Corporations Are Not Capital Processors

Technical and fundamental analysts in the stock market hold each other in well-deserved contempt. While you are sorting the implications of that statement out for yourself, think about what stocks are supposed to be. At its most basic, the value of a stock is in theory the discounted stream of future dividends.

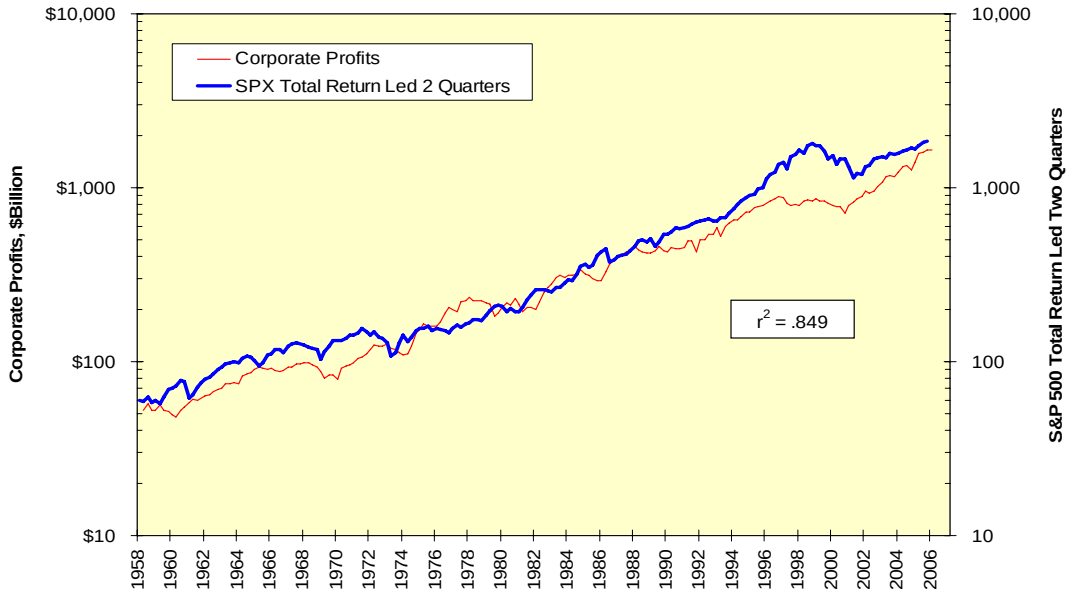
Yes, that is a fantasy-world statement. Even if we take the broadest economic definition of dividends, all funds returned to shareholders by corporations, including stock buybacks, non-cash dividends and various schemes to enhance shareholder value and, perhaps, executive compensation while we are at it, the quantity of those dividends are massively uncertain. All but the very youngest readers have seen giant corporations such as Enron and WorldCom disappear from the scene. Corporations live forever in the legal sense, but they have a nasty habit of dying in the real world.

Oh, and there is that nasty little matter about which interest rate to use as a discounting factor. Only in a textbook would anyone presume knowledge of interest rates across any reasonable investing horizon.

Finally, and most importantly, nothing in the fundamental data is as important as the risk multiple investors are willing to apply to a dollar of earnings for any given corporation. The implication of this is either grim or astonishing, depending on your point of view: If you were given perfect foresight for both earnings and interest rates, you would not be able to forecast the stock's price.

We can see this on a macro scale in Chart 1 by comparing the Commerce Department's series for total corporate profits against an estimate for total return on the S&P 500. Even if we shift the data by two quarters, equivalent to saying an investor today has knowledge of corporate profits six months hence, the r-squared of the regression is only 0.849. In other words, perfect two quarter-ahead knowledge of earnings still leaves 15.1% of S&P 500 variance unexplained.

Chart 1: Stocks Are Not An Earnings Scorecard



Economic Value-Added

Let's treat a corporation as if it were a machine for processing capital into profits much in the same way a refinery is a machine for processing crude oil into gasoline and heating oil. A corporation has a cost of capital. The debt side is relatively straightforward as the weighted average of yield on its bonds along with adjustments for default probabilities and spreads to reference debt indices. The cost of equity is a little more involved; it includes an estimate of the return implied in an equity index' price given estimates of growth rates, earnings, dividends and payout ratios and a beta, or relative volatility estimate, between each firm and the index. As we are constructing estimates for the Russell 3000 index, we will take a little bit of a short-cut. Bloomberg estimates on each firm's cost of equity, cost of debt and the resulting weighted average cost of capital will be used.

