

2013 E&P Sector Outlook

Growing Separation Between The 'Haves' and 'Have Nots'

- **E&P Industry In Transition...** – The greatest challenge for the E&P industry has always been the reinvestment of capital. We believe the environment for the reinvestment of capital will be more challenging in 2013 than at any other point over the past two decades. In our opinion, this will drive a greater disparity in performance and valuation between companies that already have the resources in-hand in which to reinvest capital with solid returns (the "Haves") and those that lack a deep inventory of investible assets (the "Have Nots"). Further, after two decades of successive waves of new technologies (3-D seismic, horizontal drilling, fracture stimulation) to open up plentiful resource potential to tap and lift the entire sector, we do not currently see any new technology on the horizon that will unlock another vast new opportunity set for the industry.
- **...With Onshore NA Now "Crowded" & In Exploitation Mode** – The result of the breakthroughs in horizontal drilling & fracture technology to unlock vast shale reserves is that North America has become "crowded" with both integrateds and large-cap E&Ps having "come home to roost." At this stage, there are "not many stones left unturned" with most of the prospective NA resource acreage assessed or locked up, and with limited international opportunities (apart from deepwater exploration offshore Africa or Brazil). Thus, the focus has turned from "land grab" to exploitation which has created a lack of opportunities for companies that have not already locked up a deep inventory of drillable acreage or development projects.
- **Key E&P Share Performance Drivers Remain The Same...** – Our analysis reveals that *cash flow per debt-adjusted share (CF/DAS) growth* and *'energy weighted' production per debt-adjusted share (P/DAS) growth*, along with *Reserve Replacement Efficiency (RRE)*, continue to be the most highly correlated metrics to E&P share performance.
- **...While Oil Prices Remain Key To Relative Sector Performance...** – Over the past eight months, the direction in oil prices has become the primary driver of relative E&P sector performance. After being very highly correlated to global equity markets from 2009 through Q1'12, which resulted in E&P sector performance being predominantly a higher beta reflection of the broader markets, this relationship has weakened in the face of expanding North America production and a still weak global economy. We believe oil prices will continue to underscore relative E&P sector performance in 2013. Our current outlook calls for WTI spot prices to average \$85/Bbl (\$99/Bbl for Brent) in 2013 vs. consensus of \$96/Bbl (\$110/Bbl Brent).
- **...And With Natural Gas Prices Expected To Rebound** – After averaging nearly \$2.75/MMBtu in 2012, we project natural gas prices will average \$3.60/MMBtu in 2013 (vs. consensus of \$3.70/MMBtu), assuming a normal winter. However, we would note that a warmer-than-normal winter could pose significant downside for natural gas prices next year, although we don't foresee prices averaging much above \$4.00/MMBtu even in a much colder-than-normal winter scenario.
- **Stick With The Winners** – We believe companies that have demonstrated the ability to reinvest capital with solid returns while growing production and that have deep, high quality inventories will outperform in 2013. At the top of this list are EOG, NBL, CNQ, CXO, RRC and COG along with APC (post Tronox resolution). We are also downgrading SD to Neutral from Buy based on our declining CF/DAS outlook.

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See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

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Data Summary

Company	Ticker	Rating		Target Price		Current Year Earnings Estimates	
		Old	New	Old	New	Old	New
Apache	APA	1	1	US\$100.00	US\$95.00	US\$9.29	US\$9.29
Anadarko Petro	APC	1	1	US\$115.00	US\$105.00	US\$3.41	US\$3.41
Chesapeake	CHK	2H	2H	US\$20.00	US\$20.00	US\$0.35	US\$0.35
Cobalt Intl	CIE	1H	1H	US\$40.00	US\$38.00	US\$-0.75	US\$-0.68
Cdn Natural Rsc	CNQ	1	1	US\$40.00	US\$40.00	C\$1.36	C\$1.36
Cabot Oil & Gas	COG	1	1	US\$55.00	US\$60.00	US\$0.59	US\$0.59
Concho Res	CXO	1	1	US\$116.00	US\$107.00	US\$3.81	US\$3.65
Denbury Resource	DNR	2	2	US\$19.00	US\$18.00	US\$1.39	US\$1.37
Devon	DVN	2	2	US\$62.00	US\$58.00	US\$3.31	US\$3.31
EnCana	ECA	2	2	US\$20.00	US\$20.00	US\$1.29	US\$1.29
Endeavour	END	2H	2H	US\$10.00	US\$6.25	US\$-0.75	US\$-0.84
EOG	EOG	1	1	US\$135.00	US\$135.00	US\$4.89	US\$4.94
Goodrich	GDP	2	2	US\$14.75	US\$10.50	US\$-0.71	US\$-0.72
Kosmos Energy	KOS	1	1	US\$16.00	US\$16.00	US\$-0.22	US\$-0.22
Quicksilver Res	KWK	2	2	US\$4.15	US\$3.75	US\$-0.28	US\$-0.28
Magnum Hunter	MHR	1	1	US\$5.00	US\$5.00	US\$-0.29	US\$-0.29
Matador	MTDR	2H	2H	US\$10.00	US\$10.00	US\$0.45	US\$0.45
Noble	NBL	1	1	US\$110.00	US\$125.00	US\$4.35	US\$4.35
Newfield Explor	NFX	2	2	US\$30.00	US\$30.00	US\$2.31	US\$2.31
Pioneer NAT	PXD	1	1	US\$120.00	US\$120.00	US\$3.56	US\$3.56
Rosetta Resource	ROSE	1H	1H	US\$60.00	US\$60.00	US\$2.80	US\$2.80
Range Res	RRC	1	1	US\$76.00	US\$76.00	US\$0.68	US\$0.68
SandRidge	SD	1	2	US\$8.50	US\$7.00	US\$0.16	US\$0.16
Southwestern Ene	SWN	1	1	US\$38.00	US\$38.00	US\$1.38	US\$1.37
Talisman	TLM	2	2	US\$12.50	US\$12.50	US\$0.29	US\$0.26
Ultra Petroleum	UPL	2	2	US\$22.00	US\$22.00	US\$1.72	US\$1.72
Whiting Petrol	WLL	1	1	US\$55.00	US\$52.00	US\$3.04	US\$3.04

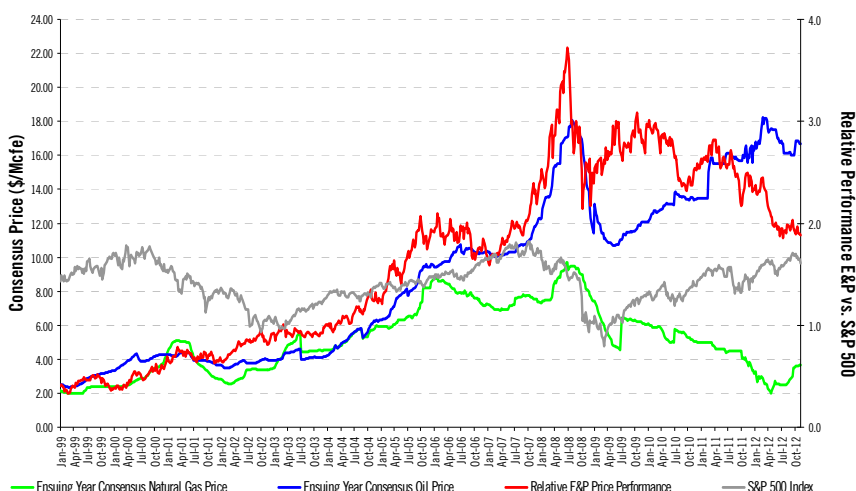
Three Distinct Phases Have Emerged In The E&P Sector Over The Past Two Decades...

