The Litigious Elements of Business Valuation

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Introduction

This chapter deals with the valuation of business interests as it relates to income taxation in Canada. The discussion focuses on the determination of the fair market value of the shares of a privately-held Canadian company. This includes situations where the business interest in question represents 100% of the equity (i.e., "en bloc" value), a controlling interest, or a non-controlling (i.e., "minority") interest in the business.

The objectives of this chapter are twofold:

- first, to familiarize the reader with business valuation methodology, and

- second, to highlight some of the elements of a business valuation that might successfully be challenged by counsel in an income tax litigation matter.

The valuation of any business, or interest therein, is a complex task that, by its nature, involves some degree of subjectivity. Every valuation is unique in certain respects. It is not possible to address the myriad of issues that sometimes arise within the confines of a single chapter. For those who are interested in a more in-depth discussion of business valuation, there are many published texts that are available. For reasons that are self-evident, I am partial to the following:

- Campbell, I., H.E. Johnson, The Valuation of Business Interests, (Toronto, Canadian Institute of Chartered Accountants, 2001); and

- Campbell, I., H.E. Johnson, H.C. Nobes, Canada Valuation Service, (Toronto, Carswell Publishing, 1984), loose-leaf periodical.

This chapter begins with a discussion of certain general issues surrounding the determination of the fair market value of the shares of a privately-held Canadian company for income tax purposes. It then addresses various methodologies commonly used to determine the fair market value of the shares of a privately-held company "en bloc". This is followed by a discussion of how the rates of return and valuation multiples that are used in business valuation are determined. The chapter concludes with a discussion of minority discounts that sometimes are applied when valuing a non-controlling interest in a privately-held company.

Within each section I have included a discussion of some of the more common challenges and shortcomings in the application of the various business valuation concepts, and the issues that might be contested in the context of income tax litigation. Certain cases dealing with the various issues are mentioned. It is important to note that the relevance of any given particular argument and the applicability of case law are dependent on the fact-specific circumstances of the valuation at hand.

Much of the discussion in this chapter is technical in nature. However, I believe that a sound understanding of the underlying technical elements of business valuation is fundamental to effective litigation.

Determining Value for Income Tax Purposes

The Definition of Value

The value term typically adopted when determining the value of a business interest for income tax purposes is fair market value. Fair market value usually is defined as "*the highest price available in an open and unrestricted market between informed and prudent parties acting at arm's length and under no compulsion to act, expressed in terms of cash*".

For income tax purposes the fair market value of a business interest normally is determined on an intrinsic (or "stand-alone") basis, without consideration of the synergies, economies of scale, or other advantages that might be perceived to exist by one or more corporate or public purchasers (so called "special purchasers"). This is because, in the absence of an open market transaction, it normally is difficult to quantify the additional value that might be perceived by a particular (often hypothetical) purchaser of a given business. Furthermore, even if such additional value can be meaningfully quantified, it normally is speculative as to whether a purchaser can be negotiated into a position of paying for some or all of that premium.

Historically, the Canada Revenue Agency ("CRA") normally has accepted valuations that are prepared on an intrinsic basis. That said, there might be circumstances where a special purchaser price should be considered, and where sufficient information is available to meaningfully quantify a special purchaser premium. For example, in certain industries, obvious synergistic purchasers do exist, and the disclosure surrounding recent open market transactions in those industries is sufficient to permit a meaningful analysis of the synergistic component of the purchase price. Unless qualified to the contrary, the definition of fair market

value in Canada may include a premium due to the existence of so-called special purchasers.

There are several cases that have addressed the issue of special purchasers. Most decisions have held that the premium that a special purchaser might pay should not be considered when determining fair market value.[1] However, some decisions have ruled in favour of considering a special purchaser premium.[2] Therefore, where fair market value is not qualified to exclude special purchasers (and possibly even where it has been) counsel should consider whether the circumstances justify the argument of a special purchaser premium. Depending on the situation, the impact of a special purchaser on the valuation conclusion could be substantial.

The Valuation Date

In most income tax cases, fair market value is determined in a notional context. That is, an actual transaction has not taken place at the valuation date. In this regard, it is important to determine the appropriate valuation date because it establishes the information base that can be considered when determining fair market value. The fair market value of a business interest can fluctuate significantly over time based on factors such as prevailing economic and industry conditions and the outlook for a given business at a particular point in time. It generally is accepted that hindsight is not admissible in the determination of the value of a particular business interest at a given point in time.[3] However, the use of hindsight has

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[1] See, for example, *National System of Baking of Alberta Ltd.* v. *The Queen*, [1978] C.T.C. 30, 32 D.T.C. 6018; affd [1980] C.T.C. 237, 34, D.T.C. 6178

[2] See, for example, *Lakehouse Enterprises Ltd.* and *Lakehouse Holdings Ltd.* v. *The Minister of National Revenue*, 1983 D.T.C. 388

[3] See, for example, *National System of Baking of Alberta Ltd.* v. *The Queen*, [1978] C.T.C. 30, 32 D.T.C. 6018; affd [1980] C.T.C. 237, 34, D.T.C. 6178

sometimes been allowed for the limited purpose of assessing the reasonableness of certain assumptions made at a particular valuation date.[4]

One challenge sometimes encountered by valuation experts in notional valuations for income tax purposes arises when the value of a business interest must be determined at a date that is many years past. Often in such cases, individuals having detailed knowledge of the business' operations at the valuation date are no longer accessible, or they simply cannot recall what their knowledge base and expectations were at that time. In addition, many companies do not retain all of their documentation for long periods of time (e.g., detailed forecasts of previous years). In some cases, the valuation conclusions are qualified where the valuation expert believes that all of the necessary information could not be obtained. Such qualifications sometimes impair the usefulness of the valuation report and the credibility of its conclusions.

Therefore, when reviewing a business valuation report, counsel should carefully consider the information base that was relied upon by the valuation expert when developing the value conclusions. Where the valuation date is long passed and the challenges of information availability were encountered, counsel may be able to argue that the credibility of the valuation report is diminished. The credibility of the value conclusions may also be suspect where undue reliance was placed on hindsight information.

Goodwill

An issue sometimes encountered in business valuations prepared for income tax purposes is in determining the nature of the "goodwill" that exists. This is

[4] See, for example, *Cyprus Anvil Mining Corp*. v. *Dickson et al.* (1983), 20 B.L.R. 21, 40 B.C.L.R. 180; (1987), 8 B.C.L.R. (2d) 145.

particularly the case for smaller businesses, especially those businesses that rely on the continued active involvement of the owner.

In the context of business valuation, goodwill is represented by the difference between the "value" of the shares of a business and the value of its underlying net tangible assets (see discussion under "Valuation Methodologies"). As a simple example, assume that the "value" of the shares of a business was determined to be $5 million, and that the value of its underlying net tangible assets was $2 million. It follows that the difference of $3 million would be attributed to goodwill (or other intangible assets, or a combination of these things). However, whether or not the goodwill component forms part of fair market value for income tax purposes depends on what that goodwill is attributable to. That is, whether it represents commercial goodwill, individual goodwill, or personal goodwill.

Commercial goodwill includes such things as a business' brand names, market presence, favourable location, and so on. These are things that a purchaser normally expects to inherit when it acquires a business. Therefore, a purchaser normally is prepared to pay for the commercial goodwill of a particular business. Hence, commercial goodwill forms part of fair market value.

Individual goodwill is defined as the goodwill attributed to one or more individuals (often the business owner) due to his/her knowledge, abilities, reputation, and so on. A business may enjoy increased earnings because of the characteristics of those persons having individual goodwill. However, these characteristics would be detrimental to the business if the particular individual(s) left the company and competed with the business. Therefore, the issue arises as to whether the value attributed to individual goodwill rests in the business (and therefore forms part of its fair market value), or whether the value of individual goodwill is embedded in the individual(s) possessing those characteristics (sometimes termed "value to owner"), in which case, the fair market value of the business would exclude such goodwill.

In the context of an open market transaction, a prudent purchaser will only pay for individual goodwill where that component of value will remain with the business following the transaction. This normally is accomplished through deal structuring, whereby the purchaser requires the individual vendor(s) possessing individual goodwill characteristics to enter into a non-competition agreement and/or a management contract concurrent with the transaction. In addition, a purchaser often will structure a portion of the purchase price such that payment is contingent upon the achievement of certain prospective operating results of the acquired business (a so-called "earn-out arrangement"). Hence, in open market transactions, individual goodwill often forms part of the price paid. It follows that when determining the fair market value of a business for income tax purposes, individual goodwill normally should be included, consistent with the "highest price available" component of fair market value. Stated differently, reasonable "commercial terms" normally should be assumed in a fair market value determination.

However, a notional valuation must consider that the definition of fair market value assumes a cash transaction (where the vendor assumes no risk), whereas the form(s) of consideration used to pay for individual goodwill often transfers some or all of the risk from the purchaser to the vendor. As such, the cash-equivalent value of the individual goodwill component of the purchase price may be less than its face value. In the context of a notional valuation, recognition of the risk associated with payment for individual goodwill normally is done by adjusting (increasing) the required rate of return to recognize the risk of a business' reliance on one or more key individuals. Any such "individual goodwill risk premium" factored into the rate of return inherently is subjective, and often is challenged in the context of income tax litigation.

