CHAPTER 2

LITERATURE REVIEW

2.1 Mergers and Acquisitions

Mergers and Acquisitions (M&A) are corporate strategy, corporate finance and management's aspects dealing with the buying, selling and combining of different companies that can aid, finance, or help a growing company in a given industry grow rapidly without having to create another business entity .

Although they are often used as though they were synonymous, the terms merger and acquisition mean slightly different things. When one company takes over another and clearly established itself as the new owner, the purchase is called an acquisition. From a legal point of view, the target company ceases to exist and the buyer's stock continues to be traded.

When two firms, often of about the same size, agree to go forward as a single new company rather than remain separately owned and operated, the condition is called a merger. Both companies' stocks are surrendered and new company stock is issued in its place.

2.1.1 Motives behind Mergers and Acquisitions

The dominant rationale used to explain M&A activity is that acquiring firms seek improved financial performance. The following motives are considered to improve financial performance and they lay the groundwork for the competing theories regarding the wealth effects of merger announcements (Weston, Mitchell, & Mulherin, 2004).

- Economies of Scale: comes from technical relations where the larger the scale of operations is, the lower the required investment.

- Synergies: refers to the fact that the combined company can often reduce its fixed costs by removing duplicate departments or operations, lowering

the costs of the company relative to the same revenue stream, thus increasing profit margins.

- Resource transfer: creating value through either overcoming information asymmetry or by combining scarce resources which are unevenly distributed across firms.

- Manager's hubris: overpayment for the target company as a result of manager's overconfidence about expected synergies from M&A.

- Manager's compensation: certain executive managers had their payout based on the total amount of profit of the company, instead of the profit per share, which would give them a perverse incentive to buy companies to increase the total profit while decreasing the profit per share, which hurts the shareholders.

2.1.2 Valuation Effects of Mergers and Acquisitions

There are several theories that predict effects of mergers on firm value (Weston, Mitchell, & Mulherin, 2004). The theories range from those predicting that mergers increase firm value to those arguing that mergers reduce firm value, as represented in Table. 2.1.

Table 2.1

Theories of the Value Effects of Mergers and Acquisitions

Theoritical Principle	*Research Paper*
Value Increasing	
Transaction Cost Efficiency	Coase (1937)
Synergy	Bradley, Desai, and Kim (1983, 1988)
Disciplinary	Manne (1965) Alchian and Demsetz (1972)
Value Reducing	
Agency Costs of Free Cash Flow	Jensen (1986)
Management Entrenchment	Schleifer and Vishny (1989)
Value Neutral	
Hubris	Roll (1986)

Source: J. Fred Weston, Mark L. Mitchell, J. Harold Mulherin, 2004

2.1.2.1 Value Increasing

Coase (1937) with his Transaction Cost Efficiency theory argued that mergers increase value (Weston, Mitchell, & Mulherin, 2004). It happens because firms will respond to forces, such as technological change, that alter the balance between the transaction costs of markets and internal production. In his theory, Coase noted that there are a number of transaction costs to using the market ("The Nature of the Firm", 1937). The cost of obtaining a good or service via the market is actually more than just the price of the good, it is also including some other costs such as search and information costs, bargaining costs, keeping trade secrets, and policing and enforcement costs. All of these costs can all potentially add to the cost of procuring something with a firm. This suggests that firms will arise when they can arrange to produce what they need internally and somehow avoid these costs.

However, of course there is a natural limit to what can be produced internally. Coase argues that the size of a firm is a result of finding an optimal balance between the competing tendencies of the costs outlined above. In general, making the firm larger will initially be advantageous, but the decreasing returns because of increasing overhead costs and increasing propensity for an overwhelmed manager to make mistakes in resource allocation will eventually kick in, preventing the firm from growing indefinitely ("The Nature of the Firm", 1937).

Other things being equal, a firm will tend to be larger if:

- The less the costs of organizing and the slower these costs rise with an increase in the transactions organized.
- The less likely the entrepreneur is to make mistakes and the smaller the increase in mistakes with an increase in the transactions organized.
- The greater the lowering in the supply price of factors of production to firms of larger size ("The Nature of the Firm", 1937).

