

THE INTEGRATED THEORY OF BUSINESS VALUATION – A BOOK REVIEW

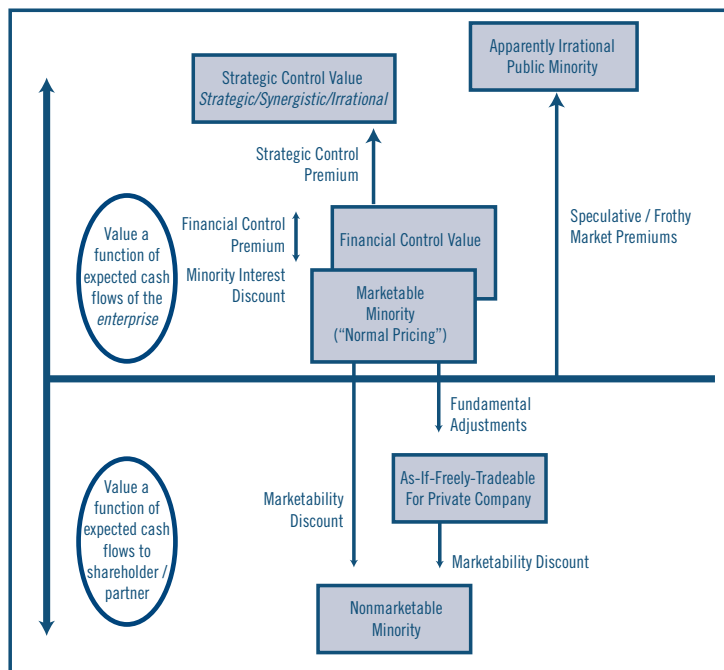
Every so often a great technical book comes along. Chris Mercer, ASA, CFA, and one of America's leading business valuers, has pulled it all together in his recent text, *The Integrated Theory of Business Valuation* ("Integrated Theory"). It's not for casual readers but for any interested valuation, litigation or M&A professional. It is simply written and full of commentary and observations borne of a long career in business valuation, investment banking and expert testimony.

At the heart of his "integrated theory" is the obligation to reconcile value using a range of alternative valuation approaches both with each other and with market-based data.

Some of the substantive thoughts Mercer explores are contrary to conventional thinking and include the following:

1. Levels of value.

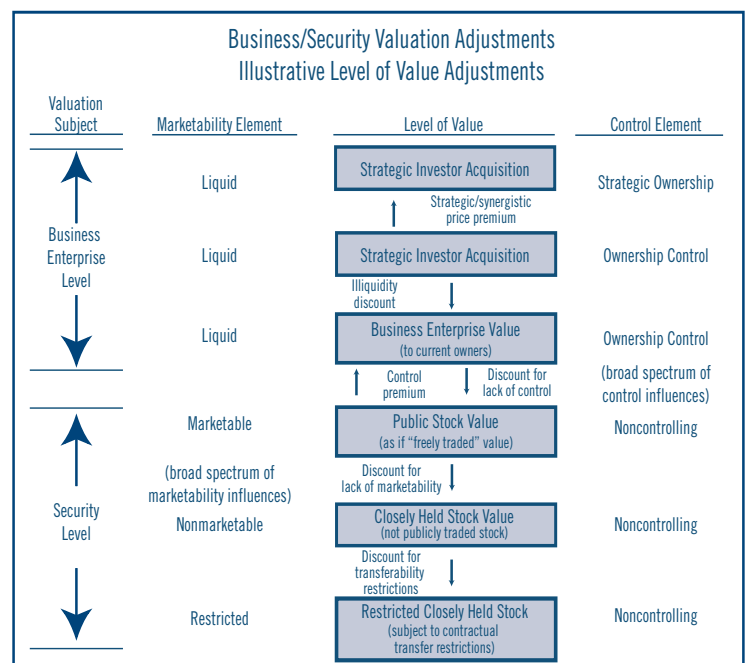
Mercer plots the evolution of the "levels of value" chart and provides genuine insight into the fundamentals and the subtleties that have emerged over time. The chart below best reflects his current thinking¹



This chart highlights a number of points, including the following:

- Contrary to traditional thought, the value of a marketable minority interest is a function of the expected cash flows of the whole enterprise – because the public market pricing of the marketable minority interest does, generally, capture the expected cash flows of the whole enterprise, notwithstanding there is no outbound cash flow to the shareholders of an equivalent amount.

Other writers feel that the marketable minority interest is a function of the expected cash flows only at the security or shareholder level – not at the enterprise level. Note that Robert Reilly, in the *Business Valuation Digest*, Vol. 12, Issue 1, February 2006, puts forward a very informative "levels of value" chart and discussion where he advances this view. Reilly's version of the levels of value chart is reproduced below:



¹ Source: Mercer, Z. Christopher *The Integrated Theory of Business Valuation*; Peabody Publishing LLP, 2004, p. 363.