Over the past 19 years that we have covered the E&P sector, three distinct “phases” have emerged in driving the relative performance of the sector.

Looking back over the past 19 years that we have followed the E&P sector, three distinct “phases” have emerged in which the dynamics driving the relative performance of the sector appear to have shifted, with the most recent phase, we contend, beginning earlier this year. In the first “phase” up until 2009, the relative performance of the E&P sector was overwhelmingly driven by the outlook for crude oil and natural gas prices. This was most consistently reflected by the Street consensus for the two commodities as shown in Figure 1. On average, E&P stocks outperformed the broader markets when consensus estimates for crude oil and natural gas prices were rising, with the relationship between crude oil and natural gas prices also much more closely linked during this time period with both commodities tending to move in the same direction.

Figure 1. Historical Oil & Gas Prices, S&P 500 Index and Relative S&P Composite Stock Price Performance

In the first “phase” up until 2009, the E&P sector generally outperformed the broader markets when consensus estimates for crude oil and natural gas prices were rising, and vice versa.



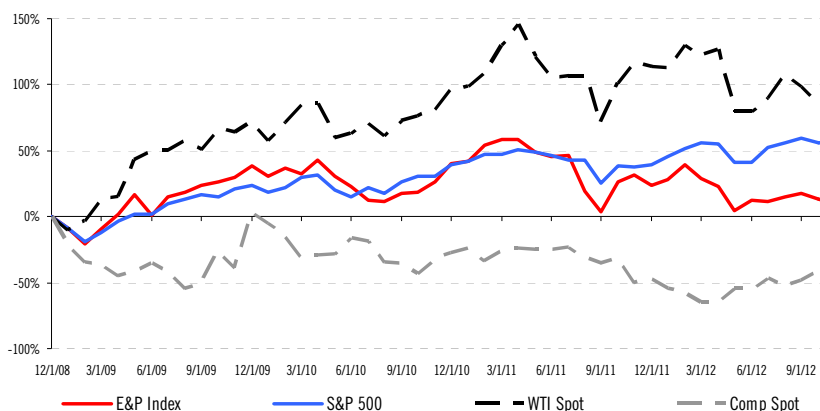
Source: Bloomberg, Citi Research

However, as natural gas prices disconnected from oil prices, a more predominant second “phase” emerged beginning in 2009...

However, as the relationship between crude oil and natural gas prices began to disconnect in 2009, the E&P sector’s movement predominantly became a higher beta call on the overall market except when natural gas prices moved sharply in the opposite direction. As illustrated in Figure 2, in the second “phase” from the beginning of 2009 through March 2012, when the S&P index rose, the E&P index most often increased by a greater amount, and likewise when the S&P declined, then the E&P index dropped by an even greater amount. The only exception to this trend was when natural gas prices moved sharply in the opposite direction driven mostly by weather related factors.

...Wherein the E&P sector's movement was primarily a higher beta reflection of the overall market except for a few instances when natural gas prices moved sharply in the opposite direction, driven by extreme weather, from oil prices.

Figure 2. Historical Oil & Gas Prices, S&P 500 Index and E&P Composite Spot Relative Performance



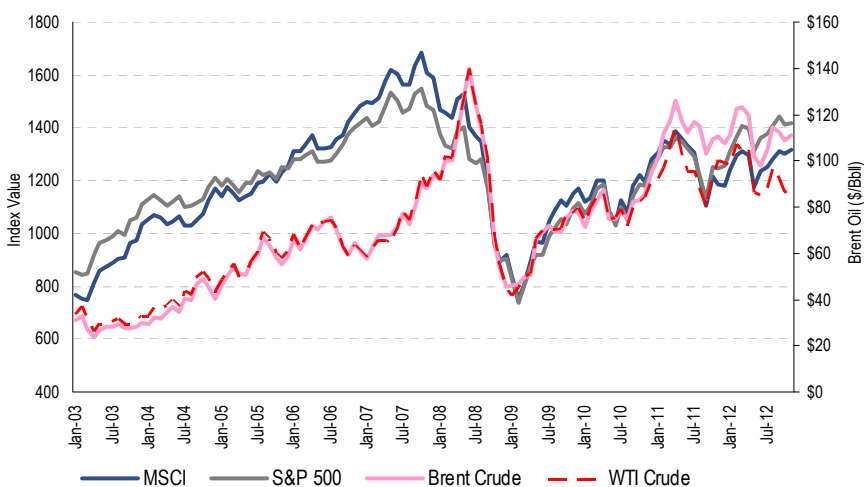
Source: Bloomberg, Citi Research

In this second phase, oil prices and equity markets began taking their cues from the same global economic data points amid the uncertain global economic recovery...

Notably, the relationship between E&P stocks and the broader markets from the beginning of 2009 through March 2012 was largely attributable to the very high correlation between crude oil prices and the global equity markets as both took their cues from the same global economic data points. However, this correlation has since broken down as Brent crude oil prices have fluctuated with short-term rallies, due to geopolitical tensions and output disruptions in key producing regions. At the same time, there have been periods of weakness due to demand and growing supply concerns with U.S. oil production continuing to set new highs. This has also resulted in significant movements in the WTI to Brent price spread. Also, amid fears of the Eurozone sliding back into another recession and a slowdown in China's economic expansion, OPEC appears firm in its support for a floor of \$100/Bbl Brent.

...And consequently, oil prices and global equity markets exhibited a very high correlation from the beginning of 2009 through early 2012.

Figure 3. WTI and Brent Crude Oil Prices vs. Equity Indices



Source: Bloomberg, Citi Research

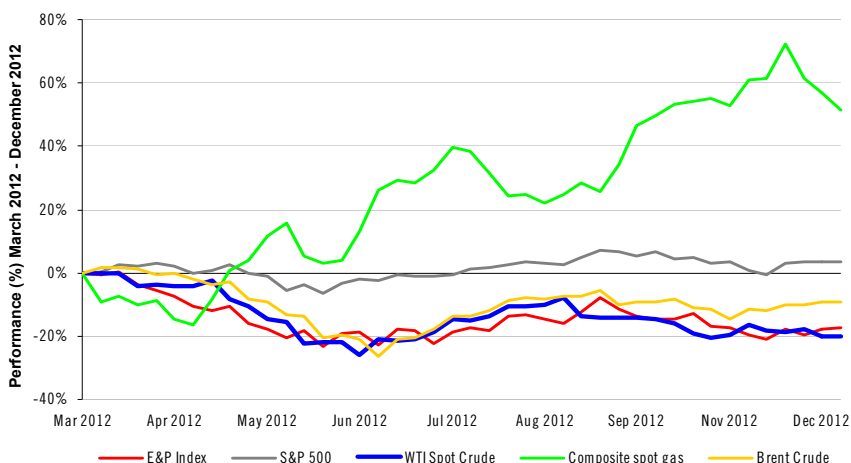
...With The Sector's Performance Since March Of This Year More Closely Tied To Oil Prices

In March 2012, the E&P sector entered a third "phase", wherein the group's performance has been more closely tied to domestic oil prices...

Since March 2012, the E&P sector has entered a third "phase" with relative performance primarily driven by movements in oil prices. As the correlation between crude oil prices and equity markets has deteriorated, and with the relationship between oil prices and natural gas prices still disconnected, E&P sector performance has been much more closely tied to domestic oil prices. In fact, since March of this year our market-weighted E&P index has fallen ~17% alongside a ~20% drop in WTI spot prices while Brent crude oil prices down ~9%. At the same time, composite spot natural gas prices have risen ~52% and the S&P 500 has increased ~4% (see Figure 4).

