

APPENDIX B:

**TECHNICAL REVIEW FOR THE
MQE COMPETENCE FRAMEWORK**

Chapter 1 - Value Terms and Principles

Most of the topics in this chapter have a **Level A** knowledge expectation other than V-Day value (1971 and 1994).

Candidates are expected to have an **in-depth knowledge** and comprehension of the topics.

The Candidate should be able to define and distinguish value terms such as:

- **Adjusted book value**
- **Book value**
- **Depreciated fair market value**
- **Fair market value**
- **Fair value**
- **Intrinsic (stand alone) value**
- **Liquidation value**
- **Market value**
- **Net realizable value**
- **Price vs. value**
 - **Notional market valuation**
 - **Open market transaction**
- **Replacement value**
- **Reproduction value**
- **Value to owner**
- **V-Day value (1971 and 1994)**

Fair Market Value Fair market value 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 money or money’s worth”

Fair Value This is a term used in (a) federal, provincial, and securities statutes relating to shareholder oppression and remedies, and (b) financial reporting.

For (a), the term has not been defined in the statutes and the term has been interpreted by the courts as follows:

Dissenting shareholder actions - fair value means a pro rata portion of the en bloc fair market value without consideration of minority discount issues

Where shareholder rights have been expropriated - fair value may include a pro rata portion of the value of benefits accruing to the continuing shareholders following the expropriation. In some cases it has also included a premium.

Intrinsic (stand alone) Value Intrinsic value or Stand-alone Value is a notional market value based upon rates of return required by investors given economic and business conditions existing at the valuation date, without consideration of possible synergistic benefits or economies of scale that might accrue to purchasers

Potential synergistic or economies of scale benefits that might accrue to purchasers are not taken into account.

Market Value Market value or Value in Exchange is what an asset or group of assets is would realize (worth) if sold in the open market.

Net Realizable Value This represents the net proceeds obtainable upon the sale of an asset, after deducting all disposition costs. This includes any income taxes paid/payable. This is typically used in a liquidation scenario or for redundant assets in a going concern scenario.

Liquidation Value This is the net amount of money available to equity owners following:

- a voluntary liquidation, a reorganization of a business pursuant either to a proposal to creditors, or
- a liquidation of a business pursuant to a receivership or other bankruptcy proceeding. Under these circumstances the net liquidation proceeds are seldom sufficient to make any payment to equity owners.

The notional liquidation value of a going concern business is also referred as modified tangible asset backing at a particular valuation date.

Book Value This is also referred to as net book value, net worth and shareholders' equity.

For individual assets or liabilities, this is the capitalized cost of an asset or liability less accumulated depreciation, depletion or amortization.

For a business, this is the difference between total assets (net of depreciation, depletion and amortization), and total liabilities of an enterprise as they appear on the balance sheet.

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|--------------------------------------|---|
| Value to Owner | <p>This is the value of an asset to its particular owner and describes:</p> <ul style="list-style-type: none">• owner-perceived economic advantage (e.g., synergies/EVA particular to the owner),• non-economic advantage, or• a combination of both. <p>Value-to-owner can have two different components:</p> <ul style="list-style-type: none">• commercial goodwill value - when transferable, it accrues to a particular owner of an asset by virtue of his/her control of that asset. Commercial goodwill is an essential part of fair market value.• personal/non-commercial goodwill value - when non-transferable, value accrues to the owner by virtue of his/ her personal attributes. This type of goodwill is not part of fair market value. <p>If the value to the owner is greater than fair market value, this increment over fair market value often is attributable to personal goodwill or, otherwise, factors inconsistent with the definition of FMV (e.g., owner-specific synergies or other benefits).</p> |
| Adjusted Book Value | <p>This is the equity value that will arise when goodwill and other non-saleable intangible assets are eliminated from an unadjusted (historical cost) balance sheet, and all other assets and liabilities are restated to their fair market values.</p> |
| Replacement Value | <p>This is the current cost of a similar new item having the nearest equivalent utility as the item being appraised.</p> |
| Reproduction Cost or Value | <p>This is the current cost of a manufacturing or reproducing an identical new item.</p> |
| Depreciated Replacement Value | <p>This is the replacement value method with some depreciation deducted to take into account the age and condition of the item. In other words, economic depreciation is considered relative to the price of new (comparable) assets.</p> |
| Price vs. Value | <p>Price is what an individual or entity pays. A purchaser may pay a price for an entity or asset (i.e., open market transaction) that differs from fair market value (i.e., notional market valuation). This divergence may arise for various reasons including:</p> <ul style="list-style-type: none">• purchasers and vendors have different knowledge, negotiating abilities and financial strengths; value assumes that purchasers and vendors are equal in negotiating abilities• special purchasers may drive the price up to the point where it exceeds fair market value due to the existence of a competitive purchaser market• all potential purchasers may not be identifiable, and the |

potential economic value-added/synergies may not be quantifiable

- purchasers may be willing to include an element of non-commercial value in the price
- price may include non-cash components (e.g., contingent consideration such as earn-outs, debt at non-market interest rates, share exchanges, tax-driven structures such as management fees vs. purchase price)
- vendors and purchasers are not equally motivated or are not acting at arms' length (i.e., not "hard bargaining"); there may be emotional considerations driving a transactions that goes beyond objective pricing analyses
- insufficient due diligence/informational differences/asymmetry
- legal and contractual restrictions are enforceable and cannot be assumed away as in the requirement in fair market value for an unrestricted market

V- Day Value (1971 and 1994)

Capital gains tax was implemented on January 1, 1972. Capital gains accruing on capital assets prior to January 1, 1972 (December 31, 1971) are not taxed on the disposal of a capital asset.

The Valuation Day for capital assets owned on December 31, 1971 are:

1. Publicly traded shares and convertible bonds is December 22, 1971 (due to trading settlement conventions) and
2. All other capital assets is December 31, 1971.

The Valuation Day (V-Day) tax rules will apply to the following three situations:

1. Liquidation of an entity
2. Valuation of redundant assets
3. Cash flow distributions in the form of dividends to shareholders, which are taxed at lower rates.

The adjusted cost base (ACB) of capital assets excluding depreciable capital assets and partnership interests, at December 31, 1971 is the median (this is the midpoint of values after they have been arranged from largest to smallest) of the following three amounts:

1. Proceeds of disposition
2. Fair market value on V-Day, and
3. Actual cost

Where two amounts are identical, the ACB will be that number.

The practical issues relating to 1971 valuation date issues generally relate to those of availability of information regarding

the V-day fair market values. In general, all capital properties were supposed to be valued on the relevant date in 1971. However, even if those valuations/appraisals were done at the time, it may be a challenge to locate them at the current time.

On February 22, 1994, the federal government announced changes to the income tax laws that may affect taxpayers who owned capital property or eligible capital property at the end of that day. The \$100,000 capital gains exemption is no longer available for capital property or eligible capital property sold after February 22, 1994. Owners of this type of property at the end of February 22, 1994 who have not used all of their capital gains exemption, can file a one-time election. The election is an option that will allow taxpayers to report a capital gain on their income tax return to take advantage of the unused portion of the \$100,000 general capital gains exemption, even if they did not actually sell the property. In most cases, this election was available only for the 1994 taxation year.

The lifetime capital gains exemption is still available for the disposition of **qualified small business corporation shares** and **qualified farm and fishing property** after February 22, 1994.

The lifetime capital gains exemption was set at \$500,000 until March 19, 2007. On that date, the exemption was increased to \$750,000, and then subsequently increased effective 2014 to \$800,000. For years subsequent to 2014, the amount will be indexed to inflation. For 2018, the amount has been indexed to \$848,252. (Note that the lifetime capital gains deduction is 50% of the exemption amount. In other words, the exemption is applied to the gross capital gain, and the deduction is applied to the taxable capital gain. Be careful to apply the correct amount.)

An important technical tax point of note is that only capital gains that exceed cumulative net investment loss (“CNIL”) account balances are eligible for the lifetime capital gains exemption.

Key valuation principles to be explained and applied:

- **point in time/hindsight**
- **future expectations**
- **ability to earn**
- **market dictates required return**
- **tangible asset backing**
- **value can include commercial & non-commercial goodwill**
- **special purchasers/market liquidity**
- **minority impact**

There are a number of fundamental valuation principles. Candidates are required to understand the key principles above.

Point in Time **Value is determined at a specific point in time. It is only a function of facts known and projections/forecasts made at that particular in time.**

Value is time-specific but will change as the circumstances of companies/assets and their future expected operating results will change.

Hindsight **Hindsight (or retrospective) evidence is inadmissible.**

An exception to this rule has been the use of retrospective evidence to determine whether or not subsequent actual events confirmed the reasonability of assumptions made, and conclusions reached, as at the relevant value date.

The courts have permitted the use of hindsight to weigh the use of financial projections that were prepared prior to the valuation date and utilized in the value calculation. However, the valuator must be able to analyze the events between VD and the date of the actual results used to test the projections, to account for any structural or other changes in the industry, economy or company that occurred after the VD and that were not foreseeable at that date.

In short, in a notional market context, hindsight can only be used in considering the evidence, not in the actual value calculation.

Future Expectations **Value is prospective. It is equivalent to the present value of all future benefits anticipated to accrue from ownership.**

Purchasers of businesses assess prospective acquisitions on the basis of their expected ability to generate prescribed levels of future earnings/cash flows. Return on investment will be provided by the anticipated future profitability of the business and not historic performance. Consequently, all matters related to future expectations must be reviewed and assessed so that an open market price can be intelligently negotiated, or a value determined in a notional market context.

Historic results (prior to the valuation date) can act as a guide to future prospects. However, the reasons for the historic results must be understood in order to determine whether the factors are likely to continue in the future consistent with their historic behaviour patterns.

Forecasting/projecting is difficult and subjective. However, the better the historical data base, the greater the ability to identify and assess assumptions that underlie the forecast. The greater

the uncertainty associated with the prospects of a business at a point in time, the higher will be the related risk and the lower will be the price or value.

Ability to Earn

Value varies directly with the ability to generate prospective discretionary cash flow, except in unusual circumstances where net asset value (liquidation value) will result in a higher value.

Assets are worth what they can earn. The greater the prospective income/cash flow potential (in the eyes of market participants), the greater the value, and vice versa.

Value is determined by applying an appropriate capitalization/discount rate to a selected stream of prospective earnings or cash flows when applying a going concern valuation approach. There is a relationship between the capitalization/discount rate selection process and the selection of the prospective earnings/discretionary cash flow stream. Aggressive earnings or cash flow estimates will have higher risk rates than conservative earnings or cash flow estimates. At any point in time, a business has a specific value. Modification of one of the components of a value estimate requires simultaneous reconsideration of the rest of the analysis.

Market Dictates Return

The market dictates the appropriate rate of return for a particular asset.

Market forces dictate the required returns, which are based on the following

- General economic conditions, in particular short and long-term borrowing rates, which influence both acquisition and divestiture activity levels and the rates of return required by purchasers.
- The types of purchasers in the market, and their respective motivations and investment views. The different types of purchasers may include other private operating companies, publicly held companies, those seeking acquisitions as financial transactions (e.g., leveraged buyouts) and the management group of the business.

Tangible Asset Backing

Tangible asset value is the value of the business enterprise's tangible assets, including identifiable intangible assets but excluding excess/redundant assets and non-operating assets, less the value of the liabilities.

The higher the underlying net tangible asset value base, measured in terms of both its going concern value (tangible asset backing) and its liquidation value, the higher the going concern value overall.

Higher underlying net tangible asset value base (measured in terms of both going concern value and liquidation value) supports a higher going concern value because higher tangible asset backing reduces the risk associated with a business for three reasons:

1. Going concern value assumes the business entity being valued will continue to operate into the future. Consequently, certain tangible assets such as single use real estate and manufacturing equipment often have a greater 'value in use' value than liquidation value.
2. The higher the value of the net tangible assets of a business, the greater is the investment required to enter the industry in which the business operates. This implies that the higher the cost of industry entry, the lower the probability of new competition, and the lower will be the purchaser's required rate of return.
3. Going concern value presumes the business will operate indefinitely. However, this may not be true. On the date a going concern business is acquired, its net assets have an underlying liquidation value. The greater the acquisition date liquidation value of these underlying net assets, the lower is the downside risk of the purchaser, and hence the lower will be the purchaser's required rate of return.

Special Purchasers

Where there is only one potential special interest purchaser, that purchaser will only pay a nominal amount more than other purchasers. The greater the liquidity of the business (defined in terms of number of prospective purchasers), the greater the value of the business.

A special purchaser is one who expects to enjoy special benefits post-acquisition – i.e., increased cash flows due to synergies, economic value-added, etc. Where only one special purchaser exists, he will pay only a nominal amount more than other purchasers in order to ensure the acquisition takes place. (This assumption assumes the vendor does not have access to the purchaser's anticipated synergies/EVA upon acquisition and, therefore, is at a disadvantage during negotiations.) Where two or more purchasers with special interests in acquiring the same business exist, purchasers without such special acquisition interests will be excluded from the market by economic conditions that are beyond their control since it is assumed that the special interest purchasers will bid the price up, thereby creating a market in which only they participate. In other words, the special purchasers create the market and the vendor is in a better negotiating position as a result of increased market liquidity.

Minority/non-controlling Interests **The value of a minority interest may be worth less on a pro rata basis than a controlling interest.**

The primary reason that a minority shareholding may have less value per share than does a control shareholding is related to the minority shareholder's inability to dictate the amount and timing of the return on his/her investment as a result of the inability to influence business operations and business strategy.

There are different types of goodwill including:

- **identifiable vs. non-identifiable goodwill**
- **goodwill of location/location goodwill**
- **goodwill of product or location**
- **personal goodwill**
- **commercial/general business goodwill**
- **individual goodwill**
- **professional goodwill**

Goodwill is an intangible asset resulting from the name, reputation, customer loyalty, location, products, and similar factors that have not been separately identified.

Goodwill of Location Goodwill of location is associated with a particular site, and is based on the assumption that existing customers will return to the location for goods or services irrespective of who owns the premises.

Care must be taken to avoid double-counting goodwill of location where a real estate appraisal is produced which includes locational value.

**Personal
Goodwill**

Individuals can frequently earn high profits as a result of their personal talents, skill and effort. These profits will decline or disappear upon the death, disability or retirement of that individual. This is known as personal goodwill and cannot be transferred to another individual.

For goodwill to be notionally saleable, it must be transferable. The definition of fair market value requires the assumption of a notional/hypothetical transaction. Since personal services cannot be sold, they do not represent notionally saleable goodwill and are therefore excluded from the concept of fair market value.

In the open market, there may be circumstances where employment/management, non-competition and non-solicitation contracts/agreements are used to secure the personal, non-transferable services of an individual. The value arising from such an arrangement (after consideration for the risk of such personal services being terminated for reasons of death or disability, loss of talent, lack of continuing interest) revolves around the employment contract rather than in the business, which employs the individual.

**Commercial
Goodwill**

Once an initial value of an enterprise has been calculated, the next step in judging its (the value) overall reasonableness is to assess the implied amount of indicated goodwill and other intangible value relative to both the tangible asset backing of, and specific circumstances of, the enterprise. Where goodwill is indicated, its nature, source, quantum and likelihood of endurance must be determined. The overall value calculation must be reconsidered if the level of implied commercial goodwill does not stand up to final scrutiny.

Fundamental principles relating to the valuation of intangible assets are:

- The economic life of an intangible asset needs to be considered. Given the significant variety of types of intangible assets, some will be enduring/long-term (e.g., commercial goodwill) whereas others may have shorter lives (e.g., customer relationships/base with high turnover, patents coming up to expiration date). In conjunction with the assessment of economic life, the valuator must consider the maintenance costs to achieve that economic life (e.g., continued research and development for a software product; continued marketing efforts for a brand/tradename)
- Where identifiable intangible assets, except goodwill, have values that can be determined separately, those amounts are added to the fair market value (determined on a going concern basis) of the tangible assets of the enterprise for purposes of

measuring goodwill

- The value of an intangible asset must relate to the expected cash flows or earnings that it (or a group of intangible assets) will generate
- Business goodwill must be transferable if it is to have commercial value. This includes reasonable commercial terms such as the execution of non-competition and non-solicitation agreements, employment/management contracts, etc. as a part of the sale transaction.

Individual Goodwill

This is goodwill that arises in a business as the result of its employment of an individual who has specific abilities, business contacts, good name and reputation that result in cash flows above a base return on invested assets/equity. If that employee left the employ of the business and competed, this could impair the profitability of the business. (One must consider this issue in conjunction with that of the terms of the relevant employment contract and the legal enforceability of its terms, as well as the fiduciary responsibilities of particular employees such as officers and directors.) However, in contrast to personal goodwill, the business has the capacity to substitute other people in the subject role as long as the departing employee does not compete with the business.

Individual goodwill is often capitalized through management contracts, and non-competition and non-solicitation agreements in open market commercial transactions. Individual goodwill represents value to the owner (where **value to the owner** or **investment value** is the value to a particular investor based on individual investment requirements and expectations) rather than forming part of the fair market value of the business when crystallized in this manner.

In the open market, individual goodwill is regularly included as part of the value of a transaction. Transaction prices are usually spoken of as single amounts since it is not common to segregate the value of the business being sold from the value contributed by the management contracts and/or non-competition agreements that form part of the terms of the deal. The valuator must be aware of the existence and terms of such agreements, and the importance thereof to the future profitability of the enterprise in analyzing open market transactions.

Identifiable vs. non-identifiable Goodwill

Identifiable intangible assets can be separately transferred from the remainder of the business and have intrinsic value. Non-identifiable assets are more general in nature and more difficult to quantify (e.g., general goodwill which results in cash flows above a base return on invested assets/equity).

Chapter 2 - Valuation Methods

Most of the topics in Section #2 of the Syllabus have a **Level A** knowledge expectation other than:

- Threshold rates of return (**Level B**)
- Dual capitalization (**Level C**)
- Adjusted present value (**Level C**)

Candidates are expected to have an **in-depth knowledge** and comprehension of the topics.