That is the cost of capital; we now need to calculate a return on invested capital is calculated by comparing the net operating profit after taxes to total capital invested. The difference between this return and the weighted average cost of capital is the economic value-added spread (EVA). It simply measures how well a firm converts its employed capital into profits for its shareholders. Think of the EVA as the crude oil crack spread or the soybean crush spread applied to capital.

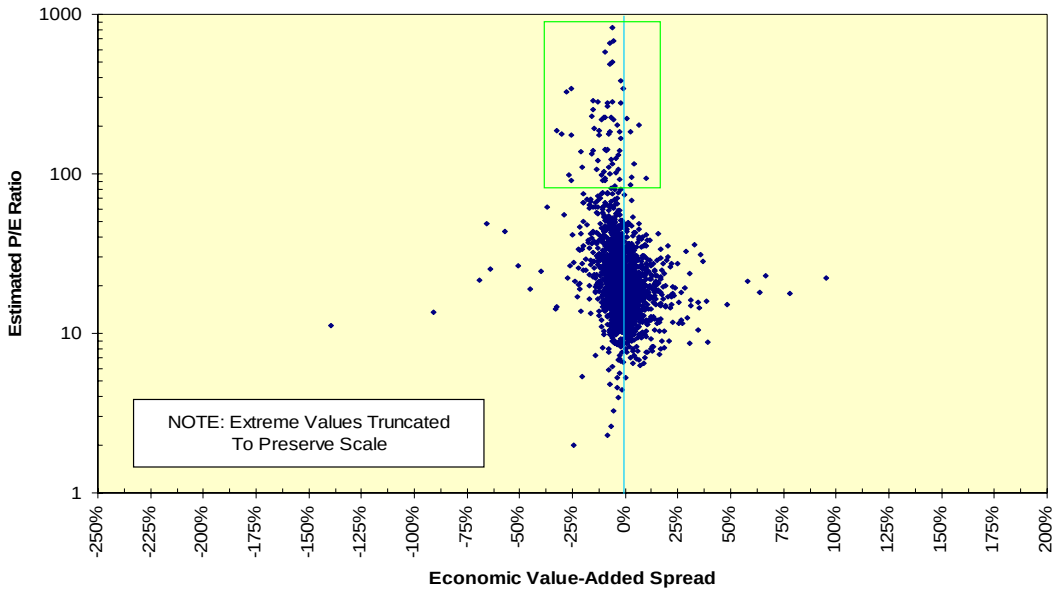
Is There Inertia?

What does the disclaimer on the bottom of every Prospectus say? Past performance does not predict future results. While these words unquestionably are true, they sidestep the problem that we only can use past data. And just like Newton's famous First Law of Motion, good performance in motion will tend to remain in motion, as will bad performance.

How does the stock market reward the EVA spread? We would be forgiven for thinking that forward-looking or estimated price/earnings ratios might have a positive relationship to EVA spreads. It does make sense, at least on the surface, to assume investors would pay a higher multiple for the more certain earnings coming out of high-EVA spread firms.

The logic breaks down on the data, as is so often the case. As we can see highlighted in the green rectangle in Chart 2, the overwhelming majority of firms in the Russell 3000 with forward-looking P/E ratios over 90 have negative EVA spreads. Moreover, the relationship between P/E ratios and EVA spreads across the universe of the Russell 3000 best can be described as random. Maybe the market believes past performance does not predict future results.

