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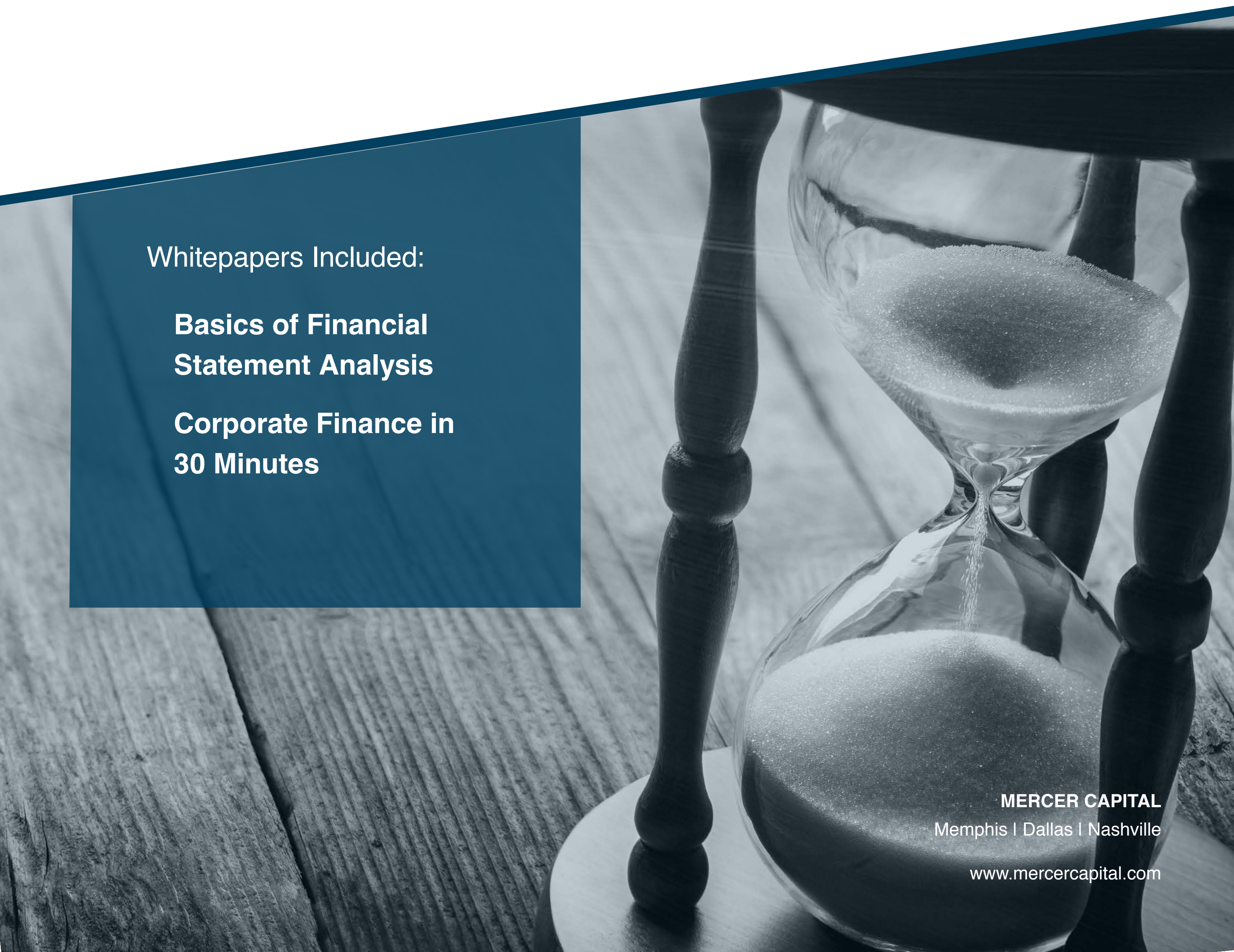
Financial Basics for Family Business

A Roadmap for Directors and Shareholders



Whitepapers Included:

Basics of Financial Statement Analysis

Corporate Finance in 30 Minutes

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Introduction

Effective communication between management and shareholders is a key component of the long-term sustainability and success of any family business. The cornerstone of a thoughtful and effective shareholder relations program is education. Apart from a shared vocabulary and understanding of basic corporate finance concepts, family business managers will struggle to communicate the company's strategy and financial results to shareholders clearly. We have written these whitepapers to help family businesses make strategic financial decisions and communicate those decisions to their shareholders.

- Accounting is the language of business. *Basics of Financial Statement Analysis* provides a non-technical tour through the balance sheet, income statement and statement of cash flows, highlighting key points for analysis and revealing how the three statements relate to each other.

- Corporate finance does not need to be a mystery. *Corporate Finance in 30 Minutes* identifies and explains the three strategic finance questions every family business needs to address:

    - Capital Structure: What is the optimal financing mix?

    - Capital Budgeting: What projects should the business invest in?

    - Distribution Policy: What mix of current income and capital appreciation is appropriate?

The target audience for these whitepapers consists of directors and shareholders of family businesses, especially those who are not accounting or finance experts. In our experience, teachers, engineers, healthcare professionals, and non-profit administrators have valuable perspectives that family businesses need to hear. Our goal with these whitepapers is to equip family business managers, directors, and shareholders with a common vocabulary for evaluating, making, and communicating strategic corporate finance decisions. For further help with your specific shareholder relations needs, please give one of our senior professionals a call.

Basics of Financial Statement Analysis

Football coaching legend Bill Parcells famously said, “You are what your record says you are.” Adapting that thought to the corporate world, one could say, “Your company is what its financial statements say it is.” Although we would not deny that there are important non-financial considerations in business, the remark strikes close enough to the truth to underscore the importance of being able to read financial statements. Accounting is the language of business, and financial statements are the primary texts to be mastered. Corporate directors need to be able to read financial statements to discharge their fiduciary duty to shareholders effectively. The ability to analyze financial statements gives family business shareholders the confidence to independently assess the company’s performance and the effectiveness of management’s stewardship of family resources.

The purpose of this whitepaper is to help readers develop an understanding of the basic contours of the three principal financial statements. The balance sheet, income statement, and statement of cash flows are each indispensable components of the “story” that the financial statements tell about a company. After reviewing each statement, we explain how the different statements relate to one another. Finally, we provide some guidance on how to evaluate projected financial statements.

The Balance Sheet

The balance sheet summarizes a company's financial condition as of a particular date. Similar to a photograph, the balance sheet does not record any movement, but preserves a record of the company's assets, liabilities, and equity at a particular point in time. The fundamental accounting equation, as illustrated in Exhibit 1, is intuitive: Assets = Liabilities + Equity.

Exhibit 1

The fundamental accounting equation expresses the relationship between the company's assets, liabilities, and equity

The balance sheet "balances" because what the company owns (the left side of the balance sheet) is ultimately traceable either to a liability (an amount that is owed to a non-owner) or equity (the net or residual amount attributable to the company's owners). In broad strokes, the balance sheet relationships are analogous to the economics of home ownership – the equity in one's home is equal to the excess of the value of the house at a particular time over the corresponding mortgage balance. Equity value can grow through either (1) appreciation in the value of the house, or (2) repayment of the mortgage. In either case, equity is the residual amount.

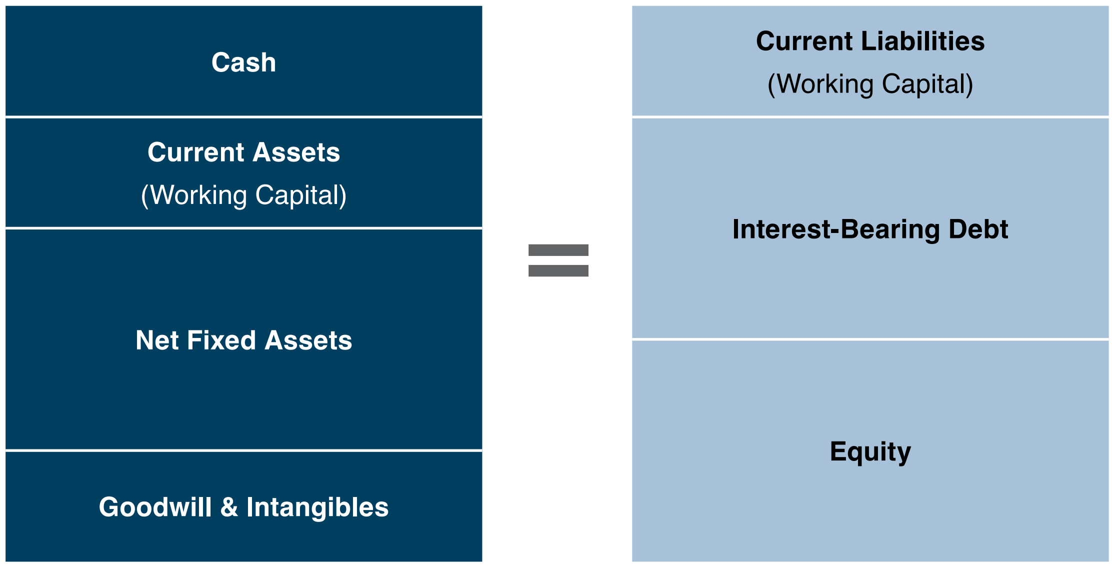
Principal Asset & Liability Groupings

An experienced reader of financial statements can learn a lot about a company's operations, strategy, and management philosophy by reviewing the balance sheet. The relative proportion of the major asset and liability groupings will differ on the basis of whether the company is a manufacturer, retailer, distributor, or service provider. Similarly, the relative proportion of liabilities and equity provides insight into the risk tolerances and financing preferences of the company's managers and directors.

Exhibit 2 on the next page summarizes the principal asset and liabilities groupings for operating companies. While many of the concepts are similar, analyzing the financial statements of financial companies (banks, insurance companies, etc.) is outside the scope of this whitepaper.

Exhibit 2

The principal asset and liabilities groupings provide the basic building blocks for balance sheet analysis



Cash & Equivalents

Cash is a surprisingly slippery asset in the context of balance sheet analysis. On the one hand, cash is king, and it is essential that the company have sufficient cash to meet obligations as they come due. No company has ever gone bankrupt because it had too much cash. On the other hand, cash balances beyond what is needed to operate the business safely don't really accomplish much. Especially with today's low interest rates, cash is a sterile asset that does not contribute to the company's earnings. The appropriate cash balance for a business will depend on factors like seasonality and upcoming debt payments or capital expenditures.

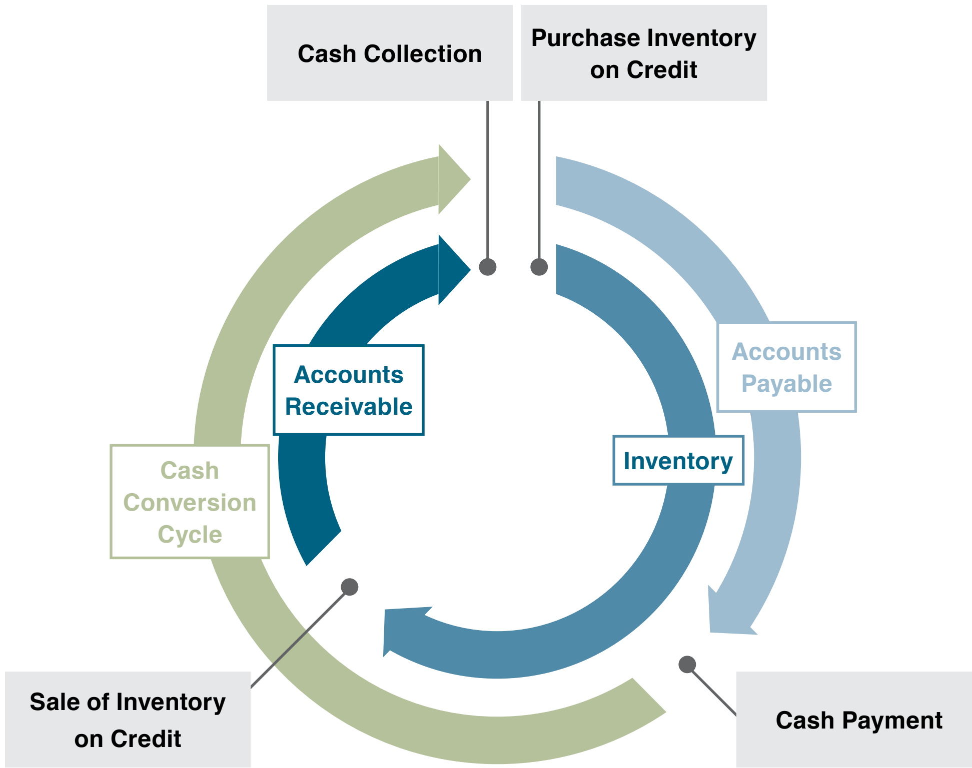
Working Capital (Current Assets less Current Liabilities)

The designation "current" is applied to assets if they are likely to be converted to cash within the coming year and liabilities if they are likely to be paid within the coming year. The net of current assets over current liabilities is referred to as working capital. Working capital is often an underappreciated use of capital for businesses. Investments in accounts receivable and inventory are no less cash expenditures than purchases of equipment or the acquisition of a competing business.