The Candidate should be able to:

- **evaluate a set of given facts and recommend/select the most appropriate valuation approach (going concern or liquidation) with support**
- **select the appropriate valuation method for the entity & various divisions/businesses within the entity (i.e., income/cash flow, asset-based or market) with support based on the following:**
 - a) **quantitative analysis of info (e.g., trend, ratio, comparative & common size analysis)**
 - b) **qualitative analysis of relevant info (e.g., economic, political, industry, company-specific, etc.)**
 - c) **prepare & discuss mechanics & professional & technically correct calculations**
 - d) **assess reasonableness of conclusions**
- **explain the mechanics and judgements involved in applying various valuation methods;**
- **discuss their relative strengths and weaknesses;**
- **assess the relative appropriateness of their use in given situations; and**
- **perform all calculations to produce valuation results.**

Analyze and Adjust Financial Statements/Normalization Adjustments

Pre-tax earnings from operations (using historical income statements) are usually the starting point to avoid distortions arising from fluctuating tax rates. It is optimal to include at least one complete business cycle in the historic data review, but a five year period is common. The length of a business cycle depends on the nature of the industry and observable historical trends. The goal of normalizing historical operating results is to eliminate inconsistencies to determine a useful guide in estimating what the business/asset can earn in the future.

Balance Sheets

Reported balance sheets can suffer from various problems:

- a) There may assets and liabilities that have not been recorded on the balance sheet. This may either result from accounting standards varying from valuation standards (e.g., recognition of intangible assets, disclosure of contingent assets or liabilities rather than measurement

thereof), or inaccurate financial statements (e.g., inventory misstatements, non-business expenses, cut-off issues).

The **solution** is to value all off-balance-sheet assets and liabilities to the balance sheet.

- b) Assets and liabilities are recorded at historical cost or some other basis that does not represent fair market value (or whatever the relevant value term is), which can differ from their true economic value.

The **solution** is to adjust all assets and liabilities to market value on the balance sheet.

Normal Operating Earnings

Normalization of an income or cash flow statement involves removing non-recurring items and adjusting non-market transactions from reported income or cash flow in order to determine the normal level of operating (and investing to the extent of capital assets, etc. required for operations) earnings of a company.

Examples of non-recurring items are:

- Impact of changes in accounting policies
- Realized capital gains and losses
- Gains or losses on repurchase of a company's debt in the open market
- Impact of catastrophes
- Unusual write-off of inventory or capital assets
- Sale of capital assets
- Impact of strikes
- Restructuring charges
- Impact of litigation or other dispute matters and government actions
- Discontinued operations
- Moving costs
- Severance costs

Examples of non-market items are:

- sales to/purchases from affiliated companies at prices not equivalent to arms' length party terms
- related party advances and loans at above or below market interest rates or other terms
- rent of premises or other capital assets at amounts not equivalent to arms' length party terms
- salaries and other payments to family members or other related parties that are income-splitting in nature
- non-business expenses
- remuneration paid to shareholders for tax-planning purposes – not set based on arms' length party remuneration levels

The valuator must remove/"normalize" the non-recurring items from the income statement in order to evaluate the company's

historical operating results and perform ratio analysis, as a start to developing a forecast/projection for future operating results. In addition, actual expenses and revenues are normalized to reflect economic/market levels.

Information on non-recurring items may also be obtained from the notes to the financial statements.

Indicators of High Earnings Quality

The term “quality of earnings” refers to the degree of conservatism in a company’s reported earnings. The degree of assessed conservatism will reflect upon the reliability placed by the valuator on historical normalized operating results as being reflective of potential future operating results, but also in the selection of the capitalization/discount rate. However, as much as a valuator will need to downward adjust aggressive historical earnings, a valuator may also need to upward adjust conservative reported earnings to ensure a “true” picture of maintainable future cash flows.

Indicators of high quality earnings are:

- Conservative revenue recognition policies
- Conservative inventory valuation methods such as LIFO during periods of rising prices
- High bad-debt reserves relative to receivable balance and past write-offs
- Use of accelerated depreciation methods to depreciate assets
- Write-off of some or all goodwill and other intangible assets
- Little capitalization of interest and overhead
- Little capitalization of computer software costs or other research and development
- Expensing of start-up costs of new operations
- Use of completed contract accounting
- Conservative assumptions used for employee pension and benefit plans
- Adequate accrual of provisions for contingencies
- Little use of off-balance sheet financing techniques
- No repetitive use of non-recurring gains
- No substantial non-cash earnings
- Full note disclosure

Cash Flow

There are many different types of cash flow that may be relevant in valuing an asset or entity. For example, pre-tax, pre-debt service or net income; discretionary cash flow (before financing); EBITDA; EBIT; EBI; EBITDAR (the “R” is rent – e.g., in the airline industry where some companies own their fleet, some lease and some both own and lease); revenue or gross margin (but ONLY if the deal is 100% strategic at the top line).

The accounting policies selected for a transaction can affect the classification in a statement of cash flow. For example:

- Capitalization of costs related to finding natural resources is classified as Investing Cash Flow (ICF). If these costs were expensed, it would be classified as Cash Flow from Operations (CFO).
- Interest paid is classified as CFO. Reclassifying it as Cash Flow from Financing (CFF) for analytical purposes allows the CFO of different companies with different degrees of leverage to be compared
- CFO can be distorted by non-recurring cash flows such as:
 - Sale of receivables
 - Payments made to settle lawsuits
 - Early receipt of royalty payments
 - Restructuring provisions

Assess the Appropriateness & Recommend the Valuation Approach

There are two fundamental approaches to value:

a) **Liquidation value** approach

This approach will be used where:

- where a business is valued using a going concern approach, and liquidation value is used a measure of risk assessment and
- Where a business is not expected to be viable as a going concern, it is valued on a liquidation basis. The going concern value approach is used to demonstrate a lack of going concern viability

b) **Going concern value** approach

A decision must be made whether the business under review is a going concern. This can be achieved through a preliminary assessment of the earnings/cash flow prospects (via normalization of historical results and review of projections/forecasts) of the business to determine whether its prospects are likely to support a value greater than its realizable value if the business were wound up.

There are three primary going concern valuation techniques:

- Income/Cash flow-based
- Assets-based
- Market-based

An income/cash flow-based method requires the selection of (a) the appropriate cash flow proxy, and (b) determination of the stability of future cash flows. If future cash flows are expected to be stable, a capitalized cash flow method can be used. If this is not the case (or if the entity/asset has an expected limited life), a discounted cash flow method will be most appropriate. Both of the above techniques require the selection of an appropriate cash-flow proxy such as:

- **capitalization of indicated after-tax earnings**
- **capitalization of indicated after tax discretionary cash flow**
- **discounting of forecasted after tax discretionary cash flow**
- capitalization of normalized earnings before interest and income tax (EBIT)
- capitalization of normalized earnings before interest, income tax, depreciation, and amortization (EBITDA)
- dual capitalization of earnings

Each technique has its strengths and weaknesses, often making one the better choice in a given set of circumstances. In certain specific instances, it is possible to use an asset based going concern technique for the determination of going concern value.

**Discuss their
Relative Strengths
and Weaknesses**

- **Liquidation value** approach
The **strength** of this method is that it estimates the proceeds that will be available to the equity holders, after taking disposition costs and taxes into account, on the liquidation of all the assets and liabilities of the business.

The **weakness** of this approach is that net book value of the operating assets of a business, which is an accounting term based on original cost less accumulated depreciation, does not reflect the value in use of these assets nor any relationship to the fair market value of the tangible asset backing of the business.

- **Going concern value** approaches – i.e., cash flow proxies:

Capitalization of indicated after tax earnings
Strength – simple to apply

Weakness – can result in incorrect valuations because accounting profit takes into account non-cash expenses such as depreciation and amortization, which can result in understating gross cash flow.

Capitalization of indicated after tax discretionary cash flow

Strength – takes into account the timing of cash flows with respect to income taxes and sustaining capital reinvestment net of the related income tax shield rather than relying on accounting based earnings.

Capitalization of normalized earnings before interest and income tax (EBIT)

Strength – ignores the financing structure of a business concern as a component of going concern value.

Weakness – can result in incorrect valuations because accounting profit takes into account non-cash expenses such as depreciation and amortization, which can result in understating gross cash flow.

Capitalization of normalized earnings before interest, income tax, depreciation, and amortization (EBITDA)

Strength – ignores the financing structure of a business concern as a component of going concern value, and also eliminates reliance on accounting depreciation as an indicator of future sustaining capital expenditure requirements.

Weakness – can result in incorrect valuations because accounting profit takes into account non-cash expenses which can result in understating gross cash flow.

The dual capitalization of earnings

Strength – recognizes that tangible and intangible assets may have different risks attached to it

Weakness – requires knowledge of applicable rates of return on tangible and intangible assets.

Assess the Relative Appropriateness of their Use in Given Situations

The **liquidation approach** is used in the following situations:

- Where the business operations are not viable as a going concern or are unproven
- Where going concern value is closely related to liquidation value. Liquidation value is used as a principal valuation technique in valuing holding companies with passive investments, such as real estate or shares of going concern operating companies (holding companies)
- To assist in risk measurement when valuing on a going concern basis

The **going concern value** approach to asset valuation differs from liquidation value approaches in that it calculates asset values within a business continuing as a going concern. The asset values ascribed under this approach are established in the context of their value in use. They are often described as market value in the case of real property, depreciated replacement

costs values, or fair market value in continued use values in the case of equipment values.

**Perform All
Calculations to
Produce Valuation
Results**

This will be done in our/your review of old MQE questions.

Asset-Based Valuation Methods (both as a primary valuation methodology and a risk adjustment tool):

- a) **adjusted book value, including:**
 - **assets & liabilities valuation**
 - **tax calculations including tax shield, taxes on disposition and distribution, refundable taxes and relevance thereof**
 - b) **liquidation value, including:**
 - **orderly vs. forced**
 - **liquidation costs & expenses**
 - **tax calculations, taxes on disposition and distribution, refundable taxes and relevance thereof**
- time value of money**

**Adjusted Book
Value**

The adjusted net book value is primarily used as a risk measurement tool where a going concern value or price is prepared using earnings or cash flow based technique.

Tangible assets are valued on a value in use basis. The value in use (going concern value) of each tangible asset and liability is determined. The net amount is the difference between the value of adjusted liabilities (market value) deducted from the adjusted assets (market value) and is also known as adjusted net book value.

Adjusted net book value is the same as tangible asset backing when used to develop going concern value.

**Assets & Liabilities
Valuation**

The operating assets of a business are seen as a pool of assets with a specific use. The value is determined according to their contribution to ongoing business operations and is:

Net realizable value for current assets,
Market value for land,

The greater of market value and value in continued use (usually depreciated replacement value) for buildings, and

The greater of value in use (usually depreciated replacement value) or market value for equipment and other assets employed by the business where the difference between value in use and value in exchange is that value in use considers all equipment installation costs including production downtime related to installation and setup

Tax Calculations

Including Tax Shield, Taxes on Disposition and Distribution, Refundable Taxes and Relevance Thereof

Tax Shield

The tax shield is the present value of the future tax savings of claiming cost allowances and is given as follows:

Existing Tax Shield:

$$\frac{\text{Undepreciated Capital Cost} \times \text{Tax Rate} \times \text{Capital Cost Allowance Rate}}{\text{Rate of Return} + \text{Capital Cost Allowance Rate}}$$

New Investment

$$\frac{\text{Investment Capital Cost} \times \text{Tax Rate} \times \text{Capital Cost Allowance Rate} \times [1 - \text{Rate of Return}]}{\text{Rate of Return} + \text{Capital Cost Allowance Rate} \quad [2(1 + \text{Rate of Return})]}$$

Taxes on Disposition and Distribution

Note the following regarding the disposition of **capital assets**:

- The excess of proceeds on disposition over the undepreciated book value for tax purposes (i.e., UCC) up to a maximum of original cost must be included in income. This is called recapture. Any deficiency, which is called terminal loss, is deducted in calculating taxable income.
- The excess of proceeds on disposition over the adjusted cost base of an asset (which often, but not always, will be original cost) is a capital gain for tax purposes.
- For eligible capital property (“ECP”), the excess of proceeds on disposition over the adjusted cost base is treated as active business income for tax purposes.
- The non-taxable portion of a capital gain (i.e., 50%), the non-taxable portion of gains on sale of ECP such as goodwill (i.e., 50%), and capital dividends that are received from other corporations are added to an entity’s Capital Dividend Account (“CDA”). CDA can be paid out to shareholders (designate by class) by way of tax-free dividends.

Refundable Taxes and Relevance Thereof

Note the following:

Refundable taxes apply to Canadian-controlled private corporations (CCPC) and

The concept is known as **Integration**

It applies to the following income received by a CCPC:

- Investment income such as interest, taxable capital gains (i.e., 50% of the total), rents and royalties, net of business investment losses; and
- Dividends received on portfolio investments (i.e., dividends received from “unconnected” corporations)

The relevance thereof is:

- Eliminate any differences in taxes paid on income earned by a CCPC subject to small business deduction and taxes paid on income earned by an individual taxpayer and
- Prevents double taxation where income flowing to a CPCC is taxed once at the corporate level and a second time at the individual shareholder level when it is distributed as dividends to shareholders and
- Prevents the deferral of taxes on income received by a corporation which may have a low tax rate (first \$500,000 of active business income taxed at a lower rate) and is not distributed to shareholders by
- Ensuring that **investment income** earned in a corporation is taxed initially at a high corporate rate plus an additional 6 $\frac{2}{3}$ % additional tax on the investment income that is refundable. This corporate tax paid is partially refunded (26 $\frac{2}{3}$ %) when the investment income is distributed in the form of taxable dividends to the CCPC shareholders who pay tax on the income at their personal rate.
- The CCPC is entitled to a corporate refundable dividend tax on hand (RDTOH)

The table below shows the approximate tax rates applicable to **investment income** eligible for a dividend refund and on the first \$500,000 of active business income (in Ontario) for a CCPC.

We will assume the corporate rate is 38%.

| | Investment Income | Active Business Income |
|---|------------------------------|---------------------------------------|
| Federal tax rate (use 38%) | 38.00% | 38.00% |
| Abatement for provincial tax | <u>(10.00)</u> | <u>(10.00)</u> |
| Net federal tax | 28.00% | 28.00% |
| Federal surtax @ 3% of above net | 0.84 | 0.84 |
| Additional refundable tax on investment income | 6.67 | Nil |
| Small business deduction | - | (16.00) |
| Refund on payment of dividends from investment income | <u>(26.67)</u> | <u> </u> |
| Net federal tax after dividend refund | 8.84% | 12.84% |
| Provincial tax – approximately | <u>16.00</u> | <u>10.00</u> |
| Effective total tax | <u>24.84%</u> | <u>22.84%</u> |
| Available for distribution | <u>75.16%</u> | <u>77.16%</u> |

There are three types of dividends that can be paid to

shareholders:

- i) Eligible – dividends that are designated in writing in advance and paid after 2005 by Canadian-resident corporations to Canadian resident shareholders from general rate income pool (“GRIP”). GRIP, effectively, is taxable income that has not benefited from preferential tax rates such as the small business rate, or from refundable dividend tax treatment applicable to investment income earned by a CCPC. (One exception is public company dividends that have been designated as eligible dividends, which retain their status as eligible dividends when they “pass through” a CCPC. Another complication is that a non-CCPC resident in Canada can pay eligible dividends unless they have a low rate income pool (“LRIP”) at the time.)
- ii) Regular/ineligible/non-eligible/ordinary – any dividends that are issued by a Canadian corporation, private or public, which are not eligible for the enhanced dividend tax credit (i.e., taxable income has benefitted from preferential tax rates).
- iii) Capital (e.g., the non-taxable portion of capital gains, life insurance proceeds, pre-1971 CSOH)

Dividends paid to an individual shareholder are treated as follows:

- Capital dividends are tax-free
- Non-eligible dividends – 116% of the gross dividend is included in the individual’s taxable income (117% for 2016 and 2017, 118% for 2014 and 2015 and 125% for 2013 and previous years). A dividend tax credit of 21/29 of the gross-up (of 16%) is then deducted (13/18 for 2014 and 2015 and 2/3 for 2013 and earlier years). In other words, the federal dividend tax rate decreased from 13.33% of the grossed-up dividend in 2013 to 10.522% in 2016, and from 16.67% of the actual dividend in 2013 to 11.586% of the actual dividend in 2016. (As an aside, given that the 2015 Federal Budget announced that the small business tax rate would be reduced by 0.5% each year from 2016 to 2019, the non-eligible dividend gross-up and the non-eligible dividend tax credit are also going to be decreased during this period.)
- Eligible dividends – 138% of the gross dividend is included in the individual’s taxable income, and a federal dividend tax credit of 20.73% of the gross dividend is deducted.

Dividends received by a CCPC are treated as follows:

- Dividends received from connected corporations are not taxable

- Dividends received from unconnected corporations are taxed at investment rates (approximately 49%)
- 26.67% of the dividend is applied to the RDTOH account
- The dividend refund rate for all RDTOH is \$1 for every \$3 of taxable dividends paid.

Tax Losses

There are different types of tax losses, the primary ones being:

1. Non-capital losses can be carried back three years and forward 20 years.
2. Capital loss carryforwards

The valuation of tax losses involves considering the rules relating to utilizing the losses, timing of the utilization thereof, the related risks of utilization, whether or not there is a market for tax losses. Rules for utilizing non-capital losses include:

- a) The business must be carried on continuously after an acquisition of control
- b) Reasonable expectation of profit
- c) Applied to the income earned by the same or similar business

Liquidation Value

The liquidation value is computed by valuing each asset and liability of the business in terms of its likely net realizable value. The fundamental assumption is that the business assets are sold off as individual items, rather than as group of operating assets being used for a specific purpose.

The business being liquidated may own capital assets such as real estate and/or machinery and equipment. These assets values must be determined on the basis of their value in exchange, which is what they would sell for on the open market disengaged from the existing business operations.

Orderly Liquidation

This is the liquidation value at which the assets are sold and liabilities are settled over a reasonable period of time to maximize the net proceeds.

Forced Liquidation

This is the liquidation value at which assets are sold as quickly as possible.

Liquidation Costs and Expenses

All liquidation costs must be considered, such as:

- commissions,
- legal and accounting fees,
- severance pay to employees,
- tax costs on the disposition of the various assets

The resultant amount after calculating the net realizable value of the assets and liabilities and deducting the applicable liquidation costs, represents the amount of cash that would be left in the business prior to wind up and available for distribution.

**Tax Calculations,
Taxes on
Disposition and
Distribution,
Refundable Taxes
and Relevance
Thereof**

This will be demonstrated with practice of previous MQE questions.

**Time Value of
Money**

Present value and future value are important.

**Introduction to
Present Value and
Future Value**

The best way to introduce the concept of present value and future value is through an example.

Suppose you are offered a \$100 today or \$110 in one year's time. Which option would you choose?

The option chosen will depend on current interest rates.