...With our E&P index falling ~17% since the first quarter of this year alongside a 20% drop in WTI spot prices, while at the same time Brent prices are down ~9%, natural gas prices are up over 50% and the S&P 500 has increased ~4%.

Figure 4. Mar – Dec 2012 Oil & Gas Prices, S&P 500 Index and E&P Index Relative Performance



Source: Bloomberg, Citi Research

Since March, oil prices have been far less correlated to global equity markets in the face of growing U.S. production, rising geopolitical tensions and numerous supply disruptions...

Since March 2012, crude oil sentiment has been mixed with fundamentals weakening but geopolitical tensions rising. Also, limited spare capacity has left the market susceptible to supply disruptions (including Iran, Sudan, the North Sea and in the US due to Hurricane Sandy). However, a fundamental shift in the supply outlook, driven by a continued steady rise in U.S. oil production, amid growing concerns about the Eurozone sliding back into a recession and slowing China growth has created a greater fear of further downside to oil prices than a sustainable sharp rise in prices. In fact, there is currently a greater divergence in crude oil price estimates than we can recall over the past two decades. Meanwhile, as E&P companies have shifted a greater portion of their capital and effort to oil and liquids-rich plays, and after a widely anticipated rebound in natural gas prices but with now growing concern about natural gas prices in 2013 with the first half of this winter very likely to end up much warmer than normal, relative E&P share price performance has grown more closely tied to the movement in oil prices.

...While the divergence in estimates for oil prices next year is far greater than we can recall over the past two decades.

...At the same time, we believe there is little upside to 2013 natural gas price expectations even with a sudden and sharp reversal in winter temperatures.

Looking ahead, we believe oil prices will continue to underscore relative sector performance while we see little upside to consensus expectations for 2013 natural gas prices apart from a sharp reversal in winter temperatures, which have been ~7% warmer than normal to date. In fact, a sharp reversal in natural gas prices if this winter turns out to be much warmer than normal would weigh on the more natural gas-leveraged names. Also, the impending fiscal cliff could render OPEC somewhat ineffective in supporting a \$100/Bbl Brent price with further output cuts.

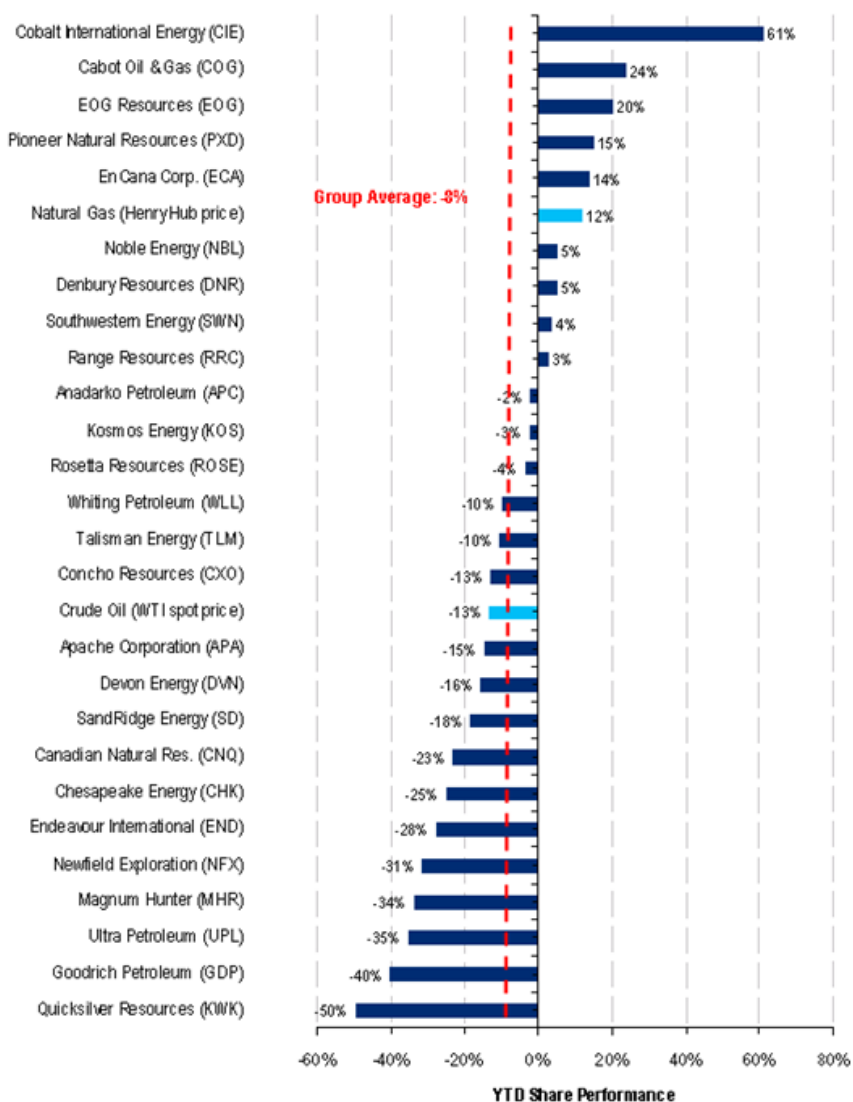
2012 E&P Sector Review: The Best & Worst Individual Performers of 2012

The 2012 best (and worst) performers in our coverage group have exhibited some common characteristics that drove the share price performance.

Apart from the overall sector performance, we have also evaluated our E&P coverage group to identify what drove individual share price performance this year, what the best (and worst) performers had in common, and what key trends emerged over the course of the year. Figure 5 below illustrates the share price performance for companies in our coverage group (group average -8% YTD), WTI crude oil spot prices (-13% YTD) and front-month natural gas contract price (+12% YTD). While falling crude oil prices led the overall group lower, the companies that outperformed the group average exhibited several common traits which, on average, the companies that underperformed seemed to lack.

Year-to-date, the average share price for our coverage group is down ~8%, while WTI spot oil crude prices have declined ~13% and the front-month NYMEX natural gas contract price has risen ~12%, and the S&P has gained ~4%.

Figure 5. E&P Coverage Group YTD 2012 Share Performance



Source: Citi Research

In general, the outperformers were able to more successfully...

We have distinguished between the outperformers and the underperformers in our E&P coverage group this year and have identified the following performance drivers:

■ The Outperformers:

...Grow cash flow and production per debt adjusted share (COG, PXD, EOG)...

- **Exhibited strong debt-adjusted growth in a capital efficient manner...** – Besides **Cobalt**, which is an outlier because it is a pure exploration company at this point, the best performing companies in our coverage group (**Cabot**, **EOG Resources** and **Pioneer**), exhibited significantly above average cash flow and production growth, on a debt adjusted per share basis. As discussed in more detail later, we believe that cash flow per debt adjusted share and production per debt adjusted share are the most important metrics to focus on in explaining historic share price performance and projecting future performance.

...Meet and raise production guidance targets during the year (EOG, NBL, RRC, PXD)...

- **...Raised (or exceeded) production guidance during the year...** – Generally, companies that raised the bar on production guidance during the year were rewarded by the market. However we would note the need to find the balance between consistently beating a self-imposed target and maintaining credibility with investors. For example, as has been the case in recent years, **EOG** handily beat production expectations, leading to an increase in guidance and strong share performance but now faces some expectation that future guidance will inherently be conservative. Other companies that raised guidance throughout the year and were rewarded with outperformance include **Noble**, with better than expected results or quicker project start-ups in nearly every region (DJ extension, GoM, West Africa, Eastern Med) which helped the stock achieve gains despite several dry hole announcements, **Range** which, although it did not raise its guidance range, stated it expects to hit the top end of the range and **Pioneer**, which raised production guidance twice during the year.