Personal goodwill also is attributed to an individual's knowledge, abilities, reputation, and so on. However, unlike individual goodwill, the value of personal goodwill is lost to a business as soon as the individual possessing personal goodwill departs the business for any reason (including death, retirement, and so on). In an

open market transaction a purchaser will not pay for the personal goodwill component of value. Hence, personal goodwill is excluded from fair market value. The courts generally have confirmed this view.[5]

The distinction between individual goodwill and personal goodwill often is a gray area. In many companies that rely on the reputation and abilities of their owner(s), some customers will depart when the owner is no longer involved, whereas other customers may remain with the business so long as their needs can be satisfied by other individuals within the company. Therefore, in a notional valuation the valuation expert should perform a rigorous analysis to determine what portion of goodwill should form part of fair market value. Such analysis usually is subjective, and hence it often is challenged in the context of income tax litigation.

When faced with a situation where individual and/or personal goodwill may have a significant influence on the valuation conclusion, counsel should consider the procedures the valuation expert undertook to assess this element of value. This should include consideration of the nature and extent of the work that the valuation expert undertook when determining the form and quantum of goodwill, including the depth of the customer analysis that was undertaken, and whether the valuation expert interviewed key customers to directly ascertain the likelihood that they would continue to deal with the business following the departure of the owner. Where the valuation expert cannot demonstrate that a thorough and objective analysis was undertaken, counsel might be in a position to successfully argue that the conclusion of fair market value is suspect.

Valuation Methodologies

When determining which valuation methodology(ies) should be adopted to determine the fair market value of a privately-held business, an assessment must

[5] See, for example, *W.H. Crandall* v. *M.N.R.* [1974] C.T.C. 2289, 28 D.T.C. 1204

first be made as to whether the business is a going concern. For businesses that are not a going concern, a liquidation approach normally is adopted. Liquidation calculations can be complex, and are beyond the scope of this chapter.

For a business that is a going concern (which usually is the case), valuation methodologies may include:

- capitalization of earnings;
- capitalization of discretionary cash flow;
- multiple of EBIT or EBIT-DA;
- discounted cash flow;
- comparable public companies;
- comparable transactions; and
- adjusted net book value.

The balance of this section outlines the mechanics of each of these valuation methodologies, including hypothetical examples for illustrative purposes. For each methodology, some of the common challenges and shortcomings in their application are addressed.

Capitalization of Earnings Methodology

The capitalization of earnings methodology involves dividing estimated normalized maintainable (after-tax) net income by a capitalization rate (or alternatively,

multiplying estimated normalized maintainable net income by an earnings multiple). Adjustments are then made for the interest bearing debt (and equivalents) outstanding, and any redundant (i.e., "non-operating") assets that may exist.

In most cases, normalized maintainable net income is estimated based on a review of a business' historical operating results. In this regard, actual operating results as reported for the most recent fiscal years ended are adjusted to eliminate unusual and non-recurring items, and to "normalize" remuneration and other payments made to shareholders and other related parties. Normalized maintainable net income should reflect the income that an arm's length buyer would expect to generate from the business on a go-forward basis (without consideration of synergies, which should be assessed separately, if applicable), on the assumption that arms' length managers are retained to run the business.

Normalized maintainable net income usually is determined on an "unlevered" basis. That is, before consideration of interest expense on outstanding debt. This is because the ability to utilize debt to finance a business (in lieu of equity) is a financing decision, which is distinct from the operations of the business itself. The value of a business' operations typically is independent of the way its operations are financed.

An illustration of what a schedule of normalized net income might look like for a hypothetical business ("Company X") is as follows:

Company X
Schedule of Normalized Net Income

	2001	2002	2003
Income before taxes as reported	185	195	190
Add back:			
Actual shareholder-manager remuneration	550	300	600
Non-recurring expense		242	
Interest expense	133	148	114
Deduct:			
Market rate shareholder-manager remuneration	(150)	(150)	(150)
Normalized earnings before interest and taxes	718	735	754
Deduct: Income taxes	(287)	(294)	(302)
Normalized net income (unlevered)	431	441	452

Normalized maintainable net income is divided by a capitalization rate to determine the capitalized earnings of a business. Where unlevered net income is used as the base by which business value is determined, the capitalization rate represents a "weighted average cost of capital", which reflects the after-tax cost of debt and equity financing. The determination of capitalization rates is addressed in the section entitled "Rates of Return and Valuation Multiples".

Redundant assets are then added to capitalized earnings. Redundant assets are those that can be removed from the business without impairing its ongoing operations or its ability to generate earnings as anticipated. Examples of redundant assets include marketable securities, vacant land, advances to related parties, and so on, where these things can be readily removed from the business. Redundant assets represent a source of additional value to the shareholders of a business. In most cases, the value ascribed to redundant assets is based on their net realizable value, being their market value less disposition costs and income taxes. Where redundant assets exist, it is

important to ensure that any revenues and expenses associated with those redundant assets are removed when calculating normalized net income, in order to avoid double counting.

Capitalized earnings plus redundant assets represent the "enterprise value" (or "firm value") of a business. That is, the total value of a business' operations, including its debt and equity components. In order to determine the fair market value of the equity (i.e., shares) of the business, it is necessary to deduct interest-bearing debt outstanding at the valuation date. This is because interest-bearing debt has a prior claim on the underlying assets and cash flows of a business. The equity value of a business is represented by the residual. Therefore, while the "enterprise value" of a business usually is not affected by how a business is financed, the equity value of a business is. In the context of business valuation, interest-bearing debt normally includes such things as term debt, mortgages, capitalized leases, and operating lines of credit. Interest bearing debt also includes "equivalent" amounts, such as advances from shareholders and other related parties, whether or not these things are interest bearing. In most cases, any cash on hand is applied to reduce the amount of interest bearing debt (or equivalents) outstanding.

Continuing the example above, assume that normalized maintainable (after-tax) net income for Company X is estimated at $450,000, and that a capitalization rate of 10% is believed to be appropriate. Further assume that Company X has redundant assets of $100,000, and interest bearing debt of $800,000. The "en bloc" fair market value of the shares of Company X would be calculated as follows:

Company X
Determination of En Bloc Fair Market Value of Shares
Capitalization of Earnings Methodology

Normalized net income	$450,000
Divided by capitalization rate	10%
Equals: capitalized income	$4,500,000
Add: redundant assets	$100,000
Equals: enterprise value	$4,600,000
Less: debt outstanding	($800,000)
Equals: en bloc fair market value of equity	$3,800,000

The two principal variables underlying the capitalization of earnings methodology are the maintainable earnings base and the capitalization rate. The determination of both these things inherently is subjective. A reasonable estimate of the earnings base and the capitalization rate requires a sound understanding of the business and the industry in which it operates, as well as an objective assessment of the risks and opportunities faced by a particular business.

It is important to recognize that the earnings base and the capitalization rate applied thereto are interrelated. The more optimistic the assumed maintainable earnings base, the greater the risk in achieving (or maintaining) same, and hence the greater the required rate of return. In the example of Company X, the amount of capitalized earnings was calculated as $4.5 million, arrived at by dividing estimated maintainable earnings of $450,000 by a capitalization rate of 10%. The same $4.5 million of capitalized earnings could have been arrived at by assuming maintainable earnings of $500,000 with an 11.1% capitalization rate, or maintainable earnings of $400,000 with an 8.9% capitalization rate, or an infinite number of other

combinations. The point is that the capitalization rate and the earnings base to which it is applied are interrelated. Hence the value of a business cannot be changed by altering one of these underlying components in isolation.

While the capitalization of earnings methodology historically has been popular and has often been accepted by the courts[6] (and continues to be popular in the context of public equity market analysis), it suffers from significant shortcomings. Most notably, net income for accounting purposes may be significantly different than the cash flow generated by a business. In modern corporate finance, the economic value of a business is a function of its ability to generate cash flow for its stakeholders. Therefore, the capitalization of discretionary cash flow methodology (discussed below) generally is preferred. In addition, the maintainable earnings base used in a capitalization of earnings methodology normally is determined through an analysis of historical operating results, which may not be reflective of a company's prospective earnings ability. This is particularly the case where a business is experiencing strong growth, or where it has undergone significant changes in the past few years. In many cases, valuation reports adopt a "weighting" of historical (adjusted) operating results as a mechanical exercise, without assessing whether such results are indicative of a company's future earnings ability.

Therefore, when reviewing a business valuation developed on a capitalized earnings basis, counsel normally should first assess whether the valuation expert's determination of maintainable earnings is well founded. Common shortcomings in this regard are where the valuation expert:

- adopts the most current (adjusted) operating results, which do not reflect the cyclical nature of the given business;

[6] See, for example, *Domglas Inc*. v. *Jarislowsky et al*. (1981), 13 B.L.R. 135 (Que. S.C.); affd (1982), 138 D.L.R. (3d) 521

- does not adjust historical operating results for unusual or non-recurring items, or alternatively, makes adjustments for certain historical revenues or expenditures that are not truly unusual or that are recurring; and

- adopts historical operating results that are not reflective of prospective results due to fundamental changes in the business or the industry in which it operates (e.g., due to a major business expansion or changes in the regulatory environment).

Common shortcomings in developing the capitalization rate are addressed in the section entitled "Rates of Return and Valuation Multiples".

Capitalization of Discretionary Cash Flow Methodology

The capitalization of discretionary cash flow methodology generally is preferred to the capitalization of earnings methodology. This is because the former is based on a company's ability to generate prospective discretionary cash flow as opposed to accounting earnings. Discretionary cash flow represents cash that is available to the providers of capital to a business, and that can be:

- withdrawn from the business in the form of dividends, excess remuneration, and so on, to provide a return on investment;

- reinvested in the business, thereby creating growth opportunities in excess of what would otherwise be the case;

- applied against outstanding interest bearing debt, thereby increasing the equity value component of enterprise value; or

- retained in the business as a "redundant asset", thereby increasing the "enterprise value" (and in turn the equity value) of the business.