If interest rates are greater than 10%, \$100 invested today for one year will be worth more than \$110 in one year. You can do better by accepting the \$100 today.

If interest rates are less than 10%, \$100 invested today for one year will be worth less than \$110 in one year. You can do better by accepting the \$110 in one year.

The result, money has time value since it can always be invested to earn a return (interest) over time.

There is a second issue that you need to understand.

When values today must be compared with values sometime in the future it necessitates having a method to compare values across different time periods. Since money has time value, this is where present and future value comes in.

There are two ways to compare values across different time periods:

- i. Bring all the values to the current period. This is known as the present value and is calculated as follows:

$$\text{Value Now } (n_0) = n_1 / (1+k) + n_2 / (1+k)^2 + \dots + n_t / (1+k)^t$$

where:

n_t is the value of n in period t

k is the discount rate for a single period

This process is known as **discounting** since the future values are brought back (discounted) to the present.

- ii. Determine what the values will be in some future period. This is known as future value and is calculated as follows:

$$\text{Future Value (FV)} = n_1 \times (1+k) + n_2 \times (1+k)^2 + \dots + n_t \times (1+k)^t$$

where:

n_t is the value of n in period t

k is the rate of return in a single period

FV is the future value

Future Value (FV) of a Single Sum of Money

The future value of a single sum is given by:

$$FV = PV(1 + i)^n$$

where:

i is the rate of return in a single period

n is the number of periods

Present Value (PV) of a Single Sum of Money

The present value of a single sum is given by:

$$PV = FV / (1 + i)^n$$

where:

i is the rate of return in a single period

n is the number of periods

Rearranging the formula allows you to solve for the rate of return or time period.

Normally you would do this using your calculator. You would input the variables given and solve for the variable required.

Annuity

An annuity is a sequence of periodic equal payments payable at fixed time intervals.

There are two types of annuities:

- i. **Ordinary** (deferred) annuity – payments are made at the **end of each period**.
- ii. **Annuity due** – payments are made at **the beginning of each period**.

FV and PV of Annuities

There are formulas for solving for the future value or present value of an annuity. They are complicated. The easiest way to solve for FV or PV is to use a calculator.

Perpetuities

This is a stream of payments that will continue indefinitely.

The formula for a perpetuity is given by:

$$PV (\text{Perpetuity}) = PMT/i$$

where:

PMT is the payment in a single period
i is the rate of return in a single period

This formula is used to value preferred shares which pay a fixed dividend.

Uneven Cash Flow Streams

This is a sequence of periodic cash flows. The cash flows differ from period to period.

The formula for the present value of uneven cash flows is:

$$PV = CF_1/(1+i) + CF_2/(1+i)^2 + \dots + CF_n/(1+i)^n$$

where:

CF_n is the cash flow for period n.
i is the rate of return in a single period

Uneven cash flows can also be solved using the HP12C calculator.

Net Present Value

Net present value is the sum of the present values of all the cash flows. It is the sum of the present value of the cash inflows and the present value of the cash outflows where inflows are positive and outflows are negative.

PV and FV Calculations for Other than Annual Compounding Periods

Bonds pay interest semi-annually (twice a year or every six months).

The solution to solving the calculation is the following:

- i. Divide the quoted annual interest rate by the number of compound periods. Insert this into i.
- ii. Multiply the number of years by the number of compound periods and insert this as n.

To reconvert your answer to annualized figures;

- i. Multiply the quoted interest rate by the number of compound periods.
- ii. Divide the number of years by the number of compound periods.

Distinguish between the Stated Annual Interest Rate and the Effective Annual Rate

Given the following facts:

- Annual interest rate offered on a deposit is 10%
- Interest is calculated semi-annually

The **stated annual interest rate** is 10% per annum.

Calculate the Effective Annual Rate, given the Stated Annual Interest Rate and the Frequency of Compounding

The interest is calculated semi-annually which means that every six months interest is calculated at 5.0% ($10\% \div 2$).

Compounding this over a year will give:

$$[(1.05) \times (1.05)] - 1 = [(1.05)^2] - 1 = 1.1025 - 1 = .1025 \text{ or } 10.25\%$$

The **effective rate of interest** is 10.25%, which is higher than the stated annual interest rate due to compounding.

The formula for effective rate of interest is calculated as follows:

$$(1 + \text{periodic interest rate})^n - 1$$

where:

n is the number of compounding periods
periodic interest rate is the stated annual interest rate divided by n

Earnings & Cash Flow-Based Methods:

**a) Capitalization of earnings or cash flow, including:
Normalization adjustments**

Determination of sustainable earnings/cash flow

Multiple/capitalization rate determination

- build-up method
- threshold rates of return
- risk and growth considerations
- weighted average cost of capital
- capital asset pricing model
- comparable transactions
- other methods
- redundant assets
- tax calculations including tax shield
- relevance of leverage

b) Discounted Cash Flow, including:

- determination of forecast or projected cash flow
- issues regarding the use of forecasts or projections
- discount rate determination

build-up method
threshold rates of return
weighted average cost of capital
capital asset pricing model
other methods

- **calculation of terminal value**
- **redundant assets**

Capitalization of Earnings or Cash Flow

The capitalization rate, also be known as the earnings multiplier, earnings multiple or price/earnings ratio, is a denominator (divisor) that converts a constant stream of earnings or cash flow to a capital amount or value.

The capitalization rate selected is **usually stated in terms of a range of likely return requirements** (rates) rather than a single point estimate.

Note:

High capitalization rates or low earnings multiples are associated with risky or uncertain cash flow expectations, risky industries, etc.

Low capitalization rates or high price/earnings multiples are associated with good prospects for growth in cash flows

The capitalization rate is a function of:

Risk,
Required rate of return, and
Growth prospects

Factors considered in determining capitalization rates are:

- External factors
general economic conditions,
political and social environment,
state of competition in the industry, availability of raw materials and labour supply,
growth prospects in the markets served by the business,
threat of government regulation
- Internal factors relating to the company being valued:
management competence,
quality and marketability of products or services,
research and development,
adequacy of plant and other facilities,
financial health

Capitalization of Earnings (after debt service)

The **capitalization of after debt service earnings** (i.e., available to structural creditors and shareholders) involves:

- Multiplying after-tax normalized earnings from operations by a capitalization rate (the reciprocal of which is called the price-earnings multiple).

- The net realizable value of redundant assets is added to the capitalized earnings value, which
- Produces an overall going concern value.

To summarize the steps:

1. After tax earnings from operations (after normalized debt service) are capitalized by capitalization rate or rate of return, which
Equals the going concern value of the business operations plus
2. Redundant Assets on Hand, which
Gives the fair market value of the shares of the business

The **capitalization of earnings** approach is suitable when:

- When accounting earnings are substantially indicative of discretionary cash flows
- Large periodic sustaining investments in capital assets are not required (e.g., a non-capital intensive business) and
- Sustaining capital reinvestment approximates the accounting depreciation and capital cost allowance (CCA)

The **capitalization of earnings** approach can produce results that may not be representative of the expected future earnings because the valuation is based on accounting income. Accounting income can distort future earnings patterns for the following reasons:

- Accounting net profit may differ from the cash generated from operations.
- The choice of accounting policies means that reported profits can be different across companies for identical accounting periods. This is even more of the case given that Canadian GAAP permits IFRS or ASPE, and some entities do not feel the need to comply with GAAP (e.g., those only requiring compiled financial statements).
- Accounting provisions may not be a true measure of the actual rate at which fixed assets are depreciating, nor do they reflect the capital expenditure that must be spent by the business in order to sustain the existing business operations.
- Transactions may be recorded for which there is no related cash receipt or outlay (e.g. deferred tax allocations, depreciation, amortization, and accounting for capital leases).
- Income tax provisions may differ from the actual cash tax liability due to deductions, which are permitted for purposes of calculating taxable income but not taken into account for accounting purposes and visa versa.

Capitalization of Cash Flow (after debt service)

The **capitalization of discretionary cash flow** is similar to the capitalization of earnings method. However, the cash flow technique focuses on cash inflows and outlays rather than accounting-based earnings.

This technique considers the specific timing of the cash flow with respect to:

- Income taxes, and
- Required sustaining capital reinvestment, which is the periodic capital outlay required to maintain operations at existing levels, net of the income tax shield available from such outlays.

This method involves:

- Applying an appropriate capitalization rate to indicated after tax discretionary cash flow from operations and
- The present value of future tax savings associated with the available capital cost allowances plus net redundant assets on hand are added to the capitalized amount to obtain the fair market value of the shares of the business.

To summarize the steps:

1. After-tax cash flow from operations net of sustaining capital reinvestment, net of the tax shield are
2. Capitalized by capitalization rate or rate of return plus
3. Present value of future tax savings associated with the available capital cost allowances

Equals the going concern value of the business operations

Plus

4. Redundant Assets on Hand, which

Gives the fair market value of the shares of the business

The **capitalization of discretionary cash flow** is appropriate when:

- The business being valued is capital intensive
- Future accounting depreciation and annual sustaining capital investment will be different
- Accounting depreciation and CCA will be different in the future, which gives rise to deferred tax balances in the balance sheet

Cash Flow versus Earnings Approach

The cash flow approach can be viewed as a modification of the earnings approach, with the following differences:

The ability to deduct capital cost allowance against taxable income has value to a purchaser and must be quantified.

Cash flow takes into account the following scenarios:

- A company with older fixed assets (mostly fully depreciated for accounting purposes), will have higher accounting income than a similar company with newer fixed assets (large amount of depreciation still to be expensed for accounting purposes).
- However, the company with the newer assets will have higher capital cost allowances available and its after tax cash flow will in fact be higher than that of the company with older assets and
- The cash flow based approach deals with this issue.
- Capital cost allowance is often determined on a declining balance basis meaning the available tax shield is reduced each year. The earnings approach does not consider the fact that the tax shield is reduced each future year resulting in higher future tax payments (due to smaller future tax deductions). The value of a company can be incorrect if no adjustment is made to the capitalization rate to account for the reduction in the available future capital cost allowance.
- The cash flow approach eliminates the need to reconcile the deferred taxes on a company's balance sheet to accumulated depreciation and the CCA account.
- The earnings approach does not take into account the timing of the cash flows
- Vendors and purchasers utilize a cash flow approach when evaluating investment alternatives

Normalization adjustments

Sustainable earnings/cash flows represents the ongoing earnings/cash flow generation ability of a company and is determined by reference to:

Determination of Sustainable Earnings/Cash Flow

Historical financial data – at least five years and
Budgets and forecasts

The following steps need to be performed to determine **sustainable earnings**:

- Start by **determining pre-tax earnings from operations**. Pre-tax earnings are used in order to avoid distortions that may arise from fluctuating tax rates
- **Normalize** the earnings/cash flow by making adjustments that may include the following:
 - **Compensation Adjustments** – replace owner compensation for an owner operated company where compensation levels paid may be a mixture of salary and

bonus and a dividend, by an estimate of what it would cost to employ non-owner management of equal ability.

Compensation paid to owners or family members where services are not provided to the company must also be adjusted.

- **Non-Recurring Items** - unusual or abnormal costs or revenues that are included in historic operating results must be excluded because such revenue and expenses are not expected to recur in future years on any clearly predictable basis.
- **Redundant Asset/Liability Adjustments** - remove any income or cost amounts associated with redundancies since they are dealt with separately in an earnings based valuation
- **Recent capital expenditure** made where the associated cost savings have not yet occurred
- **Impact of transactions with foreign customers or suppliers** where exchange rates have changed significantly in the past few years
- Non-typical labour strikes
- **Changes in financing costs** – adjust interest expense where debt will be refinanced at a different rate than the current rates
- **Start-up costs** related to new products or operations.

Sustainable cash flow needs to be adjusted for:

- All the items listed above and
- Non-cash expenditures such as depreciation/amortization, write-offs of assets, profit or loss on disposal of capital assets, and equity earnings.

Multiple/ Capitalization Rate Determination

Build-up Method

This approach is subjective in nature and the capitalization rate is determined as follows:

- Start with the appropriate long-term government bond yield for the relevant country. This is the risk-free rate of return. The term of the bond should correspond to the investor's investment horizon and the life of the asset being valued. For example an investor with a ten year investment horizon should start with a ten-year

government bond and then quantify and add additional risk factors such as:

- Equity risk premium (to reflect that equity rather than debt is being valued). This premium is the expected return required by an investor in a diversified portfolio in the long-term. There are various sources including Morningstar, Canadian Institute of Actuaries and Duff & Phelps. The appropriate level will vary depending upon the period review, which generally should be a long period.
- Size of company. The general theory is that small companies while riskier, will earn a higher return. Sources for quantitative factors include Morningstar and Duff & Phelps.
- Country specific premium
- Industry-specific premium/discount
- Company-specific risks reflecting such factors as location, competency and depth of management, diversification in terms of products/services offered, diversification and longevity of customer base, quality of historical operating results, reliance on projections, etc.
- Any other relevant factors, for example special purchaser considerations and adjustment for private vs. public company differences (i.e., illiquidity/lack of marketability) given that the data for the other components is derived from public market

Threshold Rates of Return

The threshold rate of return is a base return expectation, relative to the:

- Risk free investment alternatives available at the valuation date,
- The prevailing cost of capital at the valuation date, and
- The specific valuation approach adopted.

Some corporate purchasers have pre-established corporate rates of return (threshold rate), which are utilized when determining the prices they are prepared to pay for acquisitions.

Note the following:

- Threshold Rates of Return are applied to after tax discretionary cash flow where interest bearing debt considerations are excluded (unlevered rate of return on equity) and an inflation component is included.
- After applying its pre-established Threshold Rate of Return to a forecasted after tax debt-free discretionary earnings/cash flow stream, and then deducting the actual debt obligations of the target business, a levered base price can be determined.

Risk and Growth Considerations

The following **risk considerations** are relevant in determining a capitalization rate:

- Security of the investment measured by tangible asset backing
- Liquidity
- Leverage considerations
- Whether the cash flow range is stated on a pre or after tax basis
- External and industry risk factors affecting the company and
- Internal risks peculiar to the company

The capitalization rate applied must also reflect expectations as to future **growth** of the company

Weighted Average Cost of Capital (WACC)

The weighted average cost of capital is a blended debt (structural or interest-bearing) and equity return and is used as a capitalization rate when:

- Valuing the total enterprise, i.e. the firm as a whole, both the debt and equity and
- The market value of the debt is subtracted from the enterprise value to arrive at the value of the equity of the company and
- Is applied to earnings or cash flow after income taxes have been deducted but without taking into account the income tax deduction related to interest expense on the amount of debt deemed appropriate

WACC is used when:

- A company is profitable on an operating basis but unprofitable after taking the cost of debt financing (interest expense) into account since it removes the negative impact of debt.

WACC is calculated as follows:

Excluding preferred stock

$$\text{WACC} = (w_d)(k_d(1-t)) + (w_{ce})(k_s)$$

where:

w_d = Proportion (market/industry appropriate) level of debt relative to total enterprise value

w_{ce} = Proportion (market/industry levels) of common equity relative to total enterprise value

k_d = Interest rate (cost) of debt

k_s = Required rate of return on common equity (after-tax)

t = Tax rate (relevant for interest)

Including preferred stock:

$$\text{WACC} = (w_d)(k_d(1-t)) + (w_{ps})(k_{ps}) + (w_{ce})(k_s)$$

where:

w_{ps} = Proportion/market of preferred stock

k_{ps} = Cost (dividend rate) of preferred stock

k_d is the horizon-relevant cost of debt based on credit quality/borrowing ability of the subject entity or market participants in general. If company-specific borrowing ability is factored in, the result is that the value will factor in company-specific factors including borrowing synergies. Various benchmarks for selecting k_d include the following:

- Risk free rate + credit spread
- Subject company's publicly traded bond yield
- Comparable companies' bond yields
- General industry bond curves (e.g., sourced from Thomson Reuters or Bloomberg)
- Quotes from financing sources such as bankers

The appropriate tax rate should be that of the logical purchasers/market participants. In general, it will not reflect the small business tax deduction.

k_s can be developed using the build-up method or CAPM.

Ensure that the WACC is applied to unlevered cash flows. The WACC formula imposes a market debt/equity ratio to implicitly deal with structural debt redundancies/leverage issues.

Capital Asset Pricing Model (CAPM)

The CAPM is a single factor ($y = a + bx$) regression model used to determine capitalization rates for a company where the capitalization rate is based on a market index. It estimates the required equity return given the particular leverage of the entity (i.e., the leverage is assumed to be optimal or at industry levels unless there is a separate calculation of leverage).

The rate of return is calculated as follows:

- Combining a risk-free rate of return on government bonds plus
- A return or risk premium (over the risk-free rate) based on the risk associated with the particular company, whose value must be determined, relative to the public market.

The measure of risk used for a company is the Beta (β) coefficient, which is a measure of a specific stock's price volatility (riskiness) with respect to a given market index, where the market index has a beta (β) of 1.

Note the following:

- A Beta coefficient equal to 1.0 means that a given change in the market index would result in an identical price change for that specific company (stock).
- A Beta coefficient greater than 1.0 means the company has greater volatility than the market index (greater risk). A given change in the market index would result in a larger price

- change for that specific company, and
- A Beta coefficient of less than 1.0 indicates less volatility. A given change in the market index would result in a smaller price change for that specific company

The formula for the CAPM model is:

$$E(r) = k_{rf} + \beta(k_{\text{market}} - k_{rf}) + \varepsilon$$

where:

$E(r)$ is the capitalization rate or expected return

k_{rf} is the risk-free rate of return

β is the beta relevant to the company or stock, and it should be levered to market/optimal levels. The beta is a measure of risk relative/correlation to the expected performance of the overall market.

$(k_{\text{market}} - k_{rf})$ is the equity risk premium

ε is the residual error in the regression model. More specifically, this is the company-specific factor.

Note:

- The residual error (ε) is the return of the company that is not explained by the CAPM model
- It is difficult to estimate the Beta coefficient for a private company and therefore proxies are used in its place such as comparable public company analyses, or using the build-up approach.
- CAPM should not be used as the sole determinant of the capitalization rate as it ignores other risks that may contribute to the value of a company such as the specific business risks (ε) of the particular business interest being valued unless the valuator adds such factors (i.e., converts the CAPM to a semi-buildup approach).
- If valuing equity directly, the CAPM is applied to levered net cash flows (i.e., net of debt servicing).

Comparable Transactions

Comparable transactions provide empirical evidence of appropriate capitalization rates

Current trends in public equity markets reflect the market consensus with respect to general and specific industry conditions, which can act as benchmarks in developing values for private companies. However, there are differences between the public equity markets and the market for private companies which make a comparison between the two difficult.