...Benefit from positive catalysts including exploration results and large joint ventures (CIE, ECA)...

- **...Benefited from exploration or joint venture catalysts leading to heightened optionality...** – Positive catalysts led to sharp increases in share prices that several of the best performing companies in our coverage group were able to sustain. **Cobalt** has been the top performer year-to-date with its share price driven by exploration results, including most recently an oil discovery in the deepwater Gulf of Mexico that boosted its share price ~19% on the day of announcement, along with positive sentiment surrounding future exploration catalysts. Other companies, including **Encana**, benefited from asset monetizations and JV related catalysts (or the anticipation of a future JV) that provided funding flexibility and optionality for future upside.

...While maintaining a high quality asset base with a deep re-investable inventory to continue to grow production (COG, EOG, PXD, RRC)...

- **...Maintained or expanded a high quality asset base with a deep inventory for future investment...** – The distinction between companies with large, high quality inventories and the ability to develop these assets in a capital efficient manner, or the “Haves”, versus those with less inventory and/or capital constraints, or the “Have Nots”, has grown with the market rewarding the “Haves” and punishing the “Have Nots.” As companies shift from acquiring to developing resources (both liquids and gas), those with high quality inventories and the proven ability to efficiently reinvest capital are duly rewarded. As a result, **Cabot**, **EOG**, **Pioneer** and **Range** outperformed this year on the back of deep or expanding inventories and recent track records of successful capital reinvestment.

...And, for a select group, garner additional momentum from the rebound in natural gas prices (COG, ECA, RRC, SWN).

The underperformers in our coverage group did not grow cash flow and production per debt adjusted share (UPL, GDP, NFX, KWK)...

...Lowered production guidance during the year or otherwise fell short of expectations (KWK, NFX, GDP, MHR, CNQ, END, SD, DVN)...

...Or experienced other company specific issues (SD, KWK, NFX, GDP, SD, CHK, END, DVN).

- ...**Garnered some momentum from the rebound in natural gas prices** – Several of the more natural gas-levered companies in our coverage group outperformed in part due to a rebound in natural gas prices, as discussed in more detail below. Importantly, we would note that not all natural-gas levered companies benefited from rising natural gas prices though. Rather the companies with 1) high quality natural gas assets; 2) the funding to develop those assets; 3) the ability to develop them in a capital efficient manner; and 4) that were not penalized for lowering production guidance or for other company specific reasons, were the ones that outperformed and include **Cabot, Encana, Range, and Southwestern**.

■ The Underperformers:

- **Did not grow per-share debt-adjusted cash flow or production...** – As discussed later in this note, the companies that did not grow per-share debt-adjusted cash flow or production, or did so at a below average rate, were penalized by the market. These companies include **Ultra, Goodrich, Newfield** and **Quicksilver**.
- **...Lowered production guidance during the year or otherwise fell short of expectations...** – As usual, a clear performance trend this year was that lowering production guidance or falling short of the markets' expectations, seemed to trump almost all other factors and led to lower share price performance. Eleven companies in our coverage group lowered production outlooks throughout the year and eight of those companies (**Quicksilver, Newfield, Goodrich, Magnum Hunter, Canadian Natural Resources, Endeavor, SandRidge** and **Devon**) are among the ten worst performers in the group. While some companies lowered their official guidance following a worse-than-expected quarter (**Devon**), others merely suggested volumes would fall short of original projections (**Magnum Hunter** – curtailments & infrastructure; **Endeavour** – slow project start-ups). Notably, **SandRidge** actually raised its 2012 production guidance, but posted lower-than-expected and "gassier" 2013 guidance along with reducing EURs for its Mississippian Lime play.
- **...Or encountered other company specific problems** – Some companies were penalized for unique issues that overshadowed what were otherwise strong performance drivers. For example, **SandRidge** posted substantially above average cash flow and production per debt adjusted share growth, but this was partially due to a controversial Gulf of Mexico acquisition, which, along with overspending and concerns about management, hurt its performance. Further, companies that implied that the quality of their respective assets was lower than originally envisioned (via impairment write downs or otherwise) were penalized, as was the case for seven of the ten worst performers (**Quicksilver, Newfield, Goodrich, SandRidge, Chesapeake, Endeavour** and **Devon**).

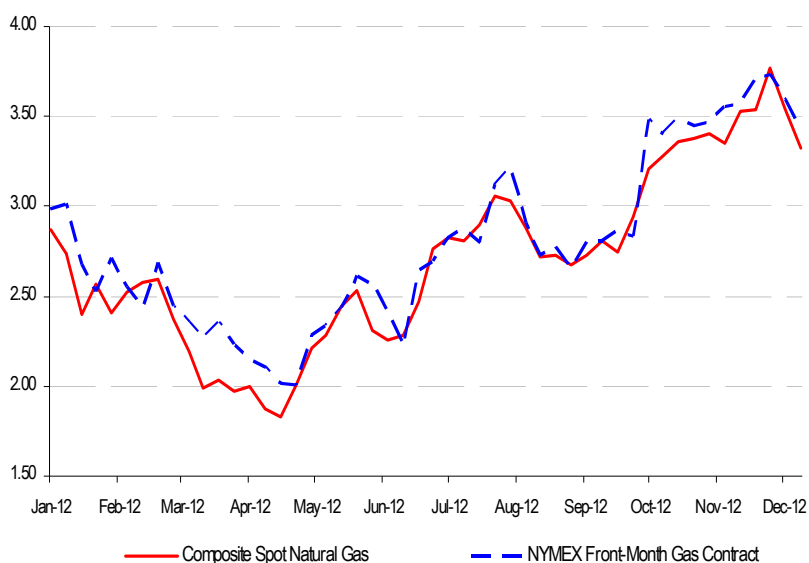
Rising Natural Gas Prices Benefited E&Ps With Quality Gas Assets & Sufficient Capital

After bottoming in April of this year...

Several natural-gas levered companies in our coverage group benefited from the sharp rebound in natural gas prices in 2012. Since the beginning of the year, the front-month NYMEX natural gas contract rose nearly 12% while the composite spot cash price climbed ~16%, despite recently relinquishing some gains posted at the start of this winter. The entirety of the gain in natural gas prices this year has occurred subsequent to the first quarter after bottoming in April following a record warm 2011-12 winter. Thus, since bottoming near mid-April, the front-month NYMEX natural gas contract has increased ~63% while the composite spot cash price has rallied by ~78% (see Figure 6).

...The front-month NYMEX natural gas futures contract has risen ~63% and the composite spot cash price has rallied ~78%...

Figure 6. Composite Spot and NYMEX Front-Month Natural Gas Contract Performance YTD



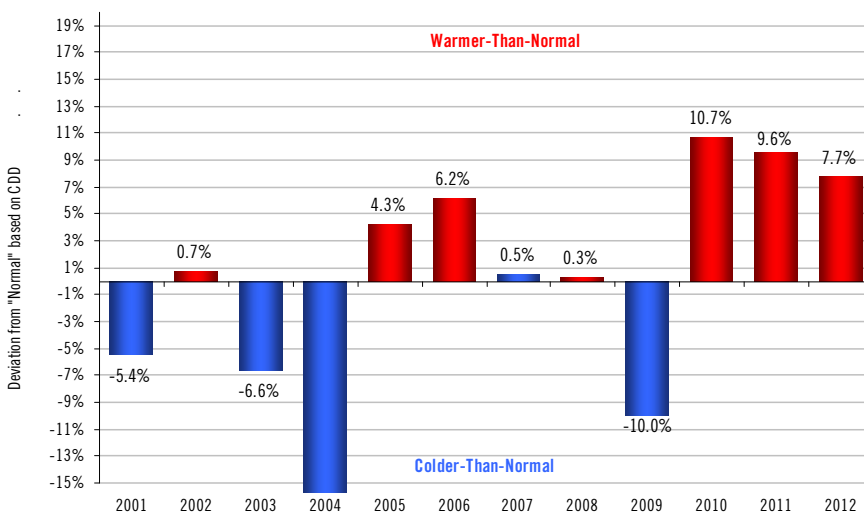
Source: Bloomberg, Natural Gas Week, Citi Research

...As the market effectively rebalanced with a warmer-than-normal summer, higher-than-normal nuclear outages and record coal-to-gas switching levels.