The mechanics of the capitalization of discretionary cash flow methodology are similar to the capitalization of earnings methodology, except that normalized maintainable (after-tax) discretionary cash flows are used as the "base" in lieu of normalized maintainable (after-tax) net income. Discretionary cash flow normally is calculated as normalized maintainable earnings before interest, taxes, depreciation and amortization ("EBIT-DA"), less income taxes, and sustaining capital reinvestment (net of the related income tax shield).

Pursuant to the capitalization of discretionary cash flow methodology, depreciation expense and amortization expense (being non-cash expenditures) are not deducted. Rather, an estimate is made of sustaining capital expenditures, which represents the cost of fixed assets that must be acquired, each year on average, in order to maintain the operations of the business at the levels indicated. Capital expenditures give rise to capital cost allowance ("CCA") for income tax purposes. Therefore, the present value of the income tax savings on CCA is deducted from sustaining capital expenditure requirements. Further, in the context of the capitalization of discretionary cash flow methodology, an adjustment is made to account for the present value of the CCA tax shield on the undepreciated capital cost of existing assets owned by the business.

Referring to the previous example, assume normalized earnings before interest and taxes ("EBIT") of Company X is estimated at $750,000, and that Company X has annual depreciation and amortization expense of $100,000. It follows that Company X's normalized maintainable EBIT-DA would be calculated as $850,000 (being $750,000 EBIT plus $100,000 of depreciation and amortization). Further assume that annual sustaining capital reinvestment for Company X is estimated at $120,000 and that the present value of the CCA tax shield on that capital reinvestment is $30,000. (The formula for computing the present value of the CCA tax shield can

be found in one of the texts noted in the "Introduction"). Assume that the present value of Company X's CCA tax shield on its existing assets is $150,000. As before, assume that income taxes are 40%, a capitalization rate of 10% is considered appropriate, and that Company X has redundant assets of $100,000 and interest bearing debt outstanding of $800,000. The en bloc fair market value of Company X's shares determined pursuant to the capitalization of discretionary cash flow methodology would be as follows:

Company X
Determination of the En Bloc Fair Market Value of Shares
Captitalization of Discretionary Cash Flow Methodology

Normalized maintainable EBIT	$750,000	
Add back: depreciation and amortization	$100,000	
Equals: normalized maintainable EBIT-DA		$850,000
Less: income taxes		($340,000)
Equals: net cash flow from operations		$510,000
Less: sustaining capital reinvestment	($120,000)	
Add: CCA tax shield thereon	$30,000	
Net sustaining capital reinvestment		($90,000)
Normalized maintainable discretionary cash flow		$420,000
Capitalization rate		10%
Capitalized cash flow		$4,200,000
Add: present value of existing CCA tax shield		$150,000
Add: redundant assets		$100,000
Equals: enterprise value		$4,450,000
Less: interest bearing debt outstanding		($800,000)
Equals: en bloc fair market value of shares		$3,650,000

Note that the en bloc fair market value of Company X's shares determined pursuant to the capitalization of discretionary cash flow methodology is less than what was

calculated pursuant to the capitalization of earnings methodology. This is because, in this example, Company X's sustaining capital reinvestment exceeds its depreciation expense for accounting purposes. The capitalization of discretionary cash flow methodology provides a better measure of true economic value compared to the capitalization of earnings methodology.

The principal determinants of value pursuant to the capitalization of discretionary cash flow valuation methodology are the estimated maintainable discretionary cash flow and the capitalization rate. Both of these factors are subjective and inter-related. A reasonable estimate of the discretionary cash flow base and the capitalization rate requires a sound understanding of the business and the industry in which it operates, as well as an objective assessment of the risks and opportunities faced by a particular business. Counsel should assess the manner and the degree to which the valuation expert considered these factors. Again, valuation reports sometimes adopt a mechanical approach when developing maintainable discretionary cash flow based on historical operating results, without considering whether such results are reflective of prospective cash flow. Many of the possible arguments in respect of the development of maintainable earnings under the capitalization of earnings methodology apply to the development of maintainable discretionary cash flow under the capitalization of discretionary cash flow methodology.

One additional common shortfall in the determination of the discretionary cash flow base is the estimation of a reasonable figure for sustaining capital reinvestment. This should reflect a long-term average amount of fixed asset additions required to maintain the operations of the business. In many cases, sustaining capital reinvestment is over estimated or under estimated due to over-emphasis on capital spending in the most recent fiscal years, which may not be indicative of a company's capital spending needs over the long term. Counsel should assess the manner in which the valuation expert developed estimated sustaining capital expenditures to determine whether it was done on a reasonable and objective basis.

Multiple of EBIT and Multiple of EBIT-DA Methodologies

The "multiple of EBIT" and "multiple of EBIT-DA" valuation methodologies are simplifications of the capitalization of earnings and capitalization of discretionary cash flow methodologies, respectively.

The mechanics of these methodologies is fairly straightforward. An estimate is made of normalized maintainable EBIT (or EBIT-DA), to which a valuation multiple is applied. The valuation multiple represents the inverse of a pre-tax rate of return (and in the case of EBIT-DA, pre sustaining capital as well). The determination of multiples is addressed under the section "Rates of Return and Valuation Multiples". As before, redundant assets are added, and outstanding interest bearing debt is deducted, in order to determine the "en bloc" fair market value of the shares of a business.

In the example of Company X, assume that maintainable EBIT is estimated at $750,000, and that a multiple of 6X is considered appropriate (which represents a pre-tax rate of return on total capital of 16.7%). Again, assume that redundant assets are $100,000 and interest bearing debt is $800,000. The determination of Company X's en bloc equity value pursuant to the multiple of EBIT methodology would be as follows:

Company X
Determination of En Bloc Fair Market Value of Shares
Multiple of EBIT Methodology

Normalized maintainable EBIT	750,000
EBIT multiple	6
Capitalized EBIT	4,500,000
Add: redundant assets	100,000
Equals: enterprise value	4,600,000
Deduct: interest bearing debt	(800,000)
Equals: en bloc equity value	3,800,000

While the multiple of EBIT methodology and the multiple of EBIT-DA methodology may appear attractive due to their simplicity, their application can be hazardous. Similar to the capitalization of earnings methodology, the multiple of EBIT methodology does not consider important differences between capital spending and depreciation. The multiple of EBIT-DA methodology ignores capital spending requirements in their entirety, except to the extent that they may be reflected in the EBIT-DA multiple that is adopted.

As a result, the multiple of EBIT and multiple of EBIT-DA methodologies normally are adopted only for the purpose of a preliminary indication of value, or as a test of reasonableness on the valuation conclusions pursuant to a preferred valuation approach (such as the capitalization of discretionary cash flow methodology or the discounted cash flow methodology). While multiples of EBIT and EBIT-DA often are referred to in the context of transaction analysis (see “Comparable Transactions”, below), this normally is because such earnings bases often are the

only ones publicly disclosed. In most cases, corporate acquirers primarily are interested in the prospective discretionary cash flows to be generated following the acquisition of a particular business.

For the reasons explained above, counsel often can successfully challenge the multiple of EBIT or EBIT-DA methodology as unsound (at least as a primary basis for determining value), particularly in the valuation of capital-intensive industries. In addition, the valuation expert's determination of maintainable EBIT or maintainable EBIT-DA may suffer from some of the same shortcomings as the estimate of maintainable earnings under the capitalization of earnings methodology, discussed above.

Discounted Cash Flow

The discounted cash flow methodology generally is the preferred methodology for determining the en bloc fair market value for the shares of a business. The courts have increasingly recognized the validity of the discounted cash flow methodology in recent years.[7]

The discounted cash flow methodology involves forecasting the discretionary cash flow of a business for each year over the next several years (normally 3 to 5). Annual discretionary cash flows are discounted to present value at a discount rate considered appropriate to reflect the risks involved in achieving the projections. An estimate is then made of the value of the business following the forecast period. This is termed the "terminal value" (or "residual value") of the business. Terminal value normally is calculated in a manner similar to the capitalization of discretionary cash flow methodology – i.e., assuming a point estimate of maintainable

[7] See, for example, *Cyprus Anvil Mining Corp*. v. *Dickson et al.* (1983), 20 B.L.R. 21, 40 B.C.L.R. 180; (1987), 8 B.C.L.R. (2d) 145.

discretionary cash flow beyond the forecast period, multiplied by a "terminal value multiple" (or divided by a capitalization rate). This calculation assumes that, following the forecast period, the business will continue to generate discretionary cash flow at a constant rate over the long term. The terminal value component is then discounted to present value. Adjustments are made to account for the present value of the CCA tax shield on existing capital assets, as well as redundant assets and interest bearing debt outstanding.

Recall that discretionary cash flow normally is calculated as EBIT-DA less income taxes, less capital investment requirements (net of the related CCA tax shield). However, when calculating discretionary cash flow pursuant to a discounted cash flow methodology, it is important for the valuation expert to take into account all cash flows that must be incurred or realized in order to meet the projections. For example, pursuant to the discounted cash flow methodology, capital investment requirements not only include sustaining capital, but also incremental capital spending required to achieve sales growth, generate operating efficiencies, and so on, that form part of the projections. Furthermore, where a business expects to grow its sales, it normally requires additional working capital (i.e., accounts receivable, inventories, and so on). To the extent that a business requires incremental working capital to support its' growth, that represents a cash outflow, and must be deducted when calculating discretionary cash flow.

