ENERCOM®

Energy Industry Data & Trends

THE ART OF THE SHARE BUYBACK

Oil prices have been slowly climbing back above $50 in recent weeks. E&P companies have improved the efficiencies of their operations in the wake of the price drop in late-2014 and some are to the point where $50 oil is enough to return a profit. The question then becomes, what to do with the free cash flow? After markets closed on September 20, 2017, Anadarko Petroleum Company announced that it would begin a share buyback program to repurchase $2.5 billion worth of its own stock. The company plans to buy back $1 billion of that before the end of the year. The announcement was positive with the company's share-price jumping approximately 8% from the close on September 20 to the close on September 21.

News that Anadarko planned to purchase its own shares was a signal to the markets, "We have capital!" and what's more, Anadarko has enough capital that it does not need to spend solely on drilling. This signals a major shift for an industry that has spent the last three years steadily trimming off fat.

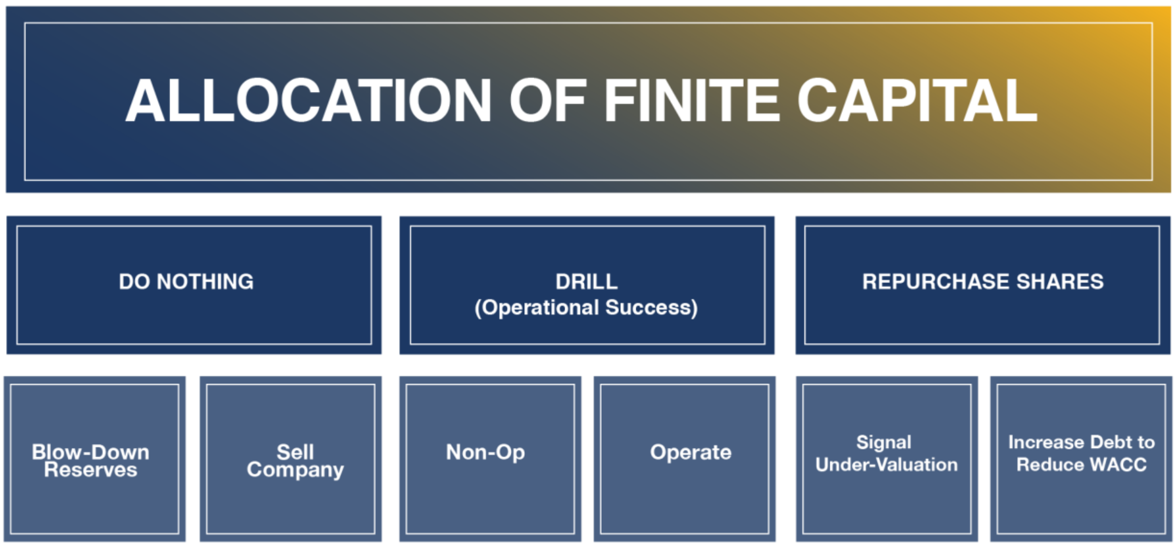
Anadarko's announcement has sparked debate, however. If the company has additional capital, is a share buyback really the best use for it? Will other companies follow suit to bump their share prices up as well, or are there more effective ways to deploy some of the capital companies are generating in a $50 oil world?

In this Report – KEY SUMMARY POINTS:

- Based on a buy-side survey from EnerCom, results show that investors see paying down debt and growing production as the best use of E&P companies' free cash-flow
- 78% of buy-side investors surveyed expect at least one-quarter of E&P companies to outspend their cash-flow in 2018
- Anadarko Petroleum's share buyback announcement makes sense at $44.81 per share (closing price of APC on September 20, 2017) when comparing the cost of its reserves on an enterprise value-basis versus the cost of drilling more wells
- With a debt-to-market of 63% as of September 20, 2017, paying down debt might have had a greater positive impact on APC's share price
- Based on EnerCom analysis of more than 60 E&P operators, the market perceives a company's debt-to-market cap as a serious overhang when it exceeds 150%
- The unintended consequences from announcing a near term buy-back program: Anadarko's pop in share price may dilute the positive effects of the buy-back
- Based on analysis of more than 50 companies in EnerCom's database, we have identified 8 E&P companies that could benefit from investing free-cash flow toward a share buyback program

CAPITAL ALLOCATION AND THE PARADIGM FOR DECISION-MAKING

The flow chart below illustrates one method for evaluating the allocation of finite capital resources for an E&P company.



A company has three basic choices with respect to capital allocation – do nothing or ostensibly "blow-down" the company's reserves, grow through the drill bit, or repurchase shares.

- **Do Nothing -** Produce down reserves and/or sell assets. Under this scenario, valuation would be approximately what other companies in the M&A market are receiving.
- **Drill -** Organic growth through the drill bit, if successful, increases reserves, production, and cash flow. All things being equal, drill-bit growth is the most attractive for increasing a company's shareholder value. A key consideration for an E&P company is whether it grows as an operator or non-operator. Operatorship provides additional benefits of being able to control the pace and certainty of drilling activity as well as costs.
- **Repurchase Shares -** Repurchasing shares is a credible option for companies experiencing a serious disconnect between its current market value and the intrinsic value of its assets and/or has

no debt and wants to increase project economics by reducing its Weighted Average Cost of Capital (WACC) by increasing leverage.

BUYING BACK SHARES INSTEAD OF INCREASING PRODUCTION

On September 20, 2017, Anadarko Petroleum Corporation announced its board of directors authorized the company to buyback $2.5 billion worth of the company's shares. At the close of markets on the 20th, that value represented roughly 10% of the company's total market cap. Anadarko said it plans to purchase $1 billion worth of its stock before year end with the remainder being purchased over the course of 2018.

The company's stock price has steadily decreased over the course of 2017 from a high of $72.69 on December 13, 2016, and held between $43 and $44 per share from August 10 until the announcement. Following the news release, the price of its shares jumped 8% in one day to close at $48.49. On of October 13, 2017, APC shares closed at $47.49.

Anadarko's announcement signaled to the market that the company had cash to invest, and felt that it was undervalued enough so that it made sense to put that money to work by buying its own shares. This decision to repurchase shares is interesting in a market which has focused more on production growth, both before and during the downturn, albeit with a greater focus on debt-adjusted numbers since late-2014.

