

Course 8: Creating Value through Financial Management

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This course provides a concise overview of how financial management is used to create higher market values for an organization. This course deals with advanced topics and the user should have a good working knowledge of both accounting and financial management prior to taking this course. This course is recommended for 2 hours of Continuing Professional Education. In order to receive credit, you will need to pass a multiple-choice exam which is administered over the internet at www.exinfm.com/training

The New Role of Finance

Real Financial Management

When we look at the typical financial function within an organization, we will find a host of accounting activities: processing of payables, customer invoicing, payroll administration, financial reporting, etc. According to one survey, over 70% of all financial management functions are spent on the processing of accounting transactions. Less than 20% of financial management is spent on "real" financial management, things like performance measurement, risk management, forecasting, strategic planning, investment analysis, competitive intelligence, etc. All of these things are where real value comes from. Therefore, one of the first steps for financial functions to take when it comes to creating value is to move out of the traditional accounting box and into real financial management.

The overall goal is to move into more value-added type activities, things that have an impact on improving company performance. Adopting a set of "best practices in financial management" can help transform the financial function into a driver of value. Best Practices refers to organizing the accounting and finance functions into a decision support function for the entire organization. Best Practices can encompass many things, such as:

- Organizing around results, such as quicker closings through soft general ledger closings.
- Processing data only once in order to reduce cycle times.
- Structuring data so that it provides information and doesn't just occupy storage space.
- Leveraging people and technology to improve transaction processing. This includes all kinds of applications - electronic payroll processing, purchase credit cards for payables, electronic data interchange, etc.

Breaking the Accounting Habit

One of the most important steps to making the financial function a source of value is to depart from the traditional accounting model. This requires a different way of thinking about how we measure performance. In financial management, the emphasis is on increasing value and not necessarily earnings. In order to make this transition over to value-creation, it is important to understand why accounting runs contrary to value-creation.

When we talk about value, we are referring to the market value of the organization. Market values are determined by the future expected cash flows that will be generated over the life of the business. The problem with the traditional accounting model is that all of the emphasis is

on earnings, especially the quantity of earnings. What counts in valuations is the quality of the earnings. In financial management, we call this economic performance (such as cash flows) as opposed to accounting performance (such as net income). Accounting distorts true measures of value and we are unable to understand economic performance.

For example, it is quite common to recognize earnings regardless if the cash is collected. Likewise, expenditures that involve cash disbursements may provide future economic benefits that are ignored by accounting. If you were to spend \$ 45,000 obtaining an MBA from the Wharton Business School, accounting would expense this investment. However, when we look at economic performance we would realize that this investment provides substantial increased cash flows over the life of your career. Therefore, accounting performance and economic performance are dramatically different.

Unfortunately, most people look to financial statements when measuring performance. If you look at the Balance Sheet, you will find book values of assets and not market values of assets. The Balance Sheet discloses total amounts invested. It tells you nothing about the success of these investments; i.e. have the assets earned more than the cost of capital?

So why are we so confined to financial statements for measuring performance? Part of the problem is our obsession with earnings. Like kids addicted to sugar, we can't get enough of the stuff. One reason people are fooled over the connection between earnings and market value is the fact that cash flow and earnings often move in similar directions. As a result, it is easy to conclude that earnings are the source of value.

However, the real lesson is learned when the two (cash flow and earnings) depart. A good case in point are small capitalized companies, especially internet companies like ebay. Despite poor earnings, the market values for companies like ebay seems to escalate out-of-sight. What is going on? What is happening is that the marketplace determines value based on what it expects in the future and not on what past earnings were. The marketplace comprehends that ebay will generate a lot of future cash flows because it has reinvented how people buy and sell merchandise over the internet. Financial Statements lag behind and fail to recognize the true sources of value in the marketplace. As the President of Coca-Cola would say - "the guy with the biggest cash flow wins!" Therefore, it is imperative for accounting and financial management to think in terms of economic (cash flow) performance and not just accounting performance.

The financial function can play a lead role in emphasizing things that are important to true economic performance. For example, thinking outside the financial statements is critical. Many intangibles that are important to value-creation never show-up on the Balance Sheet. Things like human resource capital, information technology, new ideas from research projects, innovative marketing, key strategic partners, etc. All of this stuff (the so-called intellectual capital) is paramount to creating value.

Another important step is to balance financial forms of measurement with non-financial forms of measurement. Identify the strengths and weaknesses of the business and try to measure the non-financial parts that will be major elements of value-creation. Moving towards a single, unified system or data warehouse can help leverage the intellectual capital of the organization. Developing better analytical tools can improve the decision making process. Accounting and Finance needs to lead the way on these things and much more. This is how financial management creates value!

Financial Restructurings

One area where finance can play a lead role in creating value is through financial restructurings. There are a variety of reasons why financial restructurings are appropriate:

1. Improving the allocation of resources between business units, divisions, or other parts of the business.
2. Realigning the operating units of the business for a better fit with the rest of the organization. All parts of the business need to work together within a single strategic framework.
3. Increasing the focus of the business on what is important.
4. Introducing shared services and transfer pricing to better leverage the resources of the business and reduce redundancy.
5. Initiating a sense of urgency and change to move the organization in a new direction.
6. Increasing the capacity of the organization to borrow.

When it comes to arranging a restructuring, it is important to be creative since the restructuring must fit with the reasons for change. When Gary Wilson, CFO (Chief Financial Officer) of Walt Disney was asked how does a CFO create value, Wilson replied: "Just like any other great marketing or operating executive, by being creative. Creativity creates value. In finance that means structuring deals creatively."

Restructuring can take many forms. Some typical approaches to financial restructuring include:

Vertical Restructuring: Changing the configuration of assets within a business unit or part of the organization. A sale and lease back arrangement can be used to restructure assets between business units. Franchising and subcontracting are two other forms of vertical restructuring.

Horizontal Restructuring: Change in the overall business through a new joint venture, new acquisition, sale of a business unit, or other form. A leveraged recapitalization is a common form of horizontal restructuring where debt is used to change the capital structure of the organization.

Corporate Restructuring: A corporate restructuring relates to how the business will operate in the future. There are several ways to initiate a corporate restructuring:

- New issue of stock and/or debt
- Change in business form (such as partnership, corporation, trust, etc.)
- Repurchase of stock

- Leveraged Buy Out (LBO) - Borrowing against the assets of the firm to take the company private.
- Liquidation of the business when the break-up value exceeds the fair market value of the organization.

Beware of Mergers

One of the most popular forms of corporate restructurings is the merger. A merger is when a bidding company negotiates to acquire another company. Payment is often made in the form of stock. The buyer is usually a larger mature company with surplus cash and wants to grow externally by acquiring another company that has strong growth. The merging of the two companies is supposed to result in higher values, commonly referred to as "synergy" values. However, the reality is that mergers do not necessarily lead to higher values.