As an example of the discounted cash flow valuation methodology, assume that Company X expects that its EBIT-DA will increase from its current level of $850,000 in 2003 to $1,100,000 by 2006, and will remain at that level beyond that time. In order to achieve this growth, Company X must acquire additional capital equipment (i.e., in excess of the $120,000 annual sustaining capital assumed in the capitalization of discretionary cash flow methodology), and support its sales growth with incremental working capital. Assume that a discount rate of 13%, and a "terminal value multiple" of 10X are considered appropriate. These rates of return are explained in the section entitled "Rates of Return and Valuation Multiples".

Consistent with previous examples, assume an income tax rate of 40%, and that Company X has redundant assets of $100,000, interest bearing debt outstanding of $800,000, and that the present value of the CCA tax shield on its existing assets is $150,000.

Company X
Determination of Fair Market Value of Shares
Discounted Cash Flow Methodology

		2004	2005	2006	Beyond
EBIT-DA		900,000	1,000,000	1,100,000	1,100,000
Less: income taxes		(360,000)	(400,000)	(440,000)	(440,000)
Net operating cash flow		540,000	600,000	660,000	660,000
Capital investment		(400,000)	(250,000)	(150,000)	(150,000)
Less: tax shield thereon		100,000	62,500	37,500	37,500
Less: working capital		(40,000)	(80,000)	(80,000)	0
Discretionary cash flow		200,000	332,500	467,500	547,500
Terminal value multiple					10
Terminal value					5,475,000
Present value at	13%	176,991	260,396	324,001	3,794,450

Valuation:

Sum of present value	4,555,838
Add: present value of existing CCA tax shield	150,000
Add: redundant assets	100,000
Equals: enterprise value	4,805,838
Less: interest bearing debt outstanding	(800,000)
En bloc fair market value of shares	4,005,838

Note in this example the discounted cash flow methodology results in a higher en bloc fair market value for the shares of Company X than what was determined pursuant to the capitalization of discretionary cash flow methodology. This is due to

the assumptions relating to Company X's near term growth in EBIT-DA. Also note that a substantial portion of the overall value conclusion rests in the "terminal value" component. This is not unusual in the discounted cash flow methodology, particularly where considerable capital expenditures and working capital must be invested in the earlier years in order to realize the assumed growth.

While the discounted cash flow methodology is conceptually sound, counsel often can challenge a business valuation developed pursuant to a discounted cash flow methodology on one or more of the following bases:

- the reasonableness of the projections. Fundamental to a credible value conclusion are financial projections that are founded on reasonable, internally consistent assumptions. In some cases, the valuation expert relies on so-called "hockey stick" projections that are premised on aggressive sales growth assumptions or cost savings that are not realistically attainable. Counsel should assess the nature and extent of the work that the valuation expert undertook to scrutinize the financial projections in order to satisfy themselves as to their reasonableness. An objective assessment of financial projections normally requires that the valuation expert develop a sound understanding of the business itself and the industry in which it operates. The scope of review section of the valuation report should set out the procedures that the valuation expert undertook in this regard;

- inadequate costs. While the sales growth forecasts set out in the cash flow projections may be plausible, the costs associated with achieving that growth sometimes are not adequately considered. For example, sales growth often necessitates additional capital spending or other fixed costs to support expansion. A common oversight in financial projections is the failure to consider the incremental investment required in terms of working capital to finance growth in sales. Failure to consider the cost of growth can significantly influence (overstate) the valuation conclusion. Counsel can perform simple

calculations on the projections, such as profit margins by year, to assess the degree to which the projections inherently assume the ability of the business to "leverage" its cost structure. If significant operating leverage is embedded in the financial projections, counsel should endeavour to challenge the valuation expert as to how they satisfied themselves as to the reasonableness of such implicit assumptions;

- technical errors. Because discounted cash flow calculations sometimes are complex, they generally are more prone to include technical valuation errors as opposed to other valuation methodologies. One of the more common technical errors is the inconsistency between the discount rate adopted and the basis by which the projected cash flows have been developed. For example, where inflation is included in the cash flow projections, inflation also should be reflected in the discount rate, and vice-versa. While technical errors of this nature may not be self-evident, counsel might be able to detect them through a careful assessment of the internal consistency of the assumptions made throughout the valuation report; and

- the terminal value calculation. In most discounted cash flow valuations, the terminal value component represents the majority of the "enterprise value" conclusion. However, the terminal value calculation sometimes is premised on assumptions in terms of discretionary cash flows and growth rates that may not be sustainable over the long term. Counsel sometimes can effectively challenge the terminal value calculation by making the court aware of the degree to which the valuation conclusion is influenced by the terminal value component, and the sensitivity of changes in terminal value maintainable cash flows and terminal value multiples to the overall value conclusion.

Comparable Public Companies

The comparable public companies methodology (sometimes referred to as the "guideline public companies method") involves identifying public companies whose operations are similar to the privately-held business being valued. The observed public equity market valuation multiples are applied to the earnings or cash flow base of the privately-held company to determine the value of its shares. Common public equity market multiples include:

- equity value (i.e., market capitalization) to net income (or sometimes equity value to net book value); and

- enterprise value (i.e., market capitalization plus interest bearing debt) to EBIT-DA or EBIT.

For example, assume that an analysis of publicly-held companies operating in the same industry as Company X traded at an average multiple of 6.5X trailing EBIT. Recall that Company X's normalized EBIT for its 2003 fiscal year was determined to be $754,000. As before, assume that Company X has $100,000 of redundant assets and $800,000 of debt outstanding. It follows that the value of the shares of Company X based on the comparable public companies methodology (using a multiple of trailing EBIT) would be determined as follows:

Company X
Determination of Fair Market Value of Shares
Comparable Public Companies Methodology

Normalized trailing EBIT of Company X in 2003	754,000
Public equity market EBIT multiple	6.5
Capitalized earnings	4,901,000
Add: redundant assets	100,000
Equals: enterprise value	5,001,000
Deduct: interest bearing debt	(800,000)
Equals: en bloc fair market value of shares	4,201,000

As evidenced from the above illustration, the mechanics of the comparable public companies methodology are substantially similar to the multiple of EBIT methodology (or multiple of EBIT-DA methodology, or capitalization of earnings methodology, depending on the earnings base selected).

The comparable public companies methodology is popular in the United States due to guidelines published by the tax authorities in that country, which normally require that comparable public companies be considered in the course of a notional valuation. However, in both Canada and the United States, the application of so-called "comparable" public company multiples is fraught with difficulties. This is because it rarely is possible to find a publicly held company whose operations are substantially similar to the privately-held business being valued so as to provide a meaningful basis of comparison. Important differences usually exist in terms of business size, product offerings, markets served, and so on, all of which can have an important influence on value. Furthermore, even if so called "comparable" public companies can be found, there are important differences between the value of the shares of a privately-held business determined "en bloc", and the prices observed in

the public equity markets for small lots of freely traded shares of publicly-held companies. Consequently, reliance on comparable public company multiples as a principal valuation methodology can result in misleading conclusions. The courts sometimes have criticized reliance on public equity market prices, particularly where trading in that stock is irregular or thin.[8]

As a practical matter, the comparable public companies methodology generally is restricted to large private companies (and public companies) where meaningful comparables are available. Even where adopted in such cases, the comparable public companies methodology normally is used as a secondary methodology to test the conclusions derived pursuant to a cash flow based methodology (such as the capitalization of discretionary cash flow or discounted cash flow methodology).

In a litigation context, where the comparable public companies methodology has been used to determine the value of a privately-held business, counsel can often successfully challenge the validity and/or application of the methodology. Specific areas of contention include:

- the quality of comparables. It is not uncommon for a valuation report that has adopted the comparable public companies methodology to set out a lengthy list of public companies purported to be "comparable" to the subject (private) company simply because they operate in the same industry. As noted above, important differences usually exist between any two companies in terms of size, product offerings, market coverage, and so on, such that the validity of each so-called "comparable" can be brought into question;

- differing accounting policies. Even where reasonable comparables can be found, companies often have different accounting policies in terms of inventory costing, depreciation, and so on, that affect their reported operating results.

[8] See, for example, *Smeenk* v. *Dexleigh Corp.*, 1990 CarswellOnt 130, 72 D.L.R. (4th) 609, 49 B.L.R. 1, 74 O.R. (2d) 385 (Ont. H.C.)

Therefore, to provide a meaningful basis for comparison, the financial results of the "comparable" public company must be restated to reflect the accounting policies of the privately-held company, assuming that sufficient information exists to make such calculations. Valuation experts often fail to make such adjustments;

- use of an average or median figure. The multiples adopted from a list of "comparables" often represent an average or median figure. In many cases, public company multiples in a given industry fall within a wide range due to the fact-specific circumstances of each business. In these cases, counsel can raise the issue of how an average or median figure from such a wide range can produce a meaningful result; and

- application of a "control premium". In some cases, a notional valuation performed pursuant to the comparable public companies methodology includes an adjustment for a so-called "control premium". Such an adjustment normally is made on the assumption that public company shares trade at prices that reflect "minority discounts" and that an adjustment is necessary in order to eliminate the inherent minority discount embedded in the trading price (see discussion under "Minority Discounts"). Counsel can challenge the application of a control premium on the basis that its determination is subjective. Further, it is debatable whether public company share prices actually reflect a minority discount at all.

