The Discounted Valuation of Minority Interests in Non-Listed Companies

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Abstract

This article will focus on the considered examination of the evaluation criteria of minority interests in the equity capital of companies non-listed on regulated markets. In this respect the main features of both direct and indirect valuation criteria will be analysed, specifically focusing on the second ones which measure the economic value of such minority interests by executing a discount percentage to the pro-rata value of the whole company's economic capital (W). Then the methods most often utilised by the European well-qualified professional praxis to measure the value of minority interests non-listed on regulated markets will be investigated. To this purpose, a number of official reports concerning purchase/sale transactions of minority interests in European non-listed companies will be examined.

Introduction and Objectives

In the case of purchase/sale transactions of minority interests in businesses non-listed on regulated markets, the transfer price actually agreed by the parties hardly ever corresponds to the equivalent pro-rata value of the firm's overall economic capital (W), because both of the influence exerted by the so-called "subjective conditions of negotiation" on the determinations of each counterpart (such as the trading ability of each counterpart and its resulting negotiating power, as well as the predilection for personal prestige or possible information asymmetries) both of the "prerogatives" associated with the interest in the corporate capital that is being negotiated (Zingales, 1994).

With specific regard to the latter, when the traded interest provides the purchaser relevant control rights upon the company, or is useless for this purpose, a discrepancy can be discovered within the financial value of the exchanged interest and the correlative pro-rated value of the economic capital (i.e. *base* or *found* value). This divergence aims to provide a fair assessment to the further control requirement, when it occurs or when it is absent.

If the interest traded allows the purchaser to achieve a predominant position over the company, its financial value is esteemed by computing a given monetary worth to the correspondent pro-rated value of the whole company's economic capital, called "majority or control premium". When the interest exchanged does not let the purchaser to achieve a substantial influence over company's operations, its market value is assessed by reducing of a given percentage the corresponding base-value. Such percentage reduction is called "minority discount for reduced powers" or also "minority discount for lack of control".

This research aims to give a contribution to the issue of valuating the minority discount for reduced powers in purchase/sale transactions of minority interests non-listed on

official markets. Firstly, the study will examine the methods utilised to measure the market value of minority interests in the corporate capital of companies non-listed on regulated markets (and so the minority discounts for reduced powers) elaborated by the main international doctrine. The principal features of both direct and indirect valuation criteria will be examined specifically focusing on the second ones, which measure the financial value of minority interests by executing a discount percentage to the corresponding economic base value. Then the evaluation methods most often utilised by the European well-qualified professional praxis will be investigated. To this purpose No. 250 reports drawn up by financial experts (specifically consulting firms, law firms and financial institutions) concerning purchase/sale transactions of minority interests in E.U. medium and large companies non-listed on official markets throughout the period 2000-2015 will be examined.

Methodologies Currently Used to Estimate Minority Discounts for Lack of Control

If the interest bought/sold does not enable the purchaser to get full powers of control over the company, its market value is measured by deducting a pre-determinate discount rate from the relevant base-value (that is measured by calculating the pro-rated value of the company's overall economic capital - W).

Specifically devaluation of minority interests with regard to the relevant base value of the interests exchanged is given by the following formula (Odegaard, 2007; Massari, Monge & Zanetti, 2006):

$$W'_X = SC_X W_X$$

Where:
W'x is the discounted value of the minority interest exchanged;
Wx is the base-value of the minority interest;
SCx is the discount percentage for lack of control.

The "magnitude" of the discount percentage (*SCx*) normally grows in a more than proportional means when the size of the exchanged interests grows (so called "leverage effect"), because in such way are higher the costs associated with the failure to achieve a full power of control over the company.

The economic rationale under such kind of minority discount has to be identified in the impossibility for the purchaser to gain the company's owner privileges (so called "prerogatives of control"), and specifically the power to distribute the company's resources at his lone judgement. Accordingly, the reasons for the purchasing of minority interests in the equity capital of an unquoted company must be sought entirely in the possibility of obtaining adequate financial revenues dividends and capital gains - Liao, 2014; Ouimet, 2013).

Different kinds of methods have been elaborated by international researchers and practitioners to measure the discounted market value (W') of minority interests for reduced powers:

Direct methods, that are focused on a "stand alone" calculation of the monetary value specifically assignable to the minority interest under examination (Zingales, 1995; Shishido, 1993);

a) *Indirect* methodologies (Ferraro, 2016; Wolpin & Jeffrey, 2008), that estimate the market value of minority interests by computing a discount rate to the corresponding fraction of the overall base-value (W).

Among the evaluation methods *sub* a), it is possible to recognize:

1) *Direct Horizontal Method* (also called *Direct Comparison Approach*), focused on the market value of other minority interests concerning the same company or, in the absence of such data, analogous companies (in terms of size, core business, etc.) listed or non-listed on official marketplaces;

2) *Bottom Up Method*, used when dividends and capital gains foreseen in the near future from the minority interest under evaluation are discounted back to an actual worth. Nevertheless ascertained that the actual esteeming of future realizable monetary value of company interests is quite tricky (in particular if the latter are not listed on official markets), it is preferable to capitalize the forecasted dividends for a limitless period of time.