The cash conversion cycle is central to working capital analysis. As shown on Exhibit 3 on the next page, the cash conversion cycle is a measure of operating efficiency for the business. Measuring the time from cash outflows for inventory purchases to cash inflows from collection of receivables, the cash conversion cycle provides perspective on the amount of working capital required to operate the business.

Exhibit 3

The cash conversion cycle measures the time from cash outflows for inventory purchases to cash inflows from collection of receivables



A shorter cash conversion cycle frees up capital to be reinvested in more productive assets in the business or distributed to shareholders. For some companies with limited inventory needs or predominately cash sales, the cash conversion cycle can be very short, or even negative (meaning cash is received from customers before it is paid to suppliers). As discussed further in a subsequent section, trends in working capital balances can signal whether the company is accumulating stale inventory or is at risk of future charges for bad debt.

Net Fixed Assets

The balance of net fixed assets represents the accumulated capital expenditures of the business over time less accumulated depreciation charges. In contrast to inventory purchases and operating expenses, which offer only short-term benefits to the company (inventory has to be replenished and workers need to be paid again next week), capital expenditures are expected to provide benefits to the company over a multi-year horizon. As a result, such expenditures are "capitalized" on the balance sheet and expensed bit by bit over the service life of the asset in order to match the cost of the asset to the periods during which the company benefits from owning the asset.

Depreciation is the annual charge that reflects the apportionment of the cost of a long-lived asset to the periods that benefit from the asset's use. Over the life of the asset, the cumulative depreciation charges will equal the cost of the asset. In other words, the capital expenditure is charged to earnings as an expense over time. At a given point during the asset's life, therefore, the balance sheet will show how much was paid for long-lived assets (the "gross" balance) and the accumulated depreciation charges that have already been recognized for the use of the asset, with the difference between those two figures being the balance of net fixed assets. Exhibit 4 illustrates the balance sheet presentation for long-lived assets over time.

Analysis of net fixed assets is subject to two limitations associated with historical cost accounting.

- First, current accounting rules do not allow the values to be adjusted to current market value. This can be especially problematic for real property which might be expected to appreciate. For example, land that was acquired for $500 decades ago may have a current market value that is considerably higher. However, the balance sheet will continue to report the land at its original cost (land is not depreciated for accounting).
- Second, depreciation is an accounting technique for allocating the cost of long-lived assets to different accounting periods – it is not intended to be a forecast of the future value of an asset. In Exhibit 4, the net balance of the subject asset at the end of Year 2 is $500. That is not an estimate of the asset's market value at that date, which might be $500 only by coincidence.

As a result of these limitations, analysis of the fixed asset accounts should generally focus on relative proportions to other balance sheet components (i.e., does the company own or lease its primary facilities) and changes at the margin (are annual capital expenditures greater or less than annual depreciation charges) rather than absolute values.

Exhibit 4

The balance of net fixed assets reflects the original cost of the company's long-lived assets, net of accumulated depreciation charges over the asset's useful life

	At Purchase	Year 1	Year 2	Year 3	Year 4
		Annual Depreciation Expense			
	Asset Cost $1000	**$250**	**$250**	**$250**	**$250**
Gross Fixed Assets	$1,000	$1,000	$1,000	$1,000	$1,000
less: Accumulated Depreciation	0	(250)	(500)	(750)	(1,000)
Net Fixed Assets	**$1,000**	**$750**	**$500**	**$250**	**$0**

Goodwill & Intangibles

Not all of the company's valuable assets are presented on the balance sheet. The historical cost accounting model only captures assets that the company has acquired in exchange for cash. Some assets, such as tradenames, technology, customer relationships, and workforce accrue slowly over time rather than as the result of a discrete transaction. For example, the accumulated advertising expenses of the company, which build the value of the tradename over time, are expensed as incurred, and never reach the company's balance sheet. For many companies, these intangible assets can actually be more valuable than the tangible assets that are found on the balance sheet.

The major exception occurs when one company buys another. In this case, Company A (the buyer) will record the hitherto unrecorded intangible assets of Company B (the company acquired) on Company A's balance sheet. Since a transaction has occurred, the intangible assets of the acquired company will now be presented on the buyer's balance sheet, as explained below, while the buyer's internally-generated intangible assets will continue to be ignored.

The excess of the amount paid for the business over the net tangible assets of the acquired business is added to the buyer's balance sheet as either a specific intangible asset or goodwill. Certain identifiable intangible assets such as customer relationships and tradenames are amortized (analogous to our depreciation discussion in the preceding section), while goodwill (the amount left over after all other tangible and intangible assets have been recognized) is not subject to amortization, but is periodically tested for impairment. As with fixed assets, current accounting rules do not permit assets to be written-up to market value, so the analytical value of the goodwill and intangibles is limited. The principal questions to consider when evaluating goodwill and intangibles balances include:

- Has the company historically grown organically or through acquisition? If the balance of goodwill and intangibles is modest, the company has relied on internal organic growth, whereas if the balance is large and growing, the company is fueling growth through acquisition.
- Has the company been a successful acquirer? While some identifiable intangible assets are subject to periodic amortization, a sudden decrease in the balance of goodwill corresponds to an impairment charge, implying that the acquisition giving rise to the goodwill has underperformed relative to expectations.

Interest-Bearing Debt

The operations and assets of the company are financed through either debt or equity. Evaluating the subject company's capital structure is an important element of balance sheet analysis. Using debt increases the potential return – and risk – to the company's shareholders. In order to assess whether the subject company is conservative or aggressive in its use of debt, it is helpful to compare the debt balance to other measures of financial performance and condition.

- **Relative to shareholders' equity.** One obvious point of comparison is to equity, the other potential funding source. Comparing debt to the reported shareholders' equity on the balance sheet is a simple and quick measure of the company's reliance on debt compared to equity. When doing so, however, remember that the balance sheet reports historical cost figures, not current market values. While the current market value of debt is unlikely to stray too far from the balance sheet figure, the current market value of equity will often bear no relationship to the balance sheet.

- **Relative to market capitalization.** When calculating the weighted average cost of capital, the appropriate weightings on debt and equity should reflect market value, not balance sheet amounts. For public companies, market value of equity is known, but for private companies, it must be estimated. In neither case can the number be read off the balance sheet.
- **Relative to earnings.** A common measure of debt capacity is to relate the balance of debt to EBITDA (we will define and discuss EBITDA in a subsequent section of this whitepaper). Lenders commonly reference this measure in assessing a borrower's ability to service a given debt load.

Assessing the company's debt burden is a key element of reading a set of financial statements. Ultimately, there is no single "correct" amount of debt for a company. The right amount of debt is a function of multiple factors, not least of which is the risk tolerance of the company's shareholders.

Shareholders' Equity

For most operating businesses, reported shareholders' equity bears little or no relationship to market value. As a result, analysis should focus on the period-to-period change in the equity balance rather than the absolute dollar amounts. In fact, most financial statements include an explicit reconciliation to help the reader evaluate changes in equity during the period.

Exhibit 5

The major building blocks in the reconciliation of shareholders' equity provide insights into performance and financial strategy

	Beginning Balance	Sum of historical net contributions from equity holders and retained earnings
+	**Net Income**	Actual earnings, including unusual and non-recurring items
-	**Dividends Paid**	Dividends are a return of capital that reduce equity
+	**Share Issuance**	The issuance of new shares provides capital for investment and debt retirement
-	**Stock Buybacks**	Stock buybacks are a non-pro rata return of capital that reduce equity
=	**Ending Balance**	Sum of historical net contributions from equity holders and retained earnings

As summarized in Exhibit 5 on the prior page, the major components of the reconciliation of shareholders' equity include the following items:

	Beginning Balance. The balance of shareholders' equity at the beginning of the period is the sum of historical net contributions from shareholders and cumulative retained (undistributed) earnings. The beginning balance is based on historical cost accounting principles and does not bear any necessary relationship to market value.
plus	**Net Income**. Financial analysts are often interested in "adjusted" or "ongoing" earnings, which exclude the impact of unusual, one-time or non-recurring events. While that is appropriate when attempting to project future performance, the negative (or positive) effect of such events on the company's financial position is real and cannot be adjusted away. As a result, actual rather than "normalized" earnings are added to shareholders' equity.
minus	**Dividends Paid**. Viewed from the perspective of shareholders, dividends are a source of income and cash flow. From the perspective of the company, however, a dividend is a return of capital that reduces shareholders' equity.
plus	**Share Issuance**. Selling new shares is a source of additional capital for the company. Proceeds from share issuance are available for capital expenditures, acquisitions, and/or retiring debt. If the company relies on equity-based compensation, the proceeds from issuing shares to employees will reflect the exercise price on the options, not the market value of the stock.
minus	**Stock Buybacks**. Like dividends, treasury stock purchases represent a return of capital to shareholders. Unlike dividends, stock buybacks return capital only to those owners who elect to sell shares. In either case, returning capital reduces the company's resources available for investment or debt repayment.
equals	**Ending Balance**. Just like the beginning balance, the ending balance is based on historical cost accounting principles and does not bear any necessary relationship to market value.

Conclusion

The balance sheet provides a point-in-time summary of what the company owns and what the company owes. Experienced financial statement readers can learn a lot from the balance sheet, but the primary limitations are that not every asset is represented on the balance sheet (i.e., homegrown intangibles) and the historical cost of some long-lived assets (i.e., land) may be very different from current market value.

The Income Statement

If the balance sheet is a photograph, the income statement is a movie. It summarizes the activity of a business over a period of time. Whereas the balance sheet caption is "as of" a particular date, the caption for the income statement reads "for the period ending" on a particular date. As its name suggests, the income statement summarizes the revenues, expenses, and resulting income for the company during a particular period.

Exhibit 6

The principal components of the income statement summarize the company's financial performance during a particular period

	Revenue
-	Cost of Goods Sold
=	**Gross Profit**
-	Operating Expenses
=	**Operating Income**
-	Interest Expense
=	**Pre-tax Income**
-	Income Tax
=	**Net Income**

Principal Income Statement Components

Exhibit 6 summarizes the basic flow of the income statement. We will walk through each of the principal components in turn.

Revenue

The concept of revenue is intuitive. It is the amount received from customers in exchange for the goods or services provided by the company. Analysis of revenue should focus on change over time. For many businesses, it may be possible to analyze revenue as the product of some measure of volume sold and effective pricing. Doing so allows the analyst to more clearly evaluate the underlying changes in revenue (i.e., is revenue increasing due to volume growth or higher prices). When looking at revenue over time, the goal should be to identify why revenue has been stable, grown, or decreased. These factors will not be enumerated on the face of the income statement, but the overall trends should prompt further investigation to fill out the narrative more clearly. Ultimately, revenue growth (or decreases) can be traced back to some combination of a few potential factors.