Bradley, Desai, and Kim (1983, 1988) argued that merger creates synergies that are including more effective management, improved production techniques, and the combination of complementary resources (Weston, Mitchell, & Mulherin, 2004). Synergy is the potential additional value from combining two firms (*Valuing Acquisitions,* n.d.). It is probably the most widely used and misused rationale for mergers and acquisitions. There are two types of synergy; they are operating synergy and financial synergy.

Operating synergies are those synergies that allow firms to increase their operating income, increase growth or both. We would categorize operating synergies into four types (*Valuing Acquisitions,* n.d.):

1. Economies of scale that may come up from the merger and acquisition that allows the combined firm to become more cost-efficient and profitable.
2. Greater pricing power as a result of reduced competition and higher market share, which should give effects in higher margins and operating income.
3. Combination of different functional strengths, as would be the case when a firm with strong marketing skills acquires a firm with a good product line
4. Higher growth in new or existing markets that arises from the combination of the two firms, as would be the case when a US consumer products firm acquires an emerging market firm, with an established distribution network and brand name recognition, and uses these strengths to increase sales of its products.

As stated above, operating synergies can affect margins and growth, and through these the value of the firms involved in the merger or acquisition.

With financial synergies, the payoff can take the form of either higher cash flows or a lower cost of capital. These are the following conditions that may happen:

1. A combination of a firm with excess cash but with limited project opportunities and a firm with high-return projects but with limited cash

can yield a payoff in terms of higher value for the combined firm. The increase in value comes from the projects that were taken with the excess cash that otherwise would not have been taken if the companies have not been merged. This synergy is likely to show up most often when large firms acquire smaller firms, or when publicly traded firms acquire private businesses.

2. Debt capacity can increase, because when two firms combine, their earnings and cash flows may become more stable and predictable. This allows them to borrow more than they could have as individual entities, which creates a tax benefit for the combined firm. This tax benefit can either be shown as higher cash flows, or take the form of a lower cost of capital for the combined firm.
3. Tax benefits can arise either from the acquisition taking advantage of tax laws or from the use of net operating losses to shelter income. Thus a profitable firm that acquires a money-losing firm may be able to use the net operating losses of the latter to reduce its tax burden. On the other hand, a firm that is able to increase its depreciation charges after an acquisition will save in taxes, and increase its value.

Manne (1965) and Alchian and Demsetz (1972) posed corporate takeovers as an integral component of the market for corporate control which facilitates competition among different management teams (Weston, Mitchell, & Mulherin, 2004). Mainstream economists support an institutional environment that encourages acquisitions by arguing that a vibrant market for corporate control improves allocative efficiency by helping resolve agency problems. If the executives at a given firm are viewed as responsible for poor performance, another firm or management team can use an acquisition to remove the existing officers and thereby improve the performance of the acquired firm's assets.

2.1.2.2 Value Reducing

Jensen (1986) argued that high free cash flow is a source of value reducing mergers which subsequently led to value reducing diversification decisions. In a

1986 paper in the American Economic Review, Michael Jensen noted that free cash flows allowed firms' managers to finance projects earning low returns which therefore might not be funded by the equity or bond markets. Examining the US oil industry, which had earned substantial free cash flows in the 1970s and the early 1980s, he wrote that:

> The 1984 cash flows of the ten largest oil companies were $48.5 billion, 28 percent of the total cash flows of the top 200 firms in Dun's Business Month survey. Consistent with the agency costs of free cash flow, management did not pay out the excess resources to shareholders. Instead, the industry continued to spend heavily on (exploration and development) activity even though average returns were below the cost of capital (p.9).

Shleifer-Vishny (1989) argued that managers make investments that increase the managers' value to shareholders but do not enhance value to the shareholders themselves. Consistent with what Jensen wrote, managers in the entrenchment model are hesitant to pay out cash to shareholders.

2.1.2.3 Value Neutral

Roll (1986) argued that mergers can occur even if they have no effects on value. It happens when managers are too self confidence about the expected result of the mergers and made overpayment to the target firm. Roll suggests any gain to the target firm is merely a wealth transfer from the bidder so in the end mergers have no effect on combined value.

2.1.3 Combined Returns in Mergers and Acquisitions

Empirical analysis of the combined returns in M&A is guided by three distinct theories based on efficiency and synergy, agency costs of free cash flow and management entrenchment, and managerial hubris. The evidences indicate that the combined returns at merger announcement are positive (Weston, Mitchell, & Mulherin, 2004).

