

## **Corporate Strategy and Shareholder Value**

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### ***Summary***

Shareholder value typically is best measured pursuant to a discounted cash flow methodology. The three underlying value drivers in a discounted cash flow methodology are prospective discretionary cash flows, the required rate of return, and redundant assets. Discretionary cash flows typically are defined as cash flow from operations less: income taxes, capital investment and working capital. Where discretionary cash flows are determined before debt servicing costs (which normally is the case), the rate of return represents a weighted average cost of capital, being blend of debt and equity that is considered 'appropriate'. Therefore, the rate of return is a function of the operating risks and the financial risks of the business. The implications of capital structure decisions are reflected as the financial risk component of the rate of return, although in some cases, capital structure decisions affect the operating risks of a business as well. Redundant assets represent those that are not required by a business to generate its prospective operating cash flows. Redundant assets sometimes are 'hidden' in areas such as excessive working capital. Importantly, the three value drivers are interrelated, and it is not possible to examine each in isolation.

Other measures of shareholder value include Economic Value Added (EVA) and Market Value Added (MVA). EVA is very similar to a discounted cash flow methodology in many respects. MVA is based on market values, and at a given point in time, may not be an appropriate measure of shareholder value.

Strategic decisions made at the corporate level and that have long term implications on shareholder value include those related to investment opportunities, corporate acquisitions and divestitures, restructuring, and dividend policy. With respect to investment opportunities, it is important to recognize that shareholder value is 'created' where the return achieved on the project exceeds the required rate of return given the risks inherent in the project. In addition to traditional discounted cash flow analysis, and the calculation of net present value, the analysis of investment opportunities often is aided by measures such as the profitability index (the ratio of net present value to initial investment) and discounted payback period.

Acquisition opportunities are an extension of the corporate investment decision. These decisions normally have an added element of complexity pursuant to the evaluation of synergies that are expected to accrue following an acquisition. This may include tangible operating synergies, intangible operating synergies (e.g. 'strategic importance') and financial synergies. An analysis of corporate acquisitions and divestitures also comes into play where a company is determining whether it should pursue a focus strategy or a diversification strategy. Diversification generally does not produce desired results where it is undertaken solely on the expectations of reduced risk akin to a diversified investment portfolio. However, diversification may offer other benefits to the firm that must be weighed against the consequences from less focus in a particular industry.

Companies frequently seek to restructure their operations in an attempt to enhance shareholder value. The restructuring decision should flow from a corporation's strategy, and should be based on the profitability of a particular business segment, as well as the assets and financial resources required in order to generate that level of profit. In addition to examining each business segment on a stand-alone basis, the implications of changes to other segments of the organization also should be considered.

Dividend policy normally is viewed as an extension of the capital structure decision. Dividends represent a transfer of wealth from the company to the shareholder. In theory, a company should pay dividends where its investment opportunities are not expected to generate a rate of return that is at least as high as its cost of capital. However, the dividend policy decision also is influenced by shareholder expectations, and management's reluctance to cut dividends once established given the potential negative consequences.

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## **Overview**

This paper addresses how strategic decisions at the corporate level affect shareholder value. The first part of this paper focuses on how shareholder value is measured, which typically is pursuant to a discounted cash flow methodology. This includes a discussion of the underlying value drivers, being prospective discretionary cash flows, rates of return, capital structure, and redundant assets. Other value measurement tools, including Economic Value Added and Market Value Added are briefly addressed. The second part of this paper examines specific corporate strategy decisions, including investment opportunities, internal vs. external growth, focus vs. diversification strategies, restructuring, and dividend policy.

## ***Part I – Measuring Shareholder Value***

### **The Discounted Cash Flow Methodology**

From an economic standpoint, shareholder 'value' generally is determined pursuant to a discounted cash flow methodology ('DCF'), which is a preferred valuation methodology. The mechanics of the discounted cash flow methodology are as follows:

- discretionary (or 'free') cash flows are forecast for a number of years (generally 3 to 7). Discretionary cash flows typically are defined as operating income (earnings before interest, income taxes, depreciation and amortization, or 'EBIT-DA'), less: income taxes, capital investment, and incremental working capital requirements. Discretionary cash flows normally are determined before debt servicing costs (interest expense, net of taxes, and changes in debt principal outstanding). This follows traditional finance theory that operating decisions are distinct from financing decisions;
- the discretionary cash flows (again excluding debt servicing considerations) are discounted at a discount rate that represents a 'weighted average cost of capital' ('WACC'). WACC is a rate of return based on what is believed to be an 'appropriate' blend of debt and equity given the nature of the business and the industry in which it competes. The blend of debt and

equity in WACC is a function of both operating risk (i.e. the discretionary cash flows determined before debt servicing costs) and financial risk – reflecting the capital structure decision;