- **Increasing volume with existing retained customers.** Does the company have a base of recurring customers that generate revenue each year? If so, the company may piggyback on the growth of its existing customers. If the market for the company's goods and services is growing, is the company gaining or losing share in relevant markets? If so, why?
- **Volume from new customers greater than lost volume from customer attrition.** Some amount of customer churn is to be expected. Even satisfied, enthusiastic customers are

occasionally acquired by non-customers or go out of business. If some degree of churn is inevitable, the company will need to identify and cultivate new customers to take the place of lost customers. What are the trends in customer attrition? Why do existing customers leave, and why do new customers start doing business with the company?

- **Sales of new products/services in excess of sales from obsolete products/services.** Whether because of technological advances or other factors, the company's existing portfolio of products and services may eventually become obsolete. Is the company developing new products or services to take the place of such products? If so, do the new offerings appeal primarily to existing customers or to those who have not historically been prospects?

- **Price increases.** Regular price increases are an often-overlooked source of potential revenue growth. Does the competitive environment permit the company to increase pricing on a regular and predictable basis? If price increases are not feasible, is the company's production efficiency increasing?

Cost of Goods Sold & Gross Profit

Cost of goods sold ("COGS" for short) is easiest to understand for a retailer or wholesaler, for whom the cost of goods sold is simply the amount paid for the inventory that is then sold to the company's customers. For a manufacturer, COGS is the sum of the raw materials, direct labor, and production overhead incurred to manufacture the company's products. Many service companies do not report a distinct cost of goods sold on the income statement.

The excess of revenue over cost of goods sold is gross profit. For the purpose of reading and understanding financial statements, gross profit is generally a more enlightening point of analysis than cost of goods sold. Gross profit represents the amount available to pay for the company's operating expenses and generate operating income. Analysts will generally compute a company's gross margin by dividing gross profit into revenue. Gross margin is therefore a measure of gross profit per dollar of revenue. Calculating gross margin facilitates comparisons of the subject company's performance over time and relative to peers.

When analyzing gross margin for the subject company over time, the reader of the income statement should attempt to reconcile observed changes to competitive factors facing the business. If the company's production inputs include raw materials subject to price volatility, can it adjust prices in response to the changing input prices, or does gross margin fluctuate? Does the company engage in hedging activities to reduce volatility? If gross margins are contracting over time, it may be a result of pricing pressure from low-cost competitors. Conversely, if gross margins are expanding, that may suggest that the company has pricing power due to some competitive advantage relative to competitors or suppliers.

Comparing gross margins to those of peers can reveal differences in strategy among firms. A company focused on product differentiation would generally expect to report gross margins in excess of their peers, while one focused on cost advantages may be willing to accept a lower gross margin in the expectation that operating expenses will be lower.

Operating Expenses & Operating Income

Operating expenses include those costs incurred to support the sales & marketing, administration, and research & development activities of the company. These overhead activities are incurred to both service existing customers and to promote the company's growth through acquiring new customers and developing new products. Deducting operating expenses from gross profit yields operating income. As with gross profit, operating income is best analyzed relative to revenue (i.e., operating margin).

Operating income (also referred to as EBIT, or earnings before interest and taxes) is an important point of comparison to other firms because it is the lowest level of earnings that is unaffected by sources of financing. In other words, a company's operating margin reflects the efficiency with which it converts revenue to profits before taking interest expense into account.

Income statements presented in accordance with generally accepted accounting principles (GAAP) do not classify expenses as fixed or variable, even though doing so can be very helpful. Broadly speaking, variable expenses fluctuate with revenue, while fixed expenses remain unchanged over a fairly wide range of revenue levels. Companies with a greater proportion of fixed expenses are said to have operating leverage, meaning that a given change in revenue will have a greater impact on operating income. Exhibit 7 illustrates the concept of operating leverage.

Both companies in Exhibit 7 generate the same base revenue and operating profit. However, most of the expenses for the company on the left are variable, while those for the company on the right are predominately fixed. While revenue for both companies increased by 10%, the company on the right experienced a more substantial increase in profitability. A few observations are in order:

- First, all companies have some degree of operating leverage. To the extent the company has any fixed costs, changes in revenue will trigger disproportionate changes in profitability. So the real question is not whether a company has operating leverage, but rather the degree to which it has operating leverage.

Exhibit 7

The degree of variable and fixed expenses determines operating leverage, or the degree to which changes in revenue affect profitability

	Low Operating Leverage			High Operating Leverage		
Revenue		$1,000	$1,100		$1,000	$1,100
less: Variable Expenses	60%	600	660	30%	300	330
Contribution Margin		$400	$440		$700	$770
less: Fixed Expenses		250	250		550	550
Operating Income		$150	$190		$150	$220
Operating Margin		*15.0%*	*17.3%*		*15.0%*	*20.0%*
% Change - Revenue			10.0%			10.0%
% Change - Operating Income			26.7%			46.7%

- Second, an emphasis on scenarios in which revenue is increasing might suggest that operating leverage is inherently good. Yet, that perspective needs to be balanced by the very real possibility that revenue could decline, in which case the company with a greater degree of operating leverage will experience a disproportionate decrease in profitability. Stated alternatively, the company with less operating leverage also has a lower breakeven point. For example, the company on the left in Exhibit 7 breaks even with revenue of $625, while the company on the right would lose $113 at that level of revenue.

- Finally, the distinction between variable and fixed expenses is imprecise and fluid. The longer the planning horizon, the more variable a company's cost structure is. Even over a specified time period, whether a given cost is truly variable or fixed is a matter of some interpretation. Yet, the ultimate purpose of such analysis is not absolute precision, but rather a conceptual framework for evaluating strategy and a broad measure of the effect of changing revenue on profitability.

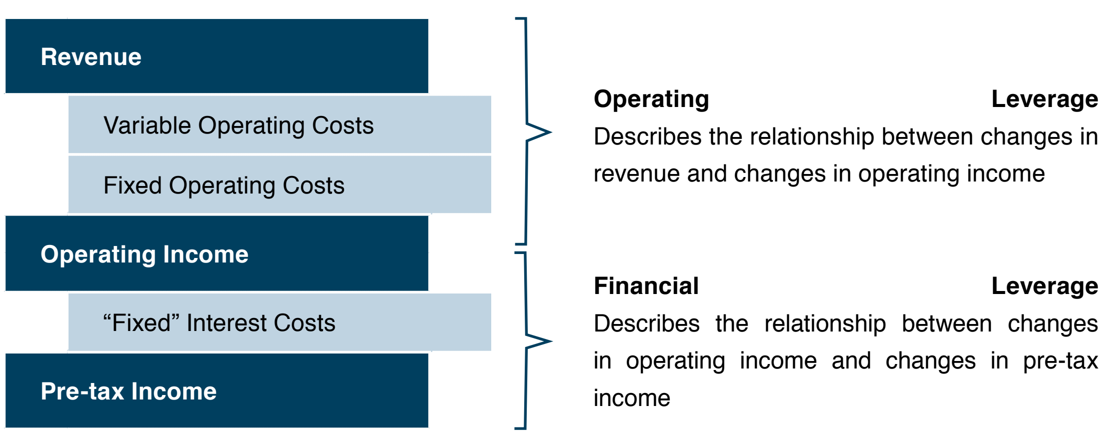
Interest Expense & Pre-tax Income

Shareholders receive current returns in the form of dividends, and lenders receive current returns in the form of interest payments. Although conceptually equivalent (both are returns to capital providers), interest payments are recorded as expense on the income statement, while dividends paid to shareholders are not.

The amount of interest expense incurred during the period is the product of the average interest-bearing debt balance outstanding during the period and the effective interest rate on the debt. The rate on debt can be either fixed at a set rate for the duration of the instrument, or it may float with reference to a market rate, like LIBOR. In either case, the amount of interest expense is not correlated with the amount of revenue or operating income generated by the company during the period. In other words, even floating-rate interest constitutes a "fixed" cost. Whereas operating leverage describes the change

Exhibit 8

The use of interest-bearing debt as a source of capital creates financial leverage on the company's income statement



in operating income relative to a given change in revenue, financial leverage describes the change in pre-tax income relative to a given change in operating income. As with operating leverage, financial leverage magnifies both upside and downside returns.

Experienced readers of financial statements will correlate interest expense on the income statement to the balance of interest-bearing debt on the balance sheet. This check helps confirm the emerging narrative the financial statements are telling about the company and illustrates how the financial statements are related to one another.

Income Taxes & Net Income

The final deduction in calculating net income is income tax expense. The first consideration in analyzing income tax expense is the tax structure of the company. Many privately-held family businesses are organized as S corporations or limited liability companies, both of which "pass-through" taxable income to the shareholders. As a result, such companies neither pay income taxes nor report income tax expense. From a cash flow standpoint, however, these companies almost always distribute cash in an amount that would otherwise be reported as income tax expense to fund the income tax liability that accrues to shareholders personally.

For taxable entities, income tax expense will ordinarily be proportionate to the reported pre-tax income. In other words, income taxes are perfectly variable with respect to pre-tax income – if the effective tax rate in the relevant jurisdiction is 40%, income tax expense will be equal to 40% of pre-tax income.

One complicating factor that need not detain us too long here is that the IRS does not use GAAP to calculate taxable income. As a result, the amount of income that the company actually pays tax on during a given year may not match the amount of pre-tax income reported on the company's financial statements. These differences often relate to different timing assumptions regarding when certain items of revenue or expense are recognized. Eventually, such differences will reverse themselves. If GAAP income exceeds taxable income, income tax expense will be based on the higher GAAP earnings, and the difference between income tax expense and taxes actually due is recorded as a deferred tax liability on the balance sheet. If GAAP income is less than taxable income, income tax expense will still be based on the lower GAAP earnings, but the excess of taxes actually due over income tax expense is recorded as a deferred tax asset on the balance sheet.

Net income is the difference between revenue and all expenses. From a somewhat broader conceptual perspective, net income is the change in shareholders' equity during the period resulting from the operations of the business. This conceptual definition of net income is consistent with the reconciliation of shareholders' equity summarized in Exhibit 5 on page 13.

Earnings per Share

For public companies, earnings are expressed on a per share basis. While per share earnings are a less common expression for private companies, the underlying concept remains valid. If the reported earnings are not scaled to the number of shares outstanding, it can be difficult to assess whether earnings growth generated by investments funded through the issuance of new shares has been economically accretive or dilutive. Expressing earnings on a per share basis is also important when evaluating the effect of potentially-dilutive equity-based compensation on shareholders.

Normalizing Adjustments

Our discussion thus far has assumed a very "clean" income statement. Income statements for real companies are often a bit messier and include items such as gains and losses on the sale of assets, currency gains and losses, the results of discontinued operations, extraordinary charges due to changes in accounting principles, and other non-operating sources of income and expense. Consistent with the broad conceptual definition of net income noted in the previous section, the inclusion of such items is entirely appropriate, as these items do have a very real effect on shareholders' equity.

On the other hand, one common purpose of income statement analysis is to discern the earning potential of the company on a prospective basis. For this purpose, it is entirely appropriate to make "normalizing" adjustments to the reported income statement. Such adjustments are used to convert the income statement from one that is backward-looking to one that is forward-looking. Normalizing adjustments will fall into one of the following three broad categories:

1. **Clean up unusual or non-recurring events.** The most obvious adjustments are those that remove the effect of unusual or non-recurring events, such as losses due to unusual weather events, large recoveries in litigation, or unusual transaction costs that obscure the true earning power of the business. One should be wary, however, if management labels every roadbump that the company encounters as "non-recurring" while assuming that every bit of good fortune represents ongoing earning power. A series of annual, non-recurring losses begins to look like a recurring feature of the business. The goal is to normalize earnings, not sanitize them.

2. **Remove the effect of discontinued lines of business.** Business lines come, and business lines go. To get a clean view of the future prospects of the business, the results of discarded business lines should be excised from the reported income statement. If the discontinued business was profitable, removal will reduce normalized earnings, and vice versa. While sales and cost of goods sold can generally be readily identified, associated operating expenses may be more difficult to estimate. If too much of the expense base is allocated to the discontinued business, earning power will be overstated.