A study of 150 mergers over a five-year period (1990 to 1995) found that one-third of all mergers "substantially eroded shareholder value." A comparison of acquiring companies with non-acquiring companies showed that non-acquiring companies (companies that grow internally) outperformed the acquiring companies. As Tom Peters (author of *In Search of Excellence*) has pointed out - "mergers are a snare and an illusion."

One reason mergers fail to provide higher values is due to the fact that the price paid for the acquired company exceeds the value of the company. Good target companies are hard to find and larger companies are unable to grow internally. This drives the price of target companies up. Additionally, investment bankers are eager to arrange mergers regardless if value is enhanced. There is no such thing as a bad merger in the eyes of an investment banker.

Some other reasons why mergers don't work include:

1. Increased Earnings: Mergers are sometimes undertaken to improve earnings. However, the mere purpose of increased earnings is no guarantee of higher values since the new combined company may fail to earn positive returns on capital invested.
2. Competitive Advantage: Trying to beat the competition through a merger is a temporary quick fix. It does not address the fundamental reasons for failure to compete. You still have to outperform your competition on the total capital invested. If you are unable to generate higher returns, investors will move funds to competing companies that offer higher returns for the same level of risk.
3. Bargain Purchase: Buying a company simply because it is undervalued should raise a red flag. You are guessing against the marketplace when it comes to valuation. Additionally, undervalued companies sell at a discount for a very good reason - they are not worth much because their prospects for future recovery are doubtful. Trying to turnaround an under-performing company is not easy.
4. Cash Flow Cow: Buying a company just to acquire a strong cash flow is costly. The very reasons for the strong cash flow soon evaporate after the merger and long-term values fail to materialize.

Recapitalizations (Recaps)

On the other side of restructurings are recapitalizations (recaps) of the business. The evidence is strong that recaps do in fact enhance values. Even if a company borrows heavily to simply pay out large dividends can boost values. Recaps send a message to the marketplace about what management thinks.

One important element in many recaps is the use of debt. Debt helps enhance values. Why? It seems that when an organization operates under heavy debt loads management is forced to make better decisions for the shareholders. Under high debt, the company must make interest payments and this forces management to watch how it invests scarce resources. Management is more likely to look for ways to preserve cash. In the absence of debt, managers have a tendency to overpay for acquisitions, misuse surplus funds, and disregard returns on invested capital. Therefore, carrying high levels of debt can be a simple and effective way to keep managers working on behalf of higher values.

Spin Offs

One final type of restructuring that deserves some attention is the spin off. A spin off is the creation of a new separate company from an existing company. The shareholders own the same collection of assets, but they now have two shares of stock for two companies. Since there is no real change in assets, you would expect no real change in values. However, when the pie is divided into smaller pieces, the value of the pie seems to increase. Spin offs seem to release value that is buried inside a large organization and when each company can manage on its own, value is increased. When AT&T decided to spin off Lucent Technologies, one investor remarked: "the dog can finally run." Spin offs can be a good way of releasing value that is being held back by large bureaucratic companies.

Value Based Management

So far, we have focused our attention on how the accounting and finance functions can help create higher values for the organization. The financial functions must think differently in terms of economic performance and not just accounting performance. This means going outside the traditional accounting model and recognizing that success is no longer measured by earnings per share, but by the present value of future cash flows. Therefore, one of the mandates for creating value is to invest in assets that will provide returns higher than the cost of capital. This requires that we manage assets in accordance with the following:

1. Cash is as important, if not more so, than earnings.
2. New investments in assets must earn their keep by generating positive net present values.
3. Existing assets are subject to regular review for economic performance. The mix of assets is always changing to meet our overall goal of increasing value and growing the business.

The Accounting and Finance Function can lead the way for the entire organization when it comes to value-creation. After all, the financial function usually has insights into all other functions within the business and only the financial function can fully grasp the principles behind value-creation. However, before the financial function embarks on this bold new strategy, we must first transform the financial function into a "real" finance department. In the words of Robert Darretta, CFO for Johnson & Johnson, "Finance creates value by having the best business people, not by having the best accountants." This concept of having "business people" must spillover and become part of the entire organization.

Decisions should be made in the context of how does this decision affect the value of the organization. Having the entire organization committed to value-creation is very difficult since it requires a new mindset; everyone has been driven by profits - bonus checks are based on earnings, performance has been evaluated through accounting returns, etc. The overall process of managing for value is called Value Based Management. Implementing Value Based Management requires:

- (1) Driven from the Top: The Chief Executive Officer, upper level management, board of directors and other key personnel must be the driving force behind value based management. This is critical since everyone has been managed under a different set of principles and now the rules have changed - economic performance and not accounting performance is important.
- (2) Cross Functional Team: Since value based management cuts across the entire organization, it should be implemented through a cross-functional team. The cross-functional team is the vehicle by which the organization makes the cross over to value based management. Therefore, team members must be leaders of change, committed to making value based management work.

Team members must be highly skilled in communicating since they must sell and get people to "buy in" to value based management. Some of the objectives of the team will include:

- Guiding the implementation of value based management.
- Facilitating open communication about value based management.
- Coordinating and designing how value based management will work within different parts of the organization.
- Acting as a bridge between executive management and the rest of the organization; working to resolve discrepancies between what management wants and what is possible.

The cross-functional team will need to engage people who have to implement value based management. This may involve the following:

- Holding meetings to acquaint everyone on value based management - who will be responsible, how will it work, how can employees influence value, etc.
- Providing formal training sessions to convince key people why value based management is important.
- Having manager's assist in the analysis of value-creation. Allowing managers the ability to change existing performance standards to better fit with the concepts of value based management, such as emphasizing cash rather than profits.
- Correcting alignment problems between upper levels of the organization and operating units.

- (3) Linking Compensation to Value: The compensation for key personnel should be linked to how much value they created. Traditional incentive plans which are linked to earnings or budgets must be phased out. The objective is to account for what it is people do with the capital that they have been entrusted with. Incentives should be objective and determined based on current standards. For example, using an estimate of future values is too subjective. Since the value-creation process is long-term, compensation linked to cumulative measures seems to work best. Also, it is important to calculate incentive programs at the beginning of the year to ensure fairness and objectivity. The value of the capital and the cost of capital must be clearly communicated to each manager.

Value Based Management is not easy to implement; it is an entirely different way of thinking. One way to sell people on the idea of value based management is to communicate the benefits of higher values. When the wealth of the organization expands, this benefits everyone, not just the shareholders. In the past, the organization has relied on lagging indicators like return on assets and the organization has failed to account for how capital is used. Since capital is a scarce resource, we can no longer run our business this way. We

need to refocus our attention on what really matters - increasing returns from the capital we have deployed.

Value Based Management (VBM) requires benchmarking value-creation against the competition. All companies compete for capital. VBM must be connected and tied to the strategic plans of the business, the operating decisions, and the investment decisions. All of this has an impact on the creation of value. Managers must make distinctions between good capital (capital that is under their control that is generating returns higher than the cost of capital) and bad capital (just the opposite of good capital). The benefits of this new way of thinking can be tremendous.