2.1.4 Investing in Oil and Gas Industry

With the record in 2005 and 2006 of oil and gas prices, oil companies have increased cash flow from which to make investments in new production and capacity, facilities, and technology. A historical perspective on the industry's investment trends plus the key considerations underlying the significant long-lived risky investments is important to understanding the current and future investment sending of the industry.

The oil and gas industry's investment decisions are based on economic considerations similar to other business' investment decisions. Risk and return to the investors are critical to choosing the type of investments made, whether they are investments in additional oil exploration, alternative non-oil energy investments, or non-energy investments.

The oil and gas industry is facing major challenges with its future investments necessary to meet the world's growing energy needs. The Organization for Economic Cooperation and Development's International Energy Administration forecasts that total energy investment will need to be as much as $20 trillion from 2005-2030 and that oil and gas investments will need to increase by more than $8.2 trillion (International Energy Agency, World Energy Outlook, 2006, p.75). As existing oil reserves become depleted, new exploration and development will need to replace existing oil reserves, plus add significant new oil reserves.

U.S. oil companies are facing significant constraints on their potential investment opportunities. Most of the new oil reserves will be discovered outside of the U.S. and often countries are putting restrictions or onerous licensing terms on U.S. investments. In addition, much of the oil and gas exploration that is available involves increasingly larger investments, with multiyear planning and multiyear construction before production can occur. The oil and gas industry faces significant geo-political risks, regulatory risks and environmental risks, in addition to the general economic and operational risks associated with oil exploration, development and production.

Assumptions of future oil prices, short term constraints on investment opportunities, and multi year planning, permitting and construction affect recent uses of cash flow for investment. There are four key drivers of investment spending in oil and gas industry: prospect availability, expected future oil prices, expected costs, and the efficiency of exploration and development efforts, as well as some of the short term constraints.

2.2 Fundamental Analysis

Fundamental analysis is a method of evaluating a security to forecast the dividend and earnings that can be expected from the firm by attempting to measure its intrinsic value by examining related economic, financial and other qualitative and quantitative factors (Bodie, Kane, & Marcus, 2005). Fundamental analysts attempt to study everything that can affect the security's value, including macroeconomic factors (like the overall economy and industry conditions) and individually specific factors (like the financial condition and management of companies). Fundamental analysis is performed on historical and present data, but with the goal of making financial forecasts. There are several possible objectives, the one that is related with this thesis is to conduct a company stock valuation and predict its probable price evolution.

This method of security analysis is considered to be the opposite of technical analysis. Technical analysis ignores the actual nature of the company, market, currency or commodity and is based solely on the chart that is to say price and volume information, whereas fundamental analysis looks at the actual facts of the company, market, currency or commodity.

Fundamental analysis is about using real data to evaluate a security's value. For assessing stocks, this method uses revenues, earnings, future growth, return on equity, profit margins and other data to determine a company's underlying value and potential for future growth. In terms of stocks, fundamental analysis focuses on the financial statements of a company being evaluated.

In doing fundamental analysis, there are two approaches that can be used by investors (*Fundamental Analysis,* n.d.).

1. The top-down approach: where investor starts his analysis with global economics, including both international and national economic indicators, such as GDP growth rates, inflation, interest rates, exchange rates, productivity, and energy prices. Investor narrows his search down to industry analysis of total sales, price levels, the effects of competing products, foreign competition, and entry or exit from the industry. And then narrows his search to the business analysis which known as corporate valuation that covers strategy, core competences, management and financial condition of the corporate.
2. The bottom-up investor starts with specific businesses, regardless of their industry.

2.2.1 Global Economy

Global Economics is the interdependent economies of the world's nations, regarded as a single economic system (Bodie, Kane, & Marcus, 2005). This phenomenon is closely connected with the phenomenon of globalization. The global economy is characterized as a totally interconnected marketplace, unhampered by time zones or national boundaries. The international economy might affect a firm's export prospects, the price competition it faces from competitors, or the profits it makes on investments abroad.

As mentioned above, Global Economics are including both international and national economic indicators. The ability to forecast the macroeconomic can translate into spectacular investment performance. The key economic variables used to describe the state of the macroeconomic are Gross Domestic Product, employment, inflation, interest rate, and sentiment (Bodie, Kane, & Marcus, 2005).

2.2.1.1 Gross Domestic Product (GDP)

GDP is defined as the total market value of all final goods and services produced within the country in a given period of time. Rapidly growing GDP indicates an expanding economy with an opportunity for a firm to increase sales.