3. **Add the impact of recently acquired businesses.** For an acquisition made during the fiscal year, the reported earnings of the acquirer will not reflect the full impact of the acquisition on earning power. For example, if the legacy business generates earnings of $10 million, and the business acquired mid-year earns $5 million annually, reported earnings for the year will be $12.5 million. Adjusting reported earnings to reflect a full year of operations for the acquired business will result in a more accurate view of "run rate" earnings. For acquisitive businesses, these adjustments can be significant. Ultimately, such adjustments are appropriate to the degree they accurately reflect the earnings contribution of the acquired business.

In short, earnings adjustments are an appropriate element of financial statement analysis, but the proposed adjustments should be carefully scrutinized to ensure that they do not distort the true earning power of the company.

Excursus: EBITDA

The most commonly cited measure of earnings for private companies is EBITDA, or Earnings Before Interest, Taxes, Depreciation, and Amortization. EBITDA is an example of a non-GAAP measure of financial performance since it does not appear on the face of most income statements. It is, however, readily calculated by simply following the components of its perfectly descriptive name. When management teams and others focus on adjusted EBITDA, it is important to have a clear reconciliation identifying the normalizing adjustments that were included in the calculation.

Why do investors and managers focus on EBITDA? There are essentially two reasons. First, EBITDA is the broadest measure of earnings and cash flow for the firm. As depicted in Exhibit 9, EBITDA is a proxy for the cash flow that is available for a variety of purposes. It is therefore, in one sense, a measure of the discretionary cash flow available to a potential acquirer of the business as a whole, which explains why it is the performance metric of choice for describing and assessing merger and acquisition activity.

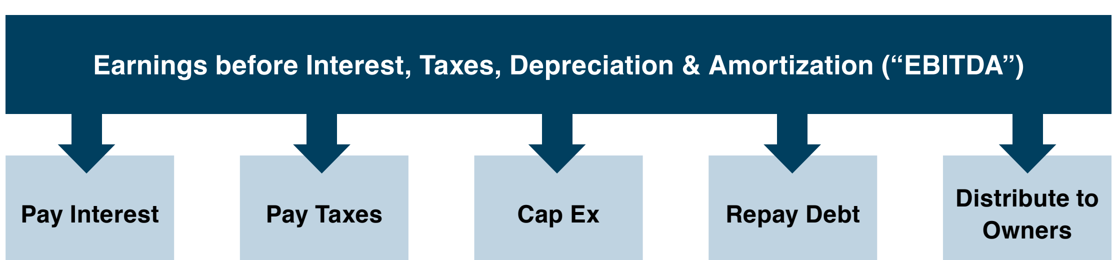
Second, referencing EBITDA promotes comparability across firms. Working up from the bottom of the income statement, EBITDA provides the most consistent measure of relative operating performance of different companies by "normalizing" for structural features of how different companies are organized, financed, and assembled.

- **Income Taxes.** As discussed previously, many private companies are organized as tax pass-through entities and therefore report no income tax expense on the income statement. Since EBITDA is calculated without regard to income taxes, C corporations and S corporations are on equal footing.

- **Interest Expense.** The decision to finance operations with debt rather than equity does not directly affect the operating performance of the business. Since EBITDA is calculated without

Exhibit 9

EBITDA is a proxy for discretionary cash flow available to service debt, pay taxes, fund reinvestment, and provide for owner distributions



regard to interest expense, the operating performance of highly leveraged companies can be readily compared to that of companies with no debt.

- **Depreciation.** Depreciation is a non-cash charge. Annual depreciation charges are influenced by the amount of depreciable assets (some companies own real estate while others rent) and accounting assumptions (depreciable lives and methods). Calculating earnings prior to depreciation charges normalizes for these differences. A note of caution is in order here, however—the comparability benefits break down a bit at this point. If Company A rents facilities while Company B owns facilities, EBITDA will be lower for Company A (rent expense is deducted in computing EBITDA) than for Company B (depreciation is not). However, Company B will presumably have higher capital expenditure needs to maintain the properties that it owns than Company A will as a lessee. All of which is another way of saying that, while it is true that depreciation does not represent a cash outflow in the period recognized, it does represent a real cash outflow in a prior period, and one that will need to be repeated as the asset wears out.

- **Amortization.** Companies that grow through acquisition recognize intangible assets on their balance sheets that are subsequently written off through amortization charges on the income statement. Companies that grow organically do not incur amortization charges. Since EBITDA is calculated prior to amortization deductions, the performance of companies that have grown through acquisition is presented on a comparable basis with those that have grown organically. Unlike depreciable fixed assets, amortizable intangible assets generally do not need to be replaced through subsequent cash outflows.

Conclusion

The income statement records the revenues earned and expenses incurred by the company during a period of time. Experienced financial statement readers focus on revenue growth and margins (on an absolute basis, with respect to change over time, and relative to peers). Breaking revenue down into its constituent parts (volume and price) can yield insights into the narrative behind changes in revenue over time. Analysis of fixed and variable operating expenses can help form judgments regarding breakeven revenues and the sensitivity of changes in operating income to changes in revenue. Interest and income tax expenses reveal the company's financing and organizational decisions. Expressing earnings on a per share basis helps assess whether investments in growth have been accretive or dilutive. Normalizing adjustments may be appropriate to develop an estimate of ongoing earnings. EBITDA is a commonly-cited measure because it enhances comparability across firms and serves as a proxy for cash flow available to owners for a variety of discretionary ends.

The Statement of Cash Flows

An accounting professor of mine referred to the statement of cash flows as the "desert island" financial statement because if he were stranded on a desert island and could have only one financial statement with which to analyze a company, he would want it to be the statement of cash flows. While sincerely hoping never to find myself in such a position, I do believe there is merit to the sentiment.

The statement of cash flows reconciles the change in cash balance during the period by reference to reported earnings, non-cash charges, changes in balance sheet accounts, capital expenditures and other investments, and transactions with lenders and shareholders. While often overlooked, the experienced financial statement reader knows that the statement of cash flows reveals the company's fundamental underlying narrative more clearly than either the balance sheet or income statement do in isolation.

Key Components of the Statement of Cash Flows

The statement of cash flows is divided into three sections, with all sources of cash flow and uses of cash classified as operating, investing, or financing activities.

Exhibit 10

The statement of cash flows assigns all potential sources of cash flow and uses of cash to operating, investing, or financing activities

Operating Activities	Investing Activities	Financing Activities
Net Income	Capital expenditures	Borrow & repay debt
Non-cash charges	Acquisitions	Issue & repurchase shares
Gains & losses	Proceeds from sale of assets	Pay dividends
Changes in working capital		

Change in Cash Balance During the Period

Operating Activities

Net income is not synonymous with operating cash flow. The purpose of the operating activities section of the statement of cash flows is to reconcile the two figures. While the operating activities section often includes a dizzying number of reconciling entries, they generally fall into three categories:

1. **Non-cash charges.** Some expenses do not correspond to cash outflows in the current year. Depreciation is an allocation of amounts spent in prior years on long-lived assets. Amortization assigns the cost of acquired identifiable intangible assets to the years following the acquisition. Equity-based compensation expense recognizes promised payments to employees in future periods for services rendered in the current period. Since the purpose of the operating activities section is to reconcile reported net income to cash flow, these non-cash charges are added to reported net income.

2. **Realized gains and losses.** When the company disposes of an asset, the difference between the proceeds received and the net book value of the asset sold is recognized as a component of net income. If the proceeds exceed the net book value, the sale will result in a gain, and if the proceeds are less than net book value, the company will record a loss. While the resulting gain or loss influences reported net income, it does not represent a source of operating cash flow. As a result, gains are deducted from (and losses are added to) reported net income in the reconciliation of operating cash flow.

3. **Changes in working capital.** When the company sells goods or services on credit, it recognizes revenue despite the fact that no cash has been collected yet. The same potential timing differences apply to the relationship between cost of goods sold, operating expenses, and other components of working capital (principally inventory, accounts payable and various accruals). The accumulation of working capital assets reduces operating cash flow, while growing working capital liabilities increase operating cash flow.

Differences between reported net income and cash flow from operating activities are to be expected. However, persistent accumulations of working capital (beyond that reasonably necessary to support sales growth) may be a signal that the quality and/or sustainability of reported earnings is doubtful. For example, excessive accumulation of accounts receivable or inventory may result in future writedowns if accounts are ultimately uncollectible or if inventory becomes stale or obsolete.

Investing Activities

One of the most important tasks of corporate managers and directors is identifying suitable investments that merit allocation of available capital resources. This process, known as capital budgeting, involves comparing the returns expected from potential projects to the firm's cost of capital and selecting those projects that are financially feasible and consistent with the company's broader strategy and competitive advantages. The investing activities section of the statement of cash flows summarizes the results of the capital budgeting process. As noted in Exhibit 10, cash flows from investing activities generally fall into one of three buckets.

1. **Capital expenditures.** Capital expenditures represent amounts paid to maintain or expand the productive capacity of the business. Whereas depreciation expense represents a systematic allocation of the cost of long-lived assets to the accounting periods during the useful life of those assets, capital expenditures represent the cash paid for those assets in the period acquired. The level of capital expenditures should be positively correlated with the availability of attractive investments to support growth.

2. **Acquisitions.** Business acquisitions are akin to capital expenditures. Rather than investing in new production capacity, acquisitions allow the company to consolidate production capacity that already exists in the industry. Most business combinations are rooted in a belief that there are economic benefits available to the combined business that are not otherwise available to either company on a standalone basis. Capital expenditures may be wise or unwise, but the price of the acquired assets is generally well-known. The amount paid for a business combination, on the other hand, is a matter of negotiation, and often involves competitive bidding among multiple potential acquirers. As a result, there is a risk of overpaying for what would otherwise be a "good" acquisition. The portion of the purchase price paid through issuance of the acquiring company's shares will not appear on the statement of cash flows, but the attentive financial statement reader will note the corresponding increase in the number of shares outstanding.

Since both capital expenditures and acquisitions represent uses of corporate cash, they appear on the statement of cash flows as negative figures (i.e., cash outflows).

3. **Proceeds from sales of assets.** The capital budgeting process can also work in reverse, identifying assets that do not promise attractive future returns, no longer align with the company's strategy, or can be sold for an attractive price. The cash proceeds from the sale or disposition of the asset appear as a positive figure in the investing activities section.

Capital expenditures, acquisitions, and asset dispositions tend to be "lumpy". In other words, a significant capital expenditure that doubles productive capacity may not need to be repeated for a number of years. As a result, it is often helpful to analyze the statement of cash flows on a cumulative basis (i.e., aggregate cash flows over a multi-year period). This can provide a broader view of the company's investing strategy and capital budgeting process and reduce undue focus on a single quarter or year.

Financing Activities

The final category is cash flow from financing activities. As illustrated on Exhibit 11 on the next page, cash flow from financing activities summarizes the company's transactions with capital providers during the period.

Transactions with lenders include borrowing and repaying debt. If debt on the balance sheet increases during the period, positive cash flows from borrowing will exceed negative cash flows from repaying debt. Borrowing appears as a positive figure on the statement because the proceeds from borrowing money increase the company's cash balance. One shortcoming of the statement of cash flows is that interest paid to lenders is not classified as a financing cash flow, but rather is a component of cash flow from operations.

When the company issues new shares to investors, the proceeds from the issuance increase the company's cash balance and therefore appear as a positive figure on the statement of cash flows. A company has two mechanisms for returning cash to shareholders. The first is to repurchase shares. Share repurchases return cash on a non-pro rata basis to the shareholders electing to sell. If the price paid for the shares differs from the value of the shares, a share repurchase will be either dilutive or accretive to the remaining shareholders. In contrast, dividends provide a pro rata return to all shareholders without

Exhibit 11

Cash flow from financing activities summarizes transactions with capital providers and can be positive or negative

Cash Flow from Financing Activities				
Transactions with Lenders		**Transactions with Shareholders**		
Borrow	**Repay**	**Issue Shares**	**Purchase Shares**	**Pay Dividends**
Positive (Inflow)	Negative (Outflow)	Positive (Inflow)	Negative (Outflow)	Negative (Outflow)

the risk of mispricing associated with share repurchases. Among public companies, share repurchases are very common due to advantages under current tax law and the fact that share repurchases do not carry the burden of sustainability that dividends do (failing to repurchase shares is rarely perceived negatively, whereas reducing or suspending dividend payments is a very bearish signal). For private companies, share repurchases are less common, due in large part to the difficulty in identifying a price that is not unduly accretive or dilutive to the remaining shareholders.