- discretionary cash flows beyond the forecast period are captured in a ‘terminal value’ calculation whereby maintainable discretionary cash flows at the time are ‘capitalized’ by a capitalization rate (the inverse of a multiple). The terminal value component is then discounted to present value at the WACC;
- the net realizable value of ‘redundant assets’ then are added to the present value of the forecasted cash flows and discounted cash flows to determine ‘enterprise value’ – being the total value of the business, including its debt and equity components. Redundant assets (sometimes referred to as ‘non-operating assets’) are defined as those that are not required by the business to generate its prospective discretionary cash flows; and
- finally, the actual amount of interest bearing debt outstanding is deducted from enterprise value to determine the value of the equity of the business en bloc. Interest bearing debt typically includes short term interest bearing debt, long term interest bearing debt, and interest bearing debt equivalents (such as interest free loans from related parties). In addition, where value is being measured at the common shareholder level, the value of any outstanding preference shares also would be deducted. Interest bearing debt (and equivalent amounts) outstanding is a function of the company’s capital structure decision.

Schematically, the DCF methodology to determining shareholder value is as follows:

*Exhibit 1*

$$\begin{array}{r} \boxed{\text{Present value of forecast discretionary cash flows}} \\ \text{Plus} \\ \boxed{\text{Present value of the terminal value}} \\ \text{Plus} \\ \boxed{\text{Net realizable value of redundant assets}} \\ \text{Equals} \\ \boxed{\text{Enterprise value}} \\ \text{Less} \\ \boxed{\text{Interest bearing debt and equivalents outstanding}} \\ \text{Equals} \end{array}$$

## Equity value en bloc

It follows that shareholder value is a function of:

- prospective discretionary cash flows;
- the required rate of return, which can further be segregated into its underlying elements of:
  - ✓ operating risk (or business risk), and
  - ✓ financial risk, resulting from capital structure decisions (which captures the element of interest bearing debt and equivalents outstanding); and
- the net realizable values of redundant assets

These variables are interrelated, and they cannot be assessed in isolation. When business managers make strategic decisions, those decisions typically have consequences on two or more of these underlying variables. For example, where a business undertakes a significant capital expansion program, those expenditures likely influence the prospective discretionary cash flows and the operating risks of the business. In addition, depending on the nature of the expansion, and the industry in which the company operates, there may also be an impact on the capital structure of the business. Finally, in some cases, the undertaking of a capital expansion program may cause certain assets that had been considered 'redundant' to be required as part of the ongoing operations.

It follows that shareholder value is not created by examining a particular economic driver in isolation, but to consider what mix of investment and financing decisions likely will produce the 'optimal' net result.

### **Discretionary Cash Flow Projections**

As noted above, discretionary cash flows generally are defined as EBIT-DA less: income taxes, capital investment, and incremental working capital requirements. After accounting for debt servicing costs, the residual amount of discretionary cash flows represent a return to shareholders that can be:

- paid as a dividend;
- retained in the business as a redundant asset;
- reinvested in the business to generate incremental cash flows beyond those projected; or
- a combination of these things.

To be meaningful in a discounted cash flow analysis, discretionary cash flow projections should be credible and realistic. This is a daunting task that requires thorough analysis and judgement. Some general guidelines in projecting discretionary cash flows are as follows:

- where the company has more than one distinct operating division or subsidiary with differing risk factors, discretionary cash flow projections should be done for each segment. Where common costs exist (for example, head office administration staff), they can be allocated to each division on a meaningful basis (where it is possible to do so), or the capitalized value of common costs can be deducted from the aggregate value of the divisions;
- revenues should be projected in a manner which facilitates analysis of the costs and risks related thereto. For example, where a product manufacturer also sells replacement parts, the latter should be segregated for purposes of analysis. In many cases, the cost stream associated with parts sales, and the risk attaching thereto are significantly different (typically lower) as contrasted with the costs and risks attaching to product sales;
- operating costs (excluding depreciation) should be segregated between fixed and variable. It also is important to note any 'capacity constraints' or 'step costs' that may increase beyond certain production or revenue levels;
- income taxes should reflect cash income tax amounts, and should not include deferred income tax considerations. Income tax calculations should consider the timing of revenue recognition, expense deductibility, the tax shield on capital assets, income tax loss utilization, and so on;
- capital requirements should be segregated, where practical to do so, between amounts required to sustain operations at current levels, and amounts that represent growth

investment. Generally, as a business continues to grow, it requires an increasing amount of capital investment that is considered 'sustaining'; and

- working capital changes generally refers to accounts receivable, inventories, accounts payable, and other current assets of a 'trade' nature that change with a company's projections. Cash on hand and short term interest bearing debt generally are not considered as part of working capital, but rather are a function of the financing decision.

