term debt is allocated;
- issued guarantees and sureties for third parties are disclosed in the statements;
- liability is recognized for costs associated with the reporting period.

There are the following examples: utility bills; reflection of operations “in essence”, and not in form.
Financial liabilities are recommended to be considered in full.

Reserves. The difference between accounting systems in the case of reserves is the translation
difficulties, because the term is one, but the concepts are different: reserve is a liability indefinite in
amount and time in IFRS, and a profit part that is not payable to owners in RAS. A provision is accrued
only if there is a high probability of the resources outflow, there is only disclosure in the notes to the
statements in the case of a possible liability. The reserve is estimated using a discount rate that reflects
the purchasing power of the ruble \[7, 8\]. As a rule, IFRS adjusts and fully accrues all liabilities (IAS 37
“Provisions, Contingent Liabilities and Contingent Assets”): pension obligations, employee benefits,
guarantee obligations, environmental measures, decommissioning and remediation, onerous contracts,
tax risks, lawsuits.

Capital.
1) RAS errors of past years are reflected in retained earnings. As a result, this indicator at the end of
the previous year differs from the indicator at the beginning of the next. In practice, an information
about corrections is not always disclosed in sufficient quantities (comparative information). In addition,
reserves are created from retained earnings (in accordance with constituent documents). Contributions
of participants until the registration moment may be accounted for as part of settlements, and not in
capital.
2) As a rule, adjustments are made in IFRS:
- change in the fair value of certain assets is recognized in equity (in other comprehensive
income);
- classification for capital or liability depending on the economic substance of the financial
liability.

The reflection order of capital for LLC may differ from the capital reflection of OJSC. The benefit
from loans received from shareholders on preferential terms is recognized in equity and calculated using
the current effective interest rate.

The company equity affects the application of the income approach, where the basic indicator is
profit. There is a possibility to use a differentiated version of the capitalization method according to
RAS and IFRS \[9, 10\].

3. Methodology
It is proposed firstly to use various approaches (costly, profitable) to calculate the business value.
Secondly, you should take two principles advantage of financial reporting: RAS and IFRS.
The calculation takes the following value according to IFRS: intangible assets value and fixed assets value. The value of financial investments is accepted for calculation according to RAS.

Market value calculation by the cost approach using the express net assets value method.

1) The calculation was performed only for Russian air carriers according to RAS, since the method involves the use of an adjustment coefficient for fixed assets for the deflator in capital construction. The recommended value obtained by the posterior way is 3.

2) The method involves replacing the line “financial investments” with a similar line from RAS data according to IFRS. Fixed assets and intangible assets are accepted according to IFRS, considering assets received on lease. The results of research and development according to RAS are also considered.

The calculation is performed according to the formula:

\[
\text{NAV} = \text{FA}_I + \text{CA}_{II} - \text{LtL}_{IV} - \text{StL}_V + \text{DI}
\]

where: NAV is a net assets value; \(\text{FA}_I\) are the fixed assets; \(\text{CA}_{II}\) are the current assets; \(\text{LtL}_{IV}\) are the long-term liabilities; \(\text{StL}_V\) are the short-term liabilities; DI is a deferred income.

Market value calculation by the income approach using the net present value method.

1) A valuation is based on depreciation flow according to RAS. The discount rate is accepted at the level of 23.51% with the risk in this area of activity, i.e. the “competitive risk” type. The exposure period consists of 20 years of the forecast period and 21 years of the post-forecast period. The post-forecast period is calculated as the net flow divided by the discount rate. RAS discounts are deducted from the amount of the discounted flow.

Table 1. Results of calculations based on the balance sheet compiled in accordance with the RAS and IFRS requirements, thousand rubles.

| Approach                        | PJSC "UTair Airlines" | PJSC Aeroflot - Russian Airlines | American Airlines | Spirit Airlines |
|---------------------------------|-----------------------|----------------------------------|------------------|----------------|
| Cost method discounted cash flow| -3 008 283,00         | 86 677 954,00                    | 0,00             | 0,00           |
|                                 | -1 713 017,18         | 17 408 560,86                    | 241 950 584,87   | 23 926 527,64  |
| Results of calculations according to the proposed principles, thousand rubles |                       |                                  |                  |                |
| By stock quotes                  | 28 284 869,12         | 113 060 739,24                   | 957 001 734,11   | 250 837 874,40 |
| Cost method discounted cash flow | 6 409 858,00          | 239 592 982,00                   | 1 452 093 170,70 | 218 631 998,86 |
|                                 | 24 687 448,44         | 131 329 047,80                   | 1 578 093 120,16 | 128 750 113,40 |

2) A valuation is based on depreciation flow according to IFRS. The discount rate is accepted at the level of 13.12% with the risk in this area of activity, i.e. the “competitive risk” type. Country risk is 0%. The exposure period consists of 20 years of the forecast period, 21 years of post-forecast period. The post-forecast period is calculated as the net flow divided by the discount rate. Losses are deducted from the amount of the discounted flow under IFRS.

Market value calculation based on stock quotes. According to the bidding data, business value calculations were performed to verify the proposed approach.

Summary results of calculations for various approaches are presented in the table.

An elementary correlation singular model of a linear type was developed to conduct an express calculation of business value for air carriers, in which revenue was chosen as an argument, which makes the assessment independent of losses. The correlation between the function and the argument is 0.99. The model has the following form:

\[
C^b = 0,544 \times C^o + 14488650,36
\]
where: $C^b$ is a business value, thousand rubles
$C^e$ is a company revenue at the valuation date.

The model allows using the revenue according to RAS to get the business values according to the proposed approach.

4. Results and conclusions

The air carriers cost was assessed by an expensive, profitable approach based on reports compiled in accordance with RAS and IFRS in this work. Verification is carried out according to exchange copy data.

The proposed approach to valuation, which is based on a synthesis of RAS and IFRS data, showed the closest approximation of the estimates to exchange expectations, which indicates the reliability of the principles. The RAS and IFRS information combination allow you to get positive estimates for air carriers that have losses, whose financial condition is diagnosed as unsatisfactory, showing the bankruptcy signs. The negative financial condition is not a reason for termination of activity, which is confirmed by market expectations for operations with shares of such companies and the proposed approach to the business valuation.

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