Analyzing the Statement of Cash Flows

For an experienced reader of financial statements, the relationships among the primary components of the statement of cash flows reveal the broad contours of the company's financial strategy, particularly with respect to capital budgeting, capital structure, and distribution policy. As noted previously, investing and financing cash flows are, by their nature, lumpy, so it can be helpful to analyze the statement of cash flows on an aggregate multi-year basis. There are two basic relationships to evaluate.

- The first is the relationship of operating and investing cash flows. If (the absolute value of) investing cash flow exceeds operating cash flows, management and the directors believe that attractive investment opportunities are readily available. With the allocation of more capital resources to the company's investment portfolio comes the expectation that future earnings and cash flows will be sufficient to justify the commitment by providing an attractive return on investment. If investing cash flows exceed operating cash flows, financing cash flows must be positive (i.e., net cash inflows from either borrowing money or issuing new shares).

  If, instead, operating cash flows exceed (the absolute value of) investing cash flows, management and the directors believe that attractive investment opportunities are relatively scarce. Limiting the capital resources allocated to the company's investment portfolio mitigates the pressure for growth in future earnings and cash flows but exposes the company to the potential opportunity cost of foregone investments that would have provided an attractive return. When operating cash flows exceed investing cash flows, financing cash flows will be negative, as the company will have "excess" funds to return to capital providers.

- Second is the relationship between transactions with lenders and transactions with shareholders within cash flow from financing activities. This relationship correlates to changes in capital structure at the margin.

  » When aggregate financing cash flows are positive, borrowings will predominate over share issuance when management and the board assess the *marginal* cost of debt to be less than the *marginal* cost of equity. While beyond the scope of this whitepaper, note that the marginal cost of debt is not the same thing as the interest rate on newly-issued debt. If the marginal cost of debt is perceived to be higher than the marginal cost of equity, companies will issue new shares to fund investment.

  » When aggregate financing cash flows are negative, management and the board must balance de-leveraging and returning cash to shareholders. If they perceive the marginal cost of debt is less than the marginal cost of equity, they will forego the opportunity to de-leverage the balance sheet, and opt instead to return cash to shareholders through share repurchases or dividends. If, instead, the marginal cost of debt is greater than the marginal cost of equity, the board should emphasize repayment of debt over returning cash to shareholders.

These relationships are summarized in Exhibit 12 below.

Exhibit 12

The relationships among sections of the statement of cash flows reveals perceptions regarding the availability of attractive investments and the marginal costs of capital

		Are Attractive Investment Opportunities Abundant?	
		Yes	**No**
At the margin, which is less expensive?	**Debt**	**Investing > Operating** **Borrow $**	**Operating > Investing** **Return $ to Shareholders**
	Equity	**Investing > Operating** **Issue Shares**	**Operating > Investing** **Repay Debt**

Conclusion

The statement of cash flows should not be ignored. It provides important perspective regarding the company's strategy and narrative that cannot be easily gleaned from the income statement or balance sheet in isolation. The reconciliation of reported net income to operating cash flow provides additional insight regarding the nature and quality of reported earnings. Cash flow from investing activities reveals the net results of the company's capital budgeting process. Transactions with lenders and shareholders summarized in the financing activities section reflect the board's assessment of the marginal costs of capital.

The Notes to the Financial Statements

Audited financial statements contain detailed notes. Reading and understanding these notes is an integral part of reading the financial statements. The notes relate valuable information that cannot be presented on the face of the actual financial statements. While the content of the notes will vary, general categories of interest will generally include the following:

- **Accounting policies.** Management often chooses between multiple potential accounting treatments for a given transaction. Understanding when revenue is recognized, what depreciation pattern/life is used, and how inventory is accounted for is important when comparing financial statements for different companies.

- **Asset detail.** The composition of inventory (raw materials, work in process, and finished goods), net fixed assets (land, buildings, rolling stock, leasehold improvements), and intangible assets (customer relationships, tradenames, goodwill) helps to reveal the company's strategy.

- **Debt terms.** For companies with financial leverage, the notes to the financial statements will provide important information regarding the rates and maturities of the company's outstanding debt, all of which are critical to assessing the company's financial flexibility.

- **Remaining lease payments.** Although multi-year lease agreements do not currently appear on the balance sheet as financial obligations, such agreements are in many ways similar to debt in that they represent fixed obligations that are payable regardless of the future operating results of the business. The notes to the financial statements detail the annual lease payments the company is obligated to make in coming years.

- **Pension and benefit liabilities.** The accounting for defined benefit pensions and other post-retirement benefits is complex. The notes to the financial statements summarize the most important assumptions management has made regarding the amount of benefits to be paid and the expected return on plan assets.

- **Acquisitions.** The notes to the financial statements generally include discussion of significant business combinations, including pricing, allocation of purchase price to assets acquired, and occasionally, pro forma financial results for the acquired business.

- **Equity-based compensation.** Many companies use equity-based compensation plans to incentivize management. While the accounting treatment of such plans can be somewhat arcane, the notes to the financial statements include informative schedules that help to quantify the potential dilution from such plans.

- **Material subsequent events.** There is a lag between the issuance date and the as-of date for the financial statements. If a significant corporate event (acquisition, divestiture, refinancing, lawsuit, etc.) has occurred during that interim period, it will be disclosed in the notes to the financial statements.

Astute readers of financial statements know how essential the notes are. There is no shortcut to a careful reading of the notes.

Telling The Company's Story

Having reviewed the primary financial statements individually, we review in this section how the statements relate to one another. A comprehensive view of how items on one financial statement relate to items on another financial statement is necessary to discern the underlying story or narrative of the company.

Exhibit 13 on the next page summarizes the principal components of the three financial statements. We address the most important relationships in the following numbered sections corresponding to Exhibit 13.

#1: Balance Sheet and Income Statement

The balance sheet and income statement link up with each other at a few key points that are important for analysis.

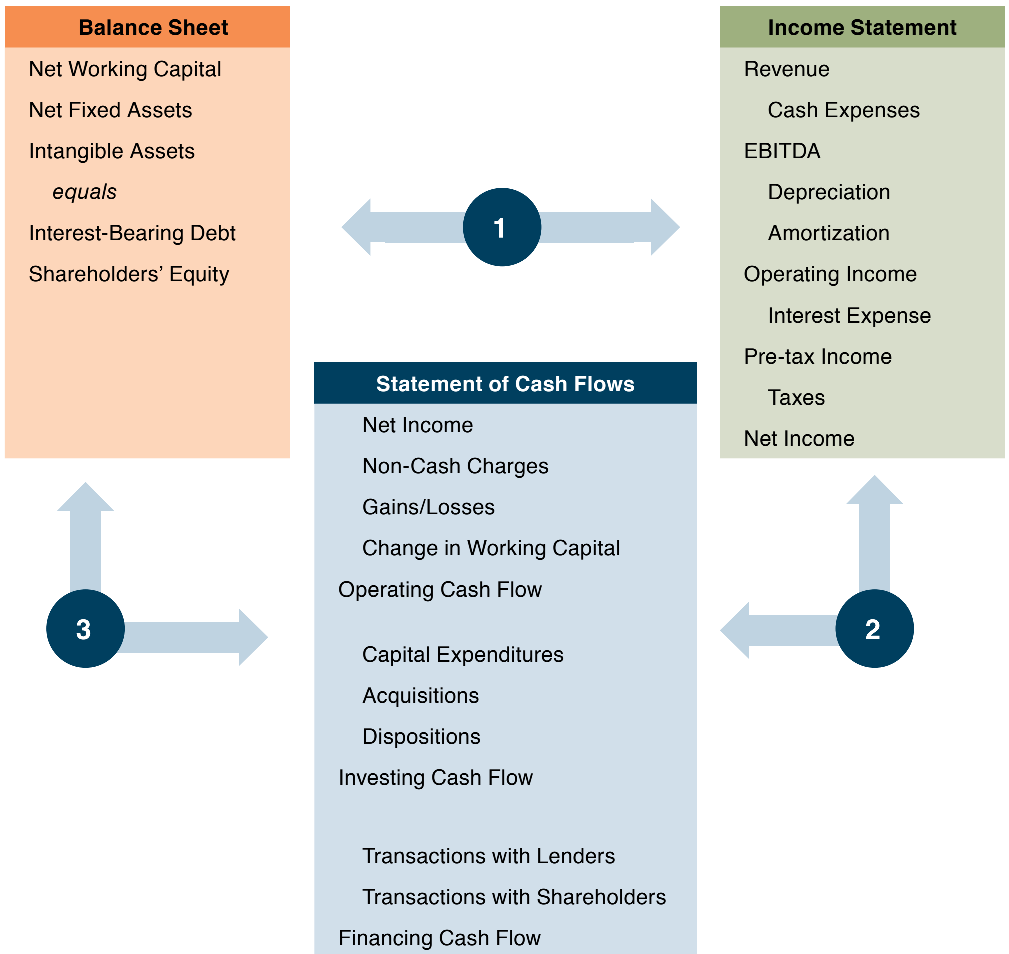
- **Total assets and revenue.** Assets are valuable to the extent that they generate (profitable) revenue. Measuring the efficiency with which the company's assets generate revenue can be a helpful way to evaluate the success of a company's strategy over time and to compare its performance to that of peer firms. Decreasing asset efficiency may be a sign that the company is accumulating excess, or non-productive, assets when distributing a greater proportion of earnings would be more optimal.

- **Revenue and accounts receivable.** For companies that sell on credit, correlating the balance of accounts receivable to revenue over time can reveal changes in normal credit terms, and/or provide a proxy for the financial health of the company's customers. As the average time receivables are outstanding increases, collectability becomes more difficult, and the wedge between reported earnings and operating cash flow widens.

- **Cost of goods sold and inventory.** The relationship between cost of goods sold and inventory is akin to that between revenue and accounts receivable. If inventory balances are growing disproportionately to cost of goods sold, there may be concerns regarding production inefficiencies, market demand for the company's products, and an increasing likelihood of inventory obsolescence.

Exhibit 13

The principal components of the financial statements relate to one another in predictable ways



- **Depreciation and net fixed assets.** As noted previously, the amount of depreciation expense incurred on the income statement is determined by the net fixed assets on the balance sheet.
- **Amortization and intangible assets.** As with depreciation, amortization charges are a function of intangible assets recognized on the balance sheet. The presence of intangible assets and the resulting amortization expenses indicate that the company has grown – in part, at least – through acquisition rather than organically.
- **Interest expense and debt.** The interest expense reported on the balance sheet is a function of the average amount of debt outstanding during the period and the effective interest rate on the debt. Interest expense on the income statement will prompt an experienced financial statement reader to consult the notes to learn about the relevant terms of the debt.

#2: Income Statement and Statement of Cash Flows

In addition to reconciling reported earnings to operating cash flow, the statement of cash flows can provide leading indicators for the income statement.

- **Net income and operating cash flow.** Two of the three primary components of the reconciliation of net income and operating cash flow are found on the income statement. While non-cash charges to earnings do not consume cash in the current period, they do correspond to cash outflows in prior (depreciation and amortization) or future (equity-based compensation) periods.

- **Capital expenditures and depreciation expense.** Acknowledging that capital expenditures can be lumpy, the relationship between capital expenditures and depreciation expense is worth examining. Capital expenditures in excess of depreciation should correspond to revenue and profit growth. If capital expenditures consistently lag depreciation, that may be a signal that some expenditures have been deferred and will need to be made in the future to maintain productive capacity.

- **Acquisitions and operating income.** Acquisitions on the statement of cash flows should be a leading indicator of operating income growth. A history of acquisitions without corresponding increases in operating income may suggest that the company's capital budgeting process is not functioning well.