Importantly, projections must be internally consistent. That is, if revenue growth is anticipated, all the costs associated with that growth, including operating expenses, capital expenditures, and working capital requirements, must be considered. Internal inconsistencies are one of the most common errors that managers make when compiling projections.

Some managers are hesitant to expend considerable time preparing cash flow projections due to the 'unpredictability' of their business. While it is true that some are more predictable than others, and that actual results inevitably will vary from forecasts, the process of compiling meaningful discretionary cash flow projections helps managers to better understand their business, including the relationship between revenues, costs, and capital requirements. Preparing cash flow projections also helps managers to be more pro-active in anticipating where issues might arise based on trends in actual results. In addition, undertaking sensitivity analysis and preparing flexible budgets can assist managers in understanding the risks involved in their businesses and in controlling expenditures – both of which are important from a shareholder value perspective.

## **Rates of Return**

There is a direct interrelationship between required rates of return and the discretionary cash flows to which they are applied. All things equal, the more aggressive the discretionary cash flow projections, the higher the required rates of return, and vice-versa.

The rate of return used in a discounted cash flow methodology where discretionary cash flows have been determined before debt servicing costs is a WACC – a blend of debt and equity that is considered 'appropriate' for the business. The simplified formula for calculating WACC is:

*Formula 1*

$$\text{WACC} = K_U + [1 - T \times D / (D+E)]$$

Where:

[ $K_U$ ] is the cost of unlevered equity, being a function of the operating risks of a business;

[ $T$ ] is the marginal income tax rate; and

[ $D / (D+E)$ ] is the ratio of debt to debt plus equity (i.e. enterprise value) at market rates.

For example, if the cost of unlevered equity were 12%, the marginal income tax rate was 40%, and an 'appropriate' debt to enterprise value was 25%, then weighted average cost of capital would be calculated as follows:

$$\begin{aligned} & 12\% \times (1 - 40\% \times 25\%) \\ & = 10.8\% \end{aligned}$$

The benefit of the WACC model is its robustness. That is, estimates of rates of return and debt to equity ratios inherently are subjective. (Income tax rates generally are known with relative accuracy). Therefore, minor deviations in estimates generally do not have a significant impact on the end result. In the above example, if an 'appropriate' debt to enterprise value ratio were 30% rather than 25%, then WACC would decrease from 10.8% to 10.6% - which is not a significant change.

To summarize, WACC is a function of:

- operating risk – being the risk inherent in the discretionary cash flow projections, assuming a 'debt-free' capital structure; and
- financial risk – which reflects the benefits of using tax-deductible interest bearing debt in lieu of equity, offset by the incremental risk to shareholders as a result of there being prior claims on the net assets and cash flows of the business.

Financial risk is a function of the capital structure decision, which is discussed in the following section. This section addresses elements of operating risk, and the determination of an 'unlevered' return on equity.

Corporate strategy decisions have long term implications on the corporation. Therefore, the unlevered return on equity should be a rate of return that is consistent with the long term objectives of the organization. These rates sometimes are referred to as 'hurdle rates' or 'threshold rates of return', and generally are comprised of:

- a nominal (i.e. including inflation) 'risk-free' rate of return, generally taken as the pre-tax yield to maturity on long term government bonds;
- a public market equity risk premium, which over the long term tends to fall in the range of 4% to 6%;
- an incremental equity risk premium (where appropriate) to account for the reduced level of liquidity in long term corporate strategy decisions as contrasted with the liquidity afforded to widely held public equity market securities; and
- an adjustment for industry-specific risks and opportunities, as required.

Hurdle rates generally are established at senior manager levels within an organization, and tend to be relatively stable over time. They tend to evolve over time given developments in the business, the industry in which it operates, and general economic factors. Hurdle rates represent target rates of return. As such, they may be adjusted upward or downward to reflect fact-specific risks or management's perception of the 'strategic importance' of a particular investment opportunity or corporate strategy decision.

In many companies, hurdle rates of return are established at a given point in time, and are allowed to perpetuate over the years without review. This can lead to erroneous corporate strategy decisions being made. For example hurdle rates may have to be adjusted as a result of:

- inflationary expectations. There must be consistency between the inflation component included in the hurdle rate and that used in the discretionary cash flow projections. For example, if discretionary cash flow projections that include an element of inflation are discounted by a rate of return that does not have an inflation component in it, that will tend to overstate the implied value of the investment opportunity; and
- changes in 'industry risk factors'. As an industry evolves, new risk factors may come into play, and certain previously identified risks may no longer be relevant due to, for example,

changes in the competitive landscape, new government regulations, technological advancements, and so on.