Of course, you will run into problems as you implement VBM. For example, some managers will feel that measuring value does not make much sense. Others will not understand what it is they are supposed to do. However, once everyone begins thinking in terms of economic performance, you will reap the benefits of increased values.

Monitoring Value-Creation

One missing link in this process known as Value Based Management is some form of measurement. It has been said that in order to manage something, you need to measure it. When it comes to measuring value-creation, we need to focus on what kind of return management generates from the capital invested. Comparing rates of return to the cost of capital can help us understand how we are doing. For publicly traded companies, one obvious place to look is the stock price. The total outstanding shares of stock multiplied by the stock price is the market value of the company. We can extend this concept of measuring value by measuring Market Value Added or MVA.

Market Value Added (MVA) is the difference between the capital that has been invested and the market value of the capital. MVA is the assessment within the marketplace on what the net present value is for all investments made by the company.

$$\text{MVA} = \text{Market Value of Debt} + \text{Market Value of Equity} - \text{Total Adjusted Capital}$$

The market value of debt is not always readily available and therefore, some companies focus on the equity portion only. Additionally, the total amount of capital originally invested is easily distorted by various accounting entries. We are trying to compare all of the cash that has been invested into the business with the market value of all investments. The incremental value that has been added over time is MVA.

MVA is also used as a way of benchmarking market performance between companies. In order to have a comparable MVA, a standardized MVA is calculated by dividing the change in MVA by the adjusted equity value at the beginning of the year.

$$\text{Standardized MVA} = \frac{\text{Change in MVA for the Year}}{\text{Adjusted Equity at Beginning of Year}}$$

Example 1 - Calculate MVA and Standardized MVA

Delmar Corporation has 100,000 shares of stock outstanding with a market price of \$ 22.50 per share. Delmar has reviewed the book values of equity and adjusted back to a cash equivalent value of \$ 2,145,000. In arriving at the \$ 2,145,000, Delmar reversed out the negative affects on equity, such as extra ordinary losses. Last year Delmar had a Market Value Added of \$ 75,000.

Market Value of Equity = 100,000 x \$ 22.50	\$ 2,250,000
Total Adjusted Capital *	\$ 2,145,000
Difference is Market Value Added	105,000
Last Year's MVA was	75,000
Change in MVA	30,000
Calculate Standardized MVA: \$ 30,000 / \$ 2,145,000 =	1.4%

*Appendix to Chapter 3 will illustrate how to calculate Total Adjusted Capital

In his book Quest for Value, G. Bennett Stewart III describes MVA as: "the value a company has created in excess of the resources already committed to the enterprise. In theory, MVA represents the net present value of all past and projected capital projects."

Problems with Stock Price Valuations

Although it is easy to refer back to stock prices as an indicator of value, the truth is that stock prices may not accurately reflect the value of a company because:

1. Stock prices can be influenced by market forces, such as general economic conditions, Federal Reserve policies, expectations of inflation, etc. There is a broader set of dynamics that goes into establishing the price of a stock. Stock prices do not move solely on the value of the company.
2. Stock prices fail to reflect hidden values within a company. This is evident when a company decides to do a spin off. Even a stock split can generate higher values.

Another problem we face with measuring values through stock prices is that we do not want to hold managers responsible for things they cannot control. It is important to use measurements of value that are within the control of management. If we were to hold managers responsible for the stock price of their company, they may tend to engage in programs that manipulate stock prices. For example, it is not uncommon to see a new Chief Executive Officer announce a cost cutting program to boost earnings. Stock prices go up and management gets the illusion that re-engineering programs are a good source of value-creation. The truth is that over the long run, reorganizations such as slashing payrolls will not provide long-term sustainable value. Anyone can cut costs by reducing payrolls.

A better approach to measuring value is needed. Can we fall back on accounting forms of measurement, such as Return on Assets, Return on Gross Investments, or Earnings Before

Interest Taxes Depreciation Amortization (EBITDA)? The answer is no because value-based metrics must meet two very important test:

1. They must focus on cash flows and not accounting derived earnings since this is how we calculate value.
2. They must recognize all cost associated with the capital that we have invested; i.e. assets carry a cost.

This leads us to the next step in how we create value through financial management - measuring how much value has been created or destroyed.

Chapter 3

Measuring Value

Before we dive into value-based metrics, let's recap some important points that have been covered in this course:

1. Traditional accounting and financial functions need to spend a lot more time on real financial management. This can encompass many things that are value-driven. For example, using a new decision model program for capital investment decisions can help ensure that investments end up creating value.
2. The financial function should be prepared to lead the way on value-creation by becoming a strategic center on how to increase values. This can lead to Value Based Management (VBM), a formal program for managing the organization in terms of economic performance.

As we indicated in the last chapter, we need a new way of measuring value-creation. Fortunately, in recent years there has been a proliferation of measurement programs for VBM. This chapter will focus on three: Economic Value Added (EVA), Cash Flow Return on Investment (CFROI), and Residual Cash Flow (RCF). It is important to note that since value-based metrics is a relatively new field, new conclusions and ideas are still forth coming. Also, since this is an evolving field it is important for all organizations to not place their entire emphasis on one measurement system. The most prudent approach to measuring value (like capital budgeting) is to use a combination of metrics when evaluating value-creation.

Economic Value Added (EVA)

Probably the most widely used approach to measuring value-creation is Economic Value Added or EVA. EVA has been popularized by Stern Stewart, a major consulting firm which holds the registered trademark for EVA®. Many large American corporations have adopted EVA: Boise Cascade, Coca-Cola, Whirlpool, Eli Lilly, Monsanto to name a few. EVA like all value-based metrics departs from the traditional accounting model. The basic equation for calculating EVA is:

$$\text{EVA} = \text{NOPAT} - \text{Cost of Capital}$$

NOPAT: Net Operating Profits After Taxes. This is Operating Profits less taxes but before financing costs and non-cash entries (although not depreciation). NOPAT is the residual income we have generated on the capital invested.

Cost of Capital: This is the charge for use of capital. It includes interest on the debt and a charge for the equity capital based on a cash equivalent equity x cost of equity rate.

The idea behind EVA is rooted in economic income as opposed to accounting income. As economic income moves up or down, so goes the value of the business. The problem is that calculating economic income is not easy; it requires hundreds of adjustments. For example, under traditional accounting we would expense cash disbursed for research and development (R & D), but in arriving at economic income we would capitalize R & D since it provides a future economic benefit. The list of adjustments from accounting to economic is extensive: depreciation, gains / losses, reserves, deferred taxes, etc. Since EVA is at the center of Value Based Management, it is important to keep the number of adjustments to those material items that significantly distort value. This is important since managers throughout the entire organization will need to understand how EVA is calculated. Keeping EVA simple will go a long way towards successful implementation.