- **Transactions with lenders and interest expense.** If the company is a net borrower, interest expense will be expected to grow in future periods. If so, is operating income sufficient to sustain a higher degree of financial leverage? If the company is repaying debt, interest expense will decrease, although potentially at the cost of slowing earnings growth on a per share basis.

- **Transactions with shareholders and earnings per share.** One motivation for companies to repurchase shares is to stimulate growth in earnings per share. If attractive investment opportunities are scarce, repurchasing shares at an appropriate valuation may be an effective tool to augment growth in earnings per share.

#3: Balance Sheet and Statement of Cash Flows

The statement of cash flows analyzes cash flows by tracing changes in balance sheet accounts.

- **Working capital and operating cash flow.** Changes in accounts receivable, inventory, and accounts payable are key elements of reconciling reported net income to operating cash flow. While often not accompanied by the same degree of intentional deliberation, investment in working capital is no different than investment in fixed assets or business combinations.

- **Capital expenditures and net fixed assets.** To the extent capital expenditures exceed depreciation charges, the balance of net fixed assets will increase. If the incremental assets are not productive, investment returns will suffer.

- **Acquisitions and intangible assets.** Devoting capital resources to acquisition activity will increase the balance of intangible assets. The degree to which an acquisition is accretive to returns depends, in large part, on the negotiated pricing of the deal.

- **Transactions with lenders and interest-bearing debt.** Net borrowing or repayment of debt will reconcile to changes in the balance of interest-bearing debt. As noted previously, financial leverage increases both potential returns and risk. Changes in debt should be evaluated relative to the overall market value-weighted capital structure of the company.

- **Transactions with shareholders and shareholders' equity.** The decision to issue new shares or return cash to shareholders through dividends and share repurchases should be evaluated with regard to the availability of attractive investment opportunities and the marginal costs of debt and equity capital.

DuPont Analysis – Dissecting the Plot

The classic example of cross-financial statement analysis is DuPont analysis. As illustrated in Exhibit 14, this technique breaks return on equity into its component parts using elements from the balance sheet and income statement. DuPont analysis is a simple tool for helping to uncover the narrative underlying the company's operating performance.

Return on equity is a measure of the efficiency with which the shareholders' investment in the business generates net income. All else equal, shareholders prefer more net income per dollar of investment. Using DuPont analysis, this aggregate measure of financial performance is disaggregated into three components, each of which can be correlated to the company's overall strategy and compared to other firms.

1. **Profit margin.** Profit margin measures the profitability of the company per dollar of revenue. Profit margin reflects the relative competitive strengths of the company and the degree to which barriers to entry exist to limit competition.

Exhibit 14

DuPont analysis examines the components of return on equity in a manner that helps to identify the basic plot of the company's story

$$\frac{\textit{Net Income}}{\textit{Equity}} = \frac{\textit{Net Income}}{\textit{Revenue}} \; x \; \frac{\textit{Revenue}}{\textit{Assets}} \; x \; \frac{\textit{Assets}}{\textit{Equity}}$$

$$\textbf{Return on Equity} = \textbf{Profit Margin} \; \text{x} \; \textbf{Asset Turnover} \; \text{x} \; \textbf{Financial Leverage}$$

2. **Asset turnover.** Asset turnover measures the efficiency with which the company employs its assets to generate revenue. Asset turnover can reflect strategic decisions such as whether to lease or purchase facilities. Non-operating or excess assets reduce asset turnover.

3. **Financial leverage.** Financial leverage measures the degree to which the company uses OPM ("other peoples' money") to fund operations. Financial leverage can have a multiplicative effect on return on equity, although it also increases risk.

DuPont analysis can be used both to evaluate the company's performance over time and to compare the company's performance to peers. The underlying conceptual framework can also be helpful in evaluating the effect of potential changes to the company's strategy.

Assessing Projected Financial Statements

Understanding historical financial performance is important, but the ultimate objective of financial statement analysis is to develop expectations regarding the amount and timing of future cash flows. In this final section of the whitepaper, we review the key elements of a financial forecast.

- **Revenue growth.** Revenue is the starting point for nearly any financial projection model. For most companies, a revenue forecast will be more credible if the analyst can distinguish between unit volume growth and anticipated changes in pricing. Unit volume growth can then be compared to expectations for the broader industry, and pricing assumptions can be evaluated for reasonableness in light of inflation expectations and the competitive dynamics in the industry.

- **Gross margin.** Gross margin projections should be supportable with reference to key commodity inputs and other elements of the production process (direct labor, fixed overhead). Deviations from historical performance or available peer data should be reconciled to differences in strategy or projected market conditions.

- **Profitability.** Forecasts of profitability are best evaluated by calculating the implied margins. EBITDA is often an appropriate measure of profitability for forecasting, since a discrete depreciation and amortization forecast can be calculated separately. Comparison of fixed and variable costs can add texture and credibility to the forecast, particularly if margins are projected to change. The concept of reversion to the mean is important to keep in mind when reviewing projected profitability; competitive and market forces can have a corrosive effect on above-peer margins over time.

- **Capital expenditures.** The forecast of capital expenditures should be evaluated relative to the projected revenue stream and existing capacity utilization. Since capital expenditures are often lumpy, the year-to-year relationship to depreciation will not necessarily be predictable. However, over the long-run the two amounts should be comparable in the aggregate.

- **Working capital.** Working capital can be the "silent killer" of cash flow forecasts. The reasonableness of projected working capital balances can be assessed either in the aggregate (generally as a percentage of revenue) or at the level of the individual components. In either case, working capital assumptions should be compared to historical trends for the company, peer averages, and anticipated strategy shifts.

- **Interest-bearing debt.** When projecting cash flow to shareholders, anticipated borrowings are cash inflows, while the repayment of debt is a cash outflow. Interest expense should be forecast with reference to average projected debt balances and assumed interest rates. For companies that rely on floating rate debt, it may be appropriate to examine forward LIBOR curves to estimate future interest expenses.

The critical touchstones for evaluating projected financial performance are the historical results of the company itself and relevant peer data, when available. For the forecast as a whole (and each of the primary components), the projected inputs and results should be consistent with the company's overall story, as revealed in the analysis of the historical financial statements.

Conclusion

Reading financial statements is an essential part of evaluating the performance of management, corporate strategy, and plans for the future. The balance sheet, income statement, and statement of cash flows each provide an indispensable vantage point on the company's performance. Understanding what the different statements do and how they fit together enables the reader to uncover the company's narrative or story, with a view to developing expectations for future performance and evaluating how different strategy options will affect future cash flows.

Corporate Finance in 30 Minutes

Corporate finance does not need to be a mystery. In this whitepaper, we distill the fundamental principles of corporate finance into an accessible and non-technical primer. Structured around the three key decisions of capital structure, capital budgeting, and distribution policy, the guide is designed to assist family business directors and shareholders without a finance background make relevant and meaningful contributions to the most consequential financial decisions all companies must make. Our goal with this whitepaper is to give family business directors and shareholders a vocabulary and conceptual framework for thinking about strategic corporate finance decisions, allowing them to bring their perspectives and expertise to the discussion.

Introduction

In our experience, an informed and engaged shareholder base is the most important ingredient for preserving family harmony. The purpose of this short review of basic finance principles is to promote productive engagement by equipping family business shareholders with a conceptual framework and vocabulary for communicating their financial needs and preferences to the board. While family businesses face many important questions, the scope of this guide is limited to the three inter-connected financial decisions of capital budgeting, capital structure, and distribution policy. Our goal is to enable family business directors and shareholders to understand the manner in which these decisions are linked together and how they interact with corporate strategy to generate shareholder returns and value.

We start with a brief overview of return and risk, the two basic building blocks of corporate finance. Having laid that foundation, we proceed to address the three big financial questions facing corporate directors. Following a quick overview of the key finance concepts relating to each decision, we offer a list of related discussion topics for boards and shareholders. We conclude by reviewing how each of the three questions relate to, and depend upon, each other.

Finance Fundamentals

The first fundamental axiom of corporate finance is the *time value of money*: a dollar today is worth more than a dollar tomorrow. In other words, the passage of time has a corrosive effect on wealth. The essence of investing is deferral; one elects to defer consumption today in hopes of having more tomorrow. Corporate managers are engaged in a race against the clock, knowing that their stewardship of family resources will be evaluated by the degree to which they offset and overcome the corrosive effect of passing time on the family's wealth.

Investment returns have two components. Yield measures the current income (interest or distributions) generated by an investment. Capital appreciation measures the increase in value during the period. As shown in Exhibit 1, total return is the sum of yield and capital appreciation. There are no other sources of financial return to investors. There is an inherent tradeoff between these two components – higher current income limits future upside, and faster growth usually comes at the expense of current income.

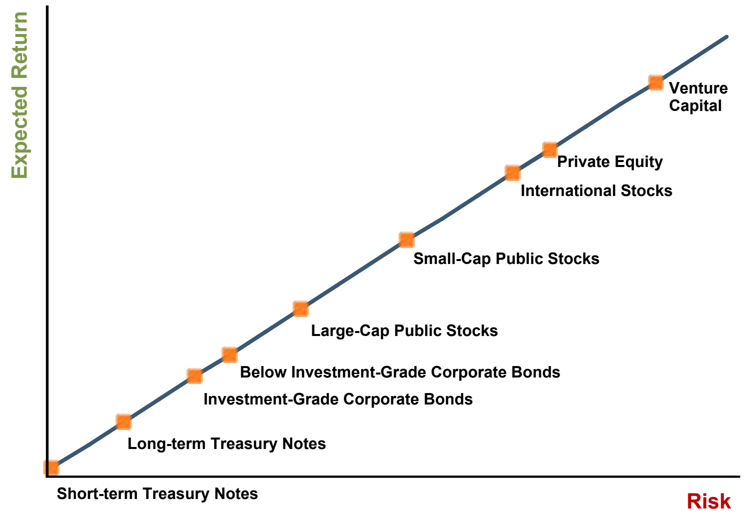
Exhibit 1

Investment Returns Come in Two Forms

		Current Income		Future Upside
Total Return	=	**Dividend Yield**	+	**Capital Appreciation**

Exhibit 2

Investors Choose from a Menu of Investment Alternatives



Families must select their investments from a large, but limited, menu of potential alternatives. Investors uniformly desire higher returns. However, in the process of competing with one another, investors bid up the price on less risky investments. For a given financial outcome in the future, a higher price today results in a lower return over the holding period. As a result, the more desirable investments offer lower expected returns. The second fundamental axiom of corporate finance, the risk-return relationship, follows from this. As shown in Exhibit 2, return follows risk.

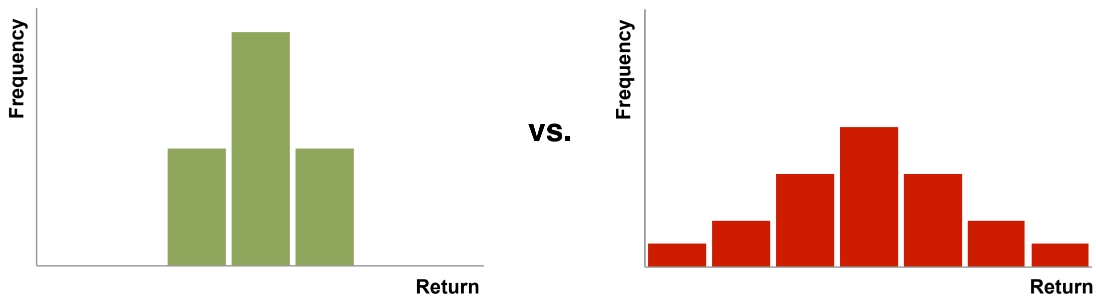
The diagonal line illustrates some of the more common risk-return combinations available to investors. In order to achieve a higher expected return, investors must be willing to accept greater risk.

Peter Bernstein defined risk succinctly: “Risk doesn’t mean danger – it just means not knowing what the future holds.” As depicted in Exhibit 3 on the next page, the most common basis for measuring financial risk is the dispersion, or variability, of potential financial outcomes.

