# Shale 2.0 – Revisited a Year Later

*"The stock market is filled with individuals that know the price of everything, but the value of nothing."*
– Phillip Fisher

*"Difficulty is what wakes up the genius."* – Nassim Taleb, *Antifragile: Things That Gain from Disorder*

*"The worse a situation becomes, the less it takes to turn it around, the bigger the upside."* – George Soros

Just one year ago, we wrote about the need for E&P management teams and boards to become more returns-focused. Indeed, since the start of the shale revolution, the industry has spent too much capital on projects that have generated unacceptable returns. Making matters worse, a significant portion of that capital was financed with debt. In order for companies in the sector to compete for capital with other industries going forward, they need to generate much higher returns on capital, create economic value on a debt-adjusted, per-share basis, and eventually return capital to shareholders as shale oil and gas plays mature over the next several years.

In addition, we outlined the important role that investors should play in promoting and rewarding value-creating behavior in the E&P sector. Historically, investors have allocated capital in a pro-cyclical manner, rewarding profitless growth during periods of cyclical strength, and not holding management teams and boards accountable for value-destructive behavior during downturns.

For their part, publicly-traded E&P companies have made real progress in improving their business models in an effort to generate better shareholder returns. We believe that these changes are underappreciated by most investors, many of whom appear more concerned about short-term performance and macro factors than the important structural changes that are occurring within the energy industry.

To start, many E&P companies have made significant changes to their incentive compensation programs over the last year. While more progress is clearly needed, the majority of companies in the sector have reduced the role that absolute growth targets play in incentive plans in favor of metrics that are more closely aligned with value creation, such as drilling returns. In fact, nearly 60% of E&P companies are now rewarding management teams with returns-based incentives, up from less than 15% in 2016.

Second, there has been a meaningful increase in returns on capital as the industry has become more efficient and more disciplined. Since the downturn in 2015-16, returns on capital have increased to roughly 10% and are set to improve further over the next few years. Interestingly, industry returns are now above the prior cyclical peak in 2014, when oil prices were $80-100 per barrel. As a result, returns are now becoming more competitive with other sectors – many of which are closer to cyclical peaks than the energy sector, which, in our view, is in the early innings of a multi-year cyclical recovery.

Lastly, the funding model for the E&P sector has improved drastically since the downturn. Leverage is lower today than it was prior to the downturn at much higher prices, as companies have either recapitalized or delevered organically over the last few years. Furthermore, the industry is now generating free cash flow for the first time in over a decade, and free cash flow is expected to increase significantly over the next few years, even at lower commodity prices. Given the improved financial outlook, many companies have announced and executed large share repurchase programs. In fact, share buybacks have outpaced new equity issuances by a margin of more than 3-to-1 so far in 2018. With many E&P stocks still trading below private market values and with free cash flow accelerating, we expect to see more share buybacks so long as the equities remain depressed. This represents a very meaningful shift for an industry that has historically focused more on raising capital than returning it to shareholders.

Despite the significant improvement in company-specific fundamentals and the outlook for commodity prices, investors continue to avoid the sector. As a result, there has been an unusually wide, at least by historical standards, divergence in performance between E&P shares and commodity prices with E&P stocks now reflecting long-term prices of just $50-55 oil and $2.40-2.50 natural gas – levels that are not sustainable longer-term, in our opinion.

Investors remain concerned that E&P management teams will go back to their old ways of spending more capital to chase production as commodity prices increase – thereby passing the economic rent associated with higher prices to everyone other than the owners of the E&P companies. These fears were heightened during the second quarter when several large companies did, in fact, increase their capital spending guidance in a misguided attempt to meet arbitrary production targets.

Nonetheless, we believe that these concerns are overdone. While it is true that a few publicly-traded companies have chosen to continue to pursue the old-school “growth over returns” model, masked by investor presentations paying lip-service to returns, the reality is that more companies are generating better returns while living within cash flow. In addition, investors have sent a strong message that value-destructive behavior and chronic free cash flow deficits will not be tolerated in this environment. We believe that message was heard loud and clear following the second quarter earnings reports.

In order to restore the badly-damaged investor confidence in the industry, E&P companies need to use this opportunity to demonstrate that they will continue to do what generates the best long-term returns for shareholders, even if that means reducing production growth rates. In the current environment, with the futures curves still at depressed levels, it is clear that E&P companies are not going to be rewarded for increased capital spending and growth.

Instead, E&P shareholders would be better off, in our view, if the companies used a significant portion of the increased cash flows from higher commodity prices to pay down debt where still needed, return cash to shareholders, and buy assets where the returns make sense. We believe that these uses of cash flow are particularly attractive today given the fact that: 1) the futures curve is still depressed and commodity prices will likely be much higher in the future than implied by the strip, 2) most E&P companies have just 3-7-years of truly “core” inventory remaining, and 3) many publicly-traded companies are now trading well below private-market values. Accelerating drilling activity makes little sense in the current environment given the attractiveness of the competing uses of capital and the limited nature of core inventory.

Returning capital to shareholders should not be thought of as a one-time event. Dividends and share buybacks should be used as part of a more robust capital allocation process throughout the cycle to ensure that capital is being allocated to the uses that generate the best returns and maximize long-term debt-adjusted, per-share growth.

For those companies whose shares trade in line with or above net asset value, dividends, including variable dividends, represent an attractive way to return some of the excess cash from higher commodity prices to shareholders. On the other hand, for those companies whose stocks trade well below net asset value, share repurchases represent a more attractive way to return capital to shareholders. In fact, for many companies whose shares trade close to PDP value, the returns from share buybacks now compete favorably with the returns associated with drilling new wells.