PLENTY OF USES FOR $2.5 BILLION

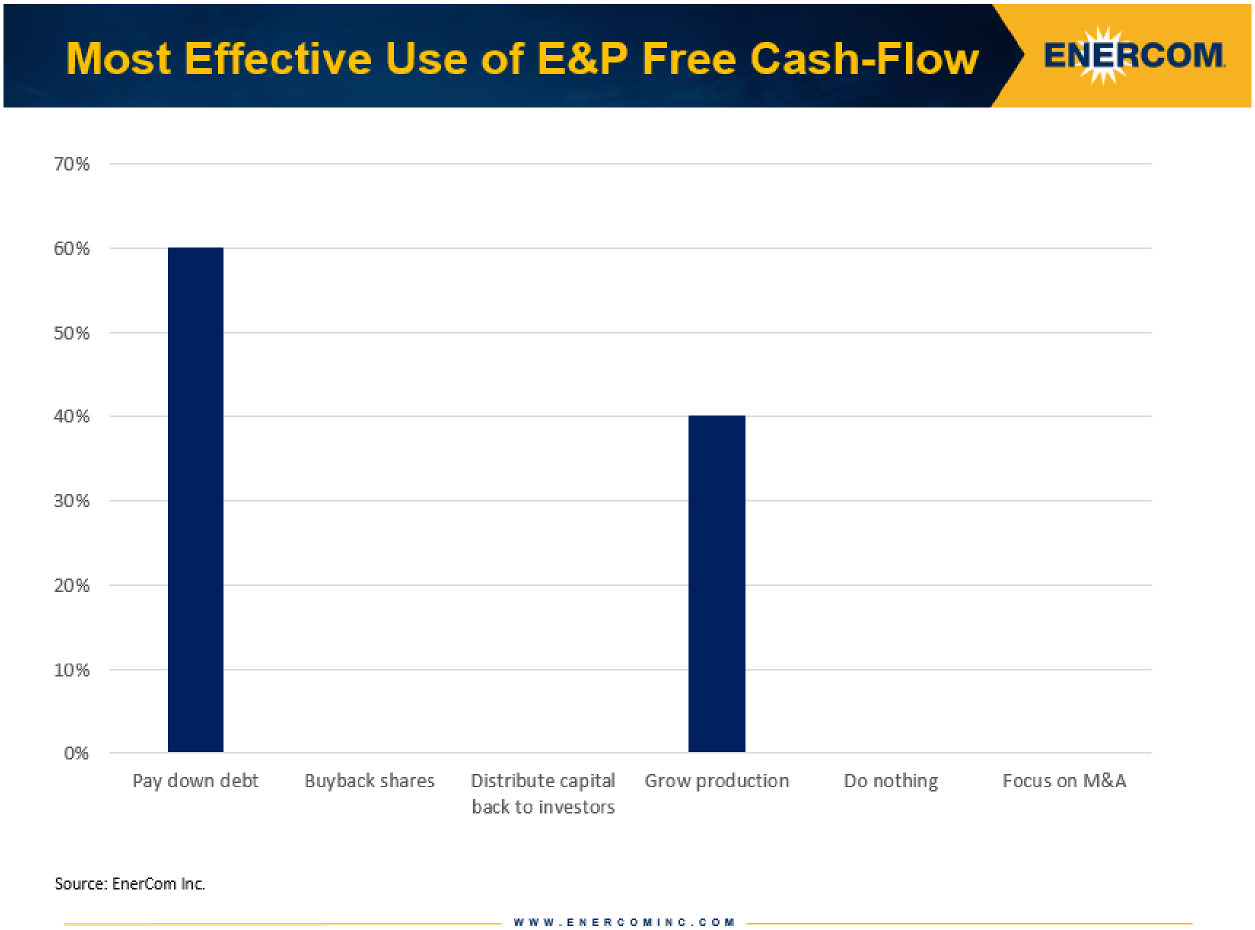
Capital allocation is the name of game in the E&P business. APC could have used the $2.5 billion it plans to spend on share repurchases for several projects in its portfolio that would have increased production, purchased assets or regrow their dividend that was cut substantially in 2016. Instead, the company decided to lower shares outstanding through a buyback in an amount equal to the total CapEx it planned to spend on onshore development (both upstream and midstream) in 2017, per an APC presentation in May.

That money could have expanded Anadarko's development of either its onshore or offshore assets substantially. It could have also acted as dry powder for the company to execute on a major acquisition.

Year-to-date only seven M&A transactions have been completed for more than $2.5 billion. Markets have rewarded companies for smart acquisitions as was the case for companies such as Sanchez Energy (ticker SN), which saw its stock increase more than 50% from January 12, 2017 (the day the deal was announced) to January 17, 2017 due to its Eagle Ford acquisition, while the wider energy industry saw only slight change.

Announce Date	Target Name	Acquirer Name	Seller Name	Announced Total Value ($MM)
1/4/17	DCP Midstream assets	DCP Midstream LP	Spectra Energy Corp, Phillips 66	$2,726
1/16/17	Clayton Williams Energy Inc	Noble Energy Inc		$3,115
2/7/17	Permian Midland oil & gas properties	Parsley Energy Inc	Double Eagle Energy Permian LLC	$2,819
3/1/17	Brigham Resources LLC	Diamondback Energy Inc	Yorktown Partners LLC	$2,550
3/9/17	Athabasca Oil Sands Project & Peace River Complex	Canadian Natural Resources Ltd	Royal Dutch Shell PLC	$8,162
3/29/17	Canadian conventional natural gas assets	Cenovus Energy Inc	ConocoPhillips	$13,196
4/13/17	ConocoPhillips San Juan basin interest	Krewe Energy LLC	ConocoPhillips	$2,700

All the completed M&A deals which exceed $2.5 billion also took place in the first four months of the year. It appears that markets are beginning to ask for something different from companies. A comment we heard during our conference in August was that the buy-side is looking for more capital discipline from companies as opposed to growth. A survey of the buy-side we conducted earlier this month shows that investors are looking for companies to strengthen their balance sheet. Of those polled, 60% thought paying down debt was the most effective use of free cash-flow while 40% said that capital should go to growing production. None of those polled said the money should be used for M&A.