The charts in Exhibit 3 plot an equal number of outcomes for two investments. The one on the left has a tighter range of potential outcomes and is therefore – on an absolute basis – the less risky of the two.

Exhibit 3

Variability of Returns as a Proxy for Risk

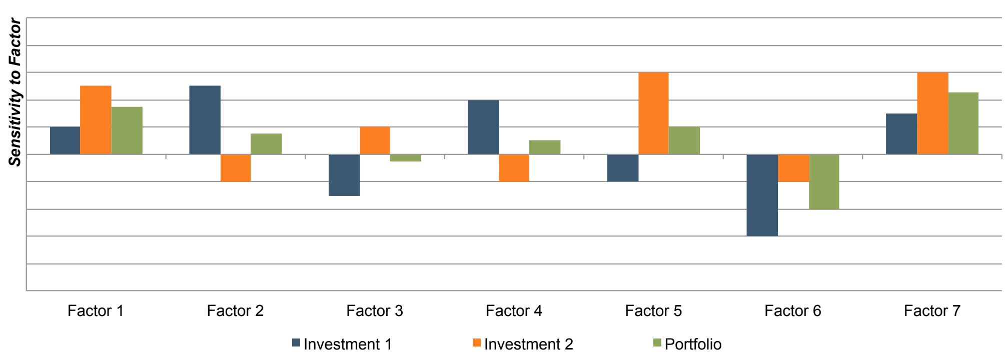


However, the absolute riskiness of an investment is less important than the contribution of that investment to the overall risk of a diversified portfolio. The rational response to risk is to diversify. Diversification is effective to the extent that the components of a diversified portfolio respond differently to common economic factors. Dividing one's investment portfolio among multiple assets is a waste of time if those assets all behave in the same way. Correlation is a measure of the "co-movement" of returns. The more similar two investments are, the higher the correlation between them; highly correlated investments do not contribute much to diversification. Exhibit 4 illustrates the risk-reduction benefit of less-than-perfect correlation among assets in a portfolio.

The two investments in Exhibit 4 (the blue and orange bars) have equal risk on an absolute basis. However, the returns are not perfectly correlated with one another, making them well-suited diversification partners. As a result, an equal-weighted portfolio of these two assets exhibits is less risky than either investment by itself. Since diversification is relatively easy, most people do it. As a result, the relevant measure of risk that corresponds to return (Exhibit 2) is the asset's contribution to the overall

Exhibit 4

Diversification is the Easiest Tool for Managing Risks



riskiness of a well-diversified portfolio. This is called *systematic* risk. So, we can supplement our risk axiom as follows: return follows *systematic* risk.

Quick Review

Because a dollar today is worth more than a dollar tomorrow, investors evaluate investment performance by calculating returns. Investment returns are the sum of yield (current income) and capital appreciation (future upside). Higher expected returns can be achieved only by accepting higher risk. From a financial perspective, risk is simply the dispersion of the variability of future outcomes. Since diversification reduces risk, the most relevant measure of risk to investors is systematic risk, or an asset's contribution to the risk of a well-diversified portfolio.

Three Questions

Corporate finance is the search for rational answers to three fundamental questions.

1. **The Capital Structure Question:** What is the most efficient mix of capital? In other words, is there such a thing as too little or too much debt?

2. **The Capital Budgeting Question:** What capital projects merit investment? In other words, given the expectations of those providing capital to the business, how should potential capital projects be evaluated and selected?

3. **The Distribution Policy Question:** What mix of returns do shareholders desire? In other words, do shareholders prefer current income or capital appreciation? Do these shareholder preferences "fit" the company's strategic position? Can these shareholder preferences be accommodated within the existing capital structure?

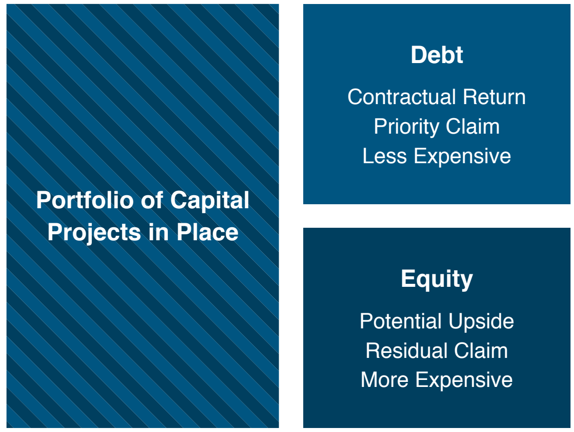
These three questions do not stand alone, but the answer to each one influences the answers to the others.

Question #1: Capital Structure

From a corporate finance perspective, a family business can be thought of as a portfolio of capital projects. The portfolio must be financed with a combination of debt and equity. The specific combination of debt and equity used is called the company's *capital structure*.

Exhibit 5

A Company's Portfolio of Projects is Financed with a Mix of Debt and Equity



As noted in Exhibit 5, lenders are entitled to a contractual return and have a priority claim on the company's assets. Shareholders, in contrast, benefit from the potential upside of growth opportunities but have only a residual claim on the company's assets. Since return follows risk, the expected return for debt holders is lower than that for equity holders.

The analysis of capital structure is complicated by the iterative nature of the risks facing debt and equity holders. For any given proportion of debt and equity, the cost of debt will be lower than the cost of equity. However, increasing the proportion of debt in the capital structure increases the risk of both the debt and the equity, which in turn raises the cost of each. As illustrated in Exhibit 6 on the next page, at some point the benefit of using a greater proportion of lower-cost debt is eventually offset by the escalating cost of both capital sources.

The optimal capital structure minimizes the overall cost of capital. As shown in Exhibit 6, the optimal capital structure for a company is likely a range rather than a single point, since the underlying measurements are naturally imprecise.

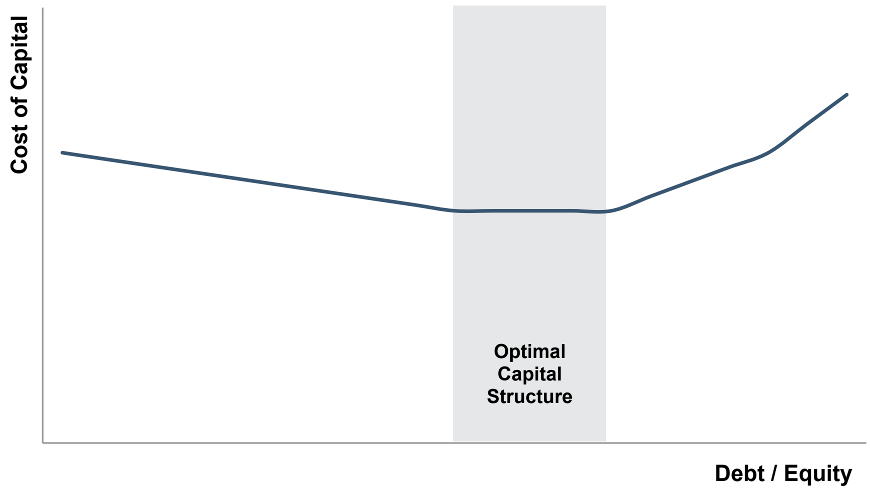
Topics for Board Discussion

While the optimal capital structure cannot be defined with precision, the deliberations of an informed family business board and shareholders will focus on the following:

- **What is the company's current capital structure?** The first step is estimating the value of the business enterprise as a whole. What multiple of EBITDA (or some other performance measure) does management believe is appropriate for the Company? What is the basis for that multiple

Exhibit 6

While the Nominal Cost of Debt is Lower than that of Equity, the Use of Debt Increases the Risk of Both Debt and Equity, Eventually Increasing the Overall Cost of Capital



(public companies, transactions, or some rule of thumb)? How do the risk and growth characteristics of the company compare to the selected benchmark?

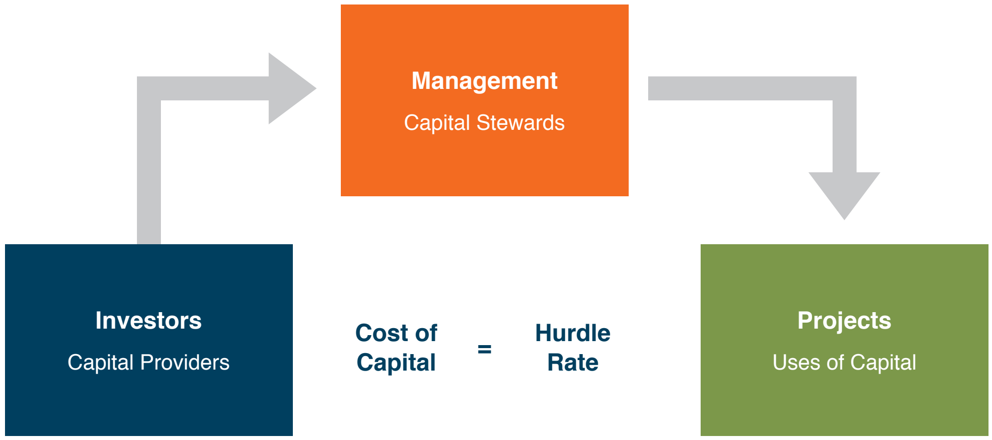
- **How does the company's capital structure compare to peers?** Capital structure is often related to the nature and intensity of a company's asset requirements, sensitivity to economic cycles and other industry attributes.
- **What is the availability and cost of marginal sources of capital?** If the company anticipates growth, the supporting capital can come through retention of earnings, issuance of new equity, and/or borrowing. Given the company's current capital structure, what effect would the various marginal financing decisions have on the overall cost of capital?
- **What is the company's target capital structure?** How, if at all, does it differ from the current capital structure? How does it compare to peers? What factors contribute to the differences from peers? Such factors could include differing strategic focus, unique elements of the company's business model, or shareholder risk preferences.

Question #2: Capital Budgeting

Extending the image of the family business as a portfolio of capital projects, senior management's role can be conceived of as managing investments on behalf of the shareholders, allocating available capital to selected projects.

Exhibit 7

The Cost of Capital is the Price Paid to Attract Capital from Investors to Fund Projects



As depicted in Exhibit 7, management discharges its stewardship role by selecting capital projects for which the expected return equals (or, ideally, exceeds) the cost of capital. Viewed from one side, management that has the responsibility of stewarding high-cost capital will rationally seek out risky projects with corresponding high returns. Viewed from the other side, a portfolio of risky, high-return projects will attract risk-seeking capital. This relationship underscores the importance of management and directors communicating realistic and transparent expectations to family shareholders. For public companies, this occurs through quarterly earnings calls and SEC filings; effective investor communication is even more important for family businesses.

The goal of the capital budgeting process is to identify potential capital projects and evaluate whether the expected return from such projects meets or exceeds the hurdle rate.

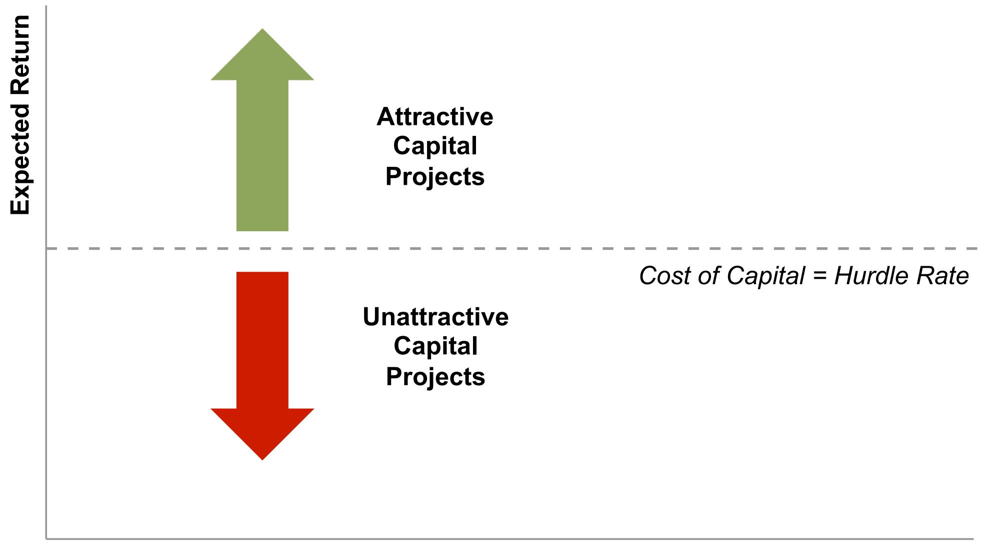
When reviewing the results of a capital budgeting process, directors and shareholders should acknowledge the tension that may naturally emerge between management and shareholders. Recall that, from the perspective of shareholders, systematic risk is more relevant than absolute risk. Careers are not readily diversifiable, however; as a result, it may be natural for managers to evaluate a project from the perspective of absolute risk. For family businesses, shareholder portfolio diversification may be limited, so family's risk preferences may actually line up more closely with an absolute risk perspective. In any event, family business directors and shareholders should remain mindful of the different risk perspectives.