Warmer-than-normal summer weather, which turned out to be nearly 8% warmer than the ten-year average (see Figure 7), record coal-to-gas switching (see Figure 8) and above-average nuclear plant outages (see Figure 9 and refer to our Dec 6th note: [Natural Gas Weekly Nuclear Outages note](#)) all contributed to the market essentially rebalancing heading into this winter and the rebound in natural gas prices.

Figure 7. Summer Weather vs. Historical Average

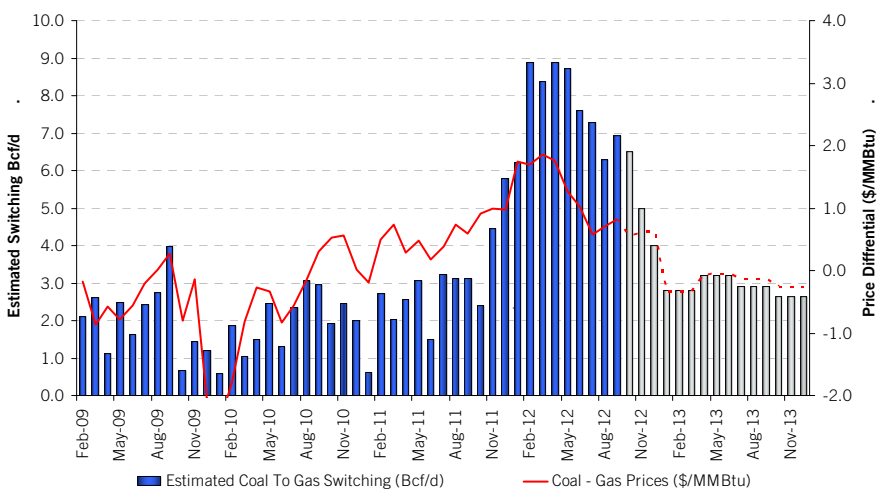
This past summer was ~8% warmer than normal...



Source: Citi Research

Figure 8. Estimated Coal-To-Gas Switching vs. Coal and Gas Prices

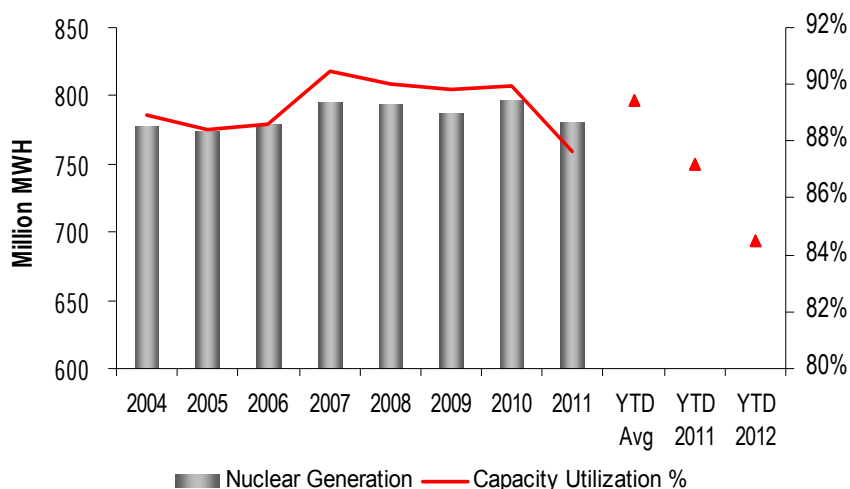
...While coal-to-gas switching has averaged ~6.8 Bcf/d year-to-date (versus a zero 2008 base)...



Source: EIA, Bloomberg, Natural Gas Week, Citi Research

...And total U.S. nuclear capacity utilization has averaged just ~85% year-to-date versus ~89% in a "normal" year and ~87% last year for this same period.

Figure 9. U.S. Nuclear Power Generation and Capacity Utilization



Source: SNL Financial, Citi Research

The rebound in natural gas prices helped to lift the shares of COG, ECA, RRC and SWN in 2012 but not the gas-leveraged names with asset quality or balance sheet issues or who lowered guidance during the year.

Even if winter temperatures reverse course and a colder-than-normal winter ensues, we don't foresee much upside to our 2013 natural gas price forecast of \$3.60/MMBtu (consensus \$3.70/MMBtu)...

...While E&P shares seem to already reflect this outlook, in our opinion.

Identifying the outperformers in the E&P sector has become increasingly more difficult...

As noted above, the rebound in natural gas prices since the first quarter has helped to lift the shares of several, but not all, natural gas-levered names (**Cabot**, **Encana**, **Range** and **Southwestern**). We would emphasize that not all natural gas-levered companies benefited from rising natural gas prices. Rather, it was largely the companies with 1) high quality assets; 2) the funding to develop those assets; 3) the ability to do so in a capital efficient manner; and 4) which were not penalized for lowering production guidance or for other company specific issues, such as liquidity concerns. These factors underscored the underperformance of the other more gas-levered names - **Quicksilver**, **Goodrich**, **Ultra** and **Chesapeake**.

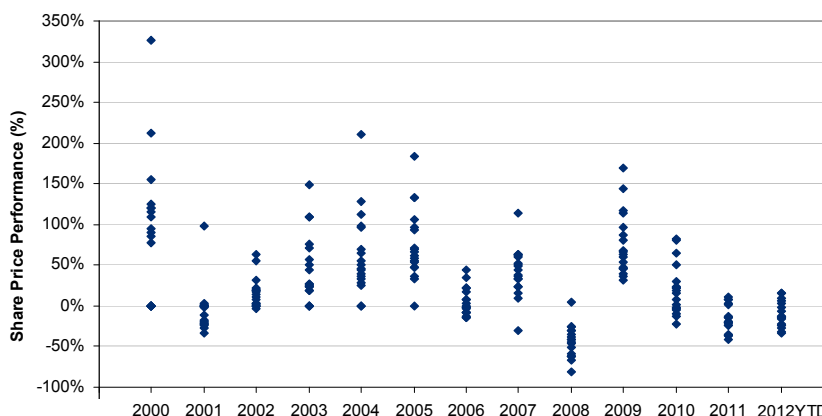
Looking forward and assuming a normal winter, we expect natural gas prices to average \$3.60/MMBtu in 2013 (versus consensus of \$3.70/MMBtu) after averaging nearly \$2.75/MMBtu this year. However, we would note that a warmer-than-normal winter could pose significant downside for natural gas prices next year, and vice versa for a colder-than-normal winter, although, we don't expect prices to average much above \$4.00/MMBtu near term even in a colder-than-normal winter scenario. However, we believe the more highly leveraged natural gas names already reflect this outlook. Nonetheless, we believe the stage is set for natural gas prices to rise to closer to \$5.00/MMBtu by 2016 which will benefit the purer natural gas producers with high quality inventory and adequate funding in the long run.

