GREENWOOD REPORT

CAPITAL ALLOCATION

As a result of the global economic recovery and subsequent increase in business activity, corporations are accumulating record levels of cash on their balance sheets. While this may seem like a good problem to have, cash is not a return-generative asset and can be a drag on shareholder returns, especially in the current economic environment. Struggling to recover from the 2008-09 financial crisis, global central banks have lowered short-term interest rates to near zero percent. Subsequently, large corporate cash balances are under increased scrutiny due to their low-to-no return profile. We recently returned from our annual trip to CAGNY (Consumer Analyst Group of New York) where this topic received considerable coverage in CEO and CFO presentations.

Referred to as "Capital Allocation", the process of effectively utilizing cash encompasses some of the most important decisions faced by CEOs. When allocating resources, the CEO and their teams act as *investors*, choosing the best opportunities to grow the corporation's earnings and, ultimately, its shareholder's returns. The most effective CEO teams are the ones that deliberately consider capital allocation decisions, weighing their relative value and potential return on investment.

Correspondingly, evaluating how corporations allocate capital enables Greenwood Gearhart to make better investment decisions on behalf of our clients. The framework presented herein is part of our firm's research process and allows us to evaluate the relative attractiveness of each option at the CEO's disposal.

Although this process can be complex, corporate finance addresses two primary options:

I. **Return Capital to Shareholders** through Dividends or Stock Repurchases
II. **Reinvestment in the Corporation** through Acquisitions, Capital Spending, or Debt Reduction

These methods are not mutually exclusive, nor absolute. The CEO's job is to determine how the various options may be used in conjunction with one another to drive shareholder returns. The investor's (our) job is to find the corporations that do it best.

RETURN CAPITAL TO SHAREHOLDERS

1) **Dividends:** Shareholders may receive stock or cash coupons (called dividends), as authorized by the corporation's Board of Directors. One reason they are so popular, is that cash dividends are usually regular and can provide a source of income; this often attracts new investors to a company's stock. For example, retirees may bias their portfolio towards high dividend stocks in an effort to provide "*stable*" income in retirement. However, because dividends are not guaranteed and can be cut or eliminated by management if earnings are not sufficient to support their payment, they can be an investing pitfall.

   From an investment standpoint, dividends are one component of total returns (share price appreciation + dividend yield) and thus, can be a positive contributor to wealth creation. When they are not consumed as income, dividends provide regular portfolio cash flow that can be reinvested. For example, Greenwood Gearhart can utilize the dividend payments of one company to buy shares of another company, thereby allocating capital to the best relative opportunities. This flexibility stands in stark contrast to dividend reinvestment programs (DRIP's) which regularly reinvest in the paying company's stock, regardless the company's current or future prospects.

Dividends come at a price, however, as a result of their double taxation. Since dividends are paid out of net income, they are subject to regular corporate taxes (35%) *and* taxes at the individual level (20% + 3.8% Medicare Surtax for high income earners). Thus $1 per share of pre-tax earnings paid fully as a cash dividend translates to only 50₵ of after-tax value.[1] This is a key reason why the relative attractiveness of dividend increases should be weighed against other potential methods of returning cash to shareholders, such as stock buybacks.

2) **Buy Back Stock:** Determining the viability of buying-back shares largely depends on the price of the company's stock in relation to its intrinsic value. This ratio is often referred to as the **Price to Value ratio (P/V)** and is a principle in the investment decision making process. The numerator, Price, is an *objective* figure and represents the price the company trades for in the public market (e.g. on the New York Stock Exchange). The denominator, Intrinsic Value, is *subjective* and represents management's estimate of the price a knowledgeable buyer would pay for the company. Because of market inefficiencies, there are times when public market prices differ from intrinsic value, sometimes to a great degree. Greenwood Gearhart spends considerable time appraising the intrinsic values of companies, buying when intrinsic value exceeds price and selling when this value is recognized by the broader market.

   Similarly, CEO's can make their own assessment of the intrinsic value of their company's stock. When shares are undervalued (low P/V), it may be smart for the company to buy and retire their own shares, or place them in treasury for future use. For example, using the same $1 of pre-tax earnings (65₵ after tax) to retire shares at 70% of intrinsic value results in 93₵ of after-tax value.[2] The deferral of capital gains tax (as opposed to the immediate dividend taxation), combined with the undervalued stock purchase price, generates superior value versus the 50₵ from dividends. Additionally, because the number of shares outstanding is reduced, current owner's per-share ownership rises proportionately.

   Alternatively, buying back overvalued shares (high P/V) may be considered imprudent, since the anticipated future returns and current value would be lower. Instead, using overvalued equity shares as **currency** to raise capital or fund an acquisition is advantageous as the overvalued shares act as appreciated currency[3]. This strategy is particularly value accretive when using **overvalued** shares to acquire a company at an **undervalued** price.