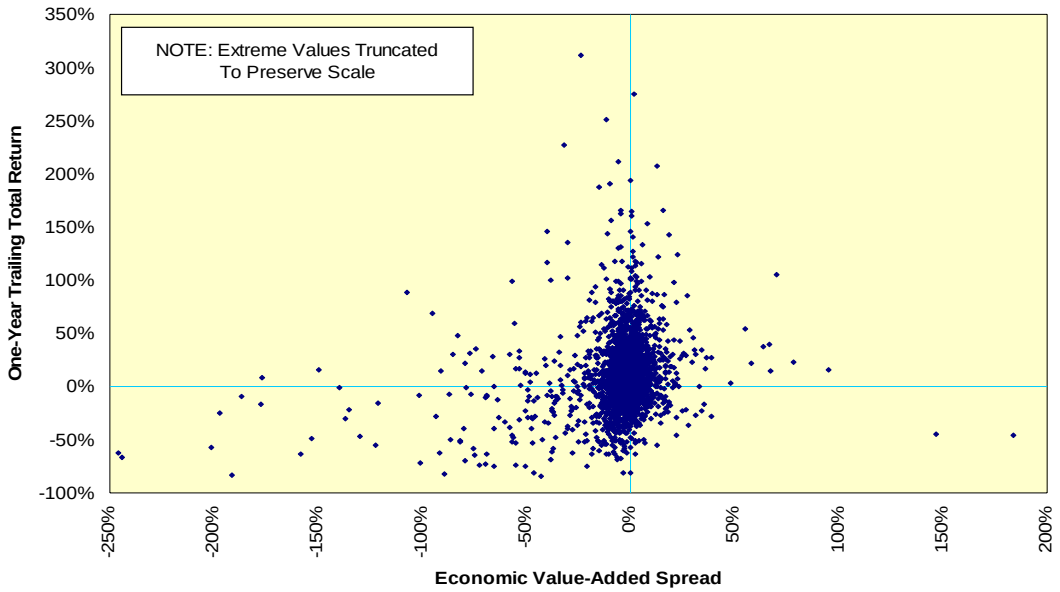
Cht 2: P/E Multiples Not Related To Economic Value-Added



Now let's turn the problem around and ask whether ongoing high EVA spreads and total return on the shares were related. We can forgive a market for not forecasting, but we should be able to expect a market to reward contemporaneous good performance, right?

This appears to be another theory that stumbles when applied to the broad world of the Russell 3000 index. If it were true, we would see an obvious strong positive correlation in Chart 3, but no such correlation is visible. Firms with high EVA spreads did not enjoy high total returns.

Chart 3: Economic Value-Added And Total Return Unrelated



Economic Sectors

Let's return to a point made above, that investors assign different risk multiples to earnings from different sources. The concept of a stock sector being hot or cold is hardly controversial. What happens if we break the broad market of the Russell 3000 into the ten Global Industry Classification System (GICS) sectors? Will we see a different relationship between EVA spreads and both estimated P/E ratios and trailing returns? The answer is yes on both counts.

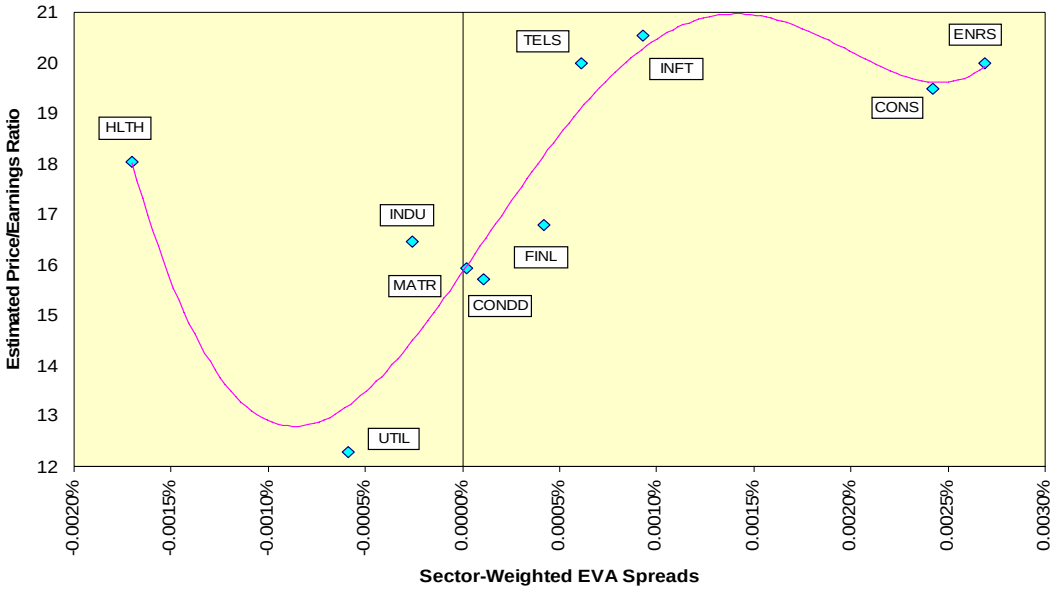
The ten sectors and the abbreviations used in Charts 4 and 5 are listed below:

Energy	ENRS
Consumer Staples	CONS
Information Technology	INFT
Telecommunication Services	TELS
Financials	FINL
Consumer Discretionary	COND
Materials	MATR
Industrials	INDUSTRIALS
Utilities	UTILITIES
Health Care	HEALTH CARE

The overall picture for estimated P/E ratios is quite interesting. The sector with the lowest EVA spread, Health Care, has a relatively high forward-looking P/E. This is perhaps due to the intellectual property content of the sector; any pharmaceutical firm can announce approval of a blockbuster drug out of its pipeline at any given time, and these drugs have patent protection.