In light of the foregoing, counsel should be prepared to vigorously contest the adoption of the comparable public companies methodology as a primary basis for establishing the fair market value of a privately-held business.

Comparable Transactions

The comparable transactions methodology is premised on identifying open market transactions involving companies (public or private) whose operations are similar to those of the private company being valued. The valuation multiples observed from those transactions are applied to the earnings or cash flow base of the private company to determine the value of its shares. Popular comparable transaction multiples include enterprise value to EBIT or EBIT-DA, and equity value to net income (or sometimes adjusted net book value). The mechanics of the comparable transactions methodology are similar to the comparable public companies methodology, previously illustrated.

Comparable transactions sometimes are of interest to the courts because such they represent prices actually paid for similar business interests.[9] In addition, "sell-side" investment bankers often refer to multiples observed in comparable company transactions when negotiating price in open market transactions.

However, reliance on comparable transactions when determining the fair market value of the shares of a particular privately-held company is fraught with challenges. As noted above, there usually is an issue with respect to the level of comparability between any two companies due to differences in size, product offerings, markets served, and so on.

In addition, there can be important differences between the determination of price in an open market transaction and fair market value determined in a notional market context. The price paid for a particular business is influenced by such things as the number of interested purchasers at a given point in time, the effectiveness of marketing the business for sale, the negotiating abilities of the purchaser and vendor (and their respective advisors), and other factors. These "market imperfections" are assumed not to exist pursuant to the standard definition of fair market value.

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[9] See, for example, *John A. Carruthers* v. *MNR*, [1982] C.T.C. 5, [1983] 2 F.C. 350, 82 D.T.C. 6009 (Fed. T.D.)

Furthermore, prices observed in open market transactions may incorporate an element of synergies or strategic advantage that is perceived by the purchaser. This is inconsistent with the definition of fair market value where it is determined on an intrinsic basis.

Many open market transactions are not conducted on cash terms, and other forms of consideration (such as share exchanges, earn-outs, management contracts, and so on) may be used. Attempting to convert a non-cash deal to a cash equivalent amount, consistent with the definition of fair market value, often requires subjective adjustments.

Finally, the disclosure accompanying an open market transaction often is limited, particularly where one or both of the companies involved in the transaction were privately-held. As a result, it generally is not possible to know whether other important elements of a particular deal influenced the stated price that was paid. Because of its limitations, the comparable transaction methodology normally is used as a secondary methodology, as a test of the value conclusions derived at pursuant to a cash flow based approach.

From a litigation standpoint, where the comparable transaction methodology has been adopted to value the shares of a particular privately-held company, counsel often can successfully challenge its use on the bases of:

- many of the same arguments used in respect of the comparable public companies methodology. This includes the quality of comparison between any two particular companies, and the use of an average or median multiple computed from a wide range of figures;

- the non-cash terms observed in various “comparable” transactions. It often is not meaningful to compare a non-cash deal with the “cash equivalent” aspect of

fair market value. Further, determining the cash equivalent value of non-cash forms of consideration often is subjective;

- the inclusion of synergies. Prices observed in open market transactions often include an element of purchaser-perceived synergies or strategic advantage, which component of value cannot be readily segregated, and which is inconsistent with the definition of intrinsic fair market value;

- the computation of valuation multiples. Where a company has experienced an abnormal year, its reported operating results (e.g., EBIT-DA, EBIT, and so on) may not be reflective of its prospective operating results (i.e., they may be higher or lower). This fact likely was known by the purchaser pursuant to its due diligence investigation. However, sufficient information usually is not available to a valuation expert to make the necessary adjustments to "normalize" trailing operating results. Hence, the computed multiples of enterprise value to EBIT-DA, EBIT, and so on, become distorted; and

- insufficient information. In most transactions, important details that may have had a significant influence on the price that ultimately was paid generally are not disclosed, and therefore the valuation expert likely did not take such factors into account.

In light of the foregoing, counsel should be prepared to vigorously contest the adoption of the comparable transactions methodology as a primary basis for establishing the fair market value of a privately-held business.

Adjusted Net Book Value Methodology

The adjusted net book value methodology (sometimes referred to as "tangible asset backing") involves adjusting the reported shareholders equity of a business to reflect

the fair market value of its underlying assets and liabilities, as opposed to their book values. In this regard, non-identifiable intangible assets (e.g., goodwill and deferred charges) are reduced to nil, while tangible assets (e.g., property and equipment) and identifiable intangible assets (e.g., patents) are increased (decreased) where their market values exceed (are less than) their net book values.

The adjusted net book value methodology is most commonly used for businesses with no active operations (e.g., holding companies), and where it is believed that a business has no transferable goodwill. It is also used when comparing the underlying net tangible assets of a business to the fair market value of its shares determined pursuant to a cash flow based methodology (or other valuation methodology) in order to calculate the amount of goodwill embedded in the latter.

As an example, assume that Company X had a net book value for accounting purposes of $1.5 million. Further assume that Company X's assets included deferred charges of $50,000, and that it owns fixed assets with a book value of $600,000, but with a fair market value of $800,000. The fair market value of all other assets and liabilities approximate their net book values. The adjusted net book value of Company X would be determined as follows:

Company X
Determination of Adjusted Net Book Value

Shareholders equity as reported	1,500,000
Deduct: deferred charges	(50,000)
Add: fair market value of fixed assets	800,000
Deduct: book value of fixed assets	(600,000)
Adjusted net book value	1,650,000

The value conclusions for the shares of Company X determined pursuant to a cash flow based methodology would be compared to its adjusted net book value. An analysis of the implied quantum of goodwill may provide some insight as to the reasonableness of the value conclusions otherwise determined.

In the context of litigation, where it is used as a primary valuation methodology to ascribe value to the shares of an operating business, counsel can sometimes challenge the adoption of the adjusted net book value methodology on the basis that:

- the assumption that no transferable goodwill exists may not be appropriate, depending on the nature of the business. In this regard, counsel should establish what procedures the valuation expert undertook to satisfy themselves as to the conclusion that no transferable goodwill exists (see discussion under "Determining Value for Income Tax Purposes"); and

- purchasers generally are interested primarily with the cash flow generating ability of a business as opposed to its underlying net assets. Adjusted net book value does not take into account the income-producing capability of a business.

Finally, whether the adjusted net book value methodology is adopted as a primary valuation methodology or for purposes of calculating goodwill, it often is criticized on the basis that adjustments made to account for the fair market value of underlying tangible and identifiable intangible assets usually are subjective. In this regard, where large adjustments are made to a business' assets and liabilities to arrive at adjusted net book value, counsel should determine what procedures the valuation expert undertook to justify such adjustments.

Conclusion – Valuation Methodologies

In summary, the preferred valuation methodologies generally are the discounted cash flow methodology (where meaningful projections exist) and the capitalization of discretionary cash flow methodology. The results from these valuation methodologies normally should be tested with reference to one or more 'secondary' methodologies, such as a multiple of EBIT (EBIT-DA), comparable transactions, and so on. In addition, it usually is helpful to calculate the adjusted net book value of a privately-held company, and to compare that figure to the valuation of the business determined pursuant to a cash flow based approach to assess the amount of goodwill embedded in the value conclusion.

Every valuation methodology is subject to underlying assumptions (both implicit and explicit). The reasonableness and internally consistency of these assumptions is fundamental to developing a meaningful valuation conclusion.

Rates of Return and Valuation Multiples

Overview

Rates of return and valuation multiples often have been regarded as the "mysterious black box" of business valuation. While there always is some element of subjectivity in their determination, the key issues are whether the rates of return and valuation multiples adopted in a fact-specific situation have been developed based on a thorough and objective assessment of the pertinent facts, and whether they have been applied in a way that is conceptually correct and internally consistent.

This section defines the various types of multiples and rates of return, and then addresses how they are developed and applied. It also examines some of the bases for contesting valuation multiples and rates of return in the context of income tax litigation involving the valuation of a privately-held company.

Definitions

It is important to understand the different terms commonly found in valuation reports when discussing rates of return. This includes discount rates, capitalization rates, and valuation multiples. These things are all inter-related, but they are not interchangeable.

A discount rate is the rate of return required by a purchaser in order to place capital at risk in exchange for the prospective discretionary cash flows to be generated by a business, given the nature of the business, the industry in which it operates, and general economic conditions. A discount rate is used in the discounted cash flow valuation methodology to determine the present value of the forecast discretionary cash flows.

A capitalization rate is determined by deducting the growth rate from the discount rate. In this context, the growth rate normally refers to inflation plus real growth (i.e., growth in excess of inflation – see discussion that follows). A capitalization rate is used in a capitalization of discretionary cash flow methodology (or capitalization of earnings methodology), and when determining the "terminal value" component of the discounted cash flow methodology.

A valuation multiple is simply the inverse of the capitalization rate (not the discount rate). Valuation multiples often are converted to a pre-tax basis, and applied to figures such as EBIT or EBIT-DA, as opposed to after-tax earnings or cash flows. Valuation multiples are most often used in the multiple of EBIT or EBIT-DA methodology, as well as the comparable public companies methodology and the comparable transactions methodology.

The relationships between discount rates, capitalization rates, and valuation multiples can be demonstrated with reference to the previous examples pertaining to

the valuation of the shares of Company X. Assume that an appropriate (after-tax) discount rate for Company X was believed to be 13% (the derivation of which is discussed below). Recall that 13% was the discount rate adopted when determining the fair market value of the shares of Company X pursuant to the discounted cash flow methodology previously illustrated.