Methodology *sub* 1) is an empirical criterion at all, and consequently has the same points of robustness and deficiency peculiar of this group of estimation criteria, without regard to the "element" under evaluation (Nath, 1990). Specifically, they are founded on effortlessly achievable data, and their utilization is quite punctual and intuitive; on the contrary, the empirical methods (in general and the one under examination specifically) are not fully respondent to the precepts of impartiality and objectivity that should feature any kind of evaluation criterion.

As for methodology *sub* 2), the higher or lower measurable difference among the considered pro-quota value of the total economic capital (W) – the latter determined adopting valuation methods based on the actualization of cash flows or incomes expected in the future - and the economic worth of minority interests counts on the higher or lower rate to which profits are held and not paid out to stakeholders.

Contrarily "indirect" methods *sub* b) measure the current value of minority interests by applying a discount rate to the corresponding fraction of the firm's overall base-value (so-called *Discount Approaches* or *Top Down Methods*). The magnitude of the discount rate can be calculated as indicated below (Pratt, Reilly, & Schweihs, 2007; Gianfrate, 2006):

3) On the support of accounting and financial data obtainable from past negotiations of minority interests concerning the same business or, in the shortage of such data, comparable businesses listed or non-listed on official marketplaces (*Indirect Horizontal Method*);

4) In inverse correlation of the magnitudo of Control Premiums (CP) rates applied in past purchase/sale negotiations of majority interests concerning analogous businesses, listed or non-listed on official marketplaces (*Mercer Capital Method*), adopting the following formula:

$$\text{Minority Discount} = \left(1 - \frac{1}{1+CP}\right)\%$$

The methodology *sub* 4) is of simple and brief utilization, given that it is conceivable to deduce control premium percentages (and then minority discount rates making use of the aforementioned equation) from a large number of financial databases. In the Anglo-Saxon Countries, one of the databases mostly utilised by researchers and practitioners to measure

control premium rates is the Control Premium Study issued annually by Mergerstat (Jordan & Worth, 2009). This experienced institution measures control premium rates by calculating the percentage divergence between the controlling interest purchase/sale price that the counterparts arrange and the correlative official market price registered by five days previous the purchase/sale communiqué (Celli, 2013).

Data collection and results

In the present paragraph we determine which of the mentioned methodologies for the estimation of the market value of minority interests in non-listed firms are normally utilised by professional praxis in a sample of European Countries.

The minority interests we examine in this research deal with the following tipologies of non-listed limited liability companies: Italian Società per Azioni (S.p.A.), and Società a responsabilità limitata (S.r.l.); French Société Anonyme (S.A.), and Société à Responsabilité Limitée (S.à.r.l.); German Aktiengesellschaft (A.G.), and Gesellschaft mit beschrankter Haftung (G.m.b.H.); Spanish Sociedad Anonima (S.A.), and Sociedad Limitada or Societad de Responsabilidad Limitada (S.L.); English Public Limited Company (P.L.C.), and Limited Liability Company (L.l.c.) or Limited Company (L.t.d.).

We analysed No. 250 reports issued by an equal number of European financial experts (specifically, consulting firms, law firms and financial institution) concerning transactions of minority interests in non-listed businesses throughout the period 2000-2015. The financial reports under examination are alleged to their corresponding official public acts regarding purchase/sale agreements and filed with the Chambers of Commerce and/or the Courts and/or the tax agencies of the following towns: Rome and Milan (Italy); Paris and Marseille (France); Madrid and Barcelona (Spain); Berlin and Munich (Germany); London and Manchester (United Kingdom).

For the composition of the survey sample No. 50 financial reports for each of the aforementioned European Countries have been selected, to this end considering only large and medium-sized companies so classified on the basis of the parameters identified by the European Commission with the Recommendation No. 2003/361/EC of 6 May 2003 (specifically: Number of employees > 50; Turnover > 10 Mtl., or Total Assets > 10 Mtl.). Small businesses have been excluded because they do not have minority shareholders normally.

The estimation methodologies utilised by the European professional practice to measure the minority discount for lack of control in the 250 reports of our sample are the following:

1) Direct Horizontal Method: No. 25
2) Bottom Up Method: No. 65
3) Indirect Horizontal Method: No. 49
4) Mercer Capital Method: No. 178

The number of estimation methodologies analysed (317) overcomes the number of reports in the sample (250) because some experts have utilised two criteria together (a “principal” criterion and a “check” criterion) to estimate the market value of the same minority holding.

On the basis of the aforementioned data it seems clear that the most (56%) used criterion by European praxis to measure the market value of minority interests in companies non-listed on official markets is the *Mercer Capital* Methodology, which belongs to the category of indirect criteria and, as previously mentioned, deducts the discount rate to be applied to the minority interests base value from the magnitudo of control premium rates applied in past purchase/sale transactions of majority holdings in comparable companies (listed or non-listed on official markets).

In our opinion, this occurrence is easy to understand, as the aforementioned empirical methodology is of easy and immediate application, since it is possible to extrapolate control premium values (and, indirectly, minority discount rates) from a large number of international financial databases.

Furthemore, the examination of the collected data was used to measure an average discount rate equal to 32%, obviously in occurrences when such discounts for lack of control where defined using the Top Down criteria. The found range of minority discount rates was equal to 17%-49%.

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