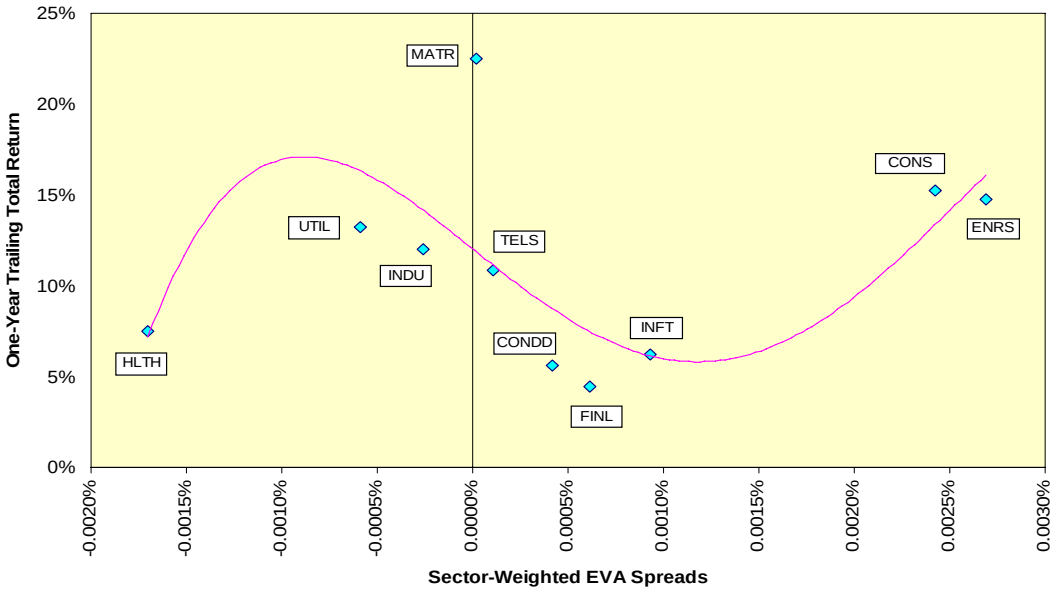
The two sectors with the highest EVA spreads are Energy and Consumer Staples. The energy sector has been benefiting from a global bull market in energy prices and investment in production. Consumer Staples includes many of the goods you eat, drink and wear on a daily basis and the stores in which you buy them. While both of these sectors enjoy strong multiples, their relationship to EVA spreads is below the trend established by the remaining seven sectors, those lying between Utilities and Information Technology.

Chart 4: EVA Spreads' Impact On P/E Ratios Is Sector-Dependent



The picture for total returns is interesting as well. Basic Materials, which includes mining and resource-related stocks, was a positive outlier on the total return scale. Health Care had poor returns to match its low EVA spreads. Then we have six sectors, from Utilities to Information Technology, correlated negatively to their EVA spreads. That is correct: On a sector basis, the higher the EVA spreads, the lower the total returns for six economic sectors. Consumer Staples and Energy broke out of this pattern and had high returns to match their high EVA spreads.

Chart 5: EVA Spreads' Relationship To Total Return Is Sector-Dependent



We Feel Analysts' Pain

Most traders are technicians of one stripe or another. We can react to price far more quickly than we can construct a fundamental analysis of any market. The problem with being a technician in stocks is the underlying asset keeps changing. A firm such as Google scarcely existed a decade ago and it is fair to say a decade from now it will be a very different entity than it is today. This makes reading a stock's technical patterns pointless over any length of time.

It is no better for the fundamental analysts. If in the aggregate we cannot match total returns to earnings with perfect knowledge of the latter two quarters in advance, then what is the point of doing what analysts spend their day doing, forecasting earnings? Under Regulation FD, firms cannot release information selectively to favored analysts or provide much in the way of guidance, and Sarbanes-Oxley raises the personal liability for corporate executives who supply analysts with information.

The question of what "works" likely will go unanswered forever. Perhaps the best answer for what works is diversification, money management and patience. If those do not sound like fun, you are right. This is a business, not a source of entertainment.