The differences between the purchase of shares of a publicly-traded company on a stock market, and the purchase of all of the outstanding shares of a private company are:

| | Public Company | Private Company |
|----------------------|----------------------------------|--|
| Size | Large | Small |
| Transactions Between | Uninformed minority shareholders | Informed buyers and sellers of large interests |
| Shareholders | Not active in management | Active in management |
| Investment | Liquid | Illiquid |

Redundant Assets

Redundant assets are assets that are not necessary to the ongoing operations of the company and can be removed from the company by either the seller or purchaser on the transaction date.

Therefore, the net realizable value of redundant assets is added to the capitalized earnings/cash flow value of the subject company. The value of redundant liabilities is deducted.

Examples of redundant assets are:

- Excess cash and/or term deposits
- Marketable securities
- Investments in other companies and rental properties
- Related party advances/receivables
- Surplus property (land) and plant and equipment
- Intangibles owned by the company such as licences, franchises, copyrights and patents that are not being used in business operations

Tax Calculations Including Tax Shield

This will be demonstrated using past MQE questions.

Relevance of Leverage

Note:

A leverage adjustment calculation can be prepared to reflect the financing risk of a business, where it is either overleveraged or has hidden redundancy. This can be performed as a specific notional recapitalization calculation when equity is being valued directly (i.e., cash flows available to the shareholders are capitalized using equity rates of return).

Where a recapitalization calculation is not prepared, it must be included in the determination of an appropriate range of capitalization rates when equity is being valued directly.

When equity is being valued indirectly (i.e., the value of the enterprise is determined using cash flows available to shareholders and structural creditors and a WACC), then any excess or over leverage is implicitly adjusted by way of the selection of a market debt-to-equity ratio in the WACC.

Discounted Cash Flow (DCF)

The DCF is a present value calculation of future cash flows and requires:

- Estimating future annual net discretionary cash flows for each year and
- Discounting it to its present value

The DCF is used in the following circumstances:

- Where the business is a going concern but will not operate indefinitely.
- Where the business is expected to experience several years of operations at varying operating levels before the cash flows level off at a constant growth rate (ideally at inflationary rates). The estimate for the year that the growth levels off and becomes constant and is representative of long-term expectations of the company would be capitalized by an appropriate rate. The cash flows projected for each of the variable profit years plus the capitalized terminal (constant year) year amount would be present valued using an appropriate discount rate.

DCF requires the following three steps:

1. Calculate the present value of the expected discretionary cash flow proxy in each year of the cash flow projection period, plus
2. The net realizable value of any redundant assets and liabilities which is assumed to be converted to cash and distributed at the beginning of the discounting period, and plus
3. Calculation of the terminal value
4. If equity is valued indirectly and the selected cash flow proxy is pre-debt service, then the value of structural debt needs to be deducted.

Determination of Forecast or Projected Cash Flow

Cash inflows and outflows must be projected for each year of the projection period.

The determination of forecast or projected cash flows must take into account the following:

- Time frame of the forecast
- Does the forecast include or exclude inflation
- Effect of uncertainty and probabilities associated with the forecast
- What is the sensitivity of the forecast to changes in assumptions
- Sustaining capital investment and capital investment to increase capacity must be deducted from the cash flow
- Changes in working capital requirements
- Debt service (interest) costs
- Tax rates when the selected cash flow proxy is an after-tax figure

Issues Regarding the Use of Forecasts or Projections

The following issues need to be taken into account regarding the use of forecasts or projected cash flows:

- How many years projections have been prepared
- How extensive is the projection process
- Who prepared the projections
- The process used for the projections (i.e., bottom-up, top-down, who is involved)
- The approval process for the projections
- How growth rates were determined and how they compare to prior projections
- The accuracy of previous projections
- Whether sensitivity analysis was undertaken to test the reasonability of the projections
- The nature of the key underlying assumptions

Discount Rate Determination

Build-up Method

This approach, **which is a repeat of what has been discussed previously**, is subjective in nature and the capitalization rate is determined as follows:

Start with the appropriate long-term government bond yield. This is the risk-free rate of return. The term of the bond should correspond to the investor's investment horizon. For example an investor with a ten year investment horizon should start with a ten-year government bond and then

Quantify and add to the government bond yield additional risk factors such as:

- Size of company
- Location
- Competition
- Competency of management
- Any other relevant factors, for example special purchaser considerations

Threshold Rates of Return

The threshold rate of return has been discussed previously.

Note that the rate is made up of the following three components calculated on a pre-tax basis:

- Real rate of return plus
- Inflation rate plus
- Return for risk

DCF is generally (but not always) calculated using after-tax cash flows. If so, the threshold rate must be adjusted for tax assuming that the rate determined is before tax.

For example, given the following facts:

Real risk free rate of return is 4.00%

Inflation rate is 2.00%
Required before tax rate of return for risk is 10.00 to 15.00%
Tax rate is 40%

The threshold rate of return ranges from:

$(.04 + .02 + .10) \times .60 = 0.096$ or 9.60%
to
 $(.04 + .02 + .15) \times .60 = 0.126$ or 12.60%

Weighted Average Cost of Capital (WACC)

The WACC has been discussed. However if you have determined the threshold rate of return, the WACC can be calculated as follows:

$$\text{WACC} = u[1 - t(d)]$$

where:

u is the unlevered rate of return on equity
t is the tax rate used
d is the ratio of interest bearing debt to the sum of interest bearing debt plus equity at market value

Capital Asset Pricing Model (CAPM)

CAPM was discussed previously.

The formula for the CAPM model is:

$$E(r) = k_{rf} + \beta(k_{\text{market}} - k_{rf}) + \varepsilon$$

where:

E(r) is the capitalization rate or expected return
k_{rf} is the risk-free rate of return
β is the beta of the company or stock
(k_{market} - k_{rf}) is the equity risk premium
ε is the residual error in the regression model.

Calculation of Terminal Value

The terminal value is either:

- The present value of the residual assets converted into cash at the termination of the finite cash flow, or
- The present value at the end of the cash flow forecast period of the future benefits. This is calculated by applying an appropriate capitalization rate to the projected discretionary cash flow from operations in the terminal period and

Redundant Assets

Redundant assets (discussed previously) are assets that are not necessary to the ongoing operations of the company and can be removed from the company by either the seller or purchaser on the transaction date.

Therefore the net realizable value (i.e., consider corporate income tax implications) of the redundant assets is added to the capitalized earnings/cash flow value of the company.

Other Methods, including:

- **capitalization of EBIT**
- **dual capitalization**
- **rules of thumb**
- **comparable transaction analysis**

Capitalization of EBIT

There are a number of variations of the capitalized cash flow method related to the cash flow proxy selected:

1. Capitalization of earnings before interest and tax – EBIT
2. Capitalization of earnings before interest, tax, and depreciation and amortization – EBITDA

EBITDA requires sustaining capital investment to be taken into account since this method means that accounting depreciation need not be used as an indicator of sustaining capital investment

Note the following:

- Both methods are variations of the capitalization of earnings/cash flow method
- Both methods allow the financing structure of the company to be separately assessed, where the appropriate debt to equity structure is reflected in the selection of the discount/capitalization rate (i.e., market debt-to-equity ratio). This removes the subjectivity that occurs from the effect of going concern value on the financial structure of a company.
- The capitalization rate used is a WACC
- **The market value of outstanding debt must be deducted to arrive at the value of equity.**

These methods may be appropriate in the following circumstance:

- Well-financed acquirers may analyze potential acquisitions on a debt-free basis because they can decide on the degree of leverage that will be assumed by the company being purchased after acquisition where

Once the appropriate cash flow proxy(ies) are selected, it is important to ensure that they are matched to a comparable capitalization/discount rate. For example, if a pre-tax cash flow is used, a pre-tax multiple should be applied for mathematical consistency.

Dual (or Multi) Capitalization

This method recognizes that there are different levels of risk associated with:

- Tangible assets, which are capitalized at one rate and
- Intangible assets, which are capitalized at another rate

This method may be used as either:

- The primary valuation approach or
- Provide support and backup for other valuation

approaches used

This approach can be applied in two ways:

Two capitalization rates are selected. One rate is applied to the tangible assets whose value is known. The return expected on tangible assets is deducted from the normalized earnings and the value of the intangible assets is calculated. The values of the tangible and intangible assets are added to arrive at the value of the company.

This approach can be illustrated with the following example:

| | |
|------------------------------------|-------------|
| Indicated after tax earnings | \$500,000 |
| Tangible asset backing | \$1,500,000 |
| Required after tax rate of return: | |
| On tangible assets | 15.0% |
| On intangible assets | 25.0% |

| | |
|--|--------------------|
| Application of approach: | |
| Indicated after tax earnings | \$500,000 |
| Less return on tangible asset backing, \$1,500,000 @ 15% | <u>\$225,000</u> |
| Return on intangible assets | <u>\$275,000</u> |
| Capitalized @ 25.0% | <u>4x</u> |
| Intangible value | \$1,100,000 |
| Tangible asset backing | <u>\$1,500,000</u> |
| Fair market value | <u>\$2,600,000</u> |

Note:

If this approach produces a value higher than that calculated under a single capitalization technique, it may indicate that insufficient emphasis has been placed on underlying asset values when selecting a single capitalization rate, and

- Conversely, where this approach produces a value lower than that calculated under a single capitalization technique, it may indicate that not enough recognition was given to a relatively high implied intangible value when selecting a single capitalization rate.

The dual capitalization approach can be used to determine the implied rate of return on intangible assets in a single capitalization calculation. Upon completion of a single capitalization rate calculation, select a rate of return on tangible assets and use the dual capitalization approach to determine the implied rate of return on the intangible assets. This implied rate of return can then be evaluated on a stand alone basis and relative to the selected return on tangible assets.

This approach can be illustrated with the following example:

In a single capitalization, indicated after tax earnings of \$500,000 were capitalized at 6 times (16.67%) to result in a value of \$3,000,000.

| | |
|--|-------------|
| Indicated after tax earnings | \$500,000 |
| Tangible asset backing | \$1,500,000 |
| Required after tax rate of return: On tangible assets | 15.0% |

| | |
|---|--------------------|
| Application of approach: | |
| Indicated after tax earnings | \$500,000 |
| Less return on tangible asset backing, \$1,500,000 @ 15% | <u>\$225,000</u> |
| Return on intangible assets | <u>\$275,000</u> |
| Intangible value \$3,000,000 - \$1,500,000 | <u>\$1,500,000</u> |
| Implied return on intangible value \$275,000 ÷ \$1,500,000 | 18.33% |

The reasonableness of the implied rate of return on intangible assets of 18.33% must be evaluated both on an absolute basis, relative to the 15% return required on tangible assets, and relative to the 16.67% composite return required as the selection of a single capitalization rate.

Rules of Thumb (ROT)

A Rule of Thumb is a mathematical relationship between or among variables based on experience, observation, hearsay, actual transactions or a combination of these, usually applicable to a specific industry. The reality is that they are often developed based on actual transactions that have occurred in a particular industry.

Rules of Thumb should be used to corroborate the validity of value conclusions obtained through other recognized valuation approaches assuming their reliability is tested and source is understood.

Note the following:

- The ROT measure is based on the averages of past comparable transactions and can be thought of as a generalized comparable transaction approach and
- ROT suffers from the following shortcomings:
 - a) Data is not always available and
 - b) The data may not apply to the current situation

The following issues need to be ascertained with respect to industry accepted rules of thumb:

- Does the rule of thumb factor apply to the calculation of the value of the whole company or just the goodwill element?

- Does the rule of thumb factor produce a value for the shares or the assets of the company?
- What adjustments need to be made to the rule of thumb if the company being valued is exceeding or falling short of industry norms?
- Does the value calculated using the rule of thumb reconcile to the value obtained using an economically accepted valuation method?

Comparable Transaction Analysis

The type of ownership interest must first be determined before a comparison can be made between the subject company and a comparable transaction in order to determine whether a valid comparison can be made.

Note the following:

- Private company comparable transaction information can be difficult to identify and obtain.
- Information must be thoroughly analyzed to ensure it is comparable to the company being valued where comparable transaction information is available
- Comparable transactions of private companies purchased by public companies is easier to obtain

General

It is important to test the reasonability of value calculations by, for example:

- Considering the quantum of intangible assets indicated by the value conclusions
- Considering payback period on intangible assets
- Checking implied multiples (e.g., EBITDA, revenue, book value, etc.) to any relevant benchmarks

Section 85 Rollover

The valuator is not expected to be an income tax specialist, so only general knowledge of rollovers (as well as amalgamations, estate freezes, etc.) is required. Rollovers are frequently used on incorporation, when a proprietorship or partnership becomes incorporated. They are also used to transfer assets out of an entity (e.g., capital assets or investment portfolio transferred to holding company for creditor proofing; stripping out of certain assets before a sale of shares to ensure compliance with the requirements to utilize the lifetime capital gains exemption by the vendor or to permit the purchaser to “cherry-pick” the desired assets).

General rules for a Section 85 rollover to be effective include the following:

- The FMV of property transferred must equal the FMV of consideration received
- The elected value must be greater than the non-share consideration received and less than the FMV of the assets transferred

- At least one share must be received as part of the consideration
- The transferred property must be eligible (i.e., capital property – real estate, shares, equipment; inventory; eligible capital property including goodwill)

Sale of Assets vs. Shares

There are both qualitative and quantitative considerations relating to an asset vs. share sale. Quantitative considerations can be considered from the perspective of the buyer or the vendor and include the following:

- Sale of shares is simple and may be less expensive in terms of professional fees.
- Sale of assets allows the purchaser to realize a “step-up” in tax bases – i.e., adjusted cost base, UCC and CEC.
- Sale of shares transfers all contingent liabilities (e.g., taxes, lawsuits, severance) to the purchaser. Note that for unpaid taxes, the liability may not be fully transferred as directors will have liability for events that took place while they were directors.
- Selling assets permits the purchaser to “cherry-pick” the desired assets, making it easier to deal with redundant assets, etc.
- Loss carryforwards will not be transferred to the purchaser on a sale of assets.
- Selling assets results in immediate corporate income tax consequences to the vending company. Further, the shareholder of the vending company will pay personal tax on withdrawal of the proceeds, which can be delayed as desired.
- Selling shares is generally cheaper due to 50% of the capital gains being taxable and the potential ability for the vendor (assuming the tests are met) to utilize his/her lifetime capital gains deduction.

The quantitative aspects of a sale of shares vs. assets are similar to a liquidation calculation. An example format is outlined in the course notes and will be covered in the course.

Chapter 3 – The Valuation or Litigation Support Assignment

The topics in this chapter have **Level A** and **Level B** knowledge expectations.

The Candidate should understand the major components of a valuation assignment and valuation reports including:

- A - planning the engagement**
- A - engagement letter**
- A – draft vs. final reports**
- A - determining information requirements/scope of work**
- A – representation letter**
- A - CICBV Standards, Exposure Drafts, Practice Bulletins issued by June 30 prior to the examination dates**
- B – CICBV Discipline Procedures**
- A - scope of work**
- A - representation letter**
- A - working paper files and retention**
- A – risk mitigation strategies**
- B - due diligence and questionnaires**
- B - verification of information provided by others**
- B - reliance on other experts**
- B - research and sources of information**

General Comments

Note the following when you are asked in a question to advise a client or potential client:

- **Ascertain the nature of the engagement or possible types of engagement**
- **Determine the risk associated with the engagement**
- **Determine who is engaging you or to whom the report must be addressed**
- **Will more than one valuation report be required?**
For example you may have to provide one report for an acquisition with another simultaneous report being provided to another party in order to publicly list the company being acquired
- **Be aware of the valuator's potential liability where engagements are performed for tax purposes. The risk has increased because the valuator can be liable for taxes not paid if the report contains misrepresentations**

Planning the Engagement

Initially, the valuator must determine and clarify the following:

- Purpose of the valuation
- Role of the valuator – independent expert, advocate, or arbitrator
- Potential conflicts of interest
- Valuation date
- Definition of value to be used
- Whether shares or assets are to be valued

- Time frame for the assignment and establish whether deadline can be met
- Estimate fee and who is responsible for paying it
- Determine the reporting details:
 - Who report addressed to
 - Who will review draft reports
 - Management representations
 - Statutory issues
- Obtain information on the company
- Understanding of nature and type of business operated
- Does the valuation require the use of outside experts/specialists (engineer, computer programmer, doctor, real estate appraiser)
- Have there been previous valuations, offers, underwriting or any broker research prepared
- Provide client with a list of documentation required

Engagement Letter

The engagement letter is contract between the client and valuator, which safeguards both the client and valuator.

This letter, addressed to the client, provides an outline of the terms of the engagement and should be signed by the client and returned to the valuator.

Reports – draft vs. final

The sections of the report should be known, depending upon the level of valuation assurance appropriate for the given set of facts.

Draft reports are not reports as defined in the CICBV Practice Standards. They are subject to (a) comments regarding the accuracy and completeness of certain information, (b) subsequent analysis, and (c) amendment and correction, and can only be issued under certain circumstances.

Determining Information Requirements

The information requirements can be split into three areas:

1. **Company** – such as:
 - Financial statements, budgets and forecasts/projections
 - Discrete/detailed financial information such as composition of various accounts
 - Corporate organization and structure
 - Incorporation documents including share features (if more than one category)
 - Tax information and returns
 - Tour of facilities
 - Customer and supplier information
 - Capital assets and real estate (needs to be valued)
 - Leases and key contracts/agreements
 - Information systems
2. **Industry** –

- Comparable transactions
- Statistics
- Regulatory issues
- Supply and demand issues (materials and labour)

3. **Economic Environment** –

- Economic conditions
- Capital market conditions

Valuation Reports

Note:

- The report must comply with the Practice Standards of the CICBV:
- Standard 110 – Valuation Report Standards and Recommendations
- Standard 310 – Expert Reports
- Standard 210 – Advisory Reports
- Standard 410 – Limited Critique Reports
- Standard 510 – Fairness Opinions
- Standard 610 – Investment Entity Review Reports: Standards and Recommendations

However, there are scenarios that do not require formal reports (e.g., internal memoranda to partner, boss, etc.) – see Practice Bulletin #5. Anything going to a third party must comply with report standards. If a formal report is not required, the contents of the deliverable will be more subjective.