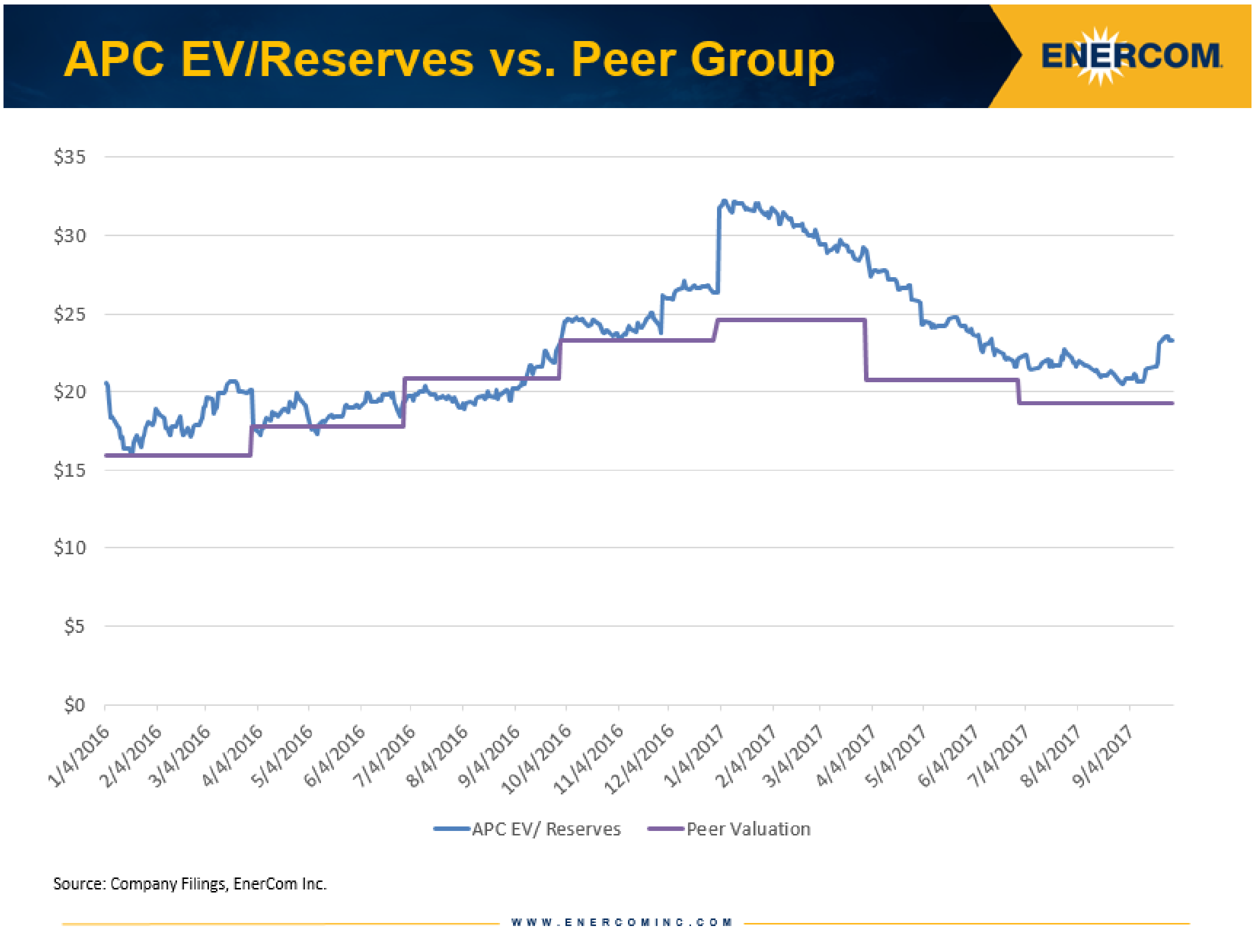


Interestingly, none of the investors said they felt cash-flow should be used for a share buyback either, although the market response to the news was positive.

WHY A SHARE BUYBACK MADE SENSE

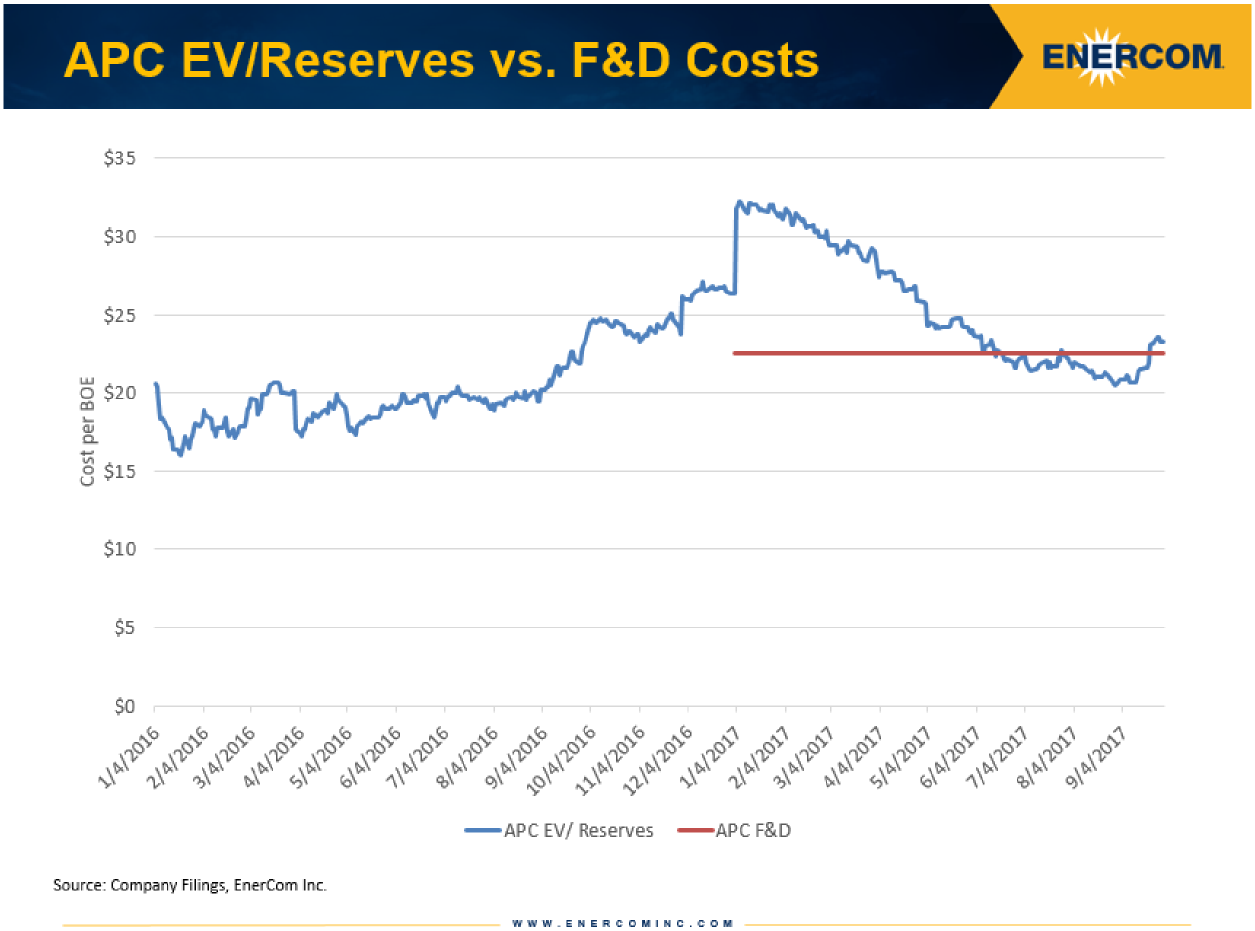
While there are several contributing factors when considering whether to do a share buyback, ultimately the company must consider what is best for shareholders. Often companies will initiate a share buyback when they feel undervalued compared to their peers. This allows a company to take advantage to the upside on its own shares if the market is not giving it a similar valuation to its peers and the company believes it can close that gap.