It is important for those managers making decisions to understand how the hurdle rate was derived, including important assumptions and underlying risk considerations. Only then can managers be assured of consistency in the application of a company's hurdle rates of return, and correctly interpret the results of any quantitative analysis derived using those rates.

For companies whose shares are publicly traded, at any given point in time, hurdle rates of return may be greater than, or less than, the company's return on equity as suggested by the public equity markets. Public equity market models (such as the Capital Asset Pricing Model), while often useful for the purposes of security analysis and portfolio management, may not reflect underlying shareholder value at a given point in time. This is because public equity market prices are a function of the supply and demand for normal-sized trading blocks of a company's shares, and not 'en bloc' shareholder value, per se. In addition, public equity market pricing models generally make certain explicit and implicit assumptions regarding portfolio diversification, investment liquidity, business-specific risk, and so on, that cannot be imposed at a corporate strategy level. In general, corporate strategy decisions are made for the long term, whereas public equity market investors have differing time horizons, and generally are afforded a level of liquidity that is greater than that of business investment opportunities.

## **Capital Structure**

The basic theory of Firm Value<sup>1</sup> is that an unlevered company (i.e. a company with no debt in its capital structure) can increase shareholder value (on a per share basis) by utilizing debt in its capital structure. Mathematically, this is expressed as follows:

*Formula 2*

$$V_L = V_U + TD$$

Where:  $V_L$  = the value of a levered firm (i.e. one that uses debt in its capital structure);

$V_U$  = the value of an unlevered firm (i.e. one that does not use debt in its capital structure);

T = the marginal income tax rate; and

D = the dollar amount of interest bearing debt.

The following simplistic example will serve to illustrate. Assume that a business requires \$5 million in capital and is faced with 2 financing options:

- issue 500,000 shares at \$10 each; or
- issue 300,000 shares at \$10 and obtain a bank loan for \$2 million.

Further assume that the marginal income tax rate of the business is 40%. Under the first option, the firm would be considered 'unlevered', and hence its value (enterprise value and equity value) would be \$5 million. Under the second option, accepting the Formula 2 above, the value of the firm (enterprise value) would increase to:

$$\begin{aligned} & \$5 \text{ million} + 40\% \times \$2 \text{ million} \\ & = \$5.8 \text{ million.} \end{aligned}$$

Since \$2 million of the total value of the firm would be attributed to debt, the remaining \$3.8 million would accrue to the equity holders. Based on 300,000 shares outstanding, this suggests a ratable value of \$12.67 per share – or an increase of 26.7% in the per share value.

This theory implies that companies should use leverage to the maximum extent possible. However, reality is such that the use of debt increases the risk of business failure. At some point, the reduction in firm value due to financial risk outweighs the incremental benefits of employing additional debt. As a practical matter, it rarely is possible for managers to determine the 'optimal' amount of financial leverage to utilize in a given business. In practice, most businesses operate within a range of debt to equity proportions that they believe is appropriate over the long term given the nature of their business and the industry in which they operate. Further, it generally is preferable to utilize less than the estimated maximum obtainable in order to retain flexibility and to allow for unanticipated shortfalls in operating cash flows.

An underlying assumption in capital structure theory is that financial risk is distinct from operating risk. This assumption does not always hold. In reality, a business that is perceived to be financially over-levered may discover the consequences to its operations such as:

- a reduction in revenues due to a loss of customers who do not want to purchase from a business they believe may not be a going concern, and consequently will not be able to meet service and/or warranty commitments; or
- an increase in working capital requirements as suppliers place the company on C.O.D. payment terms. Increased working capital erodes discretionary cash flows, and reduces the enterprise value of the company.

While it generally is accepted that investment decisions should be made independent of financing decisions, managers should be cognizant of the interrelationship between the two, and the potential consequences of disregarding one side of the business value equation.

### **Redundant Assets**

Redundant assets directly increase the enterprise value, and resultant en bloc shareholder value of a company. Redundant assets normally are valued at their net realizable value, being their market value net of income taxes and disposition costs, although this is not always the case. Where assets that are classified as redundant are valued separately, any cash flow stream generated from those assets (for example, in the form of interest income on marketable securities, leasing income on excess land, and so on) should be removed from the projected discretionary cash flow stream to avoid double-counting.

Redundant assets are characterized by 'permanence in their redundancy'. Therefore, assets that are temporarily idle or underutilized, but are expected to be employed in the business' operations in the relatively near future, would not be considered redundant.