Topics for Board Discussion

Detailed capital budgeting is the responsibility of management; for significant projects, the board should evaluate management's analysis and recommendations.

Exhibit 8

Management's Task is to Evaluate Available Capital Projects to Determine Whether the Expected Return Meets or Exceeds the Hurdle Rate



- **What are the relevant cash inflows and outflows?** The relevant cash flows for capital budgeting are those at the margin – what revenues will the company earn and costs will the company incur upon completion of this project that would not be earned/incurred in the absence of this project? For example, fixed operating costs that will be incurred whether the project is undertaken or not are not relevant to the capital budgeting decision.

- **How are available capital projects ranked?** Available capital for investment is always limited. Beyond a simple thumbs-up/thumbs-down evaluation of individual projects, how has management prioritized the available opportunities?

- **What non-financial constraints does the company face?** In addition to limited financial resources, companies have limited managerial, human capital, and other resources. Will undertaking the proposed capital project stress any of the non-financial constraints? If so, do the relevant cash flows include the financial cost of dealing with such constraints?

- **What is the strategic rationale for the proposed project?** With the "right" inputs, a capital budgeting spreadsheet can always generate a positive net present value. Going beyond the mere numbers, does management have a compelling strategic narrative for why the project "fits"? Is the project a natural extension of the company's current strategy, or does it reverse the strategy in some way? How does the project contribute to efforts to differentiate the company from competitors?

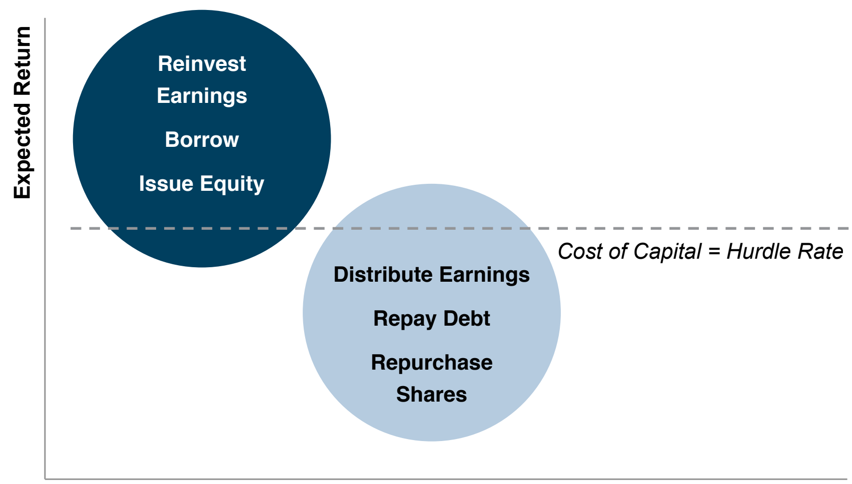
- **What returns have prior projects earned?** In a strict sense, historical results are not relevant to the capital budgeting decision. However, a program for monitoring actual performance relative to projections on prior projects is a key element of a sustainable capital investment process. Capital projects that increase the size of the company may be attractive to management without being beneficial to shareholders. A process of calculating realized returns on projects can help ward off capital project bloat.

Question #3: Distribution Policy

Capital structure and capital budgeting intersect at the point of the cost of capital, which serves as the hurdle rate for evaluating potential capital projects. As shown in Exhibit 9, capital budgeting also shares an intersection point with distribution policy.

Exhibit 9

At the Margin, the Availability of Attractive Investment Opportunities Informs the Appropriate Decisions Regarding Distributions and Return of Capital



If capital projects having expected returns in excess of the cost of capital are abundant, it may be appropriate to retain a greater proportion of earnings for reinvestment than if attractive capital projects are scarce.

Ultimately, the total return available to shareholders is determined by the operating performance of the business. Beyond that, however, the board does have some measure of discretion with regard to the form of that return (yield vs. capital appreciation).

Family shareholders are likely to have a unique set of preferences with regard to the composition of their total return. Those preferences may vary over time and, potentially, within the shareholder base at a particular point in time. In the public markets, shareholders can sell shares if the mix of return components does not correspond to their preferences. Family business shareholders do not have ready liquidity, so it is important for directors and managers to solicit input regarding shareholder preferences.

The ability to configure the desired mix of return components is constrained by the availability of incremental debt and equity capital. For example, for a given level of operating cash flow and capital investment, higher

Exhibit 10

Through Distribution Policy, the Board can Tailor the Components of Total Return to Fit Shareholder Preferences

Total return determined by operating performance

However, the board does have some discretion in determining the relative components of total shareholder return

Total Return = **Dividend Yield** + **Capital Appreciation**

dividends can be achieved through incremental borrowing, new share issuance, or asset sales. In each case, boosting dividend yield would come at the expense of capital appreciation. Incremental borrowing capacity may be limited if the company's capital structure is already optimally leveraged. For family businesses, it may be infeasible to issue illiquid shares at a fair price. And asset sales are not a sustainable source of cash flow.

If family shareholders have diverse preferences regarding the composition of total return, perhaps the best means of tailoring returns is to implement a share repurchase program. Shareholders desiring current income can sell a portion of their shares to the company, which fuels capital appreciation for those preferring future upside. In order to implement this strategy, however, there must be a mutually agreeable share price. If the price is too low, the selling shareholders will effectively be subsidizing the remaining shareholders, while a price that exceeds fair market value will benefit the selling shareholders.

Exhibit 11

In the Aggregate, the Sources and Uses of Capital Must Balance

Sources of Capital	=	Uses of Capital
Operating Cash Flow		Capital Investment
Borrowing		Debt Repayment
New Share Issuance		Shareholder Dividends
Asset Disposition		Share Repurchase

Topics for Board Discussion

Distribution policy is the most transparent board action for family shareholders. There may be many things shareholders are content not to know regarding the company, but the timing and amount of periodic dividends will not be one of them.

- **Where is the company in its life cycle?** Mature companies with more limited opportunities for attractive capital investment are more natural dividend payers.
- **How does the company's current capital structure compare to its target capital structure?** Over time, the board can use dividend policy to migrate the company to its target capital structure while minimizing transaction costs.
- **What are shareholder preferences?** Do the shareholders have a consistent set of expectations regarding return composition or do different shareholder groups have conflicting preferences?
- **What type of distribution policy best fits the company and its shareholder base: a set dollar amount, fixed payout ratio, fixed yield on value, or residual distributions after attractive capital investments have been funded?** Dividend policies can provide much desired predictability to shareholders, but can also place artificial constraints on the board.
- **How much financial flexibility does the company have to accommodate shareholder preferences?** Can the company borrow additional funds? Is there a market for issuance of new shares? If so, at what price?
- **Is a share redemption program feasible?** Can the board formulate a market-clearing price that does not unduly reward or punish either group of shareholders?

Synthesis: Tying It All Together

We conclude by returning to the interdependence of the three primary questions (Exhibit 12 on the next page).

The **capital structure** and **capital budgeting** decisions are linked by the cost of capital. The cost of capital depends on both the financing mix of the company and the riskiness of capital projects undertaken. The cost of capital also serves as the hurdle rate when evaluating potential capital projects.

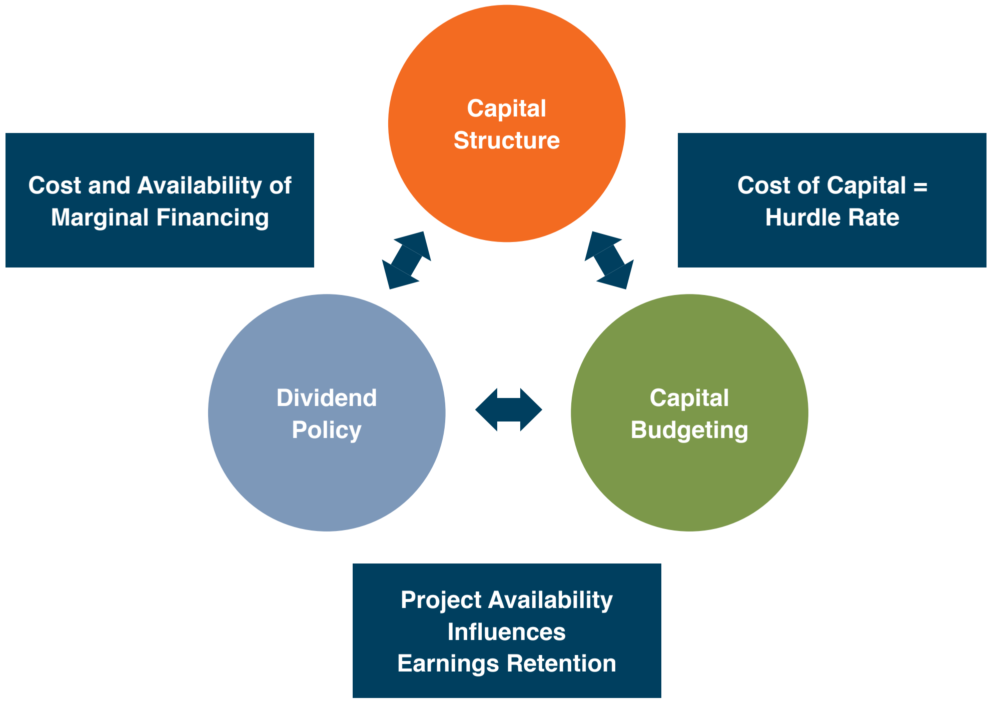
The availability of attractive capital projects is the point of intersection between **capital budgeting** and **dividend policy**. If attractive capital projects are abundant, retention of earnings will be favored over distribution, and vice versa.

Dividend policy also interacts with the **capital structure** decision as the board assesses the cost and availability of financing at the margin. The cost of capital influences the decision to distribute or retain earnings.

Being an engaged family business shareholder capable of making relevant and meaningful contributions to strategic financial decisions does not require an advanced degree in finance or accounting. In fact, we suspect that a roomful of finance "experts" can actually be an obstacle to the sort of multi-disciplinary,

Exhibit 12

The Three Primary Questions Relate to One Another



collaborative decision-making that promotes the long-term health and sustainability of the company. Our goal with this guide is to give directors and shareholders of family businesses a vocabulary and conceptual framework for thinking about strategic corporate finance decisions, allowing them to lend their voices to the discussion.

About Mercer Capital

For nearly 35 years, Mercer Capital has been a source of rigorous and insightful financial analysis, assisting clients with valuation, transaction advisory, and litigation support advisory services. Mercer's senior professionals have deep experience in a wide variety of industries and are available to facilitate board retreats, provide shareholder education, and administer surveys to solicit shareholder feedback regarding strategic corporate finance decisions.

Mercer Capital

Mercer Capital works with senior management and boards of directors to assist in strategic financial planning for privately held companies.

Through its financial consulting practice, Mercer Capital's senior professionals are available to facilitate board retreats, provide shareholder education sessions, conduct independent and confidential stakeholder surveys, and provide independent advice to directors and management on strategic financial decisions.

We provide unbiased guidance regarding:

- General Corporate Finance
- Capital Structure
- Capital Budgeting
- Distribution Policy

Contact a Mercer Capital professional to discuss your needs in confidence.

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