This does not, however, appear to be the case for Anadarko. Comparing APC to its peers based on enterprise value-to-reserves, Anadarko traded at a premium to the group apart from the third quarter of 2016.



Considering the various ways APC could continue to develop its resources, the logic behind the share buyback becomes clearer. Anadarko could have put the money to work in the drill bit, but it made a more cost-effective choice by reinvesting into its shares in order to own a greater piece of its current assets.

APC's one-year F&D costs are approximately $22.55 per BOE that the company produces, and on September 20th the company's enterprise value-to-reserves was $21.93 per BOE. Looking at the deal from this perspective, Anadarko was able to purchase an increased portion of its reserves at a $0.62 per BOE discount the day the deal was announced compared to the cost of finding and developing those same resources.

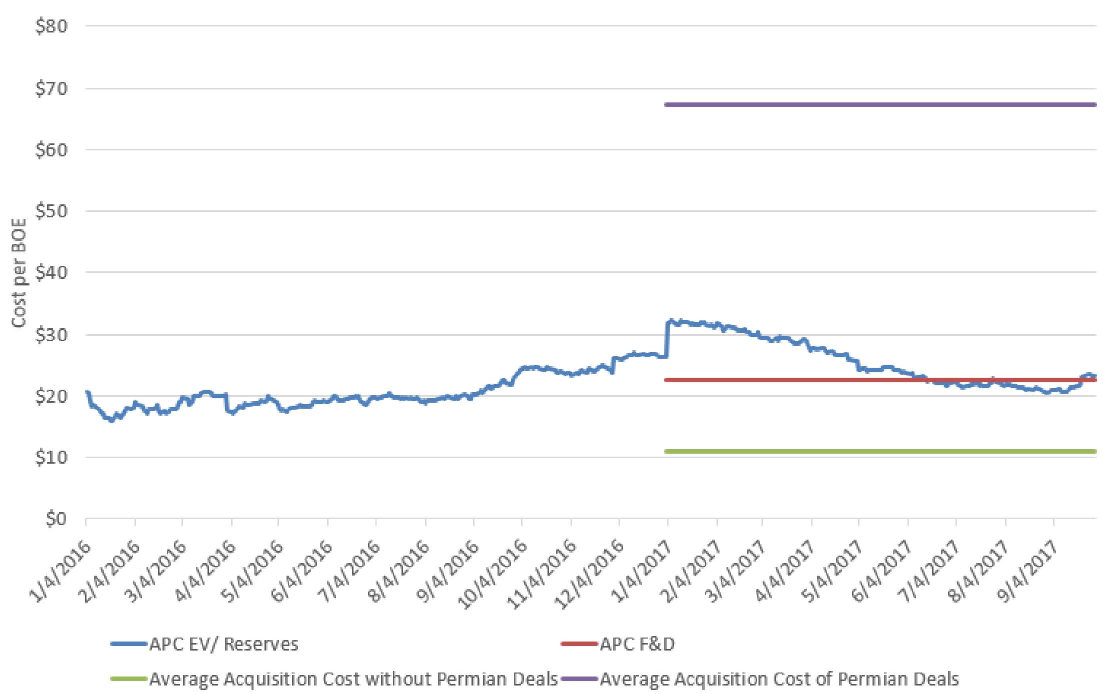


Since mid-June, Anadarko's EV-to-Reserves were less expensive on a BOE basis than the cost of bringing the equivalent production up out of the ground. Assuming the company's F&D continued to be $22.55 per BOE and APC had instead invested the $2.5 billion directly back into the drill bit, it could have added approximately 110.9 MMBOE to its reserves, which would in turn add approximately $2.39 billion to the company's enterprise value. APC's final EV would be approximately $39.5 billion and its market cap would be approximately $24.3 billion. Taking this market cap divided by the 560.4 million shares outstanding, APC's shares would have *fallen* in value from $44.81 on the day of the announcement to approximately $43.35 based on the regressions in our internal Five Factor Model (5FM).

The company could have increased reserves and production is through acquisition as well. Purchasing new acreage with flowing production would allow for an immediate increase in production, allowing the company to put more reserves on the books for any undeveloped acreage or additional zones.

Looking at the M&A transactions that have taken place over the last two years with reported reserves, M&A deals averaged $22.18 per BOE, or $0.37 less than APC's F&D costs and $0.25 more than the company's stock on an EV-to-Rreserves basis. This includes three Permian deals, one of which had a reserves cost per BOE of $163.33. Removing that one particularly expensive deal, the average falls to $12.10 per BOE, and removing Permian deals altogether brings the average to $10.91 per BOE, or half as much as Anadarko spent on purchasing a larger portion of its existing reserves through the share buyback.

APC EV/Reserves vs. M&A Deals



Source: Company Filings, Bloomberg, EnerCom Inc.