If we assume that a long term rate of growth for Company X of 3% was anticipated (including inflation and real growth), its (after tax) capitalization rate would be calculated as 10% (being 13% less 3%). Recall that a 10% capitalization rate was adopted when determining the fair market value of the shares of Company X pursuant to the capitalization of discretionary cash flow methodology (and the capitalization of earnings methodology).

Given the capitalization rate of 10%, the equivalent after-tax multiple for Company X would be calculated as 10X (being 1/10%). This is the multiple that was adopted when determining the terminal value component of the shares of Company X pursuant to the discounted cash flow methodology.

Given Company X's income tax rate of 40%, its pre-tax multiple would be 6X [calculated as 10 x (1-40%)]. Recall that the 6X multiple was adopted when valuing the shares of Company X pursuant to the multiple of EBIT methodology.

To summarize, it generally is appropriate to first develop the discount rate, and then to derive the capitalization rate by deducting long-term growth from the discount rate. The after-tax multiple is the inverse of the capitalization rate, which can be converted to a pretax basis if desired.

One of the most critical issues to address when calculating capitalization rates (and resultant valuation multiples) is the determination of the growth figure. Most businesses are able to generate long term growth that at least covers the rate of inflation (although this is not always the case). A more contentious issue is the rate

of real growth (i.e., growth in excess of inflation) that a business will experience. In theory, the real growth rate adopted represents the return that a business is able to generate in excess of its cost of capital over the long term. This is a technical point, but one that is important to understand. Simply because a business experiences growth does not necessarily mean that it is able to create value for its shareholders. Value is created only where a business can generate a return on its invested capital that exceeds its cost of capital. In a competitive market place, such opportunities normally are limited over the long term. Hence, the real growth figure deducted when calculating the capitalization rate often is nil, or a relatively small amount (say 1% to 2%). It is unusual to expect that a company will be able to demonstrate a sustained rate of real growth over the long term in excess of the real rate of growth in the national gross domestic product.

Discount Rate Determination

In the context of a business valuation involving a privately-held company, discount rates (and resultant capitalization rates and valuation multiples) normally are expressed as a "weighted average cost of capital" ("WACC"). WACC represents the blended after-tax cost of a company's financing from both debt and equity sources. Regardless of the extent to which a company uses debt financing in its existing capital structure (if at all), in the context of a business valuation it is necessary to consider the level of debt financing that would be considered "appropriate" for a given business over the long term. This is a subjective exercise. However, a reasonable estimate of capital structure normally can be obtained by considering factors such as the level and quality of a company's underlying net assets, the stability of its cash flows, the industry in which it operates, current and prospective interest rates, and so on. The attractive feature of the WACC calculation is that it is not overly sensitive to changes in capital structure assumptions within a reasonable range.

A WACC discount rate is a function of three basic elements, being the:

- nominal unlevered return on equity;
- debt to total capital ratio (i.e., capital structure); and
- income tax rate.

In most cases, the income tax rate is known or can be reasonably estimated. Therefore, the two variables that must be subjectively determined are the nominal unlevered return on equity, and the debt to total capital ratio.

The nominal unlevered return on equity reflects the rate of return required by a purchaser in order to place capital at risk in a given business in light of its operating risks, but before consideration of financial risk. That is, the unlevered return on equity reflects the risks inherent in the operations of the business itself, such as the risks relating to loss of customers, change in competitive landscape, increases in the cost of labour and materials, and so on. These operating risks are distinct from financial risk, which is related to the use of debt in lieu of equity in order to finance the business. Recall from the discussion under "Valuation Methodologies" that the "enterprise value" of a business (i.e., the total value of its operations) typically does not depend on how the business actually is financed.

The nominal unlevered return on equity often is determined pursuant to a "build-up" methodology. Pursuant to this approach, the starting point normally is the yield on long-term "risk-free" securities, such as long-term government of Canada bonds. An equity risk premium is then added to the risk free rate in order to reflect the higher level of risk associated with an equity investment in general, as compared to a risk free security. The determination of the equity risk premium is subjective, but premiums in the order of 4% to 7% are not uncommon. Finally, where appropriate, an adjustment (either upward or downward) is made to reflect fact-specific industry

and company risks, where such risks are not reflected in the general equity risk premium.

Returning to the example of Company X, assume that the yield on long-term government bonds at the valuation date is 6%, and that an equity risk premium of 5% is considered appropriate. Further assume that an additional risk premium of 4% for Company X is considered appropriate, based on its relative size, the nature of its operations and the industry in which it competes. It follows that the nominal unlevered return on equity for Company X would be calculated as 15% (being 6% + 5% + 4%). Note that this is a nominal rate of return, including an inflation factor, which is embedded in the yield on the long-term government bonds.

The debt to total capital ratio addresses the extent to which the operations of a business can be financed by debt in lieu of equity. Debt financing is attractive because the cost of debt typically is less than the cost of equity financing, and because interest expense normally is deductible for income tax purposes. The determination of the debt to total capital ratio is subjective, but should reflect the "normal" long-term debt capacity of a business, based on factors such as the stability of the business' cash flows, the nature and quantum of its underlying assets, the industry in which it operates, and so on.

With the nominal unlevered return on equity ("ROE") and the debt to total capital ratio determined, and with knowledge of the income tax rate, the WACC discount rate can be calculated with the following "simplified" formula:

WACC = nominal unlevered ROE x [1 – (tax rate x debt to total capital)]

To illustrate the application of the WACC formula, assume that the nominal unlevered return on equity for Company X is estimated at 15% (as previously calculated pursuant to the "build-up" approach). Further assume that a normalized debt to total capital ratio for Company X is estimated at 30%, and that Company X

has an income tax rate of 40%. Based on these assumptions, the WACC discount rate for Company X would be determined as follows:

15% x [1 – (40% x 30%)] = 13.2% (rounded to 13%).

Recall that the 13% discount rate was the rate used to determine the value of the shares of Company X pursuant to the discounted cash flow methodology, and was the base used for calculating Company X's capitalization rate and valuation multiple.

As noted above, the WACC calculation is not overly sensitive to minor changes in the debt to total capital assumption. For example, if we assume a debt to total capital ratio for Company X of 35% (instead of 30%), with no change in its nominal unlevered return on equity (15%) or income tax rate (40%), Company X's WACC discount rate would decline to 12.9% (using the simplified formula). This represents a difference of only 0.3% from the 13.2% previously determined. Accordingly, counsel generally should not expend a large amount of time and effort arguing the assumed debt to total capital ratio where it is not believed to have a significant impact on the overall determination of value.

As an alternative to a "build up" methodology to develop rates of return, many corporate acquirers adopt so-called "hurdle rates" that are used to assess investment opportunities. These hurdle rates may be expressed as a return on equity or a WACC. In today's environment, ROE hurdle rates in the order of 12% to 15% are not uncommon, which generally translate into WACC hurdle rates (discount rates) in the order of 10% to 15% (depending on the capital structure and income tax rate assumptions). This range of after-tax rates of return is consistent with those sometimes adopted by the courts.[10]

[10] See, for example, *R.G. Mersereau* v. *MNR*, [1977] C.T.C. 2412, 77 D.T.C. 290 (T.R.B.)

Corporate hurdle rates may be adjusted (upward or downward) to reflect the fact-specific circumstances of a particular acquisition opportunity. When assessing a corporate acquirer's hurdle rate, it is important to understand what it represents (i.e. a ROE or a WACC), and the assumptions inherently embedded therein (with respect to inflation, capital structure, and so on).

Litigious Issues in Rates of Return and Valuation Multiples

Rates of return and valuation multiples frequently are a principal source of contention in litigation. They often are challenged on the basis of their subjectivity (including possible perceived bias) or on the basis of their technical determination.

There is no doubt that the determination of rates of return and valuation multiples used in the valuation of a privately-held business inherently is subjective. However, the issue is whether or not the rates adopted are reasonable. In this regard, in the context of a notional valuation, it is important for the valuation expert to take into account all of the material factors (both positive and negative) that likely have an influence on the rates of return, and to assess these factors in an objective manner.

Counsel can gain some insight into whether or not the valuation expert considered certain important factors by examining the "scope of review" section of a valuation report. The scope of review section sets out the information base that was relied upon, and the individuals with whom the valuation expert held discussions regarding the business. In a notional valuation, it often is helpful for a valuation expert to obtain information from sources outside of the company (such as industry reports or third party industry experts). Independent sources of information often lend greater credibility to the analysis conducted and the valuation conclusions that are reached. In some cases, counsel might successfully challenge the valuation expert's rate of return selection on the basis that the scope of review was inadequate to afford the

valuation expert a sound understanding of the risks and opportunities facing the business at the valuation date.

Technical errors in the determination and application of rates of return and valuation multiples are not uncommon in valuation reports. While a detailed explanation of the types of deficiencies that sometimes occur is beyond the scope of this chapter, counsel should be aware some of the more common technical errors, which include:

- internal inconsistency between the discount rate and the cash flows to which the rate is applied. For example:

  - the inflation assumptions embedded in the discount rate should be consistent with those used when developing the cash flow projections. Discounting real cash flows (i.e., excluding inflation) by a nominal discount rate (i.e., including inflation) results in an understatement of value, and vice-versa, and

  - where a discount rate or capitalization rate is expressed as a WACC, the cost and risks associated with debt financing are embedded in the rate of return. Therefore, the cash flows (or earnings) to which the rate of return is applied should exclude debt servicing costs.