The report should contain at least the following information:

- Date report issued
- Name and address of recipient
- Introduction - e.g.:
 - nature of mandate
 - value definition
 - level of valuation assurance
 - identification of asset being valued
 - valuation date
 - purpose
- Statement of independence or non-independence
- Key definitions
- Restrictions and Qualifications/limitations
- Scope of Review
- Any scope limitations
- key overview considerations (depending on level of assurance)
- Approach(es) available and approaches used
- Valuation
- Conclusion(s)
- Assumptions

Standard 410 LCRs are peculiar beings. No quantitative conclusions are permitted and there is a specific statement required in the report to this effect. Conclusions are more qualitative such as directional effect and suitability of the report overall.

Standard 510 FOs, although they may involve a valuation or reference to one, the conclusion is as to fairness of the proposed transactions, from a financial point of view, to a group or groups (e.g., certain shareholders or all shareholders).

**CICBV Standards
and Exposure
Drafts Issued by
June 30 Prior to the
Examination Dates**

The following Standards are in effect:

- Standard #110 – Valuation Reports: Standards and Recommendations
- Appendix A to #110 – Valuation Reports Prepared for Purposes of Securities Legislation, Regulation or Policies
- Appendix B to #110 – Valuation for Financial Reporting
- Standard #120 – Valuation Reports: Scope of Work Standards and Recommendations
- Standard #130 - Valuation Reports: File Documentation Standards and Recommendations
- Standard #210 – Advisory Reports: Standards and Recommendations
- Standard #220 - Advisory Reports: Scope of Work Standards and Recommendations
- Standard #230 - Advisory Reports: File Documentation Standards and Recommendations
- Standard #310 - Expert Reports: Standards and Recommendations
- Standard #320 - Expert Reports: Scope of Work Standards and Recommendations
- Standard #330 - Expert Reports: File Documentation Standards and Recommendations
- Standard #410 – Limited Critique Reports: Standards and Recommendations
- Appendix A to #410 – Labour Sponsored or Venture Capital Fund Valuation Reports: Report Disclosure Standards and Recommendations
- Standard #420 - Limited Critique Reports: Scope of Work Standards and Recommendations
- Standard #430 - Limited Critique Reports: File Documentation Standards and Recommendations
- Standard #510 – Fairness Opinions: Standards and Recommendations
- Standard #520 - Fairness Opinions: Scope of Work Standards and Recommendations
- Standard #530 - Fairness Opinions: File Documentation Standards and Recommendations
- Standard #610 – Investment Entity Review Reports: Standards and Recommendations

- Standard #620 - Investment Entity Review Reports: Scope of Work Standards and Recommendations
- Standard #630 - Investment Entity Review Reports: File Documentation Standards and Recommendations

- Practice Bulletin #1 – Guidance on Limited Critique Reports
- Practice Bulletin #2 – International Glossary of Business Valuation Terms
- Practice Bulletin #3 – Guidance on the Types of Valuation Reports
- Practice Bulletin #4 – Guidance on Definition of Valuator, Expert and Assistances
- Practice Bulletin #5 – Guidance as to When Communications are not Valuation, Advisory, Expert or Limited Critique Reports
- Practice Bulletin #6 – Guidance on Disclosure of Reliance on Financial Statements and Other Information
- Practice Bulletin #7 – Guidance on Use of Draft Reports

- The only exposure draft outstanding at June 30, 2016 was an exposure draft issued on May 12, 2016 entitled “Establishment of a Practice Inspection Program”. Comments on the exposure draft are due August 31, 2016. While candidates should be aware of the existence of this exposure draft, it is our view that there are no substantive technical issues arising from the issuance of this exposure draft.

Note:

- **These Standards can be found in the CICBV Handbook**
- **Scope of Work Standards and Recommendations are similar for Valuation, Expert and Advisory reports**
- **Standards and Recommendations are similar for Valuation, Expert and Advisory reports**
- **File Documentation Standards and Recommendations are similar for all types of reports**

Scope of Work

CICBV Standard #110 – Valuation Reports: Standards and Recommendations, number IV A, describes Scope of Work as follows:

“The **scope of the review**, e.g.: a clear summary of the specific information which was reviewed and relied upon. *Recommendation:* describe the steps taken to assess its reliability. *Explanatory comment only:* Such information might consist of the documents reviewed, the individuals interviewed, the facilities visited, other expert reports (including Valuation Reports, management consulting studies etc. carried out in the preceding 2 to 3 years) and management representations concerning budgets, projections and interim financial statements;”

| | |
|---|--|
| Representation Letter | <p>This is a letter provided by client management to the valuator prior to delivery of the final report but after delivery of the draft report and contains the following:</p> <ul style="list-style-type: none">• Confirms in writing management representations• That they have reviewed and are satisfied with the draft report, explanations provided and valuation approach used• That they have no information or facts that may affect the valuation conclusion <p>This letter also provides some legal protection to the valuator.</p> |
| Working Paper Files | <p>This is covered by Standards 130, 230, 330, 430, 530 and 630 – “Scope of Work Standards and Recommendations”</p> |
| Due Diligence and Questionnaires | <p>Due diligence is covered by Standards 120, 220, 320, 420, 520 and 620 - “Scope of Work Standards and Recommendations”.</p> <p>Due diligence involves an extensive review and analysis of the organization, business, operations and finances of the company being valued.</p> <p>Questionnaires are used:</p> <ul style="list-style-type: none">• To ensure that all the relevant areas of the valuation assignment have been investigated, and• Help in organizing and documenting working papers |
| Verification of Information Provided by Others | <p>Information can be independently verified by credible third parties, government statistics, trade publications and industry experts</p> |
| Reliance on Other Experts | <p>The CICBV Valuation Standards 130, 230, and 330, File Documentation Standards and Recommendations states:</p> <p>“Where the work of a specialist was relied upon, the conclusions arrived at by the specialist must be documented, and when a written opinion or report was obtained, a copy thereof must be retained on file.”</p> |
| Research and Sources of Information | <p>Sources of information may include the following:</p> <ul style="list-style-type: none">• Management• External sources such as libraries, internet, third parties• Industry and trade associations• Periodicals and newspapers• Government statistics• Economic statistics |

Chapter 4 – Professional Conduct

The topics in this chapter have both **Level A** and **Level B** knowledge expectations.

- A – Demonstrate sound understanding of CICBV Practice Standards, Exposure Drafts and Practice Bulletins and apply knowledge to a set of facts**
- A – Demonstrate a sound understanding of the CICBV's Code of Ethics and apply knowledge to a set of facts**
- A – Recognize when matters may result in disciplinary actions**
- A – Demonstrate an understanding of the potential roles of CBVs (independent expert, non-independent advocate, consultant or employee, neutral arbitrator or mediator), select the appropriate role in a situation and explain how CBVs roles may differ**
- B – Identify and explain situations involving professional liability issues for a CBV; understand concepts of liability in contract, liability in tort and fiduciary duty**

The Candidate Should have a Sound Understanding of the CICBV's Code of Ethics

The Code of Ethics can be found in the CICBV Handbook in the section “Code of Ethics and Discipline Procedure”. It is divided into the following sections:

- 100 – General Principles
- 200 – General Standards of Conduct
- 300 – Relations with Fellow Members
- 400 – Organization and Conduct of a Professional Practice
- 500 – Discipline Procedure

The most common types of ethical issues that arise are whether or not the valuator is to be independent, a client trying to sway a valuator’s conclusions, offering of contingent fees, etc.

Understanding of CICBV Standards and Discipline Procedure

The Discipline Procedure can be found as a statement in the CICBV Handbook in the section “Code of Ethics and Discipline Procedure”.

The Candidate should have an Understanding of the Distinction between Valuator, Advocate and Arbitrator and the Related Legal Responsibilities

- **Valuator** – assumes the role of a neutral expert to provide an independent and unbiased determination of value and acts as an information provider.
- **Advocate** – acts on behalf of a client who engages the valuator to maximize the client’s position with respect to value related issues and advise the client on value related issues and acts as an information provider.
- **Arbitrator** – assumes the role of a decision maker based on facts provided by the parties and witnesses to the arbitration or the arbitrator may make a decision based on his own inquiries. The arbitrator acts in a quasi-judicial role and is not at risk to being sued by the parties to the arbitration.

Chapter 5 – Specific Issues Encountered in Valuation or Litigation Support Assignments

The topics in this chapter have **Level A**, **Level B** and **Level C** knowledge expectations.

The Candidate should understand a wide range of issues that arise in business valuations and be able to analyze these issues in specific situations in order to make reasoned valuation judgements. Examples of issues would include:

A – minority interests: factors affecting value; public vs. private interests; rights and limitations of minority shareholders; legal remedies under the CBCA; nuisance value

A – majority interests: types of control; premium for control

A – special interest purchaser: definition; synergies

A – allocation of en bloc value: direct vs. indirect approach; derivation of goodwill

A – identifiable intangible assets: methods of valuation; types of intangible assets

A – the relevance of shareholders' and partnership agreements, voting trusts and other corporate documents in valuations

B – financial instruments: features and purpose of debt instruments, bonds, options, real options and probability-based models; option pricing models

A – valuation of restricted/escrowed shares; warrants and options; preferred shares; debt instruments; other special types of securities

A – discounts: minority discounts; illiquidity discounts; marketability discounts; blockage discounts; restriction discount; portfolio discounts

C – empirical studies and case law on discounts

B – fair value measurement: fair value measurement for financial reporting purposes; IFRS 3, IFRS 13, IAS 36

A – life cycle phases of businesses: early stage, growth, mature, decline and financially distressed

B – contingent consideration: non-cash consideration; holdbacks; vendor take-backs; promissory notes; earn-outs

A – fairness opinions: accretion/dilution analysis; regulatory requirements

B – valuation of specific type of businesses like real estate holding companies, resource companies, professional practices etc.

C – valuation of real estate and equipment

C – impact of make-whole clauses or a change of control on outstanding debt

C – ESOP: definition; when a valuation is necessary

C – Pensions: defined contribution vs defined benefit

**Minority
Interest:
Rights and
Limitations of
Minority
Shareholders**

Note the following regarding **minority interests**:

- In general, a minority (i.e., non-controlling, up to 50%) interest will be worth less than a controlling interest on a stand-alone basis. However, the terms of a shareholders'/partners' agreement may dictate there should be no such discount. Other facts specific to the situation, e.g., a "swing vote" may also indicate a minority discount is not appropriate.
- Minority shareholders have no control over the economic direction of the company and the rate of return that may be realizable on their investment in the asset/entity. This is, in the authors' view, the crux of the minority discount issue, which is really more of a liquidity issue.
- Publicly traded shares represents a minority interest value, which may be less than rateable value but do not usually suffer from a liquidity discount except in a thinly traded stock situation or in a blockage situation.
- Minority shareholdings in a private company may also suffer from a liquidity discount.

When utilizing public company comparables and transactions, be careful to consider (a) the issue of potential embedded minority discount in the public trading prices, (b) the lack of liquidity and marketability discounts in the public trading prices in deeply traded stocks, (c) whether any special benefits/synergies would be realized on the acquisition of control of a private company indicating a control premium, and (d) the issue of the level of control (or not) acquired in a transaction.

**Factors
Affecting
Value; Legal
Remedies
Under the
CBCA**

Factors that affect the value of a minority interest include but not limited to:

- Current dividend yield
- Potential future dividend yield
- Potential for capital appreciation
- Control over future direction and timing of a liquidity event (such as sale of the entire business, liquidation of the company)
- Likelihood, timing and cost of a future liquidity event. For example, one reference point for the marketability/liquidity discount is that going public. If this is a realistic liquidity event for the company being valued, the hard costs of going public can be determined (e.g., investment banking fees, accounting and legal fees, etc.) as well as the soft costs (e.g., management time), and the risk of the offering being successful and the potential for price volatility during the intervening period can be considered.
- Legal protections of minority shareholders (e.g., CBCA, Partition Act)
- De-facto and de-jure control

- Distribution of shareholdings
- Market for the shareholdings

Overall, the selection of a minority discount is generally subjective, which needs support of qualitative factors. One can also refer to quantitative benchmarks including transactions involving comparable shareholdings, restricted stock discount studies, pre-IPO studies and option pricing models.

Factors affecting minority discounts

Factors that affect an appropriate minority discount include but not limited to:

1. The size of the shareholding and its relative importance
2. Existing shareholders' agreement
3. Articles of incorporation and by-laws
4. Shareholder relationships
5. Familial relationships
6. Nuisance value

Rights and remedies under the CBCA for minority interests

1. Right to access of corporate information
2. Right to some participation in management
3. Dissent remedy
4. Derivative action
5. Oppression remedy
6. Right to set aside a contract in which a director has an undisclosed interest

Dissent (appraisal) remedy

The right “to have all of one’s shares purchased at fair value, where the majority of the corporation resolves to effect specified fundamental changes in the way the corporation is to carry on business.”

Derivative action

Shareholders may apply to the court for authority to bring an action on behalf of the corporation. The action must be taken on to injury to the corporation, not on injury to a shareholder.

Oppression remedy

The right of personal action against the corporation, majority shareholders or directors of the corporation where the actions of any of these parties are oppressive to, are prejudicial to, or

unfairly disregard the interests of the minority.

Nuisance value

Nuisance value refers to a premium that may be applicable to a minority shareholding due to the ability of the minority shareholder to:

- Prevent or alter corporate planning initiatives initiated by the controlling shareholder
- Cause diversion of executive time away from operations of the business
- Prevent the sale of a control position

Majority (controlling) interest

When a shareholding exceeds 50% of the voting stock, control is typically considered to exist. There are two types of control:

- Legal (de jure) control
- Effective (de facto) control

Legal (de jure) control

Legal control exists when a shareholding includes 50% plus one of the issued voting shares. This results in enough votes to elect the board of directors and control the direction of the corporation.

Effective (de facto) control

The ability to control the direction of the corporation while not owning sufficient votes to constitute legal control.

Group control

The ability for a group of shareholders to direct the affairs of the corporation by acting in concert.

Rights to majority interests

1. Right to elect the board and govern the company
2. Right to place the company in liquidation
3. Right to sell the company
4. Dictate timing of liquidity
5. Appoint the officers of the company
6. Determine the timing and amount of dividends

Premium for control

This premium refers to the value of a controlling interest and should not be interpreted to mean that a premium is added to rateable fair market value when valuing a controlling interest.

Premium for control can be applied in the following two situations:

- To calculate the difference between the rateable value of the outstanding shares of the company and the price in excess of that amount per share which one or more prospective purchasers may be willing to pay for

synergies, which might accrue to the combined enterprise following acquisition of control of the company.

- For a public company where there may or may not be de jure or effective control and the remaining shares are widely distributed among other investors, and a takeover offer is received for the control shareholding or all of the issued shares. The stock market price is indicative of a minority interest of the per share value. The difference between the per share value of the control block shares (based on takeover price per share) and the stock market price is often referred to as a premium for control.

This premium reflects the following:

- Elimination of the implied discount, in a public market, from a rateable portion of the en bloc fair market value of the enterprise reflective of the minority position,
- Undervaluation of the shares for other reasons such as inadequate information with respect to the operations and their prospects in the public market, general lack of investor interest, thin trading, and the effects of special interest purchasers in the takeover price.

Special interest purchaser

Special Interest Purchasers are acquirers who believe they can enjoy post-acquisition economies of scale, synergies, or strategic advantages (aka economic value-added) by combining the acquired business interest with their own.

Special interest purchasers will assess the risk of such cost savings and revenue enhancements materializing, the likely timing thereof and the cost of achieving the EVA. There is higher risk associated with projections of income that have not occurred as opposed to projections of income that have been demonstrated in the past. In theory, special interest purchasers will require a higher rate of return on projected economies of scale increments (synergies) than on the existing earnings of the target company.

The existence of special purchasers must be factored into the selection of appropriate capitalization/discount rates. Where special interest purchasers likely exist, and;

- Potential synergies cannot be quantified, the existence of the special purchasers might be reflected as a reduction of the capitalization rate that would normally be selected.
- Potential synergies can be quantified, the incremental earnings will be valued separately, since they carry a higher risk that the existing earnings of the business under review.

Note the following:

- Where only one special purchaser exists, that purchaser (in theory) will pay only a nominal amount more than an ordinary purchaser. However, the motivations of the purchaser and the availability, to the vendor, of information regarding potential special purchaser premiums for the purchaser can affect the validity of this assumption.
- The special purchaser premiums would only be available where several competing purchasers are known to exist.
- The breadth of the perceived special purchaser market is an important factor to consider in selecting appropriate capitalization rates.

Synergies

Synergies provide business with competitive advantages and opportunities for growth. Some examples of synergies include:

- Eliminating competition
- Reduction in business risk
- Increased market coverage
- Enhanced distribution of products and services
- Expansion into new markets
- Acquisition of technologies or assets that would otherwise have to be developed
- Vertical or horizontal integration

Indirect approach to allocation of en bloc value

This approach involves allocating the en bloc value on a pro-rata basis to each share class and adjusting this value for the different features attached to each share class and other considerations.

Direct approach to allocation of en bloc value

This approach involves determining the present value of the future cash flows to the shareholder.

Derivation of goodwill from en bloc value

Goodwill refers to the difference between the going-concern value of the operations and the sum of the value of net tangible assets and identifiable intangible assets.

Intangible Assets: Meaning and Distinction between Personal and Commercial Goodwill and between Identifiable and Non-identifiable Goodwill; Valuation of Intangibles including Patents,

Note the following:

- There are various types of intangible assets (e.g., software, patents, brand/tradenames, contracts, customer relationships, franchises, licenses, copyrights, non-competition agreements, goodwill) each of which have their own characteristics that affect valuation thereof.
- Internally-developed intangible asset value cannot be capitalized on the balance sheet of a company since GAAP (whether IFRS, ASPE, US GAAP) generally require expenditures related to the development be

**Copyrights,
Trademarks,
Franchises,
Contracts Licenses,
Leasehold Interest**

- expensed.
- Intangible assets are capitalized for accounting/financial reporting purposes regardless of the form of the acquisition (i.e., purchase of shares or net assets). In other words, they are recognized in an acquiring company's consolidated balance sheet when a company acquires another company and the intangible assets are identified and their fair value measured.
- For Canadian income tax purposes, intangible assets are recognized for CCA or ECE purposes only on purchase of assets. If a share purchase occurs, the purchaser takes over the tax basis of the existing assets and liabilities of the acquired entity.
- Intangible assets should be valued using a dual/multi capitalization approach where the tangible assets are capitalized at one rate and intangible assets are capitalized at higher rates to reflect the higher risk associated with them.
- The fair value of the purchase price of a company must first be allocated to the market value of identifiable tangible and intangible (patents, copyrights, trademarks, franchises and licenses) assets.
- Any residual balance is allocated to non-identifiable assets (i.e., goodwill).
- Current goodwill accounting rules require the capitalized value of goodwill on a company's balance sheet be tested at least annually. To the extent the book value of the goodwill has been impaired (i.e., fair value is lower than book value), it must be written down.
- Goodwill is deductible for tax purposes in Canada IF it has purchased separately (i.e., an asset acquisition).
- Intangible assets such as patents have finite lives (e.g., 20 years). Ascertain the expiration rate (i.e., legal life) as well as the economic life of such assets.