But What Will Drive Company-Specific Share Price Performance Going Forward?

For more than the past decade, E&P shares, along with the broader markets, have traded increasingly more as a group with less volatility and more compressed distribution of share price performance between companies within the sector (see Figure 10). To find value within a sector that is trading more as a group, an increasing amount of focus on company specific factors is necessary to distinguish between which companies are positioned to outperform and which companies will lag behind. Thus, we have performed an analysis of company-specific metrics over the past three to five years to determine what has driven share price performance and what investors should focus on in 2013 and beyond.

...Especially with the divergence in performance (similar to the broader markets) recently being far less than at any point in the recent past.

Figure 10. E&P Coverage Group Annual Share Price Performance Distribution



Source: Citi Research

Note: Excludes two highest and two lowest returns each year.

Thus, it is more important to analyze company-specific metrics to determine which companies are positioned to outperform than ever before.

Over the past five years, debt-adjusted per share production and cash flow growth along with reserve replacement efficiency have been most highly correlated to share performance...

...With debt-adjusted cash flow being the more dominant metric more recently.

While RRE is an accurate measure of profitability and propensity for growth and is a good indicator a relative valuation levels...

...CF/DAS essentially captures this element along with variations between crude oil and natural gas prices.

In zeroing in on company-specific metrics driving performance, we systematically performed regression analysis between the share price performance of companies in our E&P coverage group and a variety of metrics over the past three and five year time periods to determine what has driven share price performance. We focused on debt-adjusted per share growth, based on annual results as originally reported and using average annual net debt and average shares outstanding, with the share count adjusted to reflect company debt being financed entirely by equity. The debt-adjusted per share methodology is used to measure the shareholder value by excluding the growth component that belongs to debt holders.

Our analysis reveals that *cash flow per debt adjusted share (CF/DAS)*, *production per debt adjusted share (P/DAS)* and *Reserve Replacement Efficiency (RRE)* are the three most important metrics for investors to consider with CF/DAS and P/DAS effectively driving share performance over the past three years, as described in detail below. We would note that while P/DAS had a greater impact (as measured in our regression analysis) on share price performance over the past five year time period, but this has waned in more recently given the shifting industry dynamics of natural gas and liquids production, with CF/DAS becoming the superior measuring stick over the past three years.

Further, we would note that in covering the E&P sector over the past 19 years we have found RRE (a metric we originally formulated in 1994) to be an accurate measure of profitability and relative propensity for growth, with companies that post an above average RRE and strong production growth tending to garner a higher valuation and still outperform their peers. We use RRE to evaluate the capital efficiency with which a company grows reserves and we define it as after-tax operating cash flow (that is cash flow before changes in working capital items) per barrel of oil equivalent (BOE) produced divided by a company's fully-loaded finding and development (F&D) cost per BOE for proven reserves. Thus, this implies that an RRE of 1.0x means each BOE produced generates enough cash to find one new BOE in the ground, fully replacing the produced BOE, assuming the same F&D cost. Importantly, CF/DAS is effectively a combination of RRE and production growth as one would expect companies that generate enough after-tax discretionary cash flow to replace and add new reserves at an above-average rate (RRE) while growing production at a faster pace to generate above-average CF/DAS.

Looking ahead, we believe those companies that have the inventory already in hand to sustainably post above average CF/DAS and RRE will post the best relative share performance.

Over the past three years (2010-2012E), CF/DAS growth has been most highly correlated to relative E&P share price performance...

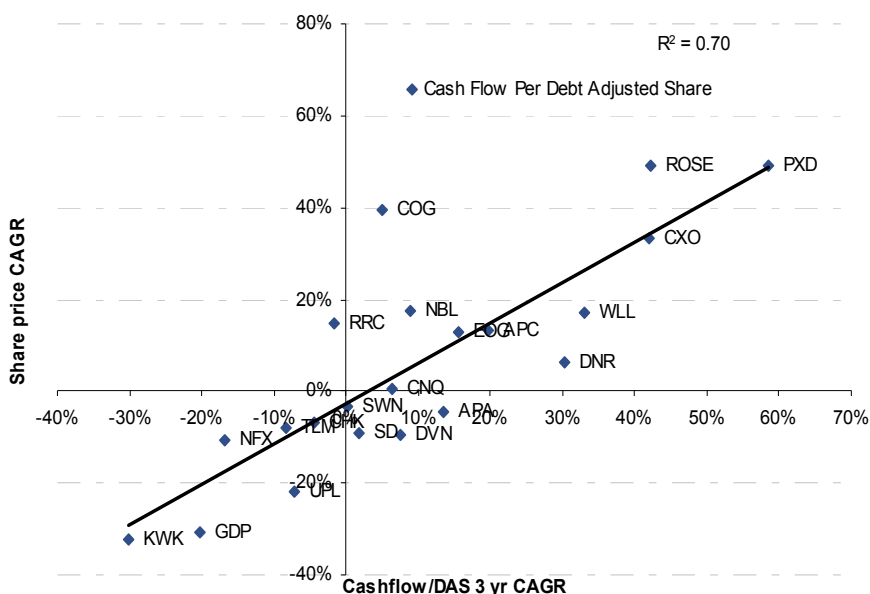
...With an R-squared of ~70% (excluding the extreme outliers due to company specific issues) and which effectively incorporates both RRE and production growth as those with the best margins (RRE) and production growth should generate the biggest increases in CF/DAS.

Thus, going forward we believe E&P sector relative performance as a whole will continue to be driven by oil prices, which are a greater and growing part of most companies' bottom line cash flow, with the sector continuing to trade largely as a group with continued narrow performance distribution. We think company-specific performance within the sector will be driven by CF/DAS, P/DAS and RRE, with the market making more of a distinction between companies within the sector on these metrics combined with companies' quality of inventory to be able to continue to reinvest capital and thus are positioned to sustain above-average performance on these metrics longer term.

Cash Flow Per Debt Adjusted Share (CF/DAS) Shows Strongest Correlation With Share Price Performance Over The Past Three Years...

Over the past three years (2010-2012E), CF/DAS has demonstrated the strongest correlation to E&P share price performance and we believe it is the most important metric for investors to focus on going forward. We contend that a company that can increase cash flow at a faster rate than its equity or debt outstanding should command a valuation premium. The CF/DAS methodology reflects a company's production profile, hedging, commodity price realizations and, importantly, ability to control costs. Given that the E&P industry is a margin business with company's being price takers of both commodities and ultimately oil field services costs, those companies that can sustain margins with higher quality assets and by controlling costs, which is largely reflected in CF/DAS, should be rewarded by the market. Thus, as compared to other debt adjusted per metrics (including P/DAS), we believe CF/DAS is the most comprehensive assessment of a company's performance. CF/DAS also accounts for the shift in production mix towards oil and takes the debt adjusted production per share metric further by accounting for margin differences between natural gas and oil assets. Also, as highlighted above, CF/DAS growth incorporates both RRE and production growth as companies with the best margins (RRE) and production growth generate the biggest increases in CF/DAS.