EVA Adjustments

When we calculate EVA, we need to calculate the cash equivalent of income (NOPAT) and the cash equivalent equity that has been invested in the business (adjusted capital). This requires that we remove many of the accounting distortions that have blurred cash flow. In his book Quest for Value, Bennett refers to these adjustments as "equity equivalents" so that we can restate book values to economic values. When the market value of an organization exceeds the economic value of the organization, this is Market Value Added (MVA).

In order to calculate NOPAT, we will add back to income current year's equity equivalents that have distorted cash flows. Cumulative equity equivalents will be added back in arriving at adjusted capital. In Quest for Value, Bennett describes the following equity equivalent adjustments:

1. Deferred Taxes: The Income Statement reflects tax expenses which may or may not be paid. The difference between what has been expensed and what has paid is called deferred taxes. By adding deferred taxes back to capital, we reverse out the distortion for

taxes not paid. An increase to deferred taxes in the current year would be added back to income in arriving at NOPAT (Net Operating Profits After Taxes).

2. LIFO Reserve: LIFO (Last In First Out) is used to price inventories on the Balance Sheet. Under LIFO, investments in inventory are subject to understatement. A LIFO Reserve Account captures the difference between LIFO and FIFO (First In First Out). This amount is added back to capital since we want to reflect the total amount of capital invested. An increase to the LIFO Reserve in the current year would be added back in arriving at NOPAT.
3. Amortization of Goodwill: Non-cash expenditures such as goodwill will distort capital deployed. We are trying to measure the cash return on all cash invested into the business. Therefore, we would add back the total amount amortized for goodwill in arriving at capital and we would add back the current year's amortization in arriving at NOPAT.
4. Capitalized Intangibles: Intangibles such as Research & Development expenditures provide a long-term economic benefit. These transactions are capitalized under EVA as opposed to expensing the entire amount within traditional accounting. The original R & D expense is reversed out and replaced with a Net Capitalized Intangible (NCI). The total amount for R & D less the amount amortized is the NCI and this represents an adjustment to capital. The amount amortized in the current year would be adjusted to earnings in arriving at NOPAT.
5. Other Reserves and Allowances: Besides the LIFO Reserve, we may have material amounts related to other types of reserves and allowances. Examples include Reserve for Inventory Obsolescence and Allowance for Doubtful Accounts. These accounting transactions would be treated similarly to the LIFO Reserve.

In summary, we are trying to arrive at earnings that are close to cash and compare this return to a capital base that is expressed in cash equivalent terms. This means that we recognize economic values, such as expenditures that provide long-term benefits and reverse out non-cash entries as well as reserve account balances. Also, we must express the asset base (capital) in terms of replacement capital. This requires removing distortions like goodwill write offs, asset write offs, and highly depreciable fixed assets that have a carrying (book) value substantially different than market or replacement values. In Quest for Value, Bennett summarizes the following adjustments:

Adjustments Required to Calculate NOPAT:

- + Increase to Deferred Taxes
- + Increase to LIFO Reserve
- + Goodwill Amortized in Current Year
- + Increase to Net Capitalized Intangibles
- +/- Unusual Loss or (Gains) net of tax
- + Increase to Other Reserves & Allowances

Adjustments Required to Calculate Capital:

- + Deferred Taxes
- + LIFO Reserve
- + Total Goodwill Amortized to Date
- + Net Capitalized Intangibles
- +/- Cumulative Loss or (Gain) net of tax
- + Other Reserves & Allowances

A complete example of how to calculate EVA is included as an Appendix to this Chapter. You may want to review the Appendix before proceeding to the next section in this course.

Using EVA

Once calculated, EVA (Economic Value Added) is an indicator of how much value was created or destroyed by management. If EVA is positive, value was added, if EVA was negative, value was destroyed. EVA is also used in conjunction with MVA (Market Value Added). Since EVA is a period to period measurement, we need to compliment EVA with a cumulative long-term measurement like MVA. We can view MVA as the present value of all future EVA's. Stern Stewart, a major advocate of EVA, considers EVA to be the true economic profits of the business and the best guide to MVA is EVA. In order to increase EVA, management has three options:

1. Growth: Invest capital in projects that earn a return higher than the cost of capital.
2. Process Improvement: Increase returns (NOPAT) through better efficiencies, cost control, higher productivity, etc.
3. Asset Management: Improve the management of assets by selling-off non-performing assets and increasing asset efficiency. For example, reducing the amount of time cash is tied up in receivables and inventory would be a basic approach to increasing EVA.

Stern Stewart considers EVA to be at the center of Value Based Management with numerous applications, such as:

- Evaluating the true performance of business units and the overall organization.
- Establishing budgeted EVA levels for strategic areas of the business.
- Evaluating capital projects by using EVA as opposed to cash flows.
- Compensating executives based on levels of EVA and not earnings.

The main benefit of EVA like other value-based metrics is that management now views performance differently. For example, Company A and Company B (both in the same industry) have the same level of earnings per share. However, Company A requires twice the capital of Company B to generate these same earnings. Under Value Based Management, Company B is much more profitable than Company A. If we follow the traditional accounting model, there would no difference in how we look at performance.

Some Problems with EVA

Although EVA is a positive step away from the traditional forms of accounting measurement, it does have its limitations. Part of the problem is the fact that EVA comes from the very same model that it disputes, the traditional accounting model. Adjustments are calculated based on the accounting model to arrive at EVA. These adjustments are to some extent subjective in nature and thus some distortions can carry over into EVA.

Another problem is how we measure relative value within the overall marketplace. A company can experience positive EVA, but have a declining share of value within the marketplace. If the competition is gaining more and more of the wealth within the

marketplace, it will take a lot more than positive EVA's to sustain long-term values. Finally, at the beginning of this chapter I mentioned that value-based metrics is a relatively new field and things are still evolving. To date, the support for certain metrics like EVA is not very impressive. This point will become more obvious when we discuss two remaining approaches to measuring value, Cash Flow Return on Investment and Residual Cash Flow.

Cash Flow Return on Investment (CFROI)

The second approach to measuring value that we want to discuss is Cash Flow Return on Investment or CFROI. Valuations are a function of looking into the future and adjusting for things that will alter value. For example, the operating cash flows we receive in the future are adjusted downward to reflect inflation. We also recognize that the marketplace is not without limitations when it comes to judging value. For example, the marketplace can not readily comprehend the cost of capital (this is difficult enough for insiders to figure out) and thus the marketplace reacts to things like earnings to determine short-term values. We need a way of measuring value that emphasizes operating cash flows (adjusted for inflation) and compares this return to investments that are also adjusted for inflation. Such an approach to measuring value is called Cash Flow Return on Investment (CFROI).