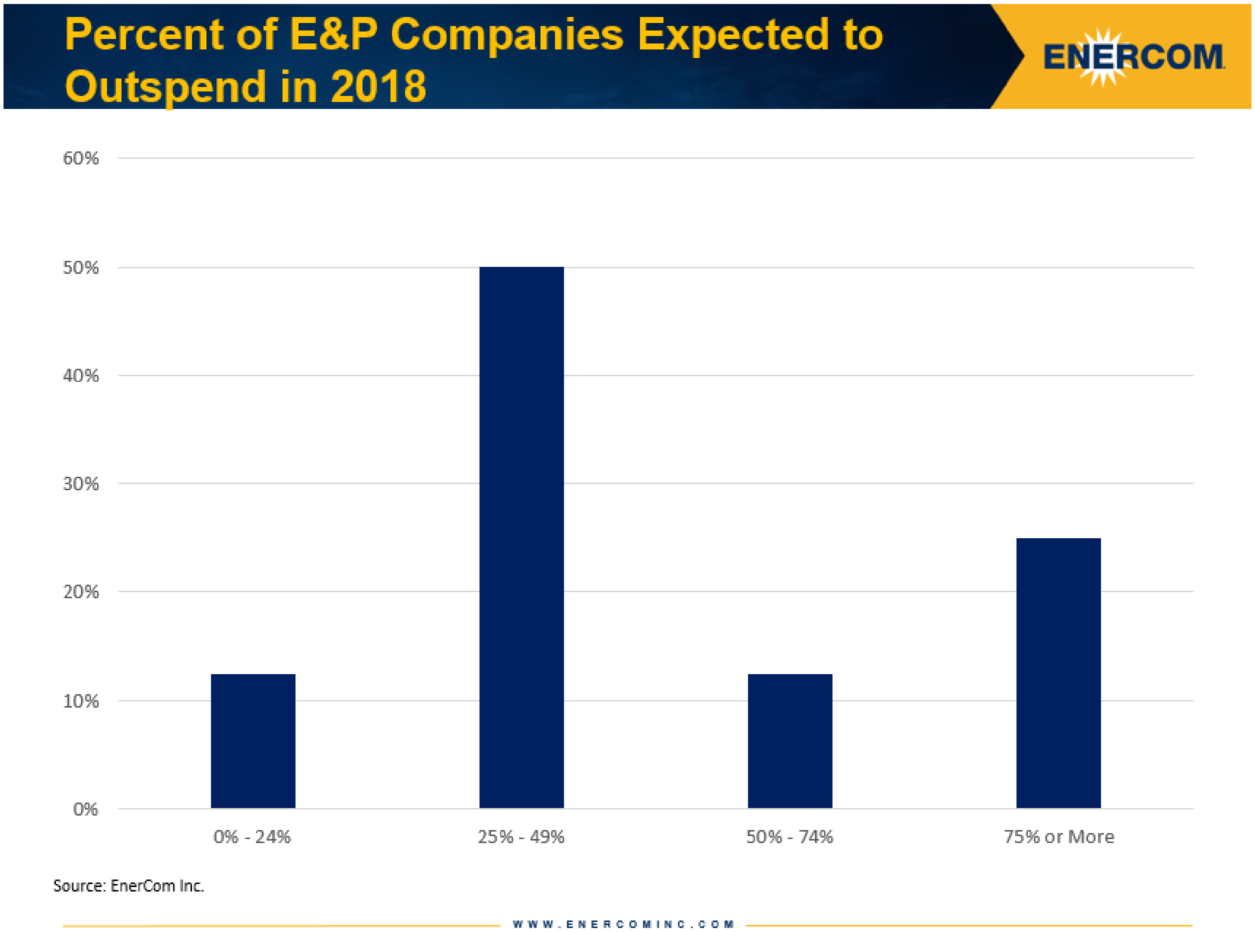
While Anadarko could have potentially purchased more reserves with the $2.5 billion set aside for the share buyback, it most likely would have been outside the Permian based on the deal values seen in the play over the last two years. While markets have rewarded smart acquisitions made outside the Permian, the strong emphasis on the Permian is why M&A costs in the region have skyrocketed far above any other play in the country. With such a strong preference in the markets toward Permian players, it makes sense that APC would choose instead to buy its own shares rather than sit on the capital waiting for the right deal to surface.

Another possibility would be to put the money back into the hands of investors directly. If the company issued a one-time dividend, shareholders would have received approximately $4.46 per share. One-time dividends typically have short-term implications for share price, and any bump in share value from investors piling in to get the dividend could evaporate as quickly as it came.

Attributing a one-time dividend to the share value, APC's stock would have been worth approximately $48.01 per share, but again, this added value would not translate into long-term value. Investors would also pay a capital gains tax of 15.0%, meaning that not only would the dividend have less impact on the share price than the buyback, it would also be a less shareholder-friendly option.

PAYING DOWN DEBT MAY HAVE HAD A GREATER EFFECT

The one use of Anadarko's capital that would have had a greater positive impact based on our models was that of paying down debt. In our conversations with the buy-side since August, the idea of lower debt and full-cycle returns have come up with increasing frequency. Despite the push for capital discipline from the markets, half of our buy-side respondents reported they expect one-quarter to half of E&P companies to outspend cash-flow to keep production flat in 2018. An additional 37.5% said they believed more than half of companies would outspend cash-flow next year to keep production flat.

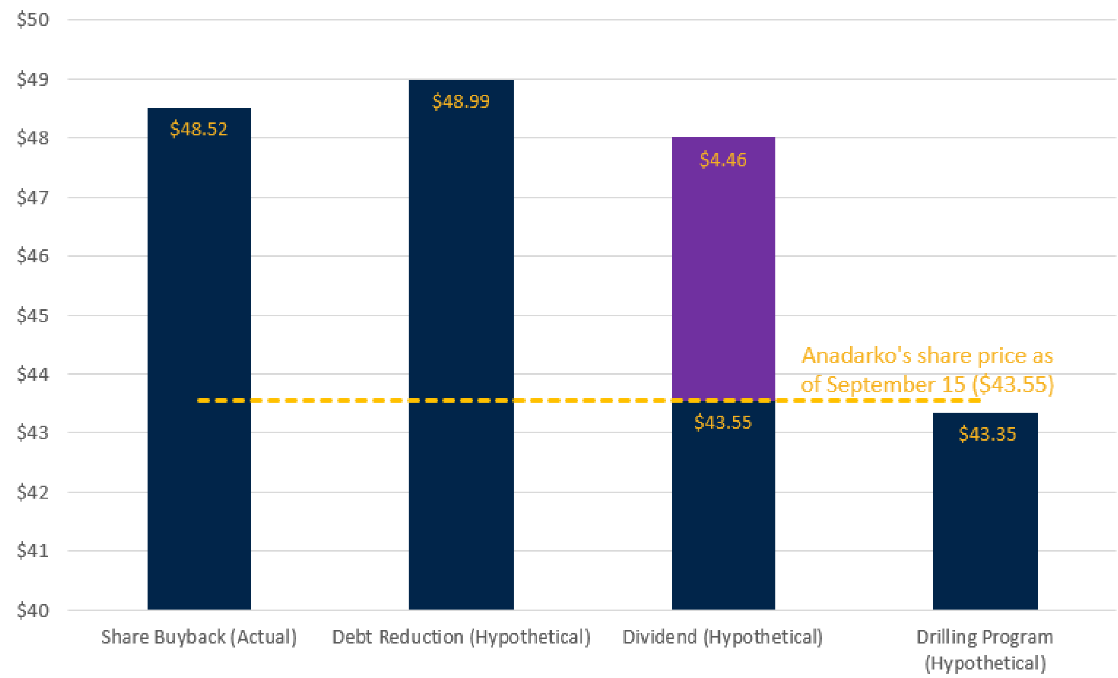


Markets are beginning to put a premium on a company's ability to reduce leverage while expecting that most will be required to spend more than they make just to maintain flat production. Most of our respondents (44%) thought that companies would continue to sell non-core assets to raise new capital. Another 33% thought E&Ps would need to turn to additional debt to secure new capital.