  Counsel might be able to establish whether these types of technical errors exist in a valuation report based on a careful reading of the valuation methodology and related assumptions, and employing the principles set out in this chapter;

- commingling the valuation multiple used pursuant to a multiple of EBIT or multiple of EBIT-DA methodology, and the earnings base to which the multiple is applied. For example, multiples of EBIT sometimes are erroneously applied to EBIT-DA, resulting in an overstatement of value, and vice-versa. Once again, counsel might be able to ascertain that such errors exist based on a careful reading of the valuation report;

- misapplication of the growth rate used to calculate the capitalization rate. Recall that the growth rate is deducted from the discount rate in order to determine the capitalization rate. The growth rate adopted should be the long-term sustainable rate of growth, which normally is comprised of inflation and in some cases a small amount of real growth (say, 1% to 2% over inflation). High rates of assumed real long-term growth usually are suspect, and can result in overstated value conclusions. Accordingly, where long-term real growth rates are high (say, more than 3% above inflation), counsel should consider the basis by which such an optimistic assumption can successfully be challenged. In some cases, counsel might assist the court in understanding the impact that high assumed long term growth rates have on the valuation conclusions by preparing alternate "sensitivity analysis" calculations; and

- reliance on comparable transactions, or so-called comparable public companies to develop rates of return and valuation multiples of privately-held businesses. As previously discussed, comparable transactions may incorporate an element of synergies and strategic advantage, or may include a significant non-cash component. These things may inflate the multiple (or reduce the rate of return) beyond what is appropriate for a privately-held company that is valued on an intrinsic basis. Alternatively, public equity market multiples are influenced by factors such as differences in liquidity and the availability of information. While comparable company multiples and public equity market comparables can sometimes be used as a test of reasonableness, these methodologies seldom are appropriate as a primary basis for developing rates of return and valuation multiples. Where a valuation report places significant weight on the valuation multiples observed in "comparable" companies and transactions, counsel often can successfully challenge the methodology itself, and challenge each "comparable" on the basis of differences between it and the subject private company in terms of business size, markets served, circumstances (in the case of an open market transaction) and so on.

Finally, in some cases rates of return are developed using the "Capital Asset Pricing Model" ("CAPM"). CAPM is sometimes used by stock market analysts and by portfolio managers as a tool for analyzing publicly traded equity securities, and the model often serves reasonably well for that purpose. However, CAPM generally cannot be meaningfully applied to develop rates of return for privately-held businesses. This is principally because CAPM makes certain underlying assumptions that may be relevant to a portfolio of liquid public held equity securities but that are not appropriate when analyzing a stand-alone privately-held business. For example, CAPM assumes that "non-systematic" (i.e., company-specific) risk is eliminated based on the assumption that an investor holds a diversified portfolio of securities. Clearly non-systematic risk is not eliminated when valuing a particular privately-held company for income tax (or other) purposes. When reviewing a valuation report that relies on CAPM to develop rates of return, counsel should consult one of the reference sources noted at the beginning of this chapter to obtain a list of deficiencies in the utilization of CAPM in the context of valuing a privately-held business en bloc.

Conclusions – Rates of Return

To summarize, rates of return that are used in the context of a business valuation exercise normally are expressed as a WACC. It is important that the underlying components of the WACC (particularly the unlevered return on equity and the debt to total capital ratio) are reasonable and supportable in the circumstances. It also is important to ensure that rates of return are applied in a manner that is internally consistent. Finally, as previously illustrated under "Valuation Methodologies", rates of return and the cash flows (or earnings) to which they are applied are inter-related. The value of a business cannot be altered by changing either of these variables in isolation. Counsel might successfully challenge the rates of return or valuation multiples adopted by the valuation expert either on the basis of the expert's lack of

understanding of the risks and opportunities facing the business at the valuation date (mainly through an assessment of the scope of review set out in the valuation report), or on the basis of various technical deficiencies as explained herein.

Minority Discounts

Overview

Up to this point, the discussion has been on the valuation of the shares of a privately-held company viewed "en bloc". However, in many cases, the issue at hand is an interest in a privately-held business that represents less than 100% of its voting shares.

Where a person holds a controlling interest in a privately-held business (generally defined as an interest in excess of 50% of the voting shares), in most cases, the fair market value of that controlling interest is calculated as its pro-rata portion of the en bloc fair market value. This is because a controlling shareholder typically is in a position to elect the majority of the board of directors, thereby controlling decisions that influence the strategic direction of the company, the quantum of dividend and bonus distributions, the timing of sale or liquidation of the business, and so on.

For example, assume that the 'en bloc' fair market value of Company X is estimated at $4 million (determined pursuant to the discounted cash flow methodology, as previously illustrated) and that there are 1 million common shares issued and outstanding. Further assume that there are two shareholders of Company X, one that holds 75% of the shares and the other that holds 25%. The pro-rata value of each share in Company X is $4 per share. In most cases, the fair market value of the interest held by the 75% shareholder of Company X would be estimated at $3 million, being its pro-rata portion of en bloc fair market value.

The value of a minority interest, on the other hand, must reflect the fact that a minority shareholder does not enjoy the same rights and privileges as a controlling shareholder. Further detracting from the value of a minority interest is the fact that in most privately-held companies a less readily available market exists for a minority shareholding than for a controlling interest. As a result, a minority shareholder may be exposed to one or both of:

- a discount for the inability to unilaterally control the company (i.e., a "discount for non-control"); and

- a discount for the absence of a ready market in which to sell the minority interest (i.e., a "discount for illiquidity").

Discounts for non-control and discounts for illiquidity are inter-related, since a non-controlling position in a privately-held business generally is less marketable than a controlling interest. Therefore, these two discounts often are combined into an all-inclusive "minority discount".

Extending the example above, the fair market value of the interest held by the 25% shareholder of Company X may not be its pro-rata value of $1 million. Rather, depending on the circumstances, the fair market value of that minority interest may be considerably less.

Determining Minority Discounts

The determination of a minority discount (or alternatively a discount for non-control and a discount for illiquidity) inherently is subjective. A reasonable determination of a minority discount requires a thorough and objective assessment of the fact-specific circumstances surrounding a particular minority shareholding. In addition,

developing a meaningful minority discount requires an understanding of the basis by which "en bloc" fair market value was determined.

The quantification of a minority discount normally should begin with an assessment of the provisions set out in a company's articles of incorporation and in its shareholders agreement (where one exists). In many cases, these documents specifically address the valuation of a minority interest in the company. It is not uncommon for a shareholders agreement to specify that a minority shareholder is entitled to receive "fair value" for his or her shares under certain circumstances. "Fair value" generally is defined as a pro-rata portion of en bloc fair market value without the application of a minority discount.

However, in many situations, no shareholders agreement exists. Further, even if a shareholders agreement does exist, it often is vague or silent on important parameters regarding the valuation of a minority shareholding. In such cases, the quantification of a minority discount normally should consider factors such as the:

- size of the shareholding, both in relative and absolute terms. In most cases, a larger discount is applied to a minority interest in a company where there is one controlling shareholder, as opposed to a company in which no one individual (or group of related individuals) has control;

- relevant provisions of the federal or provincial legislation under which the company was incorporated;

- relationships among the shareholders. Where such relationships are favourable, it normally serves to reduce the quantum of discount;

- the minority shareholder's level of involvement in the company. A minority shareholder that is actively involved in a company generally is in a better position vis-à-vis his or her influence on the direction of the business, as

contrasted with a passive shareholder with a similar percentage interest in the business; and

- historic and prospective distributions from a company in terms of dividends, shareholder bonuses, and so on.

In arriving at the fair market value of a particular shareholding, consideration must also be given to the restrictions, if any, placed on the transfer of the shares in question. Such restrictions typically are found in the incorporating documents or shareholders agreement, if one exists.

Where minority shareholding interests are valued for income tax purposes, the guidelines for group and family control set out by the CRA should be considered. CRA Information Circular 89-3 entitled "Policy Statement on Business Equity Valuations" includes a discussion as to the considerations to be made when assessing whether group and family control exist.

According to the CRA, group control is deemed to exist where shareholders voting shares aggregating more than 50% of the votes cast at a general meeting of shareholders can demonstrate a pattern of acting in concert with respect to their shareholdings, and that they are restricted in their right to vote and sell their shares independently. To satisfy the CRA, such evidence could be contained in the Articles of Incorporation, the by-laws, or in a shareholders agreement. Experience to date suggests the CRA primarily looks to consistent application of group control (or the lack thereof) at relevant valuation dates.

When referring to the valuation of an individual minority shareholding in a corporation collectively controlled by individuals with a familial relationship, the term "family control" often is used. CRA generally has accepted a premise that, barring family disputes, family members who collectively control may be presumed to act in concert to exercise some control over the economic direction and the

liquidity of their investment. The rationale which underlies this theory is that related shareholders who hold in the aggregate more than 50% of the voting shares are in a position to realize proceeds not less than the ratable value of their respective shareholdings by acting in concert to sell a control shareholding. Information Circular 89-3 also includes discussion as to the considerations to be made in assessing whether family control exists.

Litigious Elements of Minority Discounts

Minority discounts (or discounts for non-control and discounts for illiquidity) are highly subjective. Furthermore, minority discounts applied for income tax purposes often have been in the range of 20% to 40% of pro-rata fair market value.[11] Therefore, minority discounts can have a significant influence on the final determination of the fair market value of a particular minority shareholding.