Figure 11. Three Year (2010-2012E) Share Price CAGR and CF/DAS CAGR

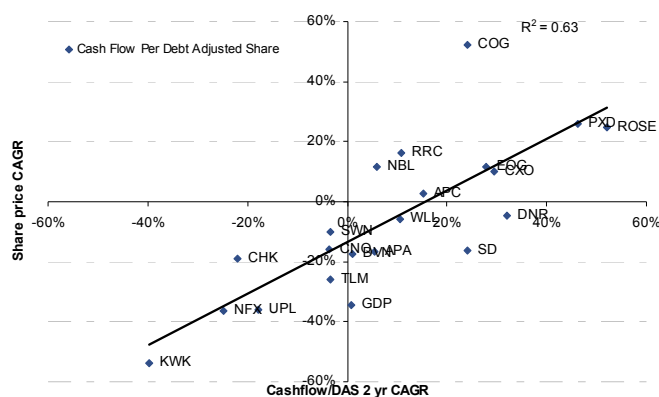


Source: Citi Research

Even looking at either the past two or four-year periods, the R-squared on CF/DAS growth and share performance is around 60%.

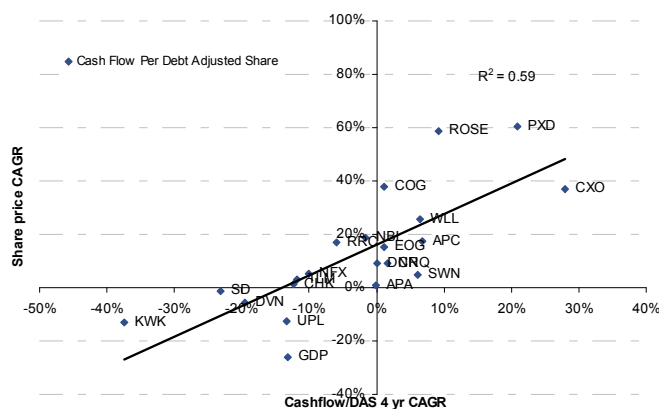
While we believe a three year time horizon from the beginning of 2010 through 2012E is most appropriate in measuring company performance as this time period captures performance post the shift to US onshore shale plays and allows for more stability in commodity prices following the 2008 financial crisis, we also looked at CF/DAS and share price performance over a two year period (2011-2012E) and four year period (2009-2012E). As shown below in Figures 12 and 13, our regression yields an R-squared of around ~60% between CF/DAS and share price performance for our coverage group for these two time periods, which, while lower than the R-squared value for the three year period, still demonstrates a high degree of correlation between CF/DAS and share price performance.

Figure 12. Two Year (2011-2012E) Share Price and CF/DAS Share CAGR



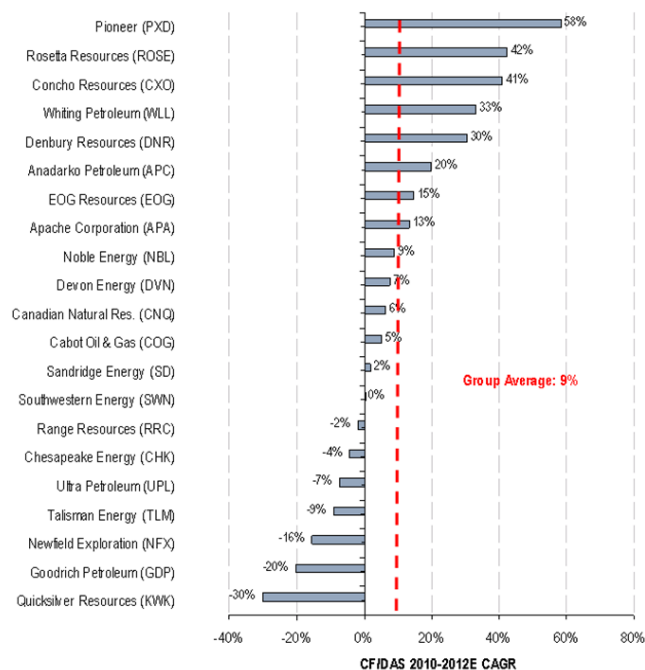
Source: Citi Research

Figure 13. Four Year (2009-2012E) Share Price and CF/DAS Share CAGR



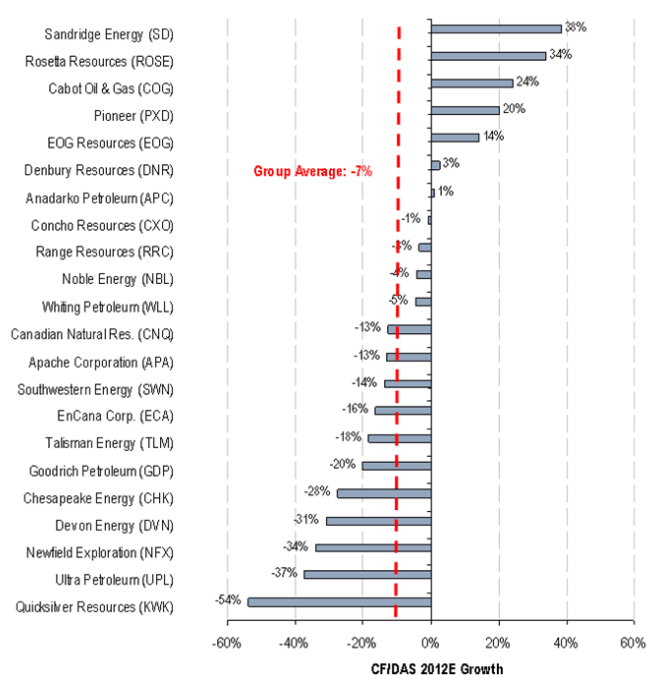
Source: Citi Research

Figure 14. 2010-2012E CF/DAS Three Year CAGR



Source: Citi Research

Figure 15. 2012E CF/DAS Year-Over-Year Growth



Source: Citi Research

Our coverage group has grown CF/DAS, on average, at ~9% per annum over the past three years with PXD, ROSE and CXO being among the top performers on both this metric and share performance.

Production per debt adjusted share (P/DAS) has historically exhibited a strong correlation...

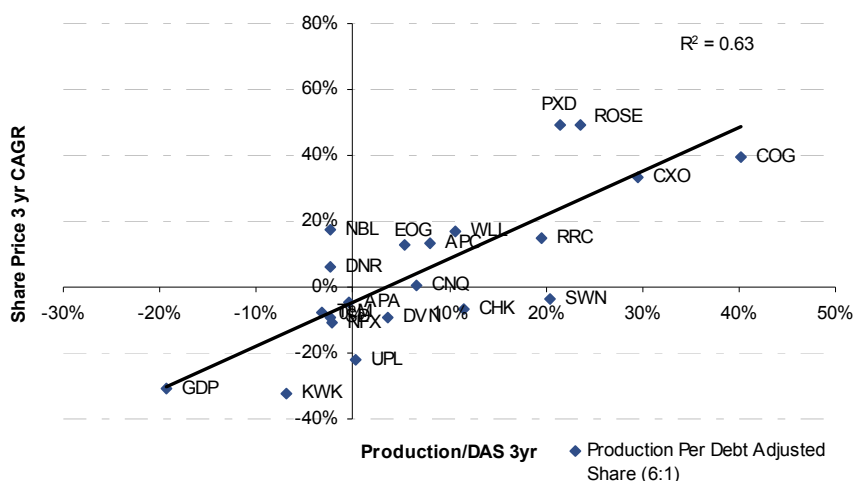
...But this has weakened more recently with the divergence in crude oil and natural gas prices, but has still exhibited at R-squared of 63% (6:1 ratio on oil:gas) over the past three years (2010-2012E)...

Based on our analysis, our coverage group has grown CF/DAS, on average, at ~9% per annum over the past three years although the group average CF/DAS declined by an estimated 7% this year (See Figures 14 and 15) due in part to the sharp year-over-year drop in natural gas prices. The strongest performers in our coverage group over the past three years on the CF/DAS metric have been **Pioneer**, **Rosetta** and **Concho** with CF/DAS CAGRs of 58%, 42% and 41%, respectively, which in turn have been three of the group's best share price performers over this period.