"... 'WHAT IF'
OR SCENARIO
ANALYSIS..."

- Contrary to traditional thought, the freely traded price in the public marketplace (normal price of a marketable minority interest) most likely represents a controlling interest value, rather than a minority interest price. This is in large part due to the increasing efficiencies of the public marketplace, much improved governance practices in both public and private companies, the increasing beneficial presence of private equity buyers and the related lift in value. Note, for example, if there was a conspicuous difference between the market cap of a publicly-traded company (marketable minority value at normal pricing) and financial control value, then it would likely quickly become a target for takeover for private equity firms. In an efficient market, the pricing would quickly move up to modestly less than financial control value at a minimum;
- Contrary to traditional thought, it follows that when moving from marketable minority value in a public company to a controlling interest value in a private company in many cases there may be no discount required on account of a lack of control. However fundamental adjustments, both systematic and non-systematic as later discussed, will still generally be required to account for factors such as risk and expected growth relative to the guideline public companies;
- Contrary to the “value a 100% interest and then discount it approach”, the value of a non-marketable minority interest in a private company is a function of expected cash flows to the shareholder or partner. The most direct method of valuation being the quantitative marketability discount model advanced by Mercer and later described; and
- Recognition that there are frequent times when speculative or frothy market activity produces irrational pricing for public minority interests. That is to say, price will often exceed value in such circumstances.

2. Direct determination of the strategic control premium and the financial control premium.

Control premiums must be stratified between (i) strategic, synergistic and other such attributes and, separately, (ii) those attributable to financial control, if any.

Control premiums are best determined, in large part, by directly adjusting the following compo-

nents of the valuation model:

- Net income (or cash flow):
 - Adjustments to capture the financial control premium would include those economies or efficiencies available to the typical financial buyer which may not be present in the company at the time of the appraisal;
 - Adjustments necessary to capture the strategic control premium are unique to the specific buyer, and include all forms of synergies – subject to adjustment for probability of realization; and
- Discount rate or cap rate reflecting both the specific company risk and the specific company growth rate.

3. Comparing public and private value.

Reconciliation of business value, whenever practical, with the market-based *price* of a comparable marketable minority interest – a publicly traded share, is a bedrock principle – not that the market in short term always reflects value – rather that understanding of market price is too revealing to ignore.

In order to stress test his findings and to honour the relative nature of value over a range of assumptions, Mercer recommends “what if” or scenario analyses to ensure valuation is in the high comfort zone. For example, he determines the range of relevant private company value and appropriate discount rates by both iteratively and simultaneously adjusting company specific risk and growth rates. Many writers not only agree with Mercer but encourage probability adjusted what if analysis as being even more revealing.

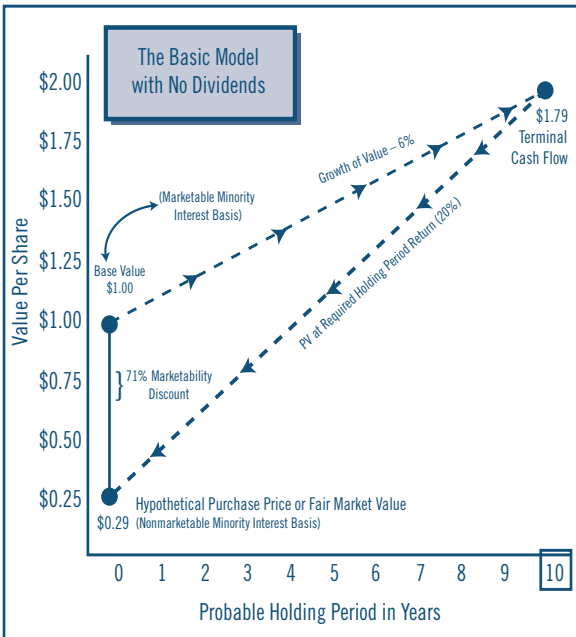
4. The quantitative marketability model.

The essence of the Mercer model is that the value of a minority interest in a private company is a function of expected cash flows to the shareholder and therefore ultimately equal to the sum of the following net present values:

- Dividends; and
- Terminal value/ultimate sale price.

In turn, the above factors are influenced predominantly by valuation of the underlying whole business, because it is the whole business that will support the dividend flow and because the terminal value will be in large part dominated by the underlying business value, though not necessarily equal to a pro rata share of it.