   From an investment standpoint, **care should be paid to both the stock valuation and the method for which cash is returned to shareholders** (dividends or share repurchases). Caution is warranted, as a CEO faced with a lack of other attractive options, may choose to repurchase stock regardless of its relative value in an effort to artificially prop-up their per share stock price. Similarly, increasing dividends are an easy way to please shareholders, but may not be the most efficient use of capital. Exhibit 1 examines the relative attractiveness to owners (shareholders) of share repurchases versus dividends at various stock price valuations.

[1] $1 taxed at 35% (corporate tax) = 65₵. 65₵ taxed at 23.8% (individual tax) = 50₵ of after-tax value to the owner
[2] $1 taxed at 35% (corporate tax) = 65₵. 65₵ used to purchase a 30% undervalued stock (70% P/V ratio) = 93₵ of after-tax value to the owner
[3] $1 taxed at 35% (corporate tax) = 65₵. 65₵ used to purchase a 30% overvalued stock (130% P/V ratio) = 50₵ of after-tax value to the owner

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Exhibit 1: Relative Attractiveness of Dividends and Stock Buybacks, Various Valuations

	Share Price		
	Undervalued	Fairly Valued	Overvalued
Potential Use:	Share Buyback	Dividends	Equity as Currency
Price to Value:	Low (70%)	Equilibrium (100%)	High (130%)
After-tax Value of $1 to Owner:	93₵	50₵	50₵
Benefit to Owner:	Value recognized through increased percentage ownership	Cash flow for reinvestment in other opportunities	Value recognized through an acquisition funded with overvalued shares

The second option for allocating capital in a corporation involves reinvestment: acquisition of a new business, maintaining or enhancing existing business, or debt repayment.

REINVESTMENT IN THE CORPORATION

3) **Acquisitions:** There are specific times when acquiring partial or whole companies is prudent and others when it is not. In the many investor presentations we hear each year, CEO's often boast of their "acquisitive" nature. Acquisitive CEO's spend significant time buying and integrating new businesses, but often realize later that the acquisition provided little or no accretion to earnings. The excitement of an acquisition can lead managers to be biased in favor of making a transaction work, rather than letting it stand on its own merits. This has consequences, most often stemming from overpaying or from a poor assessment of the potential return distribution of the acquisition. Paraphrasing Alan Greenspan's remarks at a recent conference we attended: *A wise acquisition program is not one with a very high potential rate of return and high potential for loss, but one with an acceptable rate of return with low potential for loss.*

   One way of mitigating the risk of unwise acquisitions is by employing a consistent evaluation process with specific return criteria and maximum certainty regarding the variances of potential returns. As a hurdle for acquisitions, some CEO's utilize a benchmark equivalent to the internal rate of return (IRR) from repurchasing their company's shares. Others use a "checklist approach" to consistently evaluate acquisitions with the same criteria. For instance, at CAGNY we have regularly heard one company cite their acquisition criteria the same way year-in and year-out: *1) #1 or #2 category position, 2) higher growth than the overall category, 3) immediate gross margin accretion, 4) little property plant and equipment, and 5) sustainable competitive advantages.* This company has passed on many more acquisitions than they have made, and still managed commendable results. Hindsight sometimes shows that the best acquisition decisions were the acquisitions the CEO passed up.

   In reading public company filings, Greenwood Gearhart applies similar criteria to determine the success of acquisitions. This is especially important in evaluating companies that may face integration risk from multiple acquisitions. While a fair price is essential, it is but one factor in the evaluation of a transaction.

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4) **Capital Spending:** An alternative to acquiring a new company is to invest capital in the corporation's current operations to drive organic growth. Each year, a corporation may allocate a certain portion of cash flow towards capital spending. Capital spending can be split into two components: maintenance capital expenditures and growth capital expenditures. **Maintenance capex** consists of the capital necessary to sustain operations at their current level while **growth capex** consists of the capital needed to expand current operations to provide new growth opportunities. Although these component parts are not split in financial statements, diligent analytical work can provide a close approximation of the two.

   When evaluating growth capital expenditures, management (and also investment advisers) can apply project analysis to determine the attractiveness of the investment. For instance, the required upfront investment of building a new factory must be lower than the present value of the expected future cash flows derived from its existence. If this net present value (NPV) calculation is negative, then the project would erode value. Project analysis allows management to monitor actual cash flows versus anticipated cash flows to determine the project's success. When expectations are not met, management can make a determination to shut down the factory and reallocate resources. Additionally, using the NPV calculation, an internal rate of return (IRR) can be computed for comparison against other potential uses of capital, like repurchasing shares. Companies can also apply these metrics to marketing and advertising, research and development, and other key growth expenditures.

5) **Debt Repayment:** Perhaps the least accretive option, but no less prudent, is the repayment of debt. Over the past five years, the use of debt (or leverage) has been highly scrutinized due, in part, to its use by certain global financial institutions in the years preceding the credit crisis. For instance, prior to its insolvency and bankruptcy on September 15, 2008, Lehman Brothers had a leverage ratio (Assets to Equity) of 32:1 as compared to the average company in the S&P 500 Financials Index of 13:1[4].