CFROI = Inflation Adjusted Cash Flows (Cash In) / Inflation Adjusted Investment (Cash Out)

Unlike EVA, CFROI expresses cash flows and investments in current dollars. CFROI does not concern itself with the cost of capital. It looks ahead and establishes a market rate based on what investors expect over the long-term. Because of this approach to valuation, CFROI tends to be more accurate than EVA in measuring value. Under CFROI, economic performance is calculated and measured by:

1. Identifying cash inflows and outflows over the economic life of the assets.
2. Adjusting both cash inflows and outflows into units of constant purchasing power.
3. Calculating a CFROI rate similar to how the Internal Rate of Return is calculated; i.e. what is the rate where inflows = outflows?

Calculating CFROI

CFROI adjusts for inflation by marking-up gross investments made each year based on comparing the GDP deflator to changes in purchasing power. The useful life of assets is estimated by dividing gross investments by depreciation charges. Cash flows are determined by starting with gross cash flows or net income and making several adjustments, such as adding back interest expense. Assets that are not capitalized are separated out from capitalized investments in order to properly calculate the CFROI rate (calculated similar to Internal Rate of Return). CFROI like EVA attempts to remove accounting distortions in arriving at cash in and cash out, such as the following:

Net Income	Book Value of Assets
+ Rent Expense (Operating Leases)	+ Accumulated Depreciation
- FIFO Profits	+ Operating Leased Assets
+ Interest Expense	- Net Deferred Tax Assets

CFROI is calculated by translating the ratio of cash in to cash out as an internal rate of return. The calculation uses the economic life of investments and considers non-capitalized assets (such as land) as residual values at the end of the valuation period. The following example will illustrate these points.

Example 2 - Calculate Cash Flow Return on Investment (CFROI)

Some important points: Gross assets is the sum of non depreciable and depreciable assets. Useful life of assets is calculated based on the relationship of gross assets to depreciation charges. We will assume this is 15 years. At the end of 15 years, non-depreciable assets are released. Gross cash flows are adjusted for monetary gains and (losses) as well as a non-LIFO inventory adjustment.

Step 1: Calculate Gross Cash Flows and express this amount in current dollars (adjusted for inflation). Non cash items such as depreciation are added back, interest on debt is reversed out since cost of capital is ignored, and payments on operating leased assets are reversed out since off balance sheet assets are included in capital.

Net Income	\$ 41,000
Depreciation	20,000
Interest Expense	6,000
Rental Expense	6,000
+ / - Monetary Holding Gain (Loss)	(3,000)
Gross Cash Flows in Current Dollars	\$ 70,000

Step 2: Calculate Gross Assets (Capital) and express this amount in current dollars (adjusted for inflation).

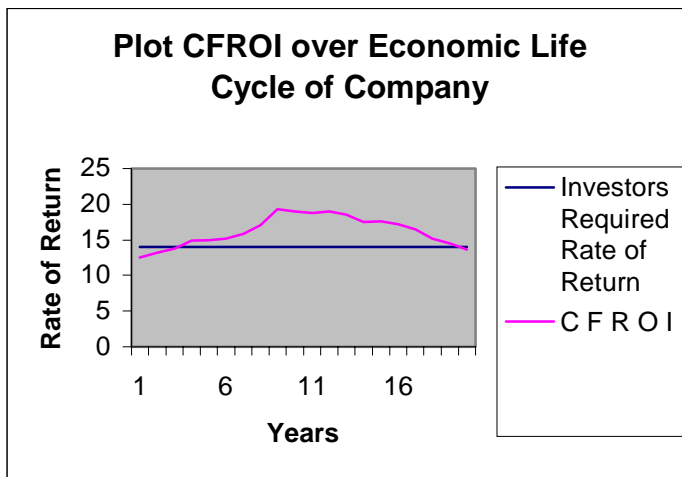
Monetary Current Assets	\$ 161,000
Less Non Interest Current Liabilities	<u>(84,000)</u>
Net Monetary Assets	77,000
Inventories	68,000
Adjust Inventories to Current \$	49,000
Land	9,000
Adjust Land to Current \$	<u>3,000</u>
Non Capitalized Assets in Current \$	206,000
Gross Plant Assets	348,000
Adjust Gross Plant to Current \$	106,000
Leased Property	<u>66,000</u>
Capitalized Assets in Current \$	<u>520,000</u>
Total Gross Assets in Current \$	\$ 726,000

Summary: Cash Inflows are \$ 70,000 per year over 15 years + residual value of \$ 206,000 for non-capitalized assets. Outflows are \$ 726,000 for capital deployed (gross assets).

Step 3: Calculate CFROI like you would calculate Internal Rate of Return; i.e. the rate where inflows (\$ 70,000 & \$ 206,000) equals outflows (\$ 726,000). We can use a Microsoft Excel Spreadsheet to solve for CFROI. Enter -726,000 in cell A1 followed by +70,000 in cells A2 through A15 and finally enter +276,000 (70,000+206,000) in cell A16. Enter the IRR function in cell A17 as =irr(a1:a16) and Excel calculates a CFROI of 6.73%.

Using CFROI

One of the advantages of CFROI is that it can be used to track long-term trends. CFROI is often plotted within the economic life cycle of a business. Over time, many companies experience maturity and slower growth. If the company fails to recognize declining values, the market value of the firm will fall below the firm's cost. On the other hand, if the company has strong growth and high returns, competition will move-in and put pressure on the company's ability to sustain high values. When a company has high CFROI in relation to what investors require, the company sells at a premium and when CFROI is below the rate of return required by investors, the company will sell at a discount.



CFROI is quite popular for determining the value of a target company that is a possible takeover candidate. CFROI looks at the economic cash flows over the life of the entity. Net Present Values are calculated for the target investment as well as for future investments required. The combination of the two represents the market value of the target company. Debt and debt equivalents are subtracted from the market value, then divided by the total shares outstanding to arrive at the target price per share. Investment and Portfolio Managers also use CFROI to ascertain company values in an effort to predict future economic performance and stock prices.

Some Problems with CFROI

Although CFROI is an excellent value-based metric, it does have some shortcomings. For example, it is very difficult to calculate. You have to identify all future cash flows associated with both present and future investments. This is extremely difficult. Also, CFROI provides information in the form of returns as opposed to total value created or destroyed. This may not appeal to all managers. Finally, CFROI suffers from the reinvestment rate problem associated with Internal Rate of Return (IRR). Therefore, given two projects with the same Net Present Value, but different timing and amounts of cash flows, CFROI like IRR will not show an indifference to the two projects. You could end-up ignoring a good investment project.

Residual Cash Flow

The third and final approach to measuring value that we need to discuss (and yes I saved the best for last) is Residual Cash Flow. Residual Cash Flow (RCF) is sometimes called Cash Value Added (CVA); i.e. what are the residual cash flows generated by this investment. Residual Cash Flow is net cash flows less a charge for cost of capital. We can express Residual Cash Flow (RCF) as:

$$\text{RCF} = \text{Adjusted Operating Cash Flows} - I (\text{Gross Investment})$$

I: Cost of Capital

Example 3 - Calculate Residual Cash Flow

A capital asset costing \$ 100,000 has a useful life of 5 years with no salvage value. The asset will depreciated over the straight-line method. Annual cash flows from this investment are \$ 35,000 per year and the marginal tax rate is 35%. The weighted average cost of capital is 8.5%. What is the RCF per year?