The valuation of intangible assets involves selecting from the standard approaches – cost, income/cash flow and market. The cost (e.g., reproduction) approach looks at the cost of developing a comparable asset in today's dollars and may be appropriate for early stage assets of internally developed assets. The problem with this approach is that it does not consider the future economic benefits relating to the asset being valued.

The income cash flow approach includes capitalized vs. discounted methods, but the latter is more commonly used to reflect the cash flow fluctuations commonly anticipated for intangible assets. Modifications of the discounted cash flow method frequently used for intangible assets includes the excess earnings and relief from royalty methods.

A market approach can also be used for valuing intangible assets. However, the reality is that finding transactions involving somewhat comparable assets is highly unlikely in most cases.

For goodwill to be notionally saleable, it must be transferable. **Personal goodwill is not transferable whereas commercial goodwill is transferable.**

The Relevance of Shareholders' and Partnership Agreements and Voting Trusts in Valuations

The relevance of shareholders' and partnership agreements and voting trusts in valuations is that the terms of the agreements and voting trusts must be taken into account in the valuation process.

The provisions of these agreements are usually important in determining the value of minority shareholdings.

These agreements attempt to determine what is to occur in all subsequent transactions in the subject company's shares. The objective is to protect a shareholder's interests such as:

- Guaranteeing a shareholder, who has severed his ties with the company (either through death, disability, termination, etc.) that there will be a market for his shares at a price all shareholders believe to be fair – i.e., liquidity (e.g., requiring buy-out on certain triggering events, mandatory life insurance to fund some or all of the buyout).
- Provide existing shareholders with control over who can acquire shares (e.g., through a right of first refusal), and
- Ensure all shareholders that on acquisition or disposition of shares among themselves will obtain a fair price for their shares, and
- Ensure that all shareholders are obliged to tender their shares if an acceptable (to the majority) offer is received for all the shares (i.e., "drag-along" rights), and
- Ensure all shareholders will be able to sell their shares in the event an acceptable offer for less than all of the shares is received (i.e., "tag-along" rights)
- To create a market for a shareholder's interest and to ensure a transaction can take place in a dispute scenario so that a company can focus on its operations vs. shareholder disputes (e.g., shotgun clause, triggering purchase/sale events)

The sale of a shareholder's shares may be required if certain events, called triggering events occur.

The following approaches can be used in the agreements to determine value:

- Periodically agree in writing on the values of specific

- shareholders for specific purposes
- Valuation formula
- Independent valuation on the triggering event (or some specific date)
- Arbitration

The agreements should consider the following:

- Whether to consider special interest purchasers in the valuation, and
- Whether the concept of internally versus externally financed transactions has been considered, and how the parties to the agreement will deal with this issue, and
- Whether to value the shares on a pro rata basis on the en bloc fair market value of the company, and if not, on what basis each such shareholding is to be valued, and
- Whether different triggering events will result in different values (e.g., should there be a discount for a shareholder dismissed with cause?)

Voting agreements are legal and the Supreme Court of Canada has expressed conflicting view on whether a shareholders' agreement must be incorporated in the articles or by-laws of a corporation to be sufficient to alter the position of control amongst the shareholders.

Financial Instruments Financial instruments are any contract that results in a financial asset to one party and a financial liability or equity to another party.

Debt instruments are when a borrower of money agrees to repay the principal on maturity and to pay interest to the lender while the loan is outstanding. Debt instruments with a duration of 3 years or less is referred to as short-term debt. Medium term debt has duration of 3 to 10 years. Long term debt duration of 10 or more years.

Bonds are a type of debt instrument that is secured by specific assets of the issuer. In the event of default, the bondholders can take control of the specific assets to recover their investment.

Debentures are a type of debt instrument that is only secured by the general creditworthiness of the issuer as well as a general claim on the residual assets. In the event of liquidation, debentures generally rank lower than senior debt.

Options are contracts that give the option holder the right but not the obligation to buy or sell an underlying asset or instrument at a specified strike price on or before the option

expiration date. Call options provide the right to buy while put options provide the right to sell. The purchaser of an option pays an option premium for this right. Options can be American-styled, European-styled or Bermudan-styled. European options can only exercise their right on expiration. American-styled option can be exercised at any time on or prior to expiration. Bermudan-styled options can be exercised at specific instances of time prior to expiration.

The value of an option generally comprises of intrinsic value and time value. Intrinsic value refers to the difference between the market value of the underlying security and the strike price of the option. Time value refers to the amount by which the option price exceeds intrinsic value. Time value results from the possibility that the underlying price of the asset or security will move favourably prior to option expiration.

Option Pricing Models

Black-Scholes Model (“BSOPM”) is an option pricing model used for valuing European-styled options. It is based on the following assumptions:

- No arbitrage opportunity
- Constant and known continuous risk-free rate
- Constant and known volatility of the underlying
- No transaction costs
- The price of the underlying follows a lognormal distribution
- No dividends

The following is the formula for the BSOPM:

Value of Call Option: $C = [S \times N(d_1)] - [X \times e^{-RT} \times N(d_2)]$
 Value of Put Option: $P = [X \times e^{-RT} \times [1 - N(d_2)]] - [S \times [1 - N(d_1)]]$
 (S)
 Formula #3: $d_1 = \frac{\ln\left(\frac{S}{X}\right) + (R + 0.5 \times \sigma^2) \times T}{\sigma \sqrt{T}}$
 Formula #4: $d_2 = d_1 - \sigma \times \sqrt{T}$

- C = Call option price
- P = Put option price
- S = Price of the underlying security
- X = Strike price
- T = Time to expiration
- σ = Expected volatility of the price of the underlying security
- R = Continuously compounded risk-free rate
- N(dn) = Value of d from standard normal distribution
- Ln = Natural log

E = exponential function

Binomial Model uses similar inputs to the BSOPM, but it calculates the value of an option at discrete time periods. Therefore, it can be used to value American and Bermudan options. It does so by way of a binomial tree which maps the price of the option from the Valuation Date to option expiration at each node. At each node, the price of the underlying will either move up or down by a specific amount based on their up or down factor.

Monte Carlo Simulation is a stochastic simulation rather than a deterministic simulation. A stochastic simulation is driven by computer-generated random numbers. The Monte Carlo simulation uses simulations to develop statements about probabilities of events occurring. It assesses risk by building models of possible results and replacing any factor with uncertainty with a range of possible values. It performs recalculations of the possible results using a different set of random variables to arrive at a representative value. In arriving at possible range for random variables, probability distributions are used to describe uncertainty in variables.

Real Option gives the holder the right but not the obligation to take on a future investment in a real asset rather than a financial asset.

Probability Based Models calculates the expected value of a financial instrument using the weighted average of a discrete random variable's possible values with the respective probabilities as weights. This involves identifying the possible values of a random variable, estimating the probability of each value occurring, calculating the probability-weighted values and calculating the expected value.

**Valuations of
Restricted/Escrowed
Shares; Warrants and
Options; Preferred
Shares; Debt
Instruments; Other
Special Types of
Securities**

Restricted shares are shares that cannot be freely traded on a stock exchange at the current price by the owner of the shares. There may also be voting restrictions on the shares. These shares must be valued at a discount from rateable or market value. The magnitude of the discount will depend on:

- Duration of the restriction period
- The nature of the restriction
- The financial performance of the company – stronger the financials, smaller the discount
- Historical and expected future trading price of freely traded stock of the company
- Expected volatility of the company's stock

There various ways to value restricted stock including review

of restricted stock studies and option pricing models. There are various restricted stock studies that have been undertaken in the U.S., with a wide variety of results and each of which are subject to certain criticism. The range of discounts is generally significant, but an overall average/median seems to be typically in the range of 20% to 30%.

The use of option pricing involves calculating the cost of a put option, which is said to be the restricted/marketability/liquidity discount.

Canada Revenue Agency treats restricted shares issued to employees as a taxable benefit to the employee at the date of vesting. This benefit will be reduced by any amount paid by the employee for the shares.

For shares issued by a Canadian-Controlled Private Corporation (CCPC), payment of the tax on the taxable benefit can be deferred until the shares are disposed of.

The following additional considerations must be taken into account in valuing restricted shares of a private company issued to employees.

- Employee's tenure
- Employee's career progression
- Possibility of death or disability
- Nature of the company in terms of size, reputation, performance and financial strength

Escrowed shares are securities that are held by a third party until the conditions of a contract are met.

Options can be valued using the BSOPM or a binomial model.

Preferred shares can be valued using the following methods:

The valuation of preferred shares will involve consideration of the features of relevant shares. For example, preferred shares can have some of the following features:

- Redeemable/callable (i.e., at the company's/issuer's option)
- Retractable (i.e., at the holder's option)
- A specified rate of dividends
- Participating dividends (i.e., based on the operating results of the company)
- Cumulative or non-cumulative dividends
- Voting or non-voting rights
- Conversion rights into common shares
- Liquidation preference

When valuing preferred shares, one also needs to consider

whether or not the issuer has the funds or access to funds to redeem or retract the preferred shares. Otherwise, a discount may be required in valuing the shares.

For convertible preferred shares (or convertible debt), a valuation of both debt and common equity may be required to determine the appropriate value of the shares.

Simple Valuation Formula – The value of a preferred share paying a constant dividend is:

$$P = D/r$$

where:

P is the price

D is the constant dividend and

r is the required rate of return

Dividend Discount Model – The value is based on the present value of dividends and is given by:

$$V_0 = \sum_t D_t / (1 + k_t)^t$$

where:

V_0 = is the estimate of value

D_t = is the dividend in period t and

K_t = is the discount rate

Gordon Growth Model – Applies to a mature company with stable earnings growth, payout ratio and return on equity, where dividends are assumed to grow at a constant rate forever and is given as follows:

$$V_0 = D_1 / k - g$$

where:

D_1 is the dividend in the next period

g is the growth rate of dividends and

K = is the required rate of return

The value (or price) of a **debt instrument, fixed income security** or **bond** is the present value of a stream of cash flows generated by the bond.

$$\text{Value} = C/(1+k) + C/(1+k)^2 + \dots + C/(1+k)^n + P/(1+k)^n$$

where:

C = Coupon (interest) paid
k = Discount (interest) rate
P = Principle (usually Par) repayment on maturity
N = Period

Types of discounts

Minority discount relates to the value of a specific shareholding where the rateable value (which reflects a control position) is discounted to reflect the lack of control over operations. In addition, an illiquidity or marketability discount may be applicable to a minority shareholding as it can be argued that a minority position is less liquid than a controlling position. These discounts are often combined into one minority discount.

Illiquidity discount or marketability discount relates to the value of a specific shareholding where the rateable value (which reflects a control position) is discounted to reflect the lack of control over operations. In addition, an illiquidity or marketability discount may be applicable to a minority shareholding as it can be argued that a minority position is less liquid than a controlling position. These discounts are often combined into one minority discount.

Portfolio discount applies to companies that own a combination of operations or assets that are not similar and would not be wanted by a potential buyer. A potential buyer can achieve portfolio diversification on their own rather than acquiring a diversified asset.

Restriction discount applies to shares that restrict the ability of shareholders to vote and/or freely trade the shares. The following factors affect the magnitude of the restriction discount:

- Duration of restriction
- Nature of restriction
- Financial performance of company

Blockage discount relates to a large block (larger than normal trading volume and more than the market can absorb) of shares of a publicly traded company being offered for sale at one time. This large block being offered will cause an imbalance in supply and demand and will result in a decline in market price.

An alternative definition is that a blockage discount is an amount or percentage deducted from the current market price of a publicly traded security to reflect the decrease in the per share value of a block of those securities that is of a size that could not be sold in a reasonable period of time given normal

trading volume.

Fair value measurement

Fair value is an undefined statutory term used in the federal and provincial Corporations Acts. It is used when dealing with dissenting shareholder (minority) appraisal rights. It is also the term used in financial reporting, but the discussion below relates to the corporations act use of “fair value”.

Fair value has been interpreted by the courts:

- To be the pro-rated portion of the en bloc fair market value of the class of shares owned by the dissenters, or
- In certain circumstances, the pro-rated portion of the en bloc fair market value plus a premium for forcible taking, or
- In certain circumstances, stock market prices, or some change to the pro-rata fair market value

IFRS 13 – Fair Value Measurement

The definition of fair value under IFRS 13 is “the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.” IFRS 13 uses a fair value hierarchy in fair value measurements. The hierarchy classifies inputs utilized in valuation techniques into three levels. They are as follows:

- **Level 1:** Observable market prices for identical assets and liabilities that are actively traded.
- **Level 2:** Observable market prices for similar assets or liabilities, or identical assets and liabilities with inactive trading or derived from inputs that are observable for most of the period
- **Level 3:** Entity-derived (unobservable) inputs, which should represent the reporting entity’s assumptions about market participant assumptions in pricing the assets based on the best information available.

If no quoted market prices for identical or similar assets or liabilities are available, the income or cost approach should be used focusing on the use of market inputs where possible. Multiple valuation approaches should also be considered. The overall fair value measure is based on the lowest level input.

IFRS 3 – Purchase Price Allocations

This standard gives guidance on accounting for business combination. The “acquisition method” should be used in a business combination where assets acquired and liabilities assumed are brought to their fair values at the acquisition date. There are four steps in a purchase price allocation:

1. Identify the acquirer
2. Determine the acquisition date

3. Recognizing and measuring the assets acquired and liabilities assumed
4. Recognizing or measuring goodwill or gain
 - a. Goodwill is the difference between the consideration transferred plus non-controlling interest in the acquire and the identifiable net assets acquired, including any deferred tax balances. If the difference is negative, the gain is recognized as a bargain purchase in profit or loss.

**IAS 36 –
Introduction to
Impairment Testing
for Goodwill and
Intangible Assets
(IAS 36)**

The test for goodwill is done at the cash-generating unit (“CGU”) level. CGU is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. The recoverable amount of the CGU is compared to the carrying value. The recoverable amount is the higher of fair value less cost to sell and value-in-use. Goodwill is not impaired if recoverable amount is greater than the carrying value.

Fair value less costs to sell is “the price that would be received to sell an asset or cash-generating unit in an orderly transaction between market participants at the measurement date, less the costs of disposal.”

Value-in-use is “the future cash flows expected to be derived from an asset or CGU. Value in use is specific to the entity as it reflects the cash flows that the entity expects to obtain from continuing use of an asset over its anticipated useful life, including any proceeds from its ultimate disposal.”

Indefinite life intangibles (except goodwill) must be tested for impairment on an annual basis. Definite life intangibles are tested only if there is indication of impairment.

**Life cycle phases of
businesses**

Seed stage companies are in the process for raising capital from investors to:

- Fund research and development
- Formulate a business model and financial plan
- Develop a pitch to raise capital

Risk of loss is extremely high for companies at this stage due to the high level of uncertainty.

Startup stage companies typically have a prototype of their product or service developed and tested. The management team is in the process of being assembled and a plan for production and marketing is being developed. A business plan

with projected cash flows to be generated is prepared. Companies at this stage usually do not have much revenue as the product or service is still in the early stages of commercialization. Startup companies have to cope with limited cash resources while developing its product and expanding its market presence.

Growth stage companies have an established management team and are starting to earn revenues. Venture capitalists tend to invest in companies at this stage. Growth stage companies have much lower risk than companies at the seed or startup stages due to evidence of its ability to generate revenues, but significant uncertainty still exists around the ability to grow and scale.

Mature stage companies have an established product or service and market presence. At this stage, revenue growth begins to slow and revenue will eventually reach a peak and begin to decline.

Decline stage is the final stage of the life cycle of a business. Companies in this stage face declining sales, profitability and cash flows. If cash flows become negative for an extended period of time, the company may face financial distress or bankruptcy.

Valuation of Start Up Companies

Startups are valued for two reasons:

- Management planning and incentive compensation, and
- Obtaining financing

A range of values should be estimated, since the more finite the value, the riskier the estimate.

The following three approaches may be used to value startups:

1. **Market Approach** – guideline company method
The advantage of this approach is historical data, which is verifiable may be available.
This disadvantages are the difficulties in finding comparable companies and the limited basis for startup companies.
2. **Income Approach** – Discounted cash flow
The advantages are that it recognizes future earnings and performance, and reflects data specific to the risks and rewards of the company.
The disadvantages are that it is difficult to determine the discount rate and there is no history to use in defending the value conclusion.

3. **Cost Approach**

The advantages are it is based on factual data and is based on actual monies spent.

The disadvantages are that cost does not equal value and there is no recognition of value added.

Contingent Consideration

Share exchanges occur when an acquirer uses its own shares as consideration to acquire a vendor resulting in the vendor owning a portion of the combined entity post transaction.

Holdbacks are used by a purchaser to protect against post-closing issues including:

- Insufficient working capital
- Overpayment for equity (post share deal) due to the possibility that the leverage levels at the target company was higher than expected
- Hidden liabilities
- Contingent liabilities

Vendor Take-Backs are when the seller agrees to take some or all of the consideration over time. This includes consideration like promissory notes and redeemable preferred shares.

Promissory Notes are when the vendor agrees to take some or the entire purchase price over time, which essentially becomes financing for the acquirer. Promissory notes usually rank as unsecured debt and expose the vendor to risk of default.

Earn-outs are a form of seller finance (vendor take-back) that attempts to bridge the gap between what the seller believes the company is capable of accomplishing and what the purchaser believes is realistic. Note:

- Earn-outs are difficult to structure and monitor after the transaction and control of the company changes
- The simpler the earn-out is structured, the better

Fairness Opinions and Related Issues including Accretion/Dilution Analysis, Regulatory Requirements

A **fairness opinion** is an opinion:

- In which an independent financial advisor (or an investment banker, a business valuation firm or specialized firm with appropriate credentials) renders its opinion that:
- A proposed transaction is fair, from a financial point of view, to the security holders (or to a special group of security holders) of a company
- It may involve a valuation analysis as part of the fairness opinion.