Unlike the valuation of an entire private business or the minority interest in a public company, it is necessary to determine a holding period for the private minority interest. Otherwise, there is no date at which terminal value will be realized. The diagram² below summarizes the model's basics:



The versatility of the quantitative marketability discount is a function of the five key inputs:

- Expected growth in value necessary to determine terminal value;
- Expected dividend yield;
- Expected growth in dividend yield;
- Expected holding period; and
- Required holding period return, which is equal to the enterprise discount rate utilized or implied in an appraiser's conclusion as to value for the subject business at the marketable minority level of value plus a holding period premium compensating for the long and indeterminate holding period until the liquidity is expected, uncertainties over distributions and innumerable other risk factors.

Valuators, the courts and others focus on the implied marketability or minority discount and it does provide a time honoured benchmark. However, it is only a by-product of a minority interest valuation. The rate of return required at the marketable minority level and the holding period premium are market-driven inputs and therefore far more meaningful. Consequently, when reading the chart below³, emphasis should be on the key inputs/assumptions as they drive the resulting discount rates.

(Continued on page 4)

"...RATE OF RETURN REQUIRED AT THE MARKETABLE MINORITY LEVEL... FAR MORE MEANINGFUL."

**BASE CASE OF THE QMDM
QUANTITATIVE MARKETABILITY DISCOUNT ANALYSIS
QMDM ANALYSIS TO DEVELOP MARKETABILITY DISCOUNT**

Base Value (Marketable Minority Interest)	\$1.00
Basic Assumptions of the Model	
1. Expected Growth Rate of Underlying Value	6.0%
2. Expected Dividend Yield	0.0%
3. Expected Growth Rate of Dividend	0.0%
4a. Minimum Holding Period	10
4b. Maximum Holding Period	10
5. Mid-Point Required Return	20.0%

Reference/Brief Explanation
Per assumptions in text
Per assumptions in text
Per assumptions in text
Per assumptions in text
Per assumptions in text
Per assumptions in text

QMDM Modeling Assumptions

Dividends Received End of Year ("E") or Mid-Year ("M")	E
Premium (+)/discount (-) to Marketable Minority Value at Exit	0.0%

Liquidity assumed at marketable minority level

Average Indicated Discounts for Selected Holding Periods (Mid-Point Return +/- 1%)			
Average of 2-4 Year HP	31%	Average of 5-10 Year HP	60%
Average of 5-7 Year HP	52%	Average of 10-15 Year HP	78%
Average of 8-10 Year HP	67%	Average of 15-20 Year HP	88%
Average of 10-20 Year HP	82%		

Concluded Marketability Discount: 71.0%

Required Holding Period Return (Annual %)	ASSUMED HOLDING PERIODS IN YEARS													
	1	2	3	4	5	6	7	8	9	10	15	20	25	30
	IMPLIED MARKETABILITY DISCOUNTS													
16.0%	9%	16%	24%	30%	36%	42%	47%	51%	56%	59%	74%	84%	89%	93%
17.0%	9%	18%	26%	33%	39%	45%	50%	55%	59%	63%	77%	86%	92%	95%
18.0%	10%	19%	28%	35%	42%	47%	53%	58%	62%	66%	80%	88%	93%	96%
19.0%	11%	21%	29%	37%	44%	50%	56%	60%	65%	69%	82%	90%	94%	97%
20.0%	12%	22%	31%	39%	46%	52%	58%	63%	67%	71%	84%	92%	96%	98%
21.0%	12%	23%	33%	41%	48%	55%	60%	65%	70%	73%	86%	93%	96%	98%
22.0%	13%	25%	34%	43%	50%	57%	63%	68%	72%	75%	88%	94%	97%	99%
23.0%	14%	26%	36%	45%	52%	59%	65%	70%	74%	77%	89%	95%	98%	99%
24.0%	15%	27%	38%	47%	54%	61%	67%	71%	76%	79%	90%	96%	98%	99%

PV=100%

² Ibid, p. 283.

³ Ibid, p. 289, Figure 7-11.

5. Nonsystematic valuation adjustments.⁴

Adjusting between levels of value is a common business/security valuation procedure. These valuation adjustments are typically called systematic adjustments. They apply across industries and across company types and sizes.

In the earlier referenced article by Robert Reilly, he addresses nonsystematic valuation adjustments. As the name implies, nonsystematic adjustments typically do not apply to all business interests of the same level of value.

Common nonsystematic valuation adjustments may be grouped in the following categories⁵:

- company-specific adjustments such as – dependence on a key customer, key person, key technology or supplier; sub-optimal capital structure or cost of capital;
- security-specific adjustments such as – when the valuation subject is super-voting common stock that enjoys 100 votes per share (compared to the one vote per share enjoyed by the another class of common stock); where there is a blockage discount, or preemptive rights; and
- contract-imposed adjustments such as – when the stock is subject to a mandatory shareholder agreement with a call at net book value, a put or a restriction on transfer.

