VOLUME 5
ISSUE 1
JULY 1999

A publication devoted to articles on Business Valuation and related matters.

BUSINESS VALUATION DIGEST

BY STEPHEN R. COLE, CBV, FCA, and
MARC A. KEIRSTEAD, CA, CBV

IN THIS ISSUE

Independent Reports – Meeting The Standards........ 1
The Use of Hindsight in Damages Quantification – Beware a Valuation Approach 6
The Control Premium: An Initial Look into a Strict Monetary Value Approach...... 12
Valuation of Leveraged Life Insurance Policies......... 15

The *Business Valuation Digest* is a publication of The Canadian Institute of Chartered Business Valuators. It is published semi-annually and is supplied free of charge to all Members, Subscribers and Registered Students of the Institute.

Statements and opinions expressed by the authors and contributors in the articles published in the Digest are their own, and are not endorsed by, nor are they necessarily those of the Institute or the Editorial Advisory Board.

EDITOR:
Blair Roblin, CBV, LLB

EDITORIAL ADVISORY BOARD:
Mark L. Berenblut, CA, CBV
Nora V. Murrant, CA, FCBV
John E. Walker, CA, CBV, LLB

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the CICBV.

For more information, please contact:
The Canadian Institute of Chartered Business Valuators
277 Wellington Street West, 5th Floor
Toronto, Ontario M5V 3H2
Tel. 416-204-3396
Fax 416-977-8585

Independent Reports – Meeting The Standards

When preparing independent reports on valuation and loss quantification, Chartered Business Valuators must exercise due care as outlined in the the Handbook of The Canadian Institute of Chartered Business Valuators (CICBV), which contains a code of ethics and practice guidelines, standards and recommendations. Despite the Handbook, there appears to be uncertainty among practitioners, and clients, as to the scope of work required to meet a particular client's needs and budget.

This article goes beyond the Handbook by providing an overview of the alternative types of independent reports to assist practitioners in satisfying client requirements in the most defensible yet cost effective manner. We also highlight examples of reporting inadequacies that valuators should avoid.

Practice Standards

The CICBV sets out nine practice standards pertaining to report disclosure, scope of work and file documentation. The following table outlines the standard reference numbers and the types of reports to which they apply:

	Valuation Reports	Advisory Reports	Expert Reports
Report Disclosure	110	210	310
Scope of Work	120	220	320
File Documentation	130	230	330

The focus of this article is on independent reports, which are referred to in the Handbook as Valuation Reports and Expert Reports in the sections noted below. These reports are defined as "any written communication...containing a conclusion as to damages, the quantum of financial gain/loss, the valuation of shares, assets, or an interest in a business, prepared by a valuator acting independently...". The Advisory Report sections pertain to reports where the valuator is not acting independently, such as mergers and acquisitions support. It is beyond the scope of this article to elaborate on what constitutes independence in fact and the appearance of independence. Both are integral to quality expert reporting.

Report Conclusions

A report can provide one of three types of conclusions: opinion, estimate or calculation. These conclusions differ by the level of assurance they provide and the amount of analysis, investigation and corroboration performed by the valuator, as shown on page 2:

BY BRIAN C. BECKER, PhD

The Control Premium: An Initial Look into a Strict Monetary

1. Introduction and Overview

A majority owner's shares are worth more (per share) than those of a minority holder. This leads to the application of a "control premium" when valuing a majority share. Control premia (C%) are conventionally applied as a percentage of the "market value" of the holdings ("M") of the majority owner. In this way, the monetary amount of a control premium for a 99 percent owner is nearly twice that of a 51 percent owner. This relative increase in the control premium is counter intuitive, as any majority owner should have the same opportunities to take advantage of the spoils of control.[1] In addition to this, there are two other unintuitive results from a blind application of a control premium percentage.

The conventional control premium approach increases the implied value of the firm, as the level of majority ownership increases. The company's value, however, should not change with different ownership structures. The conventional control premium approach also suggests that a majority shareholder would pay significantly more for a single share of stock than a minority shareholder (i.e., its market price) even though no more control is gained.

While these problems occur from a blind application of a conventional control premium, the control premium studies that are used today provide all of the necessary information to avoid these problems. Using such studies, a strict monetary value ("value method") approach to estimating the control premium may be employed. This paper describes the monetary value method approach, proposes a methodology for determining these control values, and identifies caveats and exceptions where such an approach could be adjusted.

II. The Traditional Percentage Method ("PM")

A. Summary of Current Control Premium Studies

Numerous studies have been performed, which have estimated the control premium as 30-45 percent of the per share price. Such premia have been quantified as the difference between the merger or acquisition price and the public market price of a firm, before the announcement of the merger or acquisition. These acquisitions and mergers ranged in relative size from just over 50 percent of the outstanding shares to 100 percent of the outstanding shares in the merged/acquired companies, but there is no distinction for different percentages of the firm being acquired/merged.[2]

B. Problems with the PM Approach.

The PM approach loses credibility since it implies an increase in the firm's value as the level of majority ownership increases. To demonstrate this, suppose that the market value for a company with 100 shares is estimated at $1/share and that the control premium was estimated as 30 percent. If there was a majority owner with 60 shares (i.e., 60 percent), the implied total value of the firm ("T") would be $118. That is, 60 shares would be worth $1.30 each and 40 shares would be worth $1 each:

$$T = 60 \times \$1 \times (1.30) + 40 \times \$1 = \$118$$

However, the PM approach would suggest that the value of the firm would increase to $124 if a majority owner held 80 percent:

$$T = 80 \times \$1 \times (1.30) + 20 \times \$1 = \$124 = \$118$$

[1] This is generally true, but some companies have 2/3 majority rule voting or other specifics in their articles of incorporation, bylaws, and shareholder agreements which, in effect, accord greater control value to majority owners with larger shares.