The opinions are issued to a company's full board of directors or to special independent committees of boards and assist directors in making reasonable business judgements. They can also be used in a private company setting when a client wants to analyze a particular offer.

The opinion involves a total review of the transaction from a financial point of view.

The disclosure requirements as set out in Standard 510 are:

- A description of the proposed transaction and the consideration offered;
- The purpose of the opinion;
- The identity and the credentials of the firm preparing the fairness opinion;
- The date the firm was first contacted and the date it was retained;
- The financial terms of the firm's retainer;
- A description of any past, present and anticipated relationship with any interested party to evaluate the firm's independence;
- The date of the fairness opinion;
- The scope of review;
- Descriptions of any limitation on the scope of review and the implication;
- Key assumptions;
- The factors considered important in performing the fairness analysis' including;
- The quantitative approach and techniques used;
- Any prior offer or valuation;
- The market for the securities (liquidity, float, holding or operating company);
- The statement of opinion or conclusion as to fairness; and
- Any qualifications or limitations.

The **accretion/dilution** analysis consists of evaluating the effect of the proposed transaction on the earnings per share (EPS) of the acquiring company taking into consideration the target company's earnings as well as the cost of the acquisition, its financing, and its accounting consequences, such as goodwill, amortization and the resulting synergies.

If a proposed transaction is **dilutive** to EPS, it may not be approved by the market and could lead to a decrease in the per share price of the acquiring company.

Public traded companies and companies that are going public on a stock exchange are required in the case of takeovers, insider bids, issuer bids and going private transactions to conform to **regulatory requirements**. These requirements differ for the various exchanges and jurisdictions.

**Valuation of
Specific Type of**

Holding companies will be valued using the adjusted book value/net asset value method. The balance sheet will be

Businesses Such as Real Estate Holding Companies, Resource Companies, Professional Practices

revalued to reflect fair market values, consider off-balance sheet items and intangible assets, and consider latent disposition costs.

Resource companies can be valued using the following methods:

- Comparable companies analysis
- Rule of thumb for a particular industry
- Discounted cash flow (DCF) where the cash flows of the estimated and probable reserves discounted to the present at an appropriate discount rate. Various scenarios and probability/scenario analysis may be most appropriate
- Option-based approach where the estimated and probable reserves can be valued using the prices of publicly traded options for that particular resource to value the company

Professional practices values are a function of the skills of the professionals and the ability to capitalize on the skills in the market. Valuation approaches include **asset based, earnings/cash flow based (e.g., capitalized cash flow, DCF, dual capitalization, absentee practitioner approach) and market based.**

Asset based approaches are used:

- To estimate the commercial goodwill value of a practice by **calculating the value of the net tangible assets. This seems to be the most common method.**
- To value a practice earning an insufficient return on investment using a **liquidation approach.**
- To value a practice where all of the associated goodwill is of a personal nature and not transferable

The adjustments that need to be made using an asset approach are:

- Adjusting to market value the work-in-process
- Adjusting redundant assets to fair market value
- Adjusting capital assets to fair market value
- Valuing off-balance sheet items (such as contingent assets and liabilities)
- Revaluing deferred/future income taxes to reflect potential tax liabilities on realization of assets and liabilities
- Valuation of intangibles

The following **earnings and market based** approaches can be used:

- **Capitalization of earnings** – based on assumption the practice will continue to operate and the purchaser

desires to participate in the practice's future earnings power. The factors required to determine the value are the maintainable earnings, capitalization rate and redundant assets.

- **Dual capitalization approach** – tangible assets are capitalized at a particular rate. The earnings associated with the tangible assets are deducted from the maintainable earnings. The balance of the earnings is associated with the intangibles assets, which will be capitalized at a higher rate. Should the earnings associated with intangible assets be negative, the value of the practice will lie between tangible asset backing and liquidation value.
- **Absentee practitioner approach** – this approach is used where an owner is running the practice (for example dental practice) and is determined as follows:
 - o The salary that would be paid to a non-arms-length practitioner will be deducted from the pre-tax earnings before the owner's remuneration.
 - o The adjusted earnings will be capitalized to arrive at a value for the practice, and
 - o Goodwill will be the difference between the value and tangible asset backing
- **Discounted cash flow (DCF)** – used to value practices with irregular but predictable cash flows such as consulting engineers, architects and management consultants.
- **Gross revenue multiplier** – this approach is used when there is a consistent and predictable relationship between gross revenues and maintainable earnings. This approach is based on a rule of thumb method derived from patterns established in other sales.
- **Market data comparable approach** – based on data of sales and pricing for similar types of practices. The problem with this approach is that similar professional practices may be using different accounting standards.

The following factors need to be considered in valuing professional practices:

- Start-up costs of a new practice
- Quality and retention of staff
- Leases and lease terms
- Tangible asset backing
- Covenants not to compete

Accounting practices are usually valued on:

- Tangible assets backing plus
- An amount for goodwill based on Percentage of most recent year's gross revenues or A fixed percentage of retained revenue over a specified

period

Factors that must be considered in the valuation are:

- Revenue composition
- Nature of work (e.g., recurring vs. non-recurring; assurance, consulting, tax preparation – personal and corporate)
- Size and location
- Profitability
- Client base – specialized and reliant on a few clients or large base (more valuable); how long each client has been with the firm

Law practices are usually valued on:

- Tangible asset backing plus an amount for goodwill based on:
 - o Capitalization of excess earnings or
 - o Percentage of annual maintainable fees

Factors that must be considered in the valuation are:

- Nature of clients – specialized or generalized and growing or stagnant clients
- Clients' expectation
- Quality of personnel
- Organization in place
- Competition
- Value of work-in-process
- Size
- Type of practice
- Referral sources

General medical practices are usually valued on:

- Tangible asset backing plus and amount on goodwill based on percentage of annual maintainable fees

Factors that must be considered in the valuation are:

- Continuity of patients
- Patient profile
- Location
- Specialized services – such as hospital privileges
- Source of referrals
- Costs to set up a practice and time period for the set up

Valuation of real estate and equipment

Real estate going-concern value is typically reflective of either **market value** or **value in use**. The Appraisal Institute of Canada has the following definition for market value: “The most probable price, as of a specified date, in cash, or in terms equivalent to cash, or in other precisely revealed terms, for which the specified property rights should sell after reasonable exposure in a competitive market under all conditions requisite

to a fair sale, with the buyer and seller each acting prudently, knowledgeably, and for self-interest, and assuming that neither is under undue duress.”

Value in use is typically calculated with a cash flow-based method. For special-use property, it is usually hard to separate cash flows from the special-use property and those from business operations. In these cases, depreciated replacement cost is typically used as the appropriate measure of value.

If the going-concern assumption is not valid or the real estate asset is considered redundant, value in exchange (market value) is used as the appropriate measure of value.

A buyer is assumed to be able to claim CCA on the appraised value of the property. However, if a valuation of shares is performed and an adjusted net book value is calculated on the real estate, a foregone tax shield adjustment is necessary since a share purchaser can only claim CCA based on the existing UCC balance of the company.

Factors that affect the value of real estate include the following:

- Supply and demand
- Competition
- Prospective value and benefits expected
- Highest and best use concept

The following methods are used to calculate market value or value in use of real property:

- Cost approach i.e., depreciated replacement cost
- Income approach
- Direct comparison method

Cost approach estimates the cost of rebuilding the same real property. This method is appropriate if rebuilding the current structure is reflective of the best use of the site or if the property has unique features that creates difficulty in finding comparable properties. The main assumption is that the property’s current use is the highest and best use of the property. **Reproduction cost** is the cost to rebuild the exact same real property ignoring any technological advances. **Replacement cost** is the cost of building a replica that provides the same functionality as the original real building using technology and materials available at the present day. The cost approach requires the following:

1. Determination of land value.
2. Determine the reproduction cost of the building or structure. There are four methods:

- a. Basic price per square foot
 - b. Quantity surveyors approach
 - c. Price per completed unit
 - d. Comparison to actual construction costs.
3. Determine the level of physical, functional and economic depreciation on the building or structure
- a. Physical depreciation refers to the normal wear and tear over time from the use of the asset.
 - b. Functional depreciation refers to the existence or omission of a building feature.
 - c. Economic depreciation refers to changes in external factors that affect supply and demand.
4. Take the difference between reproduction cost and depreciation to arrive at depreciated reproduction cost.
5. Combine the value of the land with the depreciated reproduction cost to arrive at the total value for the property.

Income approach looks at the future earnings potential of the property.

Factors to consider when determining the pre-tax cash flows for an income-producing property are as follows:

- Historical operating results
- Physical condition of the property
- Tenant base composition
- Expected vacancy rates
- Expected property management fees

Factors to consider when determining the appropriate discount rate or capitalization rate for an income-producing property are as follows:

- The degree of leverage possible to finance the property
- Implied rates of return from the sale of comparable properties
- Age, location and physical condition of property
- Legal considerations
- Cash flow stability
- Current economic conditions

The income approach requires the following:

1. Determine the gross income from full occupancy.
2. Determine annual operating expenses.
3. Take the difference between gross income and annual operating expenses to determine net adjusted operating income.
4. Apply an appropriate capitalization rate to the net adjusted operating income to arrive at the value of the property.

The **direct comparison approach** looks at sales and listing of comparable properties to the property valued. Difficulties faced with this approach include finding truly comparable properties and the ability to adjust for differences. Factors to consider in looking for comparable properties/transactions include:

- Location
- Size, age
- Use (e.g., zoning)
- Physical characteristics
- Economic characteristics
- Sale conditions
- Market conditions
- Financing terms
- Real property rights transferred
- Possible environmental issues
- Non-realty components of value

The direct comparison approach requires the following:

1. Research recent and local market transactions, listings and properties under development.
2. Screen results to include only comparable properties.
3. Communicate with buyers, sellers and agents of the transactions/properties to obtain information and any circumstances affecting the closing price.
4. Draw comparisons from each comparable property/transaction identified to the property being valued and estimate a value for the property being valued after making any adjustments for differences.

In **equipment valuation**, value in use refers to the value in place of equipment assets that are set up in the company's place of business. This value is affected by factors like

equipment age, condition and obsolescence. This value is used in tangible asset backing and also in determining a business' going concern value. Value in issue is usually limited to special-use equipment that is required in business operations. It is estimated using present value of discretionary cash flows expected from the equipment.

If a modified tangible asset backing or liquidation value is being determined, the orderly liquidation value and forced liquidation value methods are most appropriate. The definition of liquidation value for equipment appraisals is "realizable prices other than in a going concern context." Liquidation value can be determined under an orderly liquidation scenario or a forced liquidation scenario. An orderly liquidation assumes that assets over a 6 to 18 month period depending on market conditions under favourable circumstances. It assumes that the assets are sold in a manner that realizes the highest proceeds. On the other hand, a forced liquidation assumes that assets are sold on less favourable circumstances and do not have sufficient time to be exposed to the market to realize the highest proceeds. Liquidation value is determined based on expected proceeds from the sale of the equipment at an auction.

Impact of make-whole clauses on outstanding debt

This clause requires a borrower to pay an early payment penalty from terminating or repaying a debt early. By repaying a debt early, this affects the cost and expected profitability to the lender. These types of clauses can affect the valuation of a business in scenarios where there may be a high probability of refinancing (i.e., purchaser has a lower cost of debt, greater leverage assumptions).

Impact of change of control on outstanding debt

Loan agreements typically contain clauses that deal with a change of control scenario that require a loan to be payable on demand in the event of default. This gives the lender the ability to evaluate the purchaser of the company to see if they will continue to provide financing. This creates refinancing risk and may impact the valuation of the business if the lenders will not provide financing to the purchasers of the company or will not continue to provide financing at the same terms.

Employee stock ownership plans

An employee stock ownership plan (ESOP) is a qualified retirement plan. It is established as a separate legal entity that makes investments mainly in qualifying employer securities. ESOPS can be classified as:

- Leveraged – debt that is guaranteed by the employer is used to finance acquisition of employer securities.
- Non-leveraged – no debt is used to finance the acquisition of employer securities. Acquisitions are financed with tax deductible stock contributions or tax deductible cash contributions.

Valuation of an ESOP is necessary when:

- initial acquisition of employer shares and annually thereafter
- acquisition, sale or transfer of shares in employer firm
- transaction involving a controlling shareholder or controlling group member

Pensions

A **defined contribution plan** defines the contributions to the plan. The risk of the plan being able to sufficiently fund retirement benefits fall on the employee.

A **defined benefit plan** defines the benefits to be received by the employee on retirement. The risk of the plan being able to sufficiently fund retirement benefits fall on the employer. Therefore, a defined benefit plan will pose potential risk in valuation. A pension expert should be consulted to ensure risks are adequately addressed. Attention should be given to the plan's position relative to its assets and liabilities. An overfunded or underfunded plan as at the Valuation Date will require an adjustment to equity value net of taxes.

Chapter 6 – The Law Relevant to Valuation or Litigation Support

Assignments

The topics in this chapter have **Level B** and **Level C** knowledge expectations.

The Candidate should understand legal issues that arise in business valuations. Examples of issues would include:

C – Incorporate significant court decisions in analysis, calculations or conclusions

C – Family Law

B – Professional Liability

B – Forms/structure of business organization

C – Canadian legal system

B – Damages

Family Law

CBVs may be involved in family law related engagements that require value determination for division of property on marital breakdown (i.e., equalization payment calculation) and income measurement for the purposes of child support payments and spousal support.

Professional Liability

CBVs can be liable in contract and/or in tort.

Liability in contract refers to a breach in contract, which can be from failure to execute or failure to execute at a standard of care that was explicitly or implicitly agreed to by the parties to the contract. When a CBV enters into an engagement, the CBV and the client are parties to a contract that requires the CBV to perform work required according to the terms of the engagement. A contract can be written or oral and contract terms can be explicit or implicit.

Note that without explicit provisions covering standard of care, an implied warranty that a CBV will carry out the engagement with reasonable care and knowledge and with the reasonable degree of skill expected from a competent CBV in similar circumstances is assumed by the courts. Failing to meet this standard can result in civil contractual liability for the CBV.

Liability in tort refers to a breach in duty of care that results in a party suffering damages. A CBV has a duty of care if it was reasonably foreseeable that the party who suffered damages would rely on the CBV's work.

A CBV may be in a fiduciary relationship and therefore may have a **fiduciary duty** to the client. Liability in these cases can go beyond liability in tort or contract.

Forms/structure of business organization

Sole proprietorships refer to arrangements where the business is not a separate legal entity from the operator. The business is therefore unincorporated and the operator will receive the benefits of the business, but also be personally liable for the obligations of the business. Income from a sole proprietorship is included on individual tax returns and taxed based on personal income tax rates.

Partnerships also do not recognize the operators as a separate legal entity from the business. This arrangement is a relationship with two or more parties carrying on business together. The Ontario Partnership Act states three characteristics that are crucial in a partnership:

- A business must exist
- It must be carried on by two or more parties
- The goal of carrying on business is to generate a profit

Given that a (general) partnership is not distinct legal entity from its partners, the partners will have joint and several liability on the obligations of the partnership. However, in a limited partnership, one or more general partner bears the unlimited liability of the partnership. The other partners bear liability up to their investment in the partnership and are limited partners.

Section 96 of the Income Tax Act requires a partnership to calculate taxable income as a separate legal entity from its partners. The taxable income at the partnership level is allocated to partners based on their partnership interest. This income is then taxed at the partner level based on tax rates applicable to each partner.

A partnership interest provides the right to participate in the profits or losses and in the partnership property on dissolution. This interest can be bought or sold and the value of a partnership interest is determined based on the underlying business and related assets. The value of the business is allocated the respective partnership interests based on the partner's proportional ownership.

A partnership interest is considered to be capital property under the Income Tax Act and would result in capital gains or losses on disposition.

Corporations are separate from their owners (shareholders) as a legal entity. The owners of a corporation own shares in the corporation and have limited liability. A creditor only has claims on the assets of the corporation and not the personal assets of the shareholder.

Section 89(1) of the Income Tax Act defines a **public corporation** as a corporation that is listed on a Canadian stock

exchange and a resident in Canada. Private corporations with widely held shares may also be deemed to be public corporations. A private corporation is defined to be a Canadian resident corporation that is not a public corporation or controlled (directly or indirectly) by one or more public corporations.

A **trust** is when legal title of one or more properties is transferred to a trustee. The trustee is responsible for managing the property for the benefit of the beneficiaries of the trust.

The Income Tax Acts classifies trusts into two types:

- Testamentary trust – established when an individual dies
- Inter vivos trust – any trust that is not a testamentary trust

A trust is treated as an individual when calculating income taxes with similar rules for personal income taxes. However, it can deduct amounts paid or payable to beneficiaries from taxable income. This income is taxable at the beneficiary level. If the income is retained in the trust, it will be taxed at the trust level. An inter vivos trust pays tax at the highest individual marginal tax rate on this income. The ability to shift the burden of tax to the beneficiary or investor results in a tax efficient structure which can result in higher valuations when businesses undergo restructuring to form a trust.

Specified Investment Flow Through Trusts and Partnerships are taxed at the same rates as public corporations.

A **joint venture** is not a separate legal entity under the Income Tax Act. The common law definition of a joint venture is when two or more persons carry on business, but the relationship is not a partnership. Taxable income is calculated for each individual venturer and not at the joint venture level. This income is included in the tax return of the venturer. A venture has a direct claim on the joint venture's assets. Therefore, when valuing a venturer's interest in a joint venture, the valuation is limited to venturer's share of the assets of the joint venture.

Factors that differ a joint venture from a partnership includes:

- Co-venturers cannot contractually bind other co-venturers
- Co-venturers retain ownership of assets that they contribute to the joint venture
- Co-venturers are not jointly and severally liable for debts
- Co-venturers share gross revenues rather than profits. The co-venturers can deduct their individual discretionary expenses.

Alternative dispute resolution

Cases are usually settled prior to trial using alternative dispute resolution methods due to formal litigation process being too timely, costly and risky. Decisions reached from alternative dispute resolutions can be binding or non-binding and are decided in advance by the parties involved. There are three approaches to alternative dispute resolution:

- Informative: parties depend on a third party to process information and return for their consideration
- Consensual: parties can accept or reject an outcome that arises from their agreement
- Adjudicative: parties depend on a mutually agreed upon third party to arrive at a binding decision for resolution

Common forms of alternative dispute resolution include:

- Negotiation: discussions between parties where they have input in the ultimate solution and therefore reduces the likelihood of pursuing the matter further in court
- Mediation: a neutral party aids the parties in arriving at a mutually acceptable solution
- Mini-trial: The counsel for both parties provides a summary of their case to a panel of decision makers, including representatives from both parties. The panel, with complete knowledge of the facts, engages in negotiations to arrive at a decision.
- Arbitration: This method results in a binding decision from an arbitrator and is similar to going to court. However, the proceedings are conducted privately and therefore maintain confidentiality.
- Neutral case evaluation: an opinion is obtained from a third party, which is highly influential in helping the parties arrive at a solution, but not determinative.