Cash Flow per Year	\$ 35,000
Less Taxes @ 35%	(12,250)
Net Cash Flows	22,750
Adjustment to Cash Flow (1)	<u>7,000</u>
Adjusted Cash Flow	29,750
Less Cost of Capital (2)	(8,500)
Residual Cash Flow (RCF) per Year	<u>\$ 21,250</u>

(1) depreciation of \$ 20,000 per year ($\$100,000 / 5 \text{ years}$) x .35 tax rate.

(2) gross investment of \$ 100,000 x 8.5%.

As you can see from the previous example, RCF is much easier to calculate when compared to EVA or CFROI. However, we want RCF to be as accurate, if not more so, than EVA and CFROI. Therefore, we will need to make some additional adjustments. We can take a page out of the EVA book and apply it to RCF. For example, research and development expenses are capitalized under EVA since they provide future economic benefits. This same type of adjustment should be made to operating cash flows under RCF.

We should also remember that weighted average cost of capital includes the cost of debt. If operating cash flows include interest payments, then interest should be ignored in arriving at operating cash flows. Otherwise, you will double account for debt service costs, once in calculating cash flow and once in calculating a charge for cost of capital. As you might expect, in the hands of consultants RCF is subject to several other adjustments. Two notable examples are summarized below:

Calculating RCF per The Boston Consulting Group:

1. In arriving at adjusted operating cash flows, economic depreciation is deducted. Economic depreciation refers to the sinking fund amounts required along with earned cost of capital that is required to replace the asset.
2. Similar to CFROI, adjusted operating cash flows are restated to constant dollars.
3. Weighted average cost of capital is ignored and a market driven rate is used. The market driven rate is estimated as the discount rate for equating the present value of net cash flows for an index of companies with the sum of prices for debt and equity of the same index of companies. The market driven rate is essentially the rate of return demanded in the marketplace.

Calculating RCF per Fredrik Weissenrieder Consulting:

1. Adjusted operating cash flows are calculated by finding the discounted cash flow that provides a Net Present Value of zero for the economic life of the investment.
2. Gross investment excludes non-strategic assets. Investments made that have nothing to do with returns (such as furniture and fixtures) are not part of capital.

Residual Cash Flow incorporates residual income concepts and gets back to the most important indicator - operating cash flow. By focusing on operating cash flows, RCF simplifies the valuation process and still retains high degrees of accuracy. This point was made clear when 325 companies were compared over a five-year period using EVA, CFROI, and RCF. The study, published in the October 1998 issue of Management Accounting, concluded the following:

"EVA's creators have certainly made some incredible claims, but so far the academic testing of the measure has not shown significantly different results from residual income in most respects. Clearly the superiority of RCF is apparent over either EVA or CFROI, the recently popular measures produced by the consulting firms."

Residual Cash Flow does have some drawbacks, but they are few. For example, RCF is not a comparable form of measurement; i.e. you can not compare RCF's between companies. In addition, RCF is sometimes more appropriate for project evaluation rather than company valuation. However, given the fact that RCF is highly correlated to stock prices, it warrants serious consideration by all organizations concerned about measuring value.

Appendix - Calculating EVA

The following example will illustrate the steps required to calculate Economic Value Added (EVA).

Step 1: Collect a complete set of financial statements and footnotes. Footnote information will be very important in understanding what adjustments are required.

	<u>Balance Sheet</u>	(Year end December 31, 1990)	<u>Income Statement</u>	
Cash		\$ 20,000	Net Sales	\$ 5,950,000
Accounts Receivable (net)		110,000	Cost of Goods Sold	(4,380,000)
Inventory (1)		<u>1,200,000</u>	Depreciation	<u>(356,000)</u>
Total Current Assets		1,330,000	Gross Profit	1,214,000
Fixed Assets (gross)		970,000	Selling, G & A Expenses	(790,000)
Accumulated Depreciation		(290,000)	Amortization of Goodwill	<u>(4,200)</u>
Net Fixed Assets		680,000	Operating Profits	419,800
Goodwill (2)		35,000	Interest on Notes & Debt	(32,000)
Other Assets		<u>28,000</u>	Investment Income	<u>41,000</u>
Total Assets		<u>2,073,000</u>	Income before taxes	428,800
			Provision for Taxes	<u>(154,000)</u>
Accounts Payable		320,000	Net Income	<u>\$ 274,800</u>
Notes Payable		62,000		
Current Portion of Bonds Payable		38,000		
Taxes Payable		26,000		
Other Current Liabilities		<u>46,000</u>		
Total Current Liabilities		492,000		
Long-term Bonds Payable		440,000		
Capital Lease Obligations (3)		235,000		
Total Long Term Liab		675,000		
Deferred Taxes (4)		46,000		
Common Stock (41,000 shares)		100,000		
Additional Paid in Capital		180,000		
Retained Earnings		<u>580,000</u>		
Total Equity		860,000		
Total Liab & Equity		<u>\$ 2,073,000</u>		

Footnotes:

(1): A reserve account is maintained to accumulate the difference between LIFO and FIFO. The LIFO Reserve account represents the amount by which inventories may be understated. The balance to LIFO Reserve account was \$ 80,000 on January 1, 1990 and has an ending balance of \$ 96,000.

(2): Goodwill is recorded as an asset based on the additional cost paid in excess of fair value in a major acquisition. The total amount of unamortized goodwill on January 1, 1990 was \$ 39,200. During the year, \$ 4,200 of goodwill was amortized leaving a yearend balance of \$ 35,000. To date, a total of \$ 8,000 of goodwill has been amortized.

(3): Capital Lease Obligations represent liabilities for assets used under operating lease arrangements. Assets used under operating leases are not recorded on the Balance Sheet. The total present value of all lease operating payments into the future has been discounted back to \$ 155,000. Operating lease payments include finance (interest) charges paid to the lessor. The total present value of all finance charges is \$ 17,880.

(4): Deferred Taxes are recognized as the difference between Provision for Taxes per the Income Statement and Taxes Payable which represents taxes due per the corporate tax return. The total beginning balance for deferred taxes was \$ 37,000 at January 1, 1990. During the year, deferred taxes increased by \$ 9,000 resulting in a yearend balance of \$ 46,000. The marginal tax rate is 36%.

