Business Valuation of the Companies listed on the Prague Stock Exchange and V4 Countries

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Topicality of the Dissertation

The work primarily estimates the intrinsic value of companies listed on the Prague Stock Exchange and compares the value to the market price. This is an interesting but routine work, especially if only the DCF method is used to determine the intrinsic value, assuming stable growth. Given the different time shifts in terms of information, possible overstatement and understatement are also distorted. The second goal is to identify the causes of deviations in market and internal value, in other words, why the Czech capital market does not work effectively. However, this has a wider context than the work can cover. The third objective, which addresses the level of PSE and V4 risk, and the potential impact on risk, appears to be current and interesting. From this point of view, the work seems to be current. It is based on current data and could be a useful support material for practice.

Appropriateness of the Selected Methodological Approach with Respect to the Goals and Objectives

The objectives are clearly formulated (p. 7) and presented in a well-arranged scheme. The author also formulates problematic questions whose solution will contribute to achieving the goals. The most interesting question seems to be the question O3Q4: "How would change, risk level of the PSE, when it joins stock markets of the hypothetical Visegrad countries?" The work also mentions a methodological apparatus to achieve the objectives. Although the author refers to numerous sources and methodological tools are generally listed correctly, I see certain limitations when it comes to their mixing and simplified use. The basic methodological tools used are - basic technical analysis of stock market prices, the determination of intrinsic value using the FCFF stable growth model using CAPM model, Monte Carlo simulation and basic statistical tools. The methodological tools are appropriate, but I will continue to stress the limitations about the selectedparameters with which they then work.

Fulfillment of the Goals and Objectives

By analyzing selected companies, their internal parameters and movements in the prices of their shares on the PSE, the author compares internal value and market price, thus aiming at the fulfillment of objectives, especially objective 1. Objective 2 is followed and supported rather by literature research. The third objective was met by discussing the risk of individual markets and possible linking to the risks of the fictitious V4 market.

The goals have been fulfilled, but each of the goals has some limitations that the author must be aware of.

Mixing resources for input parameters is very delicate. If the FCFF method is used for stable growth, the WACC is determined using the CAPM model, but the data from average markets (probably the source of damodaran.com), or past trading data, are used, and the intrinsic value is influenced by the market price with which it is compared. It also happens that WACC $<g$ enters the stable growth method, which contradicts the assumptions under which the model is derived and applies (eg. CEZ). Moreover, to expect CEZ to grow 8.9% steadily (to infinity) contradicts the development of FCFF in the previous years and also contradicts the assumption that sustained growth should not be higher than the long-term GDP growth rate. In general, almost all companies seem to have very low WACC values. I believe the calculations are fine, but some values are special - for example, for Unipetrol Orlen Group for 2013 is stated that WACC $<RFR$, which it should not be.

Relevance of Author's Contribution to the Research and Practice

The presented dissertation thesis is an interesting pilot study that can serve as a motivation for replicating the solution of similar problems with a greater methodological purity, and in this respect it is beneficial for science. In terms of current outputs, it can be beneficial for pedagogy as a set of case studies about the context of intrinsic values and market prices. The benefit for practice, or a discussion about further development of the V4 markets may then be met by fulfilling objective 3, risk modeling of fictitious markets. However, this issue is more complex and could be elaborated more thoroughly in another independent work.

Formal Requirements and Language Level

The formalities of the work are fulfilled. The author could pay more attention to editing tables and some graphs.

Publication Activities

The publication activity of the PhD. student is above average level and covers journals as well as conference papers. The publications are related to the examined topic.

Questions

1) The intrinsic value is determined by the FCFF method, a stable growth model. However, the FCFF determines the value of the company as an entity, not an equity. In order to compare the intrinsic value with the share price, is it necessary to subtract the market value of the debt? How was the market value of the debt determined?

2) Normal distribution was used for Monte Carlo simulation. Quantities in normal distribution can assume all values, ie negative values. There are many economic variables where it makes no sense. Was there any way to prevent negative values from happening?

Concluding Statement

The author has fulfilled the objectives of the disertation thesis on an adequate level. I recommend the dissertation thesis to defense procedure and after its successful accomplishment to grant the academic degree Ph.D.

Praha, 9.6. 2019   doc. RNDr. Ing. Hana Scholleová, Ph.D.