Where a business generates discretionary cash flows to equity holders that are not paid out as dividends or reinvested in the business beyond what was forecast, then, in theory, the residual amount of discretionary cash flows represent a redundant asset. Some retention of redundant assets may be desirable in order to cover unanticipated shortfalls or to take advantage of unanticipated investment opportunities. However, as a practical matter, when assessing shareholder value, the value contributed by redundant assets often is overlooked, particularly in the case of public companies where redundant assets are not readily apparent.

Where redundant assets are held in the form of cash and equivalents, those amounts typically are deducted from interest bearing debt outstanding, thereby inherently recognizing their value.

(This assumes that the entire amount of cash and equivalents on hand is redundant – which is not always correct). However, redundant assets sometimes are not in the form of cash, and therefore may not be as apparent. For example, redundant assets could be in the form of excess land, unused patents, advances to non-arm's length parties, and so on.

Therefore, to receive 'credit' for redundant assets, management must either:

- liquidate those assets, where it is decided that such action is appropriate from a long term strategic perspective; or
- highlight the fact that these non-operating assets exist, which may be in the form of financial statement presentation (i.e. the assets could be segregated), or accompanying Management Discussion and Analysis.

One particular source of redundant asset value that frequently is not recognized by investors or sometimes even management, is excess working capital. Recall that working capital requirements reduce what otherwise would be discretionary cash flows. Therefore, reducing the amount of 'net trade working capital' (generally defined as accounts receivable and inventories net of accounts payable and accrued liabilities) required to support a given level of operating activity can be a source of significant shareholder value. Importantly, working capital represents after-tax dollars. Therefore, assuming an income tax rate of 40%, a \$6 million reduction in trade working capital requirements generates the same benefit in terms of incremental discretionary cash flow as \$10 million of cost savings.

### **Economic Value Added and Market Value Added**

The concepts of Economic Value Added (EVA) and Market Value Added (MVA) have increased in popularity in recent years. They are briefly addressed in this paper to illustrate that these concepts are not inconsistent with the traditional view of shareholder value measurement, which is based on discounted cash flows.

EVA measures 'value' as the difference between:

- discretionary cash flows (before debt servicing); and

- the cost of capital, measured as the cost of debt and equity financing for the company's underlying assets, including working capital, fixed assets, and other assets.

Where discretionary cash flows exceed the cost of capital, 'economic value' is said to be added. Therefore, EVA essentially is an extension of shareholder value measurement pursuant to a discounted cash flow methodology.

MVA is calculated as the difference between

- the market capitalization of a company's issued and outstanding share capital and interest bearing debt; and
- the book value of its shareholders equity and interest bearing debt.

As a practical matter, unless a company has significant publicly traded debt securities, the MVA calculation is simplified to the difference between the market value of a company's shares and its shareholders' equity at book value. MVA typically is assessed based on the changes in the difference between the 'market value' of a company's outstanding shares and its net book value.

Critics of MVA often argue that the measure is influenced by general public equity market trends, which are beyond the control of a company's management. In addition, MVA is only applicable for companies whose shares are publicly traded. Even in the case of publicly held companies, MVA, being a 'macro' indicator of company performance may not be reflective of the performance of various divisions or subsidiaries within larger organizations. Finally, public equity market prices generally represent the supply and demand for normal sized trading lots of the company's shares at a particular point in time, based on a limited amount of publicly available information, and therefore may not be reflective of a company's 'intrinsic' value at that time.

As a result, while trends in MVA may indicate whether a company's management is able to create shareholder value over a relatively long period of time, it generally is not a tool that is used in proactively measuring shareholder value creation at a particular point in time.

## ***Part II – Corporate Strategy Decisions***

### **Investment Decisions and Value Creation**

In analyzing investment decisions, a discounted cash flow methodology often is adopted. This is similar in concept to the DCF adopted for measuring shareholder value, except that specific investment opportunities often have a finite life, and no adjustment is made for redundant assets or outstanding debt.

Shareholder value is created where investment opportunities generate a positive net present value (NPV). An important distinction must be made between growth and expansion. Most business seek to expand their operations – i.e. to increase their revenues and profitability over time. However, from a value perspective, shareholder value is created when a company makes an investment that provides a return in excess of its cost of capital. A simple example will serve to illustrate.

Assume that a company is currently generating \$30 million per annum in discretionary cash flows on sales of \$300 million, and that an appropriate capitalization rate is 15%, being a real return on equity only. By extension, the en bloc equity value of the company is \$200 million (\$30 million / 15%). Further assume that the company has an investment opportunity that would increase its annual revenues and discretionary cash flows by 20%. Further assume that the initial cost of this investment opportunity is \$40 million, and that will be funded entirely through equity raised at a cost of 15%. The following results

Existing discretionary cash flows	\$30 million
Increase from new investment	<u>\$6 million</u>
Prospective discretionary cash flows	\$36 million
Capitalization rate	15%
Prospective equity value	\$240 million
Less: Initial cost financed by new equity	<u>(\$40) million</u>
Equals: Value of existing equity	<u>\$200 million</u>

Therefore, while the firm has increased its revenues and discretionary cash flows by 20%, the en bloc value to its existing shareholders remains unchanged. As a result, while the company may successfully expand, it has not 'grown' from a value perspective.