Assuming Anadarko put the $2.5 billion toward reducing its leverage, APC would be able to lower its debt from $15.3 billion to $12.8 billion lowering the company's debt-to-market cap to from 63% to 53%. Based on the regressions of large-cap companies using our 5FM, this would translate into a stock price of $48.99 per share for APC, or 1% higher than where the stock closed the day following the announcement of the share buyback.

Anadarko and their large-cap peers have relatively low debt-to-market cap metrics compared to the rest of the industry, however. The median for the large-cap group is 43%, compared to mid-, small- and micro-cap groups which have a median debt-to-market cap of 49%, 98% and 206%, respectively. While investors say they want companies to focus on the strength of their balance sheets, our analysis indicates that other metrics such as F&D costs, OPEX and G&A, production replacement and capital efficiency begin to have a more outsized effect on share price than debt once companies achieve debt-to-market cap of less than 150%.

APC EV/Reserves vs. M&A Deals

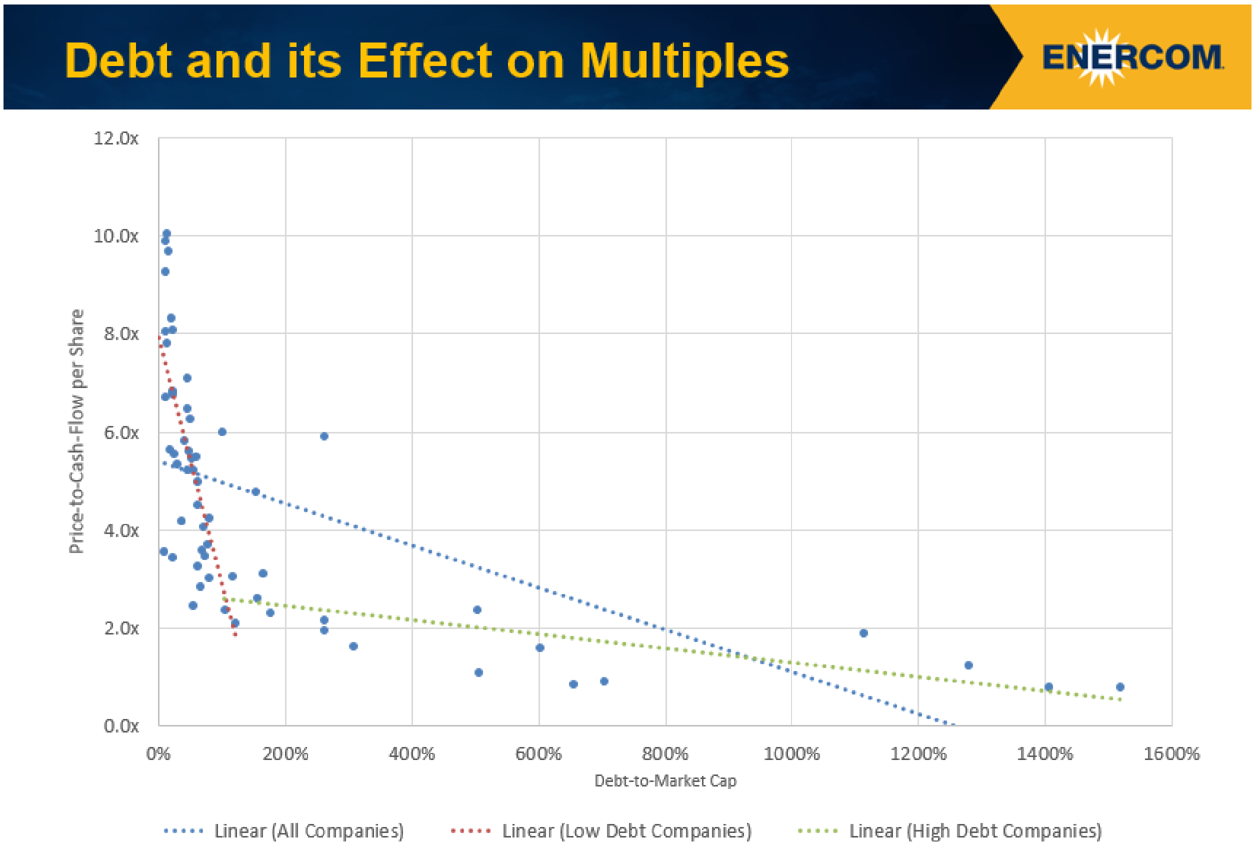


Source: Company Filings, Bloomberg, EnerCom Inc.

800 18th Street, Suite 200
Denver, Colorado 80202
(+1) 303.296.8834
info@enercominc.com
enercominc.com
theoilandgasconference.com

WHEN DOES THE BALANCE SHEET STOP BEING THE FIRST CONCERN?

Comparing price-to-cash flow multiples to debt-to-market cap for the companies in our database, valuation begins to vary widely after companies lower their debt to certain levels. Our analysis indicates that below a debt-to-market cap of 150%, cash-flow multiples become much more variable as markets are focused more on company fundamentals rather than their debt.