Step 2: Calculate Total Adjusted Capital based on two approaches - Operating (Net Assets) and Financing (Debt + Equity)

<u>Operating Approach</u>		<u>Financing Approach</u>	
Cash	\$ 20,000	Notes Payable (2)	\$ 62,000
Accounts Receivable (net)	110,000	Current Portion of Bonds Payable	38,000
Inventory (LIFO)	1,200,000	Long Term Bonds Payable	440,000
LIFO Reserve (1)	<u>96,000</u>	P.V. of Operating Leases (3)	155,000
Total Current Assets	<u>1,426,000</u>	Capital Lease Obligations	<u>235,000</u>
Accounts Payable	(320,000)	Total Debt	930,000
Taxes Payable	(26,000)	Total Equity (per books)	860,000
Other Current Liabilities	<u>(46,000)</u>	LIFO Reserve (1)	96,000
Total Current Liab (2)	<u>(392,000)</u>	Deferred Taxes (4)	46,000
Net Working Capital	1,034,000	Goodwill Amortized to Date (5)	<u>8,000</u>
Net Fixed Assets	680,000	Total Equity	<u>1,010,000</u>
P.V. of Operating Leases (3)	155,000	TOTAL ADJ CAPITAL	<u>\$ 1,940,000</u>
Goodwill	35,000		
Accumulated Goodwill	8,000		
Other Assets	<u>28,000</u>		
TOTAL ADJ CAPITAL	<u>\$ 1,940,000</u>		

(1): LIFO Reserve is added back to reflect the total amount of inventory invested by the business. This also represents an adjustment in arriving at capital deployed.

(2): Notes Payable is not included since this is a source of capital that carries a financing charge. Under the Operating Approach, we include all current liabilities that are not a source of short-term capital. Under the Financing Approach, we include Notes Payable since it is a source of capital.

(3): Present Value of Operating Leases are recognized as assets under the Operating Approach and represents capital deployed for assets under the Financing Approach.

(4): Deferred taxes are usually a recurring long-term difference in how taxes are expensed vs. how they are paid. Since this an on-going difference, we will treat it as additional source of capital.

(5): The total amount of goodwill expensed to date is added back as capital since it represents an additional amount incurred to acquire assets.

Step 3: Calculate Net Operating Profits After Taxes (NOPAT) based on two approaches - Operating and Financing

<u>Operating Approach</u>		<u>Financing Approach</u>	
Net Sales	\$ 5,950,000	Net Income (4)	\$ 274,800
Cost of Goods Sold	(4,380,000)	Change in Deferred Taxes	9,000
Depreciation	(356,000)	Change in LIFO Reserve	16,000
Selling G & A Expenses	<u>(790,000)</u>	Goodwill Amortized	4,200
Operating Profits	424,000	Adjusted Income	304,000
Interest on Operating Leases (1)	17,880	Interest Expense	32,000
Change in LIFO Reserve (2)	16,000	Interest on Operating Leases (1)	17,880
Adjusted Profits	457,880	Tax Benefit on All Interest (3)	<u>(17,957)</u>
Investment Income	41,000	NOPAT	<u>335,923</u>
Less Cash Operating Taxes (3)	<u>(162,957)</u>		
NOPAT	<u>335,923</u>		

(1): The carrying cost of operating leased assets is not actually paid and represents additional residual income (NOPAT).

(2): LIFO Reserve is not actually paid out as cash and is added back in arriving at NOPAT.

(3): We want to reflect the cash paid for taxes based on all interest expenses incurred. We start with the Tax Expense per the Income Statement.

Income Tax Expense	\$ 154,000
Deferred Tax Increase	(9,000)
Calculate Tax Benefit on Interest:	
Total Interest Expense	\$ 32,000
Interest on Operating Leases	<u>17,880</u>
Total Interest Incurred	49,880
Marginal Tax Rate	x .36
Tax Benefit on Interest	<u>17,957</u>
Cash Operating Taxes	<u>162,957</u>

(4) Net Income should represent Net Income available to common shareholders.

Step 4: Calculate Weighted Average Cost of Capital

We will assume that the relative market values for capital components are: \$ 510,000 for long term bonds, \$ 260,000 for capitalized lease obligations, and \$ 1,230,000 for common equity. Further, we will assume that the cost of capital rates for each component are: 8% for long term bonds, 10% for capital lease obligations, and 14% for common equity.

<u>Capital Component</u>	<u>Market Value</u>	<u>% of MV</u>	<u>x Cost Rate</u>	<u>= Weighted Avg</u>
Long term Bonds	\$ 510,000	25.5%	8%	2.04
Capital Lease Obligations	260,000	13.0%	10%	1.30
Common Equity	1,230,000	61.5%	14%	<u>8.61</u>
				Weighted Average Cost of Capital
				11.95%

Step 5: Calculate EVA by charging NOPAT with Cost of Capital

NOPAT (per Step 3)	\$ 335,923
Less Cost of Capital \$ 1,940,000 (Step 2) x .1195 (Step 4) =	(231,830)
ECONOMIC VALUE ADDED (EVA)	<u>\$ 104,093</u>

Real Sources of Value

We have focused our attention on how financial management creates value, such as departing from the traditional accounting model and measuring value with EVA, CFROI, and RCF. We have also emphasized that value is a function of cash flows. However, we have not truly identified what drives this entire process of cash flows and higher values. This final chapter will take a look at real sources of value; i.e. what does it take to generate higher cash flows and higher values.

We already covered a key element of value-creation: Financial Restructurings. One problem with this approach to value-creation is that it tends to be incremental. You can only go so far with creating value through restructurings. Things like spin-offs, stock buy backs, slashing payrolls, selling off under-performing assets, and other restructurings lack staying power when it comes to value-creation; i.e. they are short-term sources of value. We need more long-term sources of value.

Doing at least one thing right!

If we look at companies that create lots of value, we will often find that these companies do at least one thing exceptionally well. Here are three examples:

Wal-Mart: How does Wal-Mart create value? Compare Wal-Mart to its competition, such as K-Mart. What happens when you walk into a Wal-Mart store? When you enter Wal-Mart, someone greets you and when you checkout, the cashier thanks you by name. Compare this approach to K-Mart and it becomes apparent how Wal-Mart creates value. Wal-Mart creates value through great customer service. Customer service becomes the strategic advantage that provides Wal-Mart with its source of value.

Federal Express: What one thing did Federal Express do in order to grow and create value? What happens when you send a document via Federal Express? Federal Express can trace the document at every exchange point so that it is impossible to lose the document. Federal Express emphasizes efficiency in their operations and this becomes their strategic advantage for creating value.

Nike: What makes Nike such a great company? How does Nike create value? Why do people buy Nike products? Nike emphasizes a great product and this becomes Nike's way of generating higher values for its shareholders.

By getting one thing 99% right, organizations gain a competitive advantage that becomes a great source of value. For many organizations, this involves things like:

1. Higher Quality - Producing an exceptionally high quality product.
2. Customer Service - Delivering products and services to customers with speed, solving the customers problem, possessing knowledge about the customer for better service, etc.
3. Continuous Improvement - Constantly looking for ways to improve internal processes of the business as well as the product and/or service.
4. Lower Prices - Delivering products and services at the lowest possible price in a highly competitive marketplace.