The quantum of minority discounts (or even whether a minority discount should be applied at all) in any fact-specific situation usually is the subject of considerable debate. In addition to their inherent level of subjectivity, counsel sometimes can successfully challenge the basis by which minority discounts were developed in terms of technical misapplication stemming from the following:

- a lack of understanding of the basis by which en bloc fair market value was determined. Discounts are "relative" concepts. As such, it is important for the valuation expert to demonstrate that consideration was given to the methodology and assumptions underlying the determination of en bloc fair market value in order to develop a meaningful discount from pro-rata value;

[11] See, for example, *Krafve* v. *MNR*, [1984] C.T.C. 2021, 84 D.T.C. 1002 (T.C.C.)

- inconsistent application of minority discounts at different points in time. A change in the quantum of discount in respect of a particular shareholding should be supported by a demonstrable change in relevant factors affecting such a discount at different points in time (e.g., a change in the relationship among the shareholders). Counsel should compare valuation reports prepared for the subject company at different dates to determine if such inconsistencies do exist; and

- double counting. Where a minority discount is derived based on a discount for non-control and a discount for illiquidity, the factors giving rise to each discount sometimes are double counted, which may result in an overstatement of the combined minority discount. Counsel can often ascertain if this is the case through a careful reading of the valuation report.

In some cases, minority discounts are calculated based on the inverse of so-called "control premiums" (or "premiums for control"). As briefly discussed under "Rates of Return and Valuation Multiples", some individuals in the valuation field believe that shares of publicly held companies trade in the public equity markets at prices that reflect a minority discount. When a third party purchaser acquires a publicly-held company, the price paid usually exceeds the market capitalization of the public company prior to the transaction. The "premium" that is paid sometimes is assumed to arise from the elimination of the minority discount embedded in the market capitalization of the public company. Premiums for control in the order of 30% are not uncommon, although they tend to fall within a wide range. Based on the assumption that the premium for control represents the elimination of a minority discount, the minority discount would be calculated in the order of 40% (being [1 / (1-30%)]).

This approach to determining a minority discount normally is flawed. It inherently assumes that the premium paid in an open market transaction is entirely due to the elimination of an inherent minority discount embedded in the market price of the

shares of the acquired public company prior to the transaction. The existence of minority discounts for public company shares is debatable, particularly for public companies with a large public share float. Rather, in most cases, some or all of a "control premium" more likely is attributable to post-acquisition synergies anticipated by the purchaser, and/or the fact that the form of payment included non-cash terms (e.g., a share for share exchange), with a cash equivalent amount less than its face value. The existence of synergies or non-cash deal terms serves to inflate the premium that is paid to consummate the transaction. As previously noted, these things are inconsistent with fair market value determined on an intrinsic basis. Hence, where a minority discount is developed based on the inverse of an assumed "premium for control", counsel might successfully argue that it may be significantly overstated.

Conclusions – Minority Discounts

Minority discounts are highly subjective, and their quantification is dependent on fact specific circumstances. A meaningful conclusion as to the quantum of discount for a given minority interest generally requires consideration of the relevant provisions of a shareholders agreement and incorporation documents, as well as the relationship among the shareholders of the company. Discounts are relative concepts, and hence an understanding of the basis by which en bloc fair market value was determined is fundamental to a supportable minority discount conclusion. Minority discounts developed on the basis of the assumed elimination of a "premium for control" often are successfully challenged on the basis of the inherent questionable assumptions in that methodology.

Conclusions

Determining the fair market value of the shares of a privately-held business is a subjective exercise. A reasonable conclusion requires a thorough and objective assessment of the pertinent factors, combined with an appropriate valuation methodology and plausible rates of return, properly applied.

When faced with a situation that requires that the fair market value of a privately-held business interest be determined, counsel should consider whether circumstances warrant consideration of so-called "special purchasers", which might have a significant impact on the value conclusion. Unless qualified to the contrary, the definition of fair market value in Canada contemplates the possibility that special purchasers may exist, although the quantification of a special purchaser premium might be highly speculative.

Counsel should also be cognizant of the inherent challenges that arise where a valuation is prepared as of a specific date that has long since past. In such cases, valuation experts sometimes must contend with the difficulties of limited information and the possible influence of hindsight, each of which may impair the credibility of the valuation conclusions.

Another challenge that sometimes arises, particularly in the valuation of smaller privately-held companies, has to do with the form of goodwill. Specifically, in some businesses the owner-manager's knowledge, skills and personal relationships have a substantial influence on its operating results. Where the goodwill element of the business' value is believed to be attributable to "individual goodwill", that portion of goodwill forms a part of fair market value. However, the valuation expert must take into account the risks associated with individual goodwill, which should be reflected in the value conclusion. Conversely, that portion of the goodwill element of the business that is believed to be attributable to "personal goodwill" represents "value to owner", and it is not a component of fair market value. The distinction between individual goodwill and personal goodwill often is subjective, and in some cases the valuation expert's conclusions can be successfully challenged

by counsel, depending on the nature and extent of the work that was undertaken to substantiate the goodwill conclusions.

There are numerous valuation methodologies that sometimes are used to determine the fair market value of a privately-held business that is a going concern. These include the capitalization of earnings, capitalization of discretionary cash flow, multiple of EBIT or EBIT-DA, discounted cash flow, comparable public companies, comparable transactions, and adjusted net book value methodologies. Valuation methodologies based on cash flows, such as the capitalization of cash flow methodology and the discounted cash flow methodology, generally are preferred. The mechanics of the capitalization of discretionary cash flow methodology involve estimating the after-tax unlevered cash flow that a business prospectively is expected to generate on an annual basis, and which can be withdrawn as a return on capital, without compromising the ability of the business to continue generating indicated revenue and profitability levels over the long term. Estimated maintainable discretionary cash flow is divided by a rate of return to determine capitalized cash flow. Redundant assets are then added to determine the "enterprise value" of the business. Interest bearing debt and equivalent amounts are then deducted to determine the value of the shares of the business, viewed "en bloc".

The discounted cash flow valuation methodology is conceptually similar to the capitalization of discretionary cash flow valuation methodology, except that the discounted cash flow methodology involves forecasting prospective discretionary cash flows for a number of years, and then estimating the "terminal value" of the business. Fundamental to any valuation conclusions derived pursuant to the discounted cash flow methodology is a forecast developed based on assumptions that are both reasonable and internally consistent. Valuation conclusions arrived at based on the discounted cash flow methodology can be unrealistic where the forecast has not sufficiently considered all of the costs associated with growth, which normally include incremental operating costs as well as incremental capital spending and working capital.

Valuation conclusions developed based on the multiple of EBIT or EBIT-DA methodology sometimes are flawed because these methodologies do not explicitly consider important value drivers such as capital expenditure requirements and income taxes. The comparable public companies methodology is deficient in many respects. In particular, the notion that meaningful value conclusions can be drawn by comparing public equity market trading prices of companies that may be significantly different in terms of size, product offerings and so on, to a subject privately-held company normally is flawed. Similarly, the comparable transactions methodology also usually suffers from the shortcomings associated with the quality of the selected comparables, and in most cases is hampered by the absence of essential information regarding the terms of the transactions and the expectations of the parties involved, both of which may have had a significant influence on the observed price that was paid. For these reasons, application of the multiple of EBIT or EBIT-DA, comparable public companies, and comparable transactions methodologies generally is limited to providing a test on the value conclusions derived pursuant to the capitalization of discretionary cash flow methodology or the discounted cash flow methodology.

In the context of a business valuation, the rate of return adopted normally is a weighted average cost of capital, which comprises both a return on equity and debt financing. The WACC rate of return is a function of the required unlevered return on equity given the operating risks of the business, a debt to total capital ratio that is considered appropriate, and the income tax rate.

Rates of return and valuation multiples frequently are a source of contention in income tax litigation because of their subjectivity. They sometimes are effectively challenged on the basis that the valuation expert did not have an adequate understanding of the operations of the business and the industry in which it competes in order to make an informed and objective determination of appropriate rates of return. The scope of review section of the valuation report provides some

insight into the depth of analysis undertaken by the valuation expert. In addition, the determination of rates of return and valuation multiples can be technically complex. As a result, their determination sometimes suffers from technical deficiencies, which often are in the form of internal inconsistencies between the assumptions underlying the rates of return and the assumptions underlying the earnings or cash flow base to which the rates are applied. Counsel should closely scrutinize the explicit and implicit assumptions used by valuation experts when developing their rates of return and valuation conclusions.

Finally, when determining the fair market value of a non-controlling interest in a privately-held company, the issue of a minority discount often must be addressed. Minority discounts are influenced by the level of liquidity and the degree of control (or non-control) associated with a particular business interests. Minority discounts are subjective and they can fall within a wide range, depending on the fact-specific circumstances. Consequently, they can have a significant impact on the fair market value of non-controlling interests in privately-held companies. Discounts are relative concepts, and so fundamental to forming a reasonable estimate of an appropriate minority discount is an understanding of the basis by which "en bloc" fair market value was determined. A defendable estimate of the quantum of minority discount also necessitates that the valuation expert carefully consider all of the material pertinent facts that influence the legal rights attaching to a particular equity interest, as well as the relationships among the shareholders. Where the valuation expert has not sufficiently considered these factors, the minority discount conclusion might successfully be challenged.

In the end, effective litigation of a business valuation report and its conclusions requires an understanding of the challenges faced by the valuation expert in a particular valuation assignment, the technical aspects of the methodology(ies) employed and the rates of return adopted, and an understanding of the underlying assumptions on which the conclusions are premised. It also requires a careful

reading of the valuation report, and particular scrutiny of the scope of the valuation expert's work and the assumptions that underlie the value conclusions.