2.2.1.2 Unemployment Rate

It measures the extent to which the economy is operating at full capacity and the strength of the economy.

2.2.1.3 Inflation

Inflation is a rise in the general level of prices of goods and services in an economy over a period of time. Inflation can also be described as a decline in the real value of money or a loss of purchasing power. A sustained period of inflation is caused when money supply increases faster than the growth in productivity in the economy.

2.2.1.4 Interest Rates

Interest rates are the price a borrower pays for the use of money he does not own, and the return a lender receives by lending it to the borrower. High interest rates reduce the present value of future cash flows, thereby reducing the attractiveness of investment opportunities.

2.2.1.5 Sentiments

Sentiments are producers' and consumers' optimism or pessimism towards the economy. If consumers have confidence in their future income levels, they will be more willing to spend on expensive items and the producers will increase production and inventory levels if they anticipate higher demand for their products.

2.2.2 Industry Analysis

Industry Analysis uses a framework such as Michael Porter's Five Forces to provide a structure that enables analyst to systematically work through these wide ranging and often complex economic issues.

Figure 2.1

Porter's Five Sources

Source: Originally drawn by Grahams Child 2006-05-25 from the concept developed by Michael E. Porter at the Harvard Business School in 1979 and documented in article en: Porter 5 forces analysis.

Michael Porter's Five Forces use concepts developed in Industrial Organization economics to derive 5 forces that determine the competitive intensity and the overall industry profitability which is often called as the attractiveness of a market (*Porter 5 Forces Analysis*, n.d.). An "unattractive" industry is one where the combination of forces acts to drive down overall profitability. Michael Porter's Five Forces consist of those forces close to a company that affect its ability to serve its customers and make a profit. A change in any of the forces usually requires a company to re-assess the current status and likely evolution of an industry. The overall industry attractiveness does not imply

that every firm in the industry will return the same profitability. Firms are able to apply their core competences, business model or network to achieve a profit above the industry average (Besanko, Dranove, Shanley, & Schaefer, 2004). Michael Porter's Five Forces include three forces from horizontal competition: threat of substitute products, the threat of established rivals, and the threat of new entrants; and two forces from vertical competition: the bargaining power of suppliers, bargaining power of customers as represented in Figure 2.1.

2.2.2.1 Threat of the entry of new competitors

New entrant erodes incumbents' profits and price in two ways. First, entrants divide up market demand among more sellers. Second, entrants decrease market concentration. Some entry barriers are exogenous, while others are endogenous. Here are some items that tend to affect the threat of entry:

- Production entails significant economies of scale. Entrants must achieve a substantial market share and if they don't, it may be at a significant cost disadvantage.
- Government protection of incumbents
- Consumers are brand loyal so entrants must invest heavily to establish a strong reputation and brand awareness.
- Access to technology, raw materials, distributions, and unique locations
- Existing firms' experience in a market may give it cost advantages due to the learning.

2.2.2.2 The Intensity of Competitive Rivalry

When there are several competitors in an industry, there will be competition in price and nonprice dimensions. Price competition erodes profits by driving down price-cost margins. Nonprice competition such as innovation or marketing erodes profits by driving up fixed costs and marginal costs. Here are some conditions that tend to heat up price competition:

- There are many sellers in the market
- The industry is stagnant or declining so firms have to steal from competitors to expand their own output.
- Firms have different cost
- Strong exit barriers that can prolong price wars as firms struggle to survive instead of exiting.
- Firms with excess capacity may be under hard to boost sales.

2.2.2.3 The Threat of Substitute Products

The existence of close substitute products from firms in related industries increases the propensity of customers to switch to alternatives in response to price increases so in this case, firms have limits in charging the price to customers.

2.2.2.4 The Bargaining Power of Customers

Bargaining power of customers is the ability of individual customers to negotiate purchase prices that extract profits from sellers. The bargaining power is high when:

- A buyer purchases a large fraction of an industry's output
- The output is a significant portion of the whole cost that spend by the customer
- The output is not exclusive

2.2.2.5 The Bargaining Power of Suppliers

Bargaining power of suppliers is the ability of that industry's upstream input suppliers to negotiate prices. Suppliers can sell their services to the highest bidder. Suppliers can erode industry profits if:

- They are concentrated

- Their customers are locked into relationships with them because of relationship-specific investments.
- There are no substitute inputs for the firms
- Firm is not an important customer for the suppliers.