Creating value is the reward an organization receives when it does things like continuous improvement. These are the real sources of value and well-managed companies pay close attention to these sources of value.

The Need to Change & Strategize

The World is a global, highly connected, de-regulated, customer driven place where the rate of change is escalating. The global marketplace demands quick responses to numerous issues confronting the organization. In today's world, a static business model is sure death. Unless a business can reinvent itself, new competition will move-in and absorb value within the marketplace. Taking risk and breaking away from the conventional rules of business can represent a real source of value. Some examples include:

Anita Roddick - The Body Shop
John Nordstrom - Nordstrom
Herb Kelleher - Southwest Airlines
Jeff Bezos - Amazon
Michael Dell - Dell Computer

All of these people had a vision that departed from the rest of the industry. As Michael Porter of Harvard University has pointed out - if a company has the same strategy as the competition, then it really doesn't have a strategy. Therefore, in order to create value, organizations must engage in change through innovative strategizing.

Innovative strategizing means looking at things differently, finding new ways of selling your product. For example, Levi Straus sold nothing but regular blue jeans until one day they noticed that customers would buy their blue jeans and bleach them into denim jeans. Levi Straus decided to start selling denim blue jeans and suddenly, enormous value was created by reinventing how the product was sold.

Innovative strategizing is often a combination of luck and foresight. Foresight comes from experience. In his book Mega Change, William F. Joyce describes four areas that all organizations must emphasize:

- Empowering People
- Engaging Systems
- Reforming Structures
- Remaking Strategies

Joyce argues that the old approach to creating value through reorganizations and cost cutting must be disbanded and replaced with a focus on people. Innovative strategies are created by people. The challenge is to get everyone engaged in a conversation about the business - this is how strategies are borne. One way to establish this process is to make everyone an owner in the business. When a person owns the business, they think differently about the business.

A final point about innovative strategizing is that it is non-incremental unlike the other sources of value. All of the other elements of value-creation, such as financial restructurings, great product quality, efficiency in operations, etc. have limitations on how much value can be generated over the long run. Innovative strategizing, however, is perpetual and continuous. It is an integral part of value-creation everyday, every month, every year. As a result, innovative strategizing is the most important element of value-creation.

Course Summary

Everyone from the Accounting Department to the Shareholder must see through the traditional accounting model. We need to break our addiction to earnings and recognize how to measure real performance. When we look at "value", we have a much more comprehensive way of measuring performance within an organization. The Finance and Accounting Department can play a lead role in making this transformation over to value-creation. The main objective is to increase values as opposed to earnings. In his book Quest for Value, G. Bennett Stewart III points out that "share prices are the result of discounting future expected cash flows, not earnings."

What a Manager does with cash determines value. The limited resources of the organization must be deployed in a manner that increases value. This requires that decisions be made based on generating returns from resources invested that are higher than the cost of capital. Value Based Management is the formal program for managing the organization around these principles. Value Based Management will include ways of measuring value, such as Economic Value Added, Cash Flow Return on Investment, and Residual Cash Flow. All three of these approaches to measuring value depart from the traditional accounting model. For example, there is a real cost associated with the use of capital and this should be recognized in the determination of residual income.

In order to create value, we can initiate financial restructurings where appropriate. According to the Wharton Business School, financial restructurings such as Leveraged Buy Outs and Recapitalizations have the biggest payoffs followed by asset restructurings like spin offs and sell offs. Organizational restructurings, such as downsizing, are not good sources of value-creation. Also, don't be afraid to use debt as part of a financial restructuring.

Finally, real sources of value go beyond financial restructurings. They include things like great customer service or extremely efficient production operations. When a company can reinvent itself, like the way IKEA sells furniture or the way ebay executes auctions, you will invariably find very high sources of value. The ability to engage in innovative strategizing and change how things are done is by far the greatest source of value-creation.

Final Exam

Select the best answer for each question. Exams are graded and administered by installing the exe file version of this course. The exe file version of this course can be downloaded over the internet at www.exinfm.com/training.

1. Accounting and Financial Functions usually do not spend sufficient time on "real" financial management. An example of "real" financial management as opposed to accounting would be:
 - a. Posting accrual entries to the General Ledger
 - b. Benchmarking financial and economic performance
 - c. Issuing invoices to customers
 - d. Processing timesheets for payroll
2. In order to determine the value of an organization, which of the following would be most important?
 - a. Current year's gross sales
 - b. Net Income for the last 5 years
 - c. Future expected cash flows
 - d. Growth in assets
3. Mergers are a type of financial restructuring that may or may not result in higher values. One reason mergers fail to generate higher value is due to the fact that the acquiring company has:
 - a. Paid too much for the target company
 - b. Successfully completed due diligence
 - c. Increased debt financing
 - d. Will issue stock for the acquisition

4. One way a large diversified company can create value is to issue new stock to shareholders for a new separate company. This type of restructuring is referred to as a:
 - a. Liquidation
 - b. Merger
 - c. Leveraged Buy Out
 - d. Spin Off

5. Value Based Management is a formal approach to managing the organization for the creation of value. In order to successfully implement Value Based Management, it must :
 - a. Follow existing accounting principles
 - b. Be driven by top management
 - c. Have conformity with financial statements
 - d. Adjust to existing legacy systems

6. Stock prices may not fairly represent the value of a company because stock prices are influenced by:
 - a. Delays in the release of earnings
 - b. Market forces such as higher inflation
 - c. Whisper estimates made by investors
 - d. Perceptions about management effectiveness

7. Economic Value Added (EVA) is a popular approach to measuring how much value was created. Assume we have NOPAT (Net Operating Profits After Taxes) of \$ 100,000. After making all equity equivalent adjustments, we have calculated Total Adjusted Capital of \$ 750,000. If weighted average cost of capital is 12%, then EVA is:
 - a. \$ 650,000
 - b. \$ 150,000
 - c. \$ 88,000
 - d. \$ 10,000

8. Unlike EVA, we can improve on the accuracy of measuring value by recognizing the impact of inflation on both cash inflows and the outflows for investment. Which of the following approaches to measuring value accounts for the impact of inflation in measuring value?
- a. Cash Flow Return on Investment
 - b. Return on Net Assets
 - c. Return on Net Income
 - d. Accounting Rate of Return
9. What is the Residual Cash Flow for an investment costing \$ 50,000 with adjusted operating cash flows of \$ 15,000 and a cost of capital of 14%?
- a. \$ 2,500
 - b. \$ 8,000
 - c. \$ 12,900
 - d. \$ 25,000
10. Most elements of value creation tend to be incremental; i.e. they may not be long term sources of value. The most important long term element of value creation is:
- a. Improving the production process
 - b. Issuing high levels of debt
 - c. Innovative strategizing
 - d. Cost cutting programs