In addition, E&P companies should take a serious look at M&A and take-private opportunities. Valuations in the public equity market vary widely, driven by the growing influence of factor-based quant strategies and short-term investors that rely upon lazy, short-hand valuation metrics such as cash flow multiples. By using quantitative factors and short-term cash flow multiples, instead of a NAV-based valuation approach, public equity investors fail to properly account for the vast differences that exist between the companies in terms of their remaining core inventory, corporate decline rates, and free cash flow (the sum of which equals the economic value of an enterprise). As a result, favored E&P companies are trading close to the value of their proved plus probable reserves using the futures strip, while out-of-favor companies are trading in line with the value of their proved developed reserves, even for those that own large, undeveloped acreage positions in high-return basins. These valuation gaps are not sustainable, given the scarcity value of core acreage, and companies and investors alike should take advantage of the current dislocations in the public equity market.

With too many sub-scale companies competing for capital in an unloved sector that represents just 6% of the S&P 500, in-basin consolidation makes a lot of sense. This is particularly true in the current environment, where investors are rewarding returns and free cash flow. From a fundamental perspective, in-basin consolidation should allow companies to drill longer laterals, reduce overhead costs, offset high corporate decline rates, increase free cash flow generation, and add core inventory at a low cost by taking advantage of the current disconnects in public equity valuations. We believe that the need for consolidation will become more pressing as production growth rates slow and as core inventory continues to be depleted.

In our last letter, we concluded by stating that E&P companies and shareholders “would be well-served to take a different path this time – one that takes advantage of the incredible opportunity in front of them that benefits both shareholders and management teams.” To their credit, many companies have started down the right path by increasing their emphasis on returns. Still, more needs to be done to regain the confidence of investors who were burned so badly during the early stages of the shale revolution.

After taking the initial baby steps toward Shale 2.0, companies should institutionalize their increased focus on returns by making further enhancements to their incentive compensation programs, charging CFOs with managing the capital allocation process to maximize returns and debt-adjusted, per-share growth, and continuing to move down the path toward generating free cash flow and returning capital to the shareholders. After destroying value for many years, the industry needs to prove to the few longer-term investors still out there that the companies can become going-concern entities that deserve capital because they will do the right things with it. This will take both time and real change.

Investors need to adapt as well. In fact, the changes that are required within the oil and gas industry pale in comparison to the changes that are occurring in the investment world. The business of renting stocks, as historically done by mutual funds and hedge funds, is being eliminated by passive strategies and quant funds, which now represent more than 80% of the market. Thus, active managers have a choice: either continue to cede share to passive products and quant funds or become a counter-cyclical liquidity provider to the quant funds and passive strategies that dominate today’s marketplace. The few active managers that stay in business will need to return to creating value the old-fashioned way – by actually “investing” in and “owning” companies, building concentrated portfolios that are hard to replicate via passive products, and being engaged shareholders that solve for long-term value creation.

An important part of being an active manager is voting proxies responsibly to reward the right behaviors and to help eliminate the value-destroying practices that have characterized the industry for far too long. With the proxy voting season approaching, those E&P shareholders that would like to see their portfolio companies generate better returns have the ability to send an important message to those companies that have not yet embraced the Shale 2.0 governance and business model.

To create value longer-term, active managers in the public equity market need to think and act more like private equity investors. It is critical that they create a process that allows them to take advantage of the non-fundamental fluctuations in public marks and the resulting deviations that exist between share prices and intrinsic value. Instead of focusing on quantitative factors, such as momentum, and short-term valuation metrics, such as “multiple-compression,” fundamental energy investors need to better understand drilling inventory, decline rates, returns, and free cash flow. Public equity investors today grossly underestimate the long-term issues associated with core inventory depletion (which will be the subject of our next white paper) and declining well productivity. While these trends are quite bullish for the sector longer-term, they also have important implications for how companies allocate capital and monetize their remaining drilling inventory.

We believe that the transition to Shale 2.0 will ultimately be quite positive for E&P companies and their owners, even if public equity investors haven’t yet recognized the important shift in behavior and the resulting impact on financials. Accumulating core inventory via acquisitions and share repurchases, when it is undervalued in the public markets, not only helps to demonstrate the improved financial discipline that now characterizes many companies in the sector, but it also helps to increase long-term debt-adjusted, per-share growth rates without monetizing core inventory in a low-price environment. As shale production growth slows, as core inventory becomes more scarce, as well productivity declines, and as the longer-term outlook for commodity prices improves, the benefits of Shale 2.0 will become more obvious to investors as a Goldilocks period of moderate growth, free cash flow, and strong returns on capital replaces the early shale days of unsustainably-high production growth, low returns on capital, and high leverage.

The fact that public equity investors have not yet recognized the benefits associated with the transition toward Shale 2.0 is **not** a repudiation of the structural improvement that is occurring within the sector. To the contrary, it is a reflection of a public equity market that is now dominated by quant funds and passive strategies, whose primary driving factor is momentum. Many institutional investors do not fully understand the impact of the changes in the market structure and, as a result, have not yet developed an investment process that allows them to take advantage of the dislocations that arise from it.

This dynamic has created an unusually attractive opportunity for the E&P companies and investors that understand the limited nature of core inventory, appreciate the benefits of the Shale 2.0 business model, and are able to take advantage of the significant disconnects that exist in the public equity market today.

**Shale 2.0** – Refers to the phase of the shale revolution where companies focus on generating above cost-of-capital returns, maximizing long-term debt-adjusted, per-share growth, pursuing a financial model that is sustainable longer-term (i.e. – does not rely on external capital), and eventually returning capital to shareholders when cash flows increase faster than they can prudently reinvest it. It is not defined by either absolute production growth rates (which are just an outcome of the capital allocation process) or absolute levels of free cash flow (since different companies are at different stages of development).