   One of the reasons financial institutions employ high levels of leverage is because it provides increased Returns on Equity as shown in the model below (Exhibit 2). This model, nicknamed the "DuPont model" after the corporation that first put it in use, breaks down Return on Equity into its component parts. The breakdown helps to determine whether returns are a result of operational improvements or financial leverage. Not coincidentally, the bonuses of some Wall Street executives depended on improving Return on Equity over time, targeting 20%+. Ironically, many of these executives forwent bonuses in the crisis years due to the consequences of leverage when the economy turned negative.

Exhibit 2: "DuPont Model" – Lehman Brothers – September 2008

Metric	Calculation	Result	
A. Operating Efficiency	EBIT / Revenue	10%	*Mediocre Operating Results*
B. Asset Use Efficiency	Revenue / Assets	0.10	
C. Financial Leverage	Assets / Equity	32:1	*Were highly levered*
D. Tax Burden	1 – Tax Rate	68%	
Return on Equity	**A × B × C × D**	**22% ROE**	*To drive higher returns*

[4] Source: Bloomberg

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While the *irresponsible* use of leverage can have considerable consequences, the *responsible* use of leverage contributes positively to a corporation's returns, especially in today's ultra-low interest rate environment. Corporations (by issuing bonds) can borrow at 4-5% interest and reinvest the capital at higher rates through acquisitions, capital spending, or in the public equity markets. Additionally, incurring debt has certain tax *efficiencies* as the interest payments are fully deductible on corporate income statements, as opposed to dividends which are not. This results in a lower effective tax rate and thus, creates value for shareholders. For these reasons, "positive leverage" is a beneficial use of the balance sheet and should be considered an important part of any capital allocation strategy.

Exhibit 3: Example – Net Return with Positive Leverage

8%	Return on Investment
- 4%	Interest Rate
+ 1.4%	Tax Deductibility (35% rate)
= 5.4%	**Net Return**

Evaluating management's success in capital allocation is ultimately reflected in total shareholder return (share price appreciation + dividend yield). Some of the greatest returns generated for shareholders have, not coincidentally, come from companies with superior capital allocators at the helm. Warren Buffett exemplifies the "CEO investor" mantra and has famously built Berkshire Hathaway into a decentralized conglomerate where capital generated by disparate businesses flows to the top for more efficient reinvestment. While there is only one Buffett, there are others with similar capital allocation track records and superior shareholder returns. Of course, finding these companies and their exceptional stewards of capital is what distinguishes a great investment from a good one.

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Continue reading for a discussion on how these concepts may apply to your personal financial situation.

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PARALLELS FOR INDIVIDUALS

In many ways individuals, as CEO's of their own financial life, face similar decisions on their personal balance sheets. *Should we have a mortgage? How much cash should we hold? How much debt? Should we invest in rental property? How should we invest our savings?* The questions facing individuals are central considerations in Greenwood Gearhart's financial planning process while those facing corporations are key to our investment management research process. They are interrelated concepts and are both highly important determinants of our client's long-term financial success.

This addendum considers how the concepts in the preceding Greenwood Report can apply to one's personal finances. Viewing your financial picture in the context of a corporation can be a highly beneficial framework for maximizing long-term wealth.

1) **Dividends:** A corporation paying a dividend is roughly equivalent to an individual accumulating cash in their personal checking account. While this is a wise planning practice for emergency liquidity needs, the returns on cash assets are very low. Additionally, after accumulating an emergency cash reserve, it is generally better to first target savings toward tax sheltered vehicles like 401(k)'s or IRA's where the investment can grow tax deferred. After satisfying these two options, building a diversified tax managed portfolio is wise and the cash flow from personal dividends (your excess paycheck) provides capital for this purpose.

2) **Buy Back Stock:** Because individuals cannot sell fractional ownership in themselves (at least not yet), parallels with buying back stock are limited. However, this can be applicable to entrepreneurs or business owners acquiring or selling their business (like a dentist selling shares to a new partner).

3) **Acquisitions:** A corporate acquisition is similar to an individual purchasing a return-generating growth investment like stock. In this case, the individual is purchasing share ownership in a company he or she might like to own outright. The primary function of Greenwood Gearhart is to advise in this process.

4) **Capital Spending:** Corporate ***growth*** capital spending can be similar to making an investment in one's (or one's children's) future, perhaps through obtaining an advanced degree or a professional designation that will enhance future earnings potential. ***Maintenance*** capital spending may be utilized for continuing education.

5) **Debt Repayment:** Corporate debt is most closely related to having a mortgage on your primary residence. A mortgage is the only way an individual can borrow long-term and the Home Mortgage Interest Deduction allows deductibility on personal income taxes, a significant subsidy for most homeowners. Further, because real estate is an illiquid asset, it can be more difficult to access capital when compared to investments in the common stock of publicly traded companies. Therefore, paying off one's home mortgage might not always be in your best interest.

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