These illustrative nonsystematic adjustments do not relate to the level of value of the subject company/security and apply only to the facts and circumstances of each individual valuation subject. In contrast, the application of systematic discounts and premiums is common across a broad range of valuation subjects. Remember though, fair market value is a different creature than *price*. Ben Graham's Mr. Market does not have a CFA or CBV and the daily market *price* of security may or may not be equal to its fair market *value* – and in many cases it is not. A good fair market valuation will reconcile the independent perspectives of the valuator with both current and long term *price* (or comparable price) trends to ensure it has struck the right balance.

⁴ See the Robert Reilly article which discusses this in detail. Our commentary is taken from that article and summarizes only the most high-level concepts.

⁵ In fact the Reilly article puts forward a 4th category called "multitier adjustment" which is not explained here.

CURRENT FINANCIAL STATISTICS

At March 31, 2006

TSX Composite Price Earnings ratio	19.5x
TSX Composite Dividend Yield	2.3%
Trend: Increase from 1.7% to 2.3% with inclusion of income trusts.	
10 year annual compound returns on:	
• TSX Composite ¹	10.9%
• S&P 500 ¹	5.2%
• Nasdaq ¹	5.6%
• Private Equity ²	12.4%
• Late stage VC ²	13.0%
• Early / Seed VC ²	46.8%
Of interest:	
10 year compound return on Pension Managers Pooled Funds for Canadian equity ³	
• 1st Quartile	13.0%
• Median	12.0%
• 3rd Quartile	10.7%

Sources:

- ¹ G&M Mutual Fund benchmarks through to Feb. 28, 2006
- ² Thomson Venture Economics/National Venture Capital Association US Private Equity Performance Index through September 30, 2005.
- ³ Watson Wyatt Pooled Fund Survey for the period ended Dec. 31, 2005. Note that some funds include up to 30% of the foreign content.

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PRESENTATIONS

Cole&Partners

May 2006

UPCOMING PRESENTATIONS...

Transfer pricing, Valuation and Commodity Tax Seminar

May 10, 2006

Scott Davidson and Andrew Harington presenting on "Transfer Pricing from a CFO Perspective".

Sponsored by the Canadian Association of Importers & Exporters

Transfer Pricing in Canada 2006 & Tax Accounting for Canadian Multinationals Conferences

May 15, 2006 – Toronto

June 12, 2006 – Calgary

Scott Davidson and David Kemp presenting on "Role of Transfer Pricing in Preparing Financial Statements".

Sponsored by the Council for International Tax Education – CITE

Tax Accounting for Canadian Multinationals

May 16, 2006 – Toronto

June 13, 2006 – Calgary

Paula White and Andrew Harington presenting on "Accounting for Goodwill and Other Intangibles".

Sponsored by the Council for International Tax Education – CITE

3rd Annual Canada/US Financial Reporting Accounting

June 7, 2006

Paula White and Andrew Harington presenting on "Annual Impairment Testing".

Sponsored by Federated Press

Advanced Forum on Mergers and Acquisitions

June 26, 2006

Andrew Harington presenting on "How to Ensure That You're Not Overpaying For the Target Company: Current Valuation Trends".

Sponsored by The Canadian Institute

2006 National Family Law Program

July 10-13, 2006

Andrew Freedman presenting on "Tax Principles of Family Law"

Sponsored by Federation of Law Societies of Canada

RECENTLY PRESENTED AT...

Special Lectures 2006: Family Law – April 3 & 4, 2006

Andrew Freedman co-presented on "Stock Options, Deferred Stock Benefits, Deferred Compensation".

Sponsored by Law Society of Upper Canada

Advanced Litigation Skills Program: Challenging Business Valuation Experts At Trial – March 8, 2006

William Dovey presented on "Current Issues of Valuation Approaches: What to Look for, Common Pitfalls and Red Flags"

Scott Davidson presented on "The Role of Consultants in Challenging Complex Business Valuation Assessments".

Sponsored by the Advocates Society

Transfer Pricing Update 2006 – January 17, 2006

Scott Davidson, Andrew Harington and David Kemp presented on "Valuation of Intangibles and Planning Strategies".

Sponsored by Infonex

9th Annual In-House Counsel Congress – November 24-25, 2006

Scott Davidson co-presented on "Complex Litigation: Using and managing experts".

Sponsored by the Canadian Institute

Gold Standard ADR – November 4, 2005

William Dovey presented on "Accounting / Valuation Experts in ADR".

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