Growth in value would occur if:

- the investment had a positive NPV; or
- the blended cost of capital for the company had been reduced as a result of this investment. For example, if by virtue of its increased market presence resulting from the investment, the company's cost of capital declined from 15% to 14%, the resulting impact on firm value would be as follows:

Prospective discretionary cash flows	\$36 million
Capitalization rate	14%
Prospective equity value	\$257 million
Less: Initial cost	<u>(\$40) million</u>
Equals: En bloc value to existing shareholders	<u>\$217 million</u>
Increase in value to existing shareholders	<u>8.5%</u>

In addition to the DCF methodology, the attractiveness of investment decisions can be measured through EVA (previously discussed), 'internal rate of return' ('IRR'), profitability index, and the discounted payback period. Where these alternate performance measures are used, they should serve to compliment a DCF analysis rather than replace it.

IRR is a popular financial analysis that equates the present value of future cash inflows to the initial investment cost. The profitability index is a ranking measure for investment opportunities. It is the ratio of net present value to initial investment. For example, assume that a company has the following three investment opportunities:

Project	Initial Investment	Risk-adjusted Discount Rate	Net Present Value	Internal Rate of Return
A	\$10 million	12%	\$1.2 million	15%
B	\$20 million	11%	\$2.6 million	17%
C	\$30 million	15%	\$3.0 million	18%

On the surface, Project C may appear to be the most attractive, given that it offers the highest NPV and highest IRR. However, a calculation of the profitability index (NPV divided by initial investment) for each project would indicate the following:

A	12%
B	13%
C	10%

This would indicate that Project B would be the most favourable, followed by projects A and C, respectively. Accordingly, if the company has a limited amount of capital to invest, the profitability index suggests that Project B should be given priority. The attractiveness of the profitability index is that it relates expected return from an investment opportunity to the required return based on the risk factors of the investment opportunity. The IRR calculation ranks projects in terms of absolute expected percentage returns, and does not explicitly take into account the 'required' return for a specific project. Where investment opportunities warrant a different rate of return due to differing risks, an assessment based on IRR may result in the company taking on a large number of above-average risk projects that ultimately may be reflected in a reduction in shareholder value. Therefore, the profitability index often is a more appropriate measure of investment attractiveness.

The discounted payback analysis is similar in concept to 'payback period', which measures the number of years required for a company to recover its initial investment based on forecasted discretionary cash flows. The discounted payback model satisfies one of the traditional criticisms of the payback period calculation in that it takes into account the time value of money. The attractiveness of the discounted payback calculation is that it provides a meaningful measure of risk that is not captured in a DCF analysis. For example, assume that a company is faced with two investment opportunities as follows, and each is evaluated using an 'appropriate' discount rate of 12% (\$ millions):

<u>Project</u>	<u>Cost</u>	<u>Discretionary Cash Flow Projections by Year</u>					<u>NPV</u>
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	
A	\$12	\$4	\$4	\$4	\$4	\$4	\$2.2
B	\$12	\$1	\$3	\$4	\$6	\$9	\$2.7

On the surface, Project B would appear to be more attractive given its higher NPV. However, the discounted payback period for Project A is approximately 3.2 years, whereas the discounted payback for Project B is slightly in excess of 4 years. This results from the fact that most of the cash flows of Project B are realized toward the end of its life. Given that the difficulty in forecasting generally increases with the length of the forecast (due to greater uncertainties in the longer term as contrasted with the near term), management must assess whether the incremental NPV of \$0.5 million is sufficient to offset the risks involved. Discounted payback also is useful when assessing corporate acquisition opportunities given that the 'terminal value' component in such analysis frequently accounts for the largest portion of overall value.

### **Internal vs. External Expansion**

An issue facing many companies is that of whether to pursue internal investment opportunities or to acquire another business with an existing infrastructure, customer base, and so on. The 'build vs. buy' decision is an extension of the 'Investment Decisions' analysis discussed above. The same principles apply here as well, particularly the notion that shareholder value is created where the returns generated exceed the cost of capital given the nature of the investment opportunity.