2.2.3 Business Analysis

Business analysis is the process of evaluating a company's economic prospects and risks. Business analysis can be done using financial statement analysis. The financial statement analysis generally involves common size financial statement analysis, comparative financial statement analysis, ratio analysis, cash flow analysis and valuation (Wild, Subramanyam, & Hasley, 2005).

Common size financial statement analysis helps analyst to know what proportion of a group or subgroup is made up of a particular account. In analyzing a balance sheet, it is common to express total assets as 100%, while in analyzing an income statement, it is common to set sales as 100%. After that, accounts within these groupings are expressed as a percentage of their respective total.

Comparative financial statement analysis is done by comparing a company's financial statements in different time periods. The valuation expert can view growth or decline in revenues or expenses, changes in capital structure, or other financial trends. This comparison analysis helps analyst to get information about the trend and compare the trends in related items to lead to another investigation. Analyst sometimes also makes comparison not only from period to period, but also from one company to the industry. How the subject company compares to the industry will help with the risk assessment and ultimately help determine the discount rate and the selection of market multiples.

Ratio analysis is one of the most popular and widely used tools of financial analysis. Ratio analysis are applied to three important areas of financial statement analysis, such as: credit analysis which is used to evaluate the ability of the company to meet short term and long term obligations, profitability analysis

which is used to evaluate effectiveness of assets in generating sales and the ability of company to assess financial rewards to stockholders and creditors, and valuation which is used to estimate the intrinsic value of a company.

Business analysis is important for some contexts like: merger, acquisitions and divestures. It helps to provide managers with clues to strategic changes in operating, investing, and financing activities and it also helps manager to evaluate the impact of financing decisions on both future profitability and risk. Not only for managers, business analysis is also can be used by directors to help them fulfilling their oversight responsibilities in overseeing the company's activities, by regulators such as Internal Revenue Service to audit tax returns and check the reasonableness of reported amounts, and by customers to determine the profitability of suppliers along with estimating the suppliers' profits from their mutual transactions.

2.2.4 Valuation Analysis

Valuation analysis is a form of fundamental analysis that looks to compare the valuation of one security to another, to a group of securities or within its own historical context. It is done to evaluate the potential merits of an investment or to objectively assess the value of a business or asset and also including tax assessment, wills and estates, divorce settlements, business analysis, and basic bookkeeping and accounting. The analysis is based on projections that caused investors can and will interpret a given valuation differently (Damodaran, 2002).

Valuation is the process of estimating the market value of a financial assets (for example, investments in marketable securities such as stocks, options, business enterprises, or intangible assets) or liabilities (e.g., Bonds issued by a company).

Valuation of financial assets is done using one or more of these approaches (*Valuation,* n.d.):

1. Relative value models determine the value based on the market prices of similar assets.

2. Absolute value models determine the value by estimating the expected future earnings from owning the asset discounted to their present value. The analysis can be done purely from the perspective of equity investors by discounting expected cash flows to equity at the cost of equity, or it can be done from the point of view of all claimholders in the firm, by discounting expected cash flow to the firm at the weighted average cost of capital.
3. Option pricing models are used for certain types of financial assets (e.g., warrants, put options, call options, employee stock options, investments with embedded options such as a callable bond) and are a complex present value model.

It is very important to remember that valuation requires judgment:

1. There are very different situations and purposes in which you value an asset (e.g. company in distress, tax purposes, mergers & acquisitions, quarterly reporting). In turn this requires different methods or a different interpretation of the same method each time.
2. All valuation models and methods have their limitations and could be widely criticized.
3. The quality of some of the input data may vary widely
4. In all valuation models there are a great number of assumptions that need to be made and things might not turn out the way it's expected. All assumptions should be clearly stated, especially the context.

The method generally used to value companies in a merger and acquisitions and to estimate the attractiveness of an investment opportunity is the discounted cash flow (DCF) approach. This method determines the value of a firm based on all of its expected future cash flows projections discounted to arrive at a present value. The discount is based on an opportunity cost of capital, which is sometimes called a discount rate, and is expressed as a percentage. The opportunity cost is estimated using a relation of risk and return. The more risky the firm, the more return investors expect. Therefore, an investor's required rate of

return for investing capital is higher when a firm has more risks. Furthermore, firms which are more risky have a lower value than safer ones, all other things being equal. If the value arrived at through DCF analysis is higher than the current cost of the investment, the opportunity may be a good one.