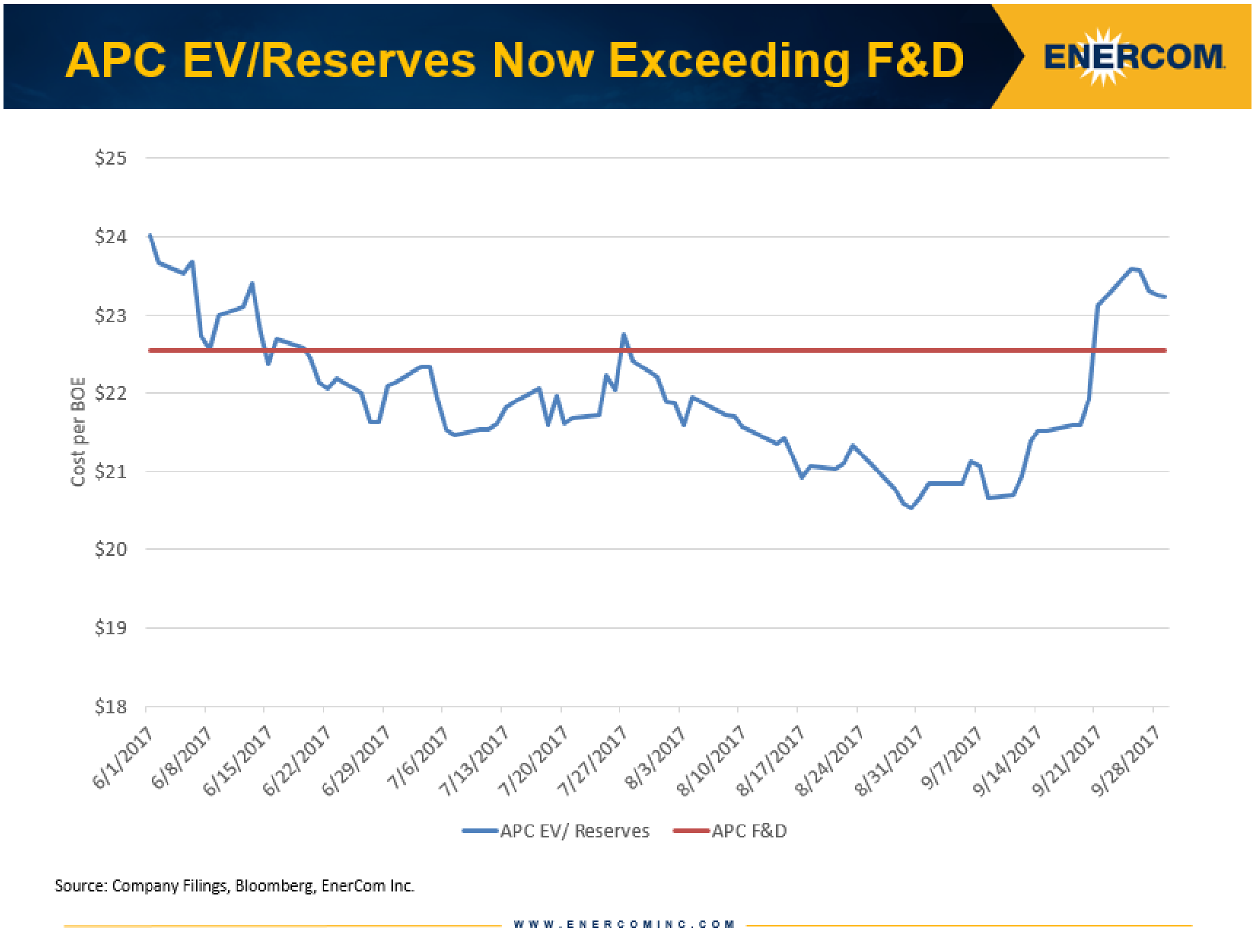
Source: Company Filings, Bloomberg, EnerCom Inc.

For companies with debt-to-market cap greater than 150%, paying down debt would have a much greater effect on share price. For companies such as Anadarko and its large-cap peers, as well as many of the mid-cap companies in our database, debt can still positively impact multiples, just not to the same degree. The results of our buy-side survey indicate that investors are still very much focused on the strength of the balance sheet, but below 150% debt-to-market cap, stock price movements become less affected by debt and companies have more options available to them.

Once an E&P company's debt-to-market cap drops below that threshold, deleveraging may not be the best move. If F&D costs exceed the company's share price, and there are no good acquisition targets, share buybacks can have strong positive impacts on the stock price. Aside from reinvesting into the companies own reserves the way Anadarko did, repurchasing shares is a credible option for companies experiencing a disconnect between current market value and the intrinsic value of its assets.

ANADARKO MAY NOT REAP THE FRUITS OF THE BUYBACK

One disadvantage to the share buyback strategy initiated by APC is that the positive reaction from markets will dilute the effectiveness of the buyback on an EV-to-Reserves basis. The increased stock value took Anadarko's share price over its F&D costs in the days following the deal.



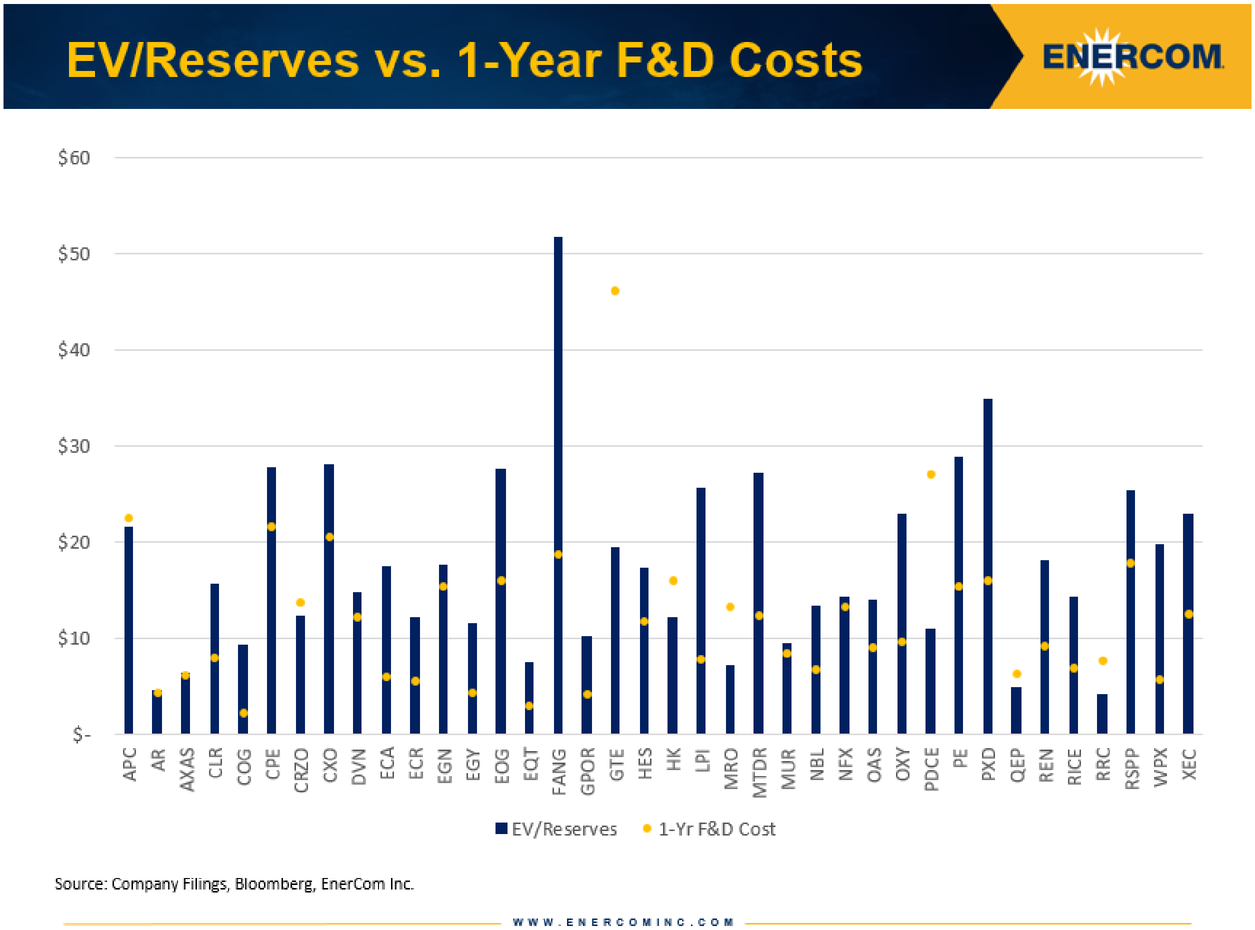
The company's increased enterprise value translated into the share repurchasing program being a more expensive way to unlock the value of its reserves as compared to putting the capital back into the drill bit. Fluctuations in share price through next year could change this, but the immediate effect essentially negated the positive aspects of the share buyback on a EV-to-Reserves basis. The program will still put money back into share holders' hands tax-free, however, so it is not overly detrimental.