A complicating factor in corporate acquisition analysis is that of anticipated post-acquisition synergies. Corporate purchasers often are willing to pay a premium over the stand-alone value of a target business based on synergies that they anticipate will be realized following the acquisition. Synergies generally come in one of three forms:

- tangible operating synergies, being incremental revenue generation opportunities, cost savings, and so on, that are readily quantifiable. The value of tangible operating synergies typically is assessed pursuant to a discounted cash flow methodology, taking into account all the costs of synergy realization, and the expected timing of the benefits;
- intangible operating synergies, such as 'strategic importance' or the benefits associated with securing a source of raw material supply, which may not be readily quantifiable, but are expected to result in incremental growth opportunities or reduced risk over the long term. Intangible operating synergies can be quantified by comparing the 'stand-alone' value of a business based on a 'market-driven' rate of return, and the value of the business based on a reduced discount and capitalization rate resulting from anticipated intangible synergies; and

- financial synergies, which are associated with a more efficient capital structure and lower financing costs resulting from the acquisition. Financial synergies can be quantified through a reduction in the cost of capital resulting from reduced financing costs.

As a practical matter, intangible operating synergies and financial synergies often are quantified by more subjective means. Nonetheless, it usually is a useful exercise for management to determine the reduction in the rate of return required to justify the value of perceived synergies to determine if it is realistic.

It is beyond the scope of this paper to address the topic of synergies at length<sup>2</sup>. However, as a general comment, companies frequently 'overpay' for synergies based on unrealistic expectations or inadequate analysis of the financial 'value' of synergies.

### **Focus vs. Diversification**

Another issue facing many senior corporate managers is whether to focus their efforts on a particular industry segment, or to diversify across segments or even across industries. Diversification frequently is associated with a reduction in risk – which would suggest an increase in shareholder value. This line of thinking stems from traditional portfolio management theory within public equity markets, whereby investors normally pursue a diversified portfolio strategy. In the past, many corporations pursued a diversification strategy believing that the same benefits could be translated to the corporate level. However, many of these companies found that buying a business in a different industry or industry segment for the sake of diversification did not produce intended results, possibly due to the fact that:

- full diversification within the public equity markets normally is associated with a minimum of approximately 30 different investments, which generally is not practical from a corporate entity standpoint; and
- the consequences of diversification, which frequently include a lack of management focus on one particular industry, were ignored. Therefore, where a company that had been performing well in a particular industry used its excess cash to diversify into a business that it did not fully understand, its management spent considerable time 'fixing' the problems related to the acquisition, during which time the business' core operations suffered.

As a practical matter, pursuing a diversification strategy simply to appease public equity market investors generally is an unsuccessful strategy. Stock market investors can diversify more efficiently and effectively than corporations can, and investors often look for 'pure play firms' in order to better balance their portfolios. As a result, in recent years, many businesses that were conglomerates have divested of non-core operations to focus on what they do best.

That being said, there are circumstances where a corporate diversification strategy makes good 'business sense'. This may be the case where, for example:

- a business operates within a narrow 'niche' market and is subject to significant risk as a result;
- upstream or downstream integration is viewed as being strategically important; and
- significant value-add can be obtained through the acquisition of a company that produces complimentary products that are in a different segment of the same industry.

In the end, the diversification vs. focus decision is a function of the trade-off between perceived risk-reduction and 'strategic importance' associated with diversification, and the benefits of 'understanding the market' and management emphasis on excelling in a particular industry, that normally are associated with a focus strategy.

## **Restructuring Decisions**

Corporate managers often use the term 'restructuring' when making fundamental changes to their organization, which may include the divestiture of one or more operating segments, the realignment of various divisions, significant changes in senior management personnel, and so on. Most restructuring decisions are alleged to deliver incremental shareholder value, although this does not always result.

Company structures and resultant restructuring decisions are unique based on fact specific circumstances. A company's operating structure and restructuring decisions should flow from its corporate strategy. Organizational alignment should be based on the resources (human and capital) that are required for each operating segment within a business to meet its objectives.

On a stand-alone basis, the assessment of a particular operating segment should not solely be a function of its profitability, but also the resources required to generate that level of profitability, including capital assets and working capital. Generally, when assessing the performance of a particular operating segment, it is necessary to compile a discounted cash flow analysis for that particular segment.

It is important to consider both the cost-benefit of an operating segment on its own, as well as in conjunction with the business' other operating segments. Therefore, while a particular segment may not be generating a return on capital employed that is adequate to justify its continuity on a stand-alone basis, it is important to consider the implications of discontinuing a particular segment on other operating segments within the business. There may be important strategic reasons for retaining a particular operating segment that cannot be readily quantified.

In some cases, although a particular business segment may be providing acceptable returns, there may be an opportunity to create greater long-term shareholder value by divesting of the segment and re-deploying the proceeds of disposition into other segments of the operation. In many cases, a third party purchaser may be willing to pay a significant premium over the 'stand-alone' value of the business segment based on synergies it anticipates will arise following the acquisition. Again, the implications on other operating segments of the company must be considered.