Damages

The following situations may require loss quantification:

- Breach of contract
- Patent infringement
- Theft of intellectual property or trade secrets
- Expropriation of land
- Class actions
- Fraud
- Negligence
- Insurance claims
- Personal injury

- Wrongful termination

The award of tort and contract damages only result if the wrongful actions of the defendant directly caused the plaintiff financial harm. Damages are restorative. In the case of a tort, they put the plaintiff back in the position they would have been in if the harmful act did not happen. In the case of a breach of contract, they put the plaintiff back in the position they would have been in if the contract was executed properly.

Heads of damages are groups of financial losses that aid in determining the ways that a plaintiff has suffered harm and in damages calculations. Different heads of damages may get different rulings.

Hindsight information in the case of damage quantification is admissible and may be required. This is because damages are compensatory in nature. Therefore, time will be required to establish the extent of damages, which requires the use of hindsight. In addition, a duty to mitigate damages exists. The level of mitigation that can be achieved cannot be determined without hindsight information.

Selecting an appropriate discount rate for loss quantification is similar to the method used in a discounted cash flow analysis. When selecting an appropriate discount rate for loss quantification, the following considerations should be included:

- Business risk to take into account that the lost profits may not have been received or not as projected
- Market rates of return
- Period under consideration should match the term of the rate
- Consideration of inappropriate risk

Pre-judgement interest awards look to compensate the plaintiff for not receiving the damages at the time the harm was done. This award is discretionary. The rate of interest is the rate that is applicable at the date of filing for the claim and does not compound. It depends on the province and is prescribed by statute or regulation.

Post-judgement interest awards look to compensate the plaintiff for the time between the date damages are awarded and the date the defendant actually pays the damages. This interest award will apply to the majority of court ordered amounts if it is not paid by the ordered date.

Mitigation refers the requirement that a plaintiff has to reasonably mitigate damages. Failure to do so will reduce the damages awarded by the amount that could have reasonably

been expected to be mitigated. Costs incurred as a result of mitigation can be recovered, but cannot exceed the expenses saved or revenues earned via mitigation. A CBV needs to take into account of what a normal operator would do to mitigate the damages.

Chapter 7 – Taxation Issues Relevant to Valuation or Litigation Support Assignments

The majority of the topics in this chapter have **Level B** and **Level C** knowledge expectations.

The Candidate should understand taxation issues that arise in business valuations. Examples of issues would include:

B – Income tax rate

B – Capital cost allowance, eligible capital property, depreciable property and non-depreciable capital property

B – Purchase/sale of assets vs. shares

B – Trapped-in capital gains

C – Associated corporations

B – Types of income

B – Losses

B – Future income tax assets and liabilities

C – Taxation on corporate reorganizations

B – Tax treatment of damages and litigation awards

C – Goods and services tax

C – Scientific research and experimental development and investment tax credits

C/A – Transfer pricing

Capital cost allowance (“CCA”)

This refers to the portion of depreciable capital assets that can be written off annually under the Income Tax Act. Similar capital assets are grouped into asset classes and a prescribed CCA rate is applied on a declining balance basis.

Eligible capital property

This refers to intangible assets like:

- Acquired goodwill
- Acquired customer lists
- Trademarks
- Patents, licenses and franchises
- Incorporation, reorganization and amalgamation expenses
- Governmental rights and licenses
- Appraisal costs

Prior to January 1, 2017, eligible capital property is pooled in a cumulative eligible capital account at a 75% inclusion rate. This account is depreciated on a declining balance basis at a prescribed rate of 7% annually.

Post January 1, 2017, eligible capital property is replaced with a new CCA class 14.1. Under class 14.1, properties are added to this class at an inclusion rate of 100%. This class is depreciated on a declining balance basis at a prescribed rate of 5% annually and will follow the typical CCA class rules.

Depreciable capital property Capital property refers to property that is used to generate business or property income. Depreciable capital property is depreciable over time.

Non-depreciable capital property This refers to capital property that is not depreciable over time and may even appreciate. Examples include:

- Land
- Investments in subsidiaries
- Equity interests
- Partnership interests
- Bond or debt investments

Purchase/sale of assets vs. shares Please refer to Appendix C for an example.

Trapped-in capital gains This refers to the value appreciation of individual assets owned by a company which results in capital gains and associated tax liabilities upon disposition.

In the event of an asset sale, the seller will incur an immediate tax liability on the disposition of the asset and the fair market value of the asset will form the cost base of the asset for the acquirer.

In the event of a share sale, the acquirer will inherit the existing cost base of the asset. On the eventual disposition of the asset, the acquirer will receive the capital gain and incur the associated tax liability unless there was a decline in value of the asset.

This creates two opposing positions:

1. The income tax liability should be deducted from the fair market value of the asset.
2. The income tax liability should be heavily discounted due to the possibility of indefinitely deferring the liability.

A potential purchaser may decide on an immediate disposition of the assets or hold the assets indefinitely. If an immediate disposition is assumed, a potential purchaser will adjust their purchase price of the shares for the future tax liability. If the assets will be held indefinitely, a lost tax shield adjustment will be made to the purchase price. However, given that the intent of a potential purchaser may not be known, the midpoint between the future tax liability and lost tax shield may be taken as the value of the future tax liability.

In an ideal setting, the timing of eventual the realization of the future tax liability is known and present valued. However, this is extremely difficult in practice. If the timing on the eventual disposition of the asset is unknown, common practice is to discount the associated tax liability by 50%.

Associated Corporations

Corporations are associated if:

- There is direct or indirect control.
- The same individual or group controls the corporations.
- A corporation is controlled by an individual that is related to a second individual who controls another corporation. Either one of these individuals must own greater than 25% of the shares of the other corporation.
- A corporation is controlled by an individual and a second corporation is controlled by a group. The individual must be related to all of the individuals in the controlling group of the second corporation and also own 25% of the shares of the second corporation.
- A corporation is under group control and a second corporation is controlled by a related group. One group must consist of all members that are related to each of the members of the other group and own (either individually or jointly) 25% of the shares of the other corporation.

The association rules require related companies share in the small business deduction limit.

Types of income

Active business income under subsection 125(7) of the Income Tax Act is income derived from any business, adventure or concern in the nature of trade that is not a specified investment business or a personal service business. Active business income earned by a Canadian Controlled Private Corporation is eligible for the small business deduction where the first \$500,000 of income is subject to a reduced tax rate.

A specified investment business is a business seeking to generate income primarily from property. A business may be may still be classified as an active business if:

1. It has more than 5 full-time employees throughout the year. Or
2. The business receives managerial, financial or similar services from an associated corporation, and if it were not for these services, the business would have to employ more than 5 full-time employees.

A personal services business is one where an individual provides services and earns income via a corporation. A

business may still be classified as an active business if:

1. It has more than 5 full-time employees throughout the year. Or
2. The income was earned from servicing an associated corporation.

Property income refers to passive income generated from invested capital like rent, interest dividends and royalties. Property income is limited in the deduction of expenses like CCA and interest expense.

Property income is typically taxed at the applicable personal or corporate tax rate except for dividends received by individual taxpayers. Dividends received by individual taxpayers are grossed up and a federal dividend tax credit is deducted to compensate the individual taxpayer for taxes paid at the corporate level. Dividends that are paid from a taxable Canadian corporation to another taxable Canadian corporation are tax-free. Dividends paid from capital dividend account are also tax-free.

Capital gains refer to income earned on the disposition of business assets or investment property. Only 50% of capital gains are taxable. Capital losses can only be deducted against capital gains for tax purposes. The disposition of depreciable property cannot result in capital losses.

Losses

Net capital losses are losses resulting from the disposition of non-depreciable capital property. They can be carried back three years and applied against taxable income. They can also be carried forward indefinitely, but can only be applied against net taxable capital gains.

Non-capital losses are losses resulting from a business venture or a partnership. Losses can be applied against taxable income and can be carried back three years. If the loss occurred in a taxation year prior to March 22, 2004, the loss can be carried forward 7 years. If the loss occurred after March 22, 2004, the loss can be carried forward 10 years. In or after 2006, the loss can be carried forward 20 years.

Allowable business investment losses (“ABIL”) are losses resulting from the disposition of shares of, or debt owing by a small business corporation. Carry forward and carry back rules are similar to non-capital losses. However, if ABILs are unused, they are converted to net capital losses.

In the event of a change of de jure control, an acquisition of control has taken place. The Income Tax Act has rules that affect the utilization of accumulated losses of a corporation upon a change of control. They are as follows:

1. A deemed taxation year end occurs prior to the date of the acquisition of control. This may affect the CCA that can be claimed and hasten the expiry of loss carry forwards.
2. Any unused net capital losses are deemed to be expired.
3. Any unused ABILs are deemed to be expired.
4. Post-acquisition net capital losses cannot be carried back and applied against taxable income in taxation years prior to the acquisition of control.
5. Unrealized capital losses are deemed to be realized. If there are no available capital gains to use the capital losses, they will expire.
6. Corporations can elect a deemed disposition to realize any trapped-in capital gains in its non-depreciable capital properties. The proceeds on disposition must be greater than original cost but not be greater than the fair market value of the property. This allows the corporation to realize capital gains to utilize any expiring capital losses.

Future income tax assets and liabilities

Future income tax assets and liabilities result from differences in book versus tax values of assets and timing differences in deductions from income calculated for tax and accounting purposes. Future income tax liabilities result from deducting expenses for tax purposes prior to deducting them for accounting purposes. Future income tax assets result from deducting expenses for accounting purposes prior to deducting expenses for tax purposes. These differences can arise out of things like differences in book depreciation versus CCA claimed.

In a liquidation approach, all tax effects on the disposition of assets are taken into account. Therefore, future income tax assets and liabilities have no effect on value and needs to be eliminated.

In an adjusted asset value approach, assets are brought to their fair market values. Therefore, the fair market values need to be compared against the tax basis of the assets in order to calculate the value of the future income tax asset or liability.

In the case of a share purchase, assets are not brought to their fair market values. However, an adjustment for tax shield forgone needs to be made from the fair market value of the assets.

Taxation on corporate reorganizations

Section 85 rollover refers to transferring property to a Canadian Corporation in exchange for consideration that must contain shares of the recipient corporation. Non-share consideration is referred to as the “boot”.

Section 85 rollovers may be done for some of the following purposes:

- Enabling an unincorporated business to transfer assets to a Canadian corporation, allowing a business to utilize the small business deduction and shareholders to be eligible for the lifetime capital gains exemption on the disposition of the shares if the shares are qualified small business corporation shares.
- Consolidation of business operations for tax planning and loss utilization.
- Establishment of holding companies for income splitting and estate planning purposes.
- Spin-off of assets.
- Deferral or minimization of taxes payable by a seller for arm’s length acquisitions and divestitures.

A section 85 rollover gives the transferor and the transferee the ability to elect the transfer price of the property, thereby avoiding taxes on the transfer. The elected amount must:

- Not be greater than the fair market value of the transferred property;
- Not be lower than the lesser of cost and fair market

- value of the transferred property; and
- Not be less than the fair market value of the boot.

A valuator is required in order to determine the fair market value of the transferred property to ensure the transferor gets fair market value consideration.

Value is allocated the consideration in the following order:

1. Boot is allocated value up to its fair market value.
2. Preferred share is allocated value up to fair market value.
3. The residual value is then allocated to common shares.

A price adjustment clause is typically included in the Agreement of Purchase and Sale to avoid potential tax consequences. This clause will adjust the purchase price and/or the consideration if CRA concludes that the purchase price is not equal to the fair market value of the property transferred.

Section 86 reorganization refers to the tax-free exchange of a shareholder's shares in a reorganization of the capital of a corporation. This is typically utilized for an estate freeze where common shareholders (i.e., the parents) can exchange their common shares for preferred shares that have a redemption/retraction price equal to the fair market value of the common shares exchanged. New common shares are then subscribed for by the children and any new growth in the equity value of the company would be attributable to the new common shares.

To be eligible under Section 86, the old shares have to be held as capital property. The taxpayer must also exchange all of the shares in the class that they own. The transaction is classified as an exchange rather than a sale and allows for a deferral of any pre-exchange accrued gain on shares. However, the fair market value of any non-share consideration received as a part of the reorganization cannot exceed the adjusted cost base of the existing shares.

Section 87 amalgamation refers to the merger of two or more taxable Canadian corporations to a new corporate entity. There are two main requirements for this to occur on a tax-free basis:

- Assets and liabilities of the predecessor corporations have to become the assets and liabilities of the successor corporation with the cancellation of any intercompany debt.
- Each shareholder of the predecessor corporations have to get shares of the successor corporation with the exclusion of intercompany shareholdings.

Section 87 amalgamations may be done for some of the following purposes:

- Post arm's length share acquisition of a corporation, an amalgamation may take place between the parent and the newly acquired corporation under the parent corporation's charter and bylaws
- Minority squeeze-out
- Method of changing ownership without incurring provincial transfer taxes

A section 87 amalgamation allows for the tax bases from the predecessor corporations to be inherited by the successor corporation. Shareholders will get the rollover at the adjusted cost base of the old shares. Subject to the acquisition of control rules, any loss carry forward balances in the predecessor corporations are also inherited by the successor corporation.

Section 88(1) & 88(2) corporate wind-ups: 88(1) refers to the wind-up of a Canadian subsidiary into a Canadian parent that owns 90% or more of the shares of the subsidiary. 88(2) deals with all other wind-ups.

Section 88(1) wind-ups may be done for some of the following purposes:

- Post-acquisition wind-up to transfer assets to the acquirer
- Minority squeeze-out
- Losses/CCA utilizations
- Removal of inactive corporations

Under section 88(1)(a), the subsidiary is usually not taxed on the distribution to the parent.

Under section 88(1.1) non-capital loss carry forwards can be utilized by the parent only if the loss generating business is going to continue operations.

Section 88(2) covers all other wind-ups and would be relevant in when a liquidation method is used in a valuation. The corporation will have a deemed disposition on its properties prior to the wind-up and the taxation year will have a deemed year end. The deemed disposition will occur at the fair market values of the properties and may result in taxes payable on the gains realized.

Tax treatment of damages and litigation awards

If the award is for the replacement of lost taxable income, the award will be taxable. General or punitive awards of damages are not taxable. Settlements for lawsuits or amounts awarded by a court are taxable. For expenses that were deducted from income and then reimbursed, it depends on whether the expense and reimbursement took place in the ordinary course of business to determine whether it is included in income.

Depending on the nature of the payment, they will be taxed differently. Awards for:

- Lost profits or higher business related expenses are taxed as income
- Reduction in share or debenture value are considered proceeds of disposition and may result in capital gains or losses
- Pain, suffering and personal injury are not taxable

Goods and Services Tax (“GST”)

GST is a form of sales tax which is applicable to certain assets. GST is not applicable to the sale of exempt financial instruments like shares, bonds, notes and accounts receivables. They are applicable on the direct purchase and sale of operating assets like inventory and equipment. GST paid by a purchaser is usually recoverable by way of an input tax credit if the purchaser is registered. Companies that are not performing commercial activities like holding companies are not eligible for registration and cannot recover GST paid. However, if the GST arose from related company shares or debt and the related company is engaged in commercial activity, the GST may be recoverable.

In the event of a transaction involving 90% or more of a property being used in a commercial activity, the seller and the buyer can jointly elect to be exempt from GST.

GST on takeover fees is fully recoverable if target company is engaged in commercial activities and more than 90% of the voting shares are being acquired. The taxes are recoverable even if the proposed transaction is unsuccessful.

Scientific Research and Experimental Development (“SRED”) and Investment Tax Credits (“ITC”)

SRED refers to activities that advance scientific knowledge involving uncertainty.

Activities excluded from SRED activities include:

- market research
- promotion
- quality control
- prospecting, exploring and drilling for natural resources
- style changes
- routine data collection
- commercial production

For undertaking SRED activities, taxpayers are rewarded with tax deductions and investment tax credits.

Taxpayers that undertake SRED activities can deduct all qualifying current and capital expenditures in full that were incurred during the year. If it were not for this, capital expenditures can only be deducted by way of CCA. However, this amount is reduced by federal investment tax credits claimed in the prior year, provincial investment tax credits accrued in the current year and grants received or receivable to fund the SRED activities. Unused SRED is accumulated in a pool and can be carried forward indefinitely.

Taxpayers also earn investment tax credits on current and capital expenditures in Canada. Investment tax credits can be used to reduce federal income taxes. If left unutilized, they can be carried back three years or carried forward 10 years. Unclaimed ITCs can be passed on to a potential purchaser of a company.

In valuing any unclaimed SRED or unused ITCs, the timing and probability of realizing claims and credits need to be evaluated so the prospective cash flows can be discounted to reflect the appropriate risks.

Transfer Pricing A transfer pricing study may be required when a corporation transacts in goods and services with a related non-resident. These transactions have to be reported using Form T106 to the CRA. The pricing of the goods and services transferred will have an effect on the profits that are taxed in Canada. The study is required to ensure that goods and services were bought and sold at appropriate prices and therefore protecting a prospective purchaser to liabilities resulting from transfer pricing adjustments.

Some considerations when evaluating intercompany transactions include:

- Do management fees contain an element of profit? Is a mark-up used, necessary or warranted? Some tax authorities may require a profit element on the goods and services provided.
- Are the services going to be continued post Valuation Date?
- Is the interest rate charged on intercompany loans reflective of a market/economic level? (i.e., the cost of debt of an arm's length borrower)

Transfer pricing can have a significant impact in valuations involving an entity that has significant intercompany transactions. If inappropriate transfer prices were used, it can cause financial statements to be misstated. Some examples include:

- Non-arm's length prices could result in understated/overstated cost of goods sold or cost of sales resulting in overstated/understated margins
- Non-arm's length administrative or management fees for centralized administrative activities
- Manufacturing for a related party (limited scope or contract manufacturer). In this scenario, the arm's length nature of the price charged on the manufactured goods by the manufacturer and the price paid by the manufacturer for any materials that were acquired from the related party for production must be assessed.
- Intercompany transactions where goods have been delivered or services have been performed by no dollar values are assigned. This can result in understated expenses and profits.