Companies such as Core Laboratories avoid these bumps in share price by having an ongoing program and reporting the results of their buyback programs quarterly. The company puts out the number of shares it repurchased and the total capital available for repurchases in the coming quarter with its earnings. In the company's second quarter release, Core announced it had repurchased over 39 million shares at an average of $41.30 per share. This type of ongoing reporting helps to keep the share price from spiking while still returning capital to investors.

OTHER COMPANIES PRIME FOR A SHARE BUYBACK

Using the same methodology to look at other companies in our E&P Weekly database, EnerCom identified several operators that could benefit more from a share buyback or reinvestment in their drilling program, rather than paying down debt. We exclueded companies with debt-to-market cap in excess of 150%, as markets would most strongly reward them strengthening their balance sheets, and compared the F&D costs of the remaining companies to their enterprise value-to-Reserves on a BOE basis.

Most of the companies in our database (54%) have debt-to-market cap levels below 150% with EV-to-Reserves above their F&D costs, suggesting that most of the companies in our coverage universe should be putting capital back to work in their drilling programs. The next largest group was those companies which we believe should focus on debt reduction. Of the 56 E&P companies in our database, 18 (32%) have debt-to-market cap over 150%. There were just eight companies (14%) that had debt-to-market cap less than 150% and EV-to-Reserves greater than their F&D costs, meaning a share buyback would likely be viewed positively by markets.



Those companies with F&D costs that exceed their EV-to-Reserves metrics are strong candidates for a share buyback. Our analysis indicates there are several companies which would see favorable market response from a share buyback including: Antero Resources, Abraxas Petroleum, Carrizo Oil & Gas, Gran Tierra Energy, Halcon Resources, Marathon Oil Corporation, PDC Energy, QEP Resources and Range Resources. Several of these companies, however, have recently undergone transformational acquisitions.

- Halcon exited bankruptcy before entering the Delaware Basin for $705 million and selling its Williston assets for approximately $1.5 billion.
- Marathon sold its Canadian assets to Shell for $2.5 billion before spending $700 million to enter the New Mexican portion of the Delaware.
- PDC Energy made a splash into the Delaware with a $1.5 billion privately negotiated deal for 57,000 net acres across the play.

- QEP sold its Southwest Wyoming assets for $777.5 million.
- Range made an all-stock acquisition of Memorial Resource Development Corp. valued at $4.2 billion.

These deals were made by management teams seeing an opportunity to put capital to work, but ultimately decided that changing assets was the most effective use of their money. Ultimately, a share buyback does not fundamentally change an E&P company; the company's assets remain the same, and if investors or management feel there is more value to be created in a different basin, it can make more sense to pursue those opportunities instead of doubling-down on underperforming assets.

Companies operating in the Delaware often have much higher EV-to-Reserves multiples. A large part of that premium multiple comes from wells drilled there having high EURs, especially compared to their costs. There is also an expectation in the market that the flood of capital going into the Permian will translate into drilling activity. A Permian-player that decides to spend capital on a share buyback as opposed to new wells would most likely be penalized by markets looking for returns from the play.

Operators outside the Permian could also continue to invest in the drill bit and see positive share price response based on our analysis. Cabot Oil & Gas, Noble Energy and Newfield Exploration all have lower F&D costs than EV-to-Reserves, suggesting excess capital would be best put to use in the drilling program.

KEY SUMMARY FACTORS OF SHARE REPURCHASE PROGRAMS

As oil prices remain near $50 per barrel, companies continue to look for ways to best deploy their capital. In the case of Anadarko, a share buyback was a sound decision given that its EV-to-Reserves metrics show it was cheaper to purchase reserves through a buyback than try to develop them through E&P operations. Key factors for companies to keep in mind when considering their share buyback options include:

- **The market -** Before approving a share buyback, the Board of Directors should carefully evaluate the market environment and the company's intrinsic value, based on capital structure, current project portfolio and other factors. In large part, these factors will determine whether a buyback announcement sends a positive, or negative, signal to the market

- **Context -** The market may perceive a buyback announcement positively or negatively, depending on a company's individual situation and the current market environment. Although buybacks have the potential to increase shareholder value, they won't mask an underperforming stock. Poorly conceived or ill-timed repurchase programs can do more harm than good, and use up valuable capital reserves.
- **The message being sent -** A buyback announcement sends a signal to the market that a company believes its intrinsic value (a balance sheet calculation) is significantly (greater than 30%) less than its market value
- **Not all repurchase programs are created equal** - Careful design of the repurchase program can ensure a buyback has the greatest possible impact on shareholder value. The best repurchase programs:
    a) are large enough to gain the market's attention and signal an "undervalued" situation,
    b) are conducted by companies with stable cash flow,
    c) company has a debt-to-market cap less than 150%,
    d) a share buyback reduces shares outstanding and potentially decrease trading liquidity, which may reduce the attractiveness of taking a position and,
    e) do not repurchase shares from management as part of the buyback.
- **The numbers are the numbers** - It is important to remember that share buybacks do not, in and of themselves, improve key operational metrics (e.g., reserve replacement, production growth, etc.) or a company's intrinsic value.
- **Long-term performance comes from the drill bit** - The best way to improve long-term share price performance is to invest cash in operational projects that deliver operational results above the weighted average cost of capital and market expectations. Companies with above-average valuation multiples typically possess the investor-desired trait of "future visible growth." In today's market, the notion of future visible growth reaches beyond drilling inventory size and leasehold position to increasingly include low asset intensity combined with a strong, liquid balance sheet.

A WORD OF THANKS

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