Restructuring opportunities are not always apparent. For example, shareholder value may be created by outsourcing certain manufactured components. Alternatively, if a geographic restructuring initiative is undertaken, and the decision is made not to actively pursue a particular area, it may be possible to establish a licensing arrangement in that area to maintain a presence and ongoing cash flows at a significantly reduced level of investment.

Restructuring initiatives in and of themselves typically are costly. In addition to the tangible costs such as severance, there are intangible consequences caused by such things as employee uncertainty, and the resultant loss of 'knowledge assets' that frequently occurs. Managing the restructuring process to avoid unanticipated issues is at least as important as deciding on what restructuring actions to undertake.

In the end, it is important to consider restructuring decisions both from a macro and micro perspective. That is, it is necessary to conceptualize how the company will look after the restructuring is complete, and normally is helpful to prepare a DCF methodology under that

scenario, again taking into account the implications on discretionary cash flows, rates of return (including capital structure implications) and redundant assets.

## **Dividend Policy**

Historically, dividend policy typically was regarded as an extension of the capital structure decision, particularly in the case of publicly held companies. However, it is important to recognize that the payment of dividends vs. the retention of capital (either in the form of redundant assets or incremental investment into the company beyond what is contemplated in the cash flow projections) can have significant implications on operating decisions, and consequently shareholder value. Essentially, the payment of dividends provides shareholders with a direct source of value (cash received) as opposed to an indirect source of value (in the form of equity value on a per share basis). In theory, the en bloc equity value of a company should decline by the amount of dividends paid to shareholders, although in reality the change in shareholder value at the corporate level may be greater than, or less than, the amount of dividends paid.

Conceptually, a company should pay dividends to its shareholders when the rates of return that it can generate on its investment opportunities are less than its cost of capital. As previously discussed, a company's cost of capital from a public equity market standpoint may be different than what is used for internal investment project assessment purposes. An issue sometimes arises where a company has excellent investment opportunities, but to pursue them would mean a reduction in the dividend payment or continuing to meet public dividend expectations and financing the investment projects from alternate (and usually more costly) sources.

Dividend policy typically is more a concern in publicly held companies whereby the Board of Directors attempts to manage shareholder expectations pursuant to regular dividend increases. Dividends provide a 'signal' to the public market place as to management's expectations of the company's prospective cash flow generating ability. As a practical matter, public companies typically are hesitant to decrease dividend payments given the usual short and mid-term implications on the company's stock price, and resultant 'hostile' shareholders meetings following dividend cuts. Dividend policy also is an issue in the case of privately held businesses where there are minority shareholders and where employees are shareholders.

While some companies occasionally may pay a 'special dividend' when cash becomes available (for example, where a significant subsidiary is divested), dividend policy is a long term strategic

decision. Whether or not to pay dividends, and the levels to establish, normally should take into account at least the following things:

- the current and prospective cash flow generating ability of the company;
- the stage of the company's life cycle. High growth companies typically pay out less in dividends due to their need for capital, whereas mature businesses are more likely to generate cash that is not required to finance operations;
- anticipated investment opportunities over the medium to long term;
- taxation at the shareholder level. In particular, the recent reduction in capital gains tax means that, for most individual investors, capital gains on the sale of equity investments are taxed at a lower rate than dividends. Accordingly, shareholders may be better served by a company that retains its excess cash, so long as the value of the cash retained is reflected in the company's stock price; and
- shareholder expectations.

## **Conclusions**

Shareholder value creation is a function of a company's ability to generate returns in excess of those that are required given its financial and operating risks. Accordingly, a discounted cash flow methodology typically is the best approach for measuring shareholder value.

Strategic decisions involving investment opportunities, corporate acquisitions and divestitures, restructuring, and dividend policy all have long term economic implications to a corporation. The impact on shareholder value of each of these decisions is a function of how it affects a company's 'value drivers' – being its prospective discretionary cash flows, required rates of return, and redundant assets. The value drivers are interrelated, and they cannot be assessed in isolation.

In the end, shareholder value analysis is a complicated undertaking that necessarily involves some degree of subjectivity and judgement. However, by understanding the quantitative and qualitative implications of various corporate initiatives, managers are better able to make informed decisions that will positively influence shareholder value over the long term.

## Endnotes

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<sup>1</sup> F. Modigliani and M. Miller, “The cost of Capital, Corporation Finance, and the Theory of Investment”, *American Economic Review*, June 1958.

<sup>2</sup> For more information on this topic, Howard E. Johnson, “Creating Synergies: Realizing the Strategic Value of Acquisitions”, *CMA Management Magazine*, July / August 2000.