[2] A thorough summary of control premium studies is provided in Pratt, et. al. (1996), pp. 316-319.

In addition to implying that the value of the company increases, the PM approach also implies that the "value of control" increases from $18 to $24 as the level of majority ownership increases.

Inconsistent conclusions can also be drawn regarding the implied value of owning one more share of stock (the "marginal" share) under the PM approach. For a company with 100 shares of stock, the table below summarizes the marginal value of purchasing one share of stock for various stock holders.

Number of Shares Currently Owned	Value of Current Holdings	Value of Current Holdings + 1 Share	Value of 1 Marginal Share
25	25p	26p	p
49.1	49.1p	50.1p + 50.1pc%	p + 50.1pc%
80	80p + 80pc%	81p + 81pc%	p + pc%
99	99p + 99pc%	100p + 100pc%	p + pc%

Thus, while it is logical to assume that the marginal share for an owner with 49.1 shares would be extremely valuable, it is unrealistic to conclude that a shareholder with 80 percent would be willing to pay significantly more than the market price for a marginal share.

III. Value Method Control Premium

A. Mathematics of the Value Method (VM) Control Premium

The VM approach assumes that the total value of control is independent of the ownership share of the majority holder, since this majority holder will be able to enjoy the "spoils of control." Mathematically, the value of control (the control premium's monetary value) under the VM approach can be expressed as:

$$V\ (VM) = Mp + C; \quad Control\ Premium = C$$

where V is the value of a majority owner and C is the estimated value of control. This approach keeps (1) the value of the company constant across various majority ownership structures and (2) the marginal value of a share consistent for majority and minority shareholders. As such, the VM approach solves some problems inherent in the traditional control premium approaches.

B. Application of the VM Approach

Using survey data, it is inappropriate to assume that companies would have similar control premium values, as the companies sizes and market values could be very different. A reasonable approach would be to "normalize" these control premium values by dividing them by the companies' market values, as shown below.

In the table below, the control premia ("C") – the difference between the merger/acquisition price and the market value of the merged/acquired shares – of the three transactions are 30, 64, and 60 respectively. Although this might suggest that Company No. 3's control was worth relatively more, this is due to its larger size (market value). By accounting for company market value, Company No. 3's control premium has the relatively lowest value.

C. Marginal Prices and the Marginal Premium for Obtaining a Majority

In effect, the VM approach reasons that an owner would have had to pay for the entire value of control in acquiring the marginal share(s) needed to obtain a majority; while the traditional PM approach implies that a majority owner will continue

Company Number	Market Value of Merged/ Acquired Shares	Merger/ Acquisition Price	% of Total Being Merged/ Acquired	Market Value of Company	Control Premium as a % of Market Value
1	60	90	60	100	30
2	160	224	80	200	32
3	300	360	100	300	20
Median					30

to "pay incrementally for control" when acquiring more shares after paying a significant premium to acquire a majority of shares. The problem with the latter is that no additional control is gained, so such payments would be irrational. Only the conventional PM approach suggests that majority owners would be willing to pay more than the market price for one share of stock. This is clearly not the case, as such an owner would gain no more "control value."

IV. Adjustments and Caveats

A VM approach counteracts the major problems associated with the current PM approach, and can typically be used as a good starting point in a control premium analysis. In particular, the VM approach avoids the conventional control premium approach that increases the implied value of the firm as the level of majority ownership increases.

However, while the value of control is associated with a majority owner, realizing the full value of control may require a significantly larger position than 51% of the shares. This will be apparent in cases where:

- Minority shareholders are able to exert legal shareholder rights, e.g. oppression remedies;
- Dividends paid to minority shareholders divert a portion of the cashflow that the majority owner wishes to apply for other purposes;
- There are significant costs of maintaining a public float, including the disclosure of information, additional administrative costs, etc.;
- The ability to effect certain material decisions requires a special resolution with a 66 2/3 majority;
- The benefits of potential synergies between the company and another subsidiary of the majority shareholder would be lost to minority shareholders of the company at the expense of the majority holder; and
- Shareholder agreements otherwise restrict the ability of a 51% majority shareholder to enjoy the spoils of control.

These considerations suggest that the full value of control may not be realized at the 51% ownership threshold and, in fact may not be completely realized until 100%. However, this does not imply, as the PM approach does, that firm value increases with the level of majority. Rather, it suggest that additional portions of the premium for control may be "earned" by the majority shareholder as that majority increases, and that the remainder of the control value will continue to reside with the minority shareholders for as long as, and to the extent that, they are able to influence corporate decision-making.

Brian C. Becker, PhD.
Senior Engagement Manager, LECG, Inc.
1600 M. Street N.W. Suite 700
Washington DC 20036

Reference

Pratt, Shannon, Reilly, Robert, and Schweihs, Robert, Valuing a Business: The Analysis and Appraisal of Closely Held Companies, 3rd. ed., Chicago: Irwin Professional Publishing, 1996.