There are many variations when it comes to what you can use for your cash flows and discount rate in a DCF analysis. Small changes in inputs can result in large changes in the value of a company. Instead of trying to project the cash flows to infinity, a terminal value approach is often used. A simple annuity is used to estimate the terminal value past 10 years, for example. This is done because it is harder to come to a realistic estimate of the cash flows as time goes on.

2.2.4.1 Free Cash Flow to Equity

Free cash flow is a measure of financial performance calculated as operating cash flow minus capital expenditures. Basically free cash flow is used for measuring what firms can return to their stockholders after meeting reinvestment needs. Dividend Discount Model is failed in doing this because it may disvalue firms that consistently fail to return what they can afford to their stockholders. Free cash flow is important because it allows a company to pursue opportunities that enhance shareholder value.

Free Cash Flow to the Equity is a measure of how much cash can be paid to the equity shareholders of the company after all expenses, reinvestment and debt repayment.The estimation begins with the net income being converted into a cash flow by subtracting out a firm's reinvestment needs.

Calculated as (Damodaran, 2002):

FCFE = Net Income - Net Capital Expenditure – Change in Non Cash Working Capital + New Debt issued - Debt Repayment **2.1**

Capital expenditures included acquisitions and other cash outflow such as capitalized operating expenses (e.g., R&D). Net Capital expenditure is the

difference between capital expenditures and depreciation. It is usually a function of the growth characteristics of the firm, where high growth firms tend to have high net capital expenditures relative to earnings and the low growth firms may have low, sometimes even negative net capital expenditures.

Change in Non Cash Working Capital is the difference between current assets and current liabilities without cash and investments in marketable securities in the current assets items. This is because the return of cash and the securities may be lower than what the firm may make on its real investments. Increases in noncash working capital represent cash outflows to the firm, while decreases represent cash inflow.

Levels of debt on the cash flow can be measured by netting the repayment of old debt which represent a cash outflow against the new debt issues which is a cash inflow.

This model is best suited for firms that have dividends which are unsustainable or which pay less in dividends than they can afford to, the leverage is low, stable and unlikely to change. The model is calculated using the following equation (Damodaran, 2002):

$$V = \sum_{t=1}^{\infty} \frac{FCFE_t}{(1+r)^t} \qquad \textbf{2.2}$$

Where V = Value of stock today

FCFE = Free cash flow to equity in year t

r = Cost of equity

To estimate growth in FCFE, it is far more consistent to replace the retention ratio with the equity reinvestment rate, which measures the percent of net income that is invested back into the firm and to replace Return on Equity (ROE) with noncash ROE because there is no excess cash left in the firm and the return on equity should measure the return on noncash investments (Damodaran, 2002).

2.2.4.2 Free Cash Flow to the Firm

Free cash flow to the firm is a measure of financial performance that expresses the net amount of cash that is generated for the firms after expenses, taxes, and changes in net working capital and investments and available to all claimholders in the firm, including stockholders, bondholders, and preferred stockholders. It measures profitability where a positive value would indicate that the firm has cash left after expenses, and a negative value would indicate that the firm has not generated enough revenue to cover its costs and investment activities.

There are two ways to measure the free cash flow to the firm. One is to add up the cash flow to the claim holders to the free cash flow to equity, and the other one is to estimate the cash flows prior to any of these claims, which calculated as (Damodaran, 2002):

FCFF = EBIT (1-Tax rate) + Depreciation – Capital expenditure – Changes in Working Capital **2.3**

The value of the firm is obtained by discounting the free cash flow to the firm at the weighted average cost of capital and calculated as:

$$V = \sum_{t=1}^{\infty} \frac{FCFF_t}{(1 + WACC)^t} \quad \textbf{2.4}$$

Where FCFF = Free cash flow to the firm in year t and WACC = Weighted average cost of capital

The growth for firm cash flows will be lower than the growth for equity cash flows. This is because equity cash flows are based on net income which has higher growth as the impact of financial leverage.

Expected growth in FCFF = Reinvestment rate x Return on capital **2.5**

This model is best suited for firms that either have very high leverage or are in the process of changing their leverage.