...With Production Per Debt Adjusted Share Exhibiting The Second Strongest Correlation With Share Price Performance Over The Past Three Years...

As many E&P companies are now able to grow production by simply ramping up spending, we continue to look at production growth on a per debt adjusted share (P/DAS) basis as it adjusts for financing achieved via share issuances/repurchases and debt issuances/buy-backs. As illustrated in Figure 16, over the past three years (2010-2012E), production growth per debt-adjusted share has been the second best indicator of relative E&P share performance with a R-squared value of 63%. As highlighted at the beginning of our analysis, increased market volatility following the 2008-09 financial crisis led E&P stocks to reflect a higher beta performance of the broader markets and, in turn, oil prices, more so than on individual production metrics (although this trend has weakened since March of this year). Thus, the increasing divergence between crude oil and natural gas prices, with the ratio moving from a historical average of 8:1 to nearly 25:1 recently, has also contributed to a lower correlation between production growth and share performance. The latter trend is illustrated in Figure 16 below, with natural gas-levered **Quicksilver**, **Ultra**, **Devon** and **Southwestern** trading below the trend line while oil levered **Pioneer**, **Noble**, **EOG**, **Denbury** and **Rosetta** trading above the trend line.

Figure 16. Three Year (2010-2012E) Share Price CAGR and P/DAS CAGR (6:1 conversion ratio))



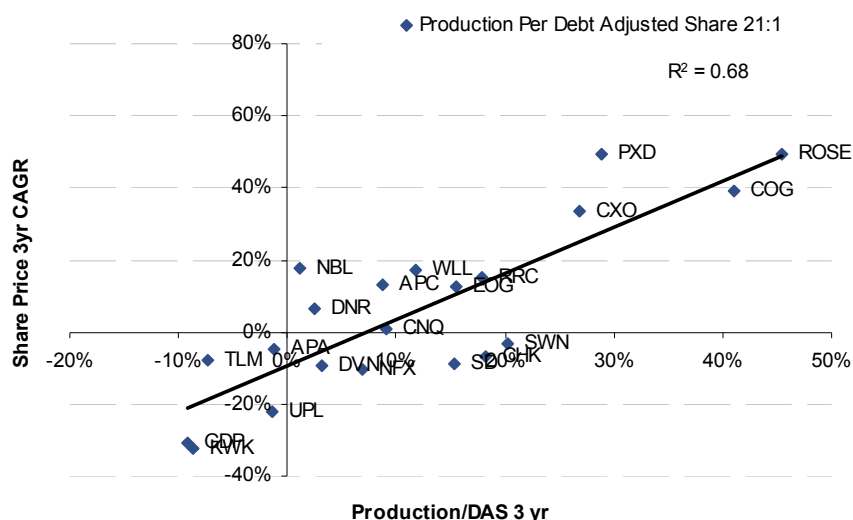
Source: Citi Research

...While adjusting the oil-to-gas conversion ratio from 6:1 to a more representative current ratio of 21:1...

...Leads to an improved R-squared value of 68%, which is still slightly below the share price correlation on CF/DAS.

If we adjust for the recent commodity price divergence by adjusting the oil-to-gas conversion ratio to a more representative ratio today of 21:1, the resulting correlation is stronger between the 'energy-weighted' three year production growth and three year share performance (2010-2012E) with an R-squared value of ~68% (see Figure 17 below). Nonetheless, the debt-adjusted production-to-share performance relationship in both cases is slightly weaker than that displayed by cash flow-to-share performance which also reflects the market rewarding strong production growth, realizations, hedging and cost controls which are reflected in cash flow but not in production figures.

Figure 17. Three Year (2010-2012E) Share Price CAGR and Production Per Debt Adjusted Share CAGR (21:1 conversion ratio)

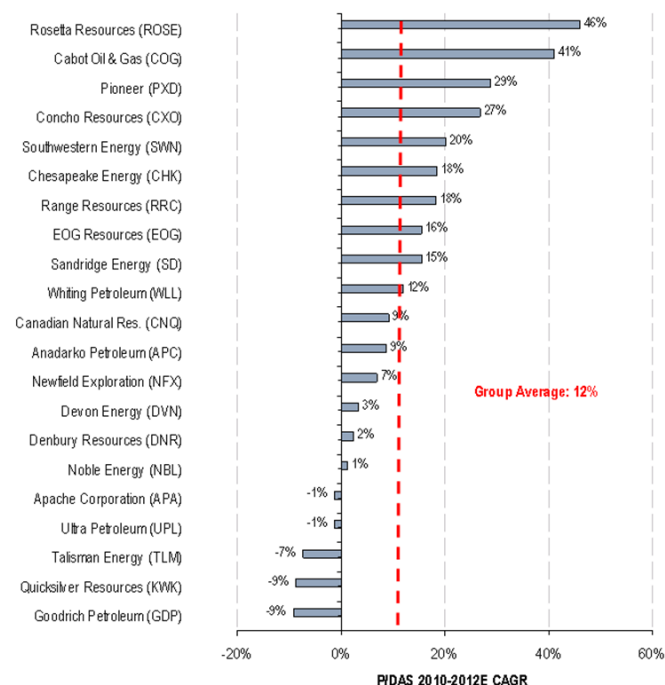


Source: Citi Research

Our coverage group has grown P/DAS, on average, at ~12% per annum over the past three years with ROSE, COG and PXD being among the top performers on both this metric and share performance.

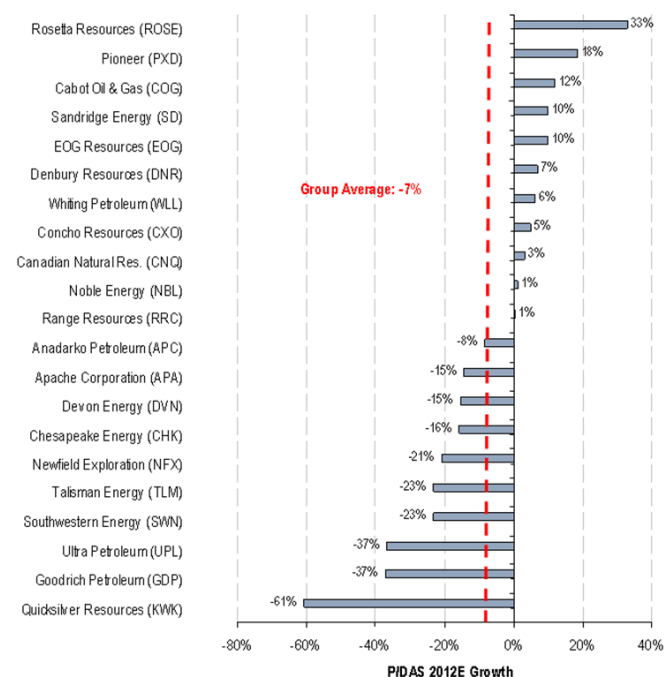
Based on our analysis, our coverage group has grown 'energy-weighted' P/DAS, on average, at a ~12% per annum rate over the past three years and an average of 9% in 2012 (See Figures 18 and 19). The strongest performers in our coverage group over the past three years on this adjusted metric have been **Rosetta**, **Cabot** and **Pioneer** with 'energy-weighted' P/DAS CAGRs of 46%, 41% and 29%, respectively.

Figure 18. 2010-2012E P/DAS (21:1 conversion ratio) Three Year CAGR



Source: Citi Research

Figure 19. 2012E P/DAS (33:1 conversion ratio) Year-Over-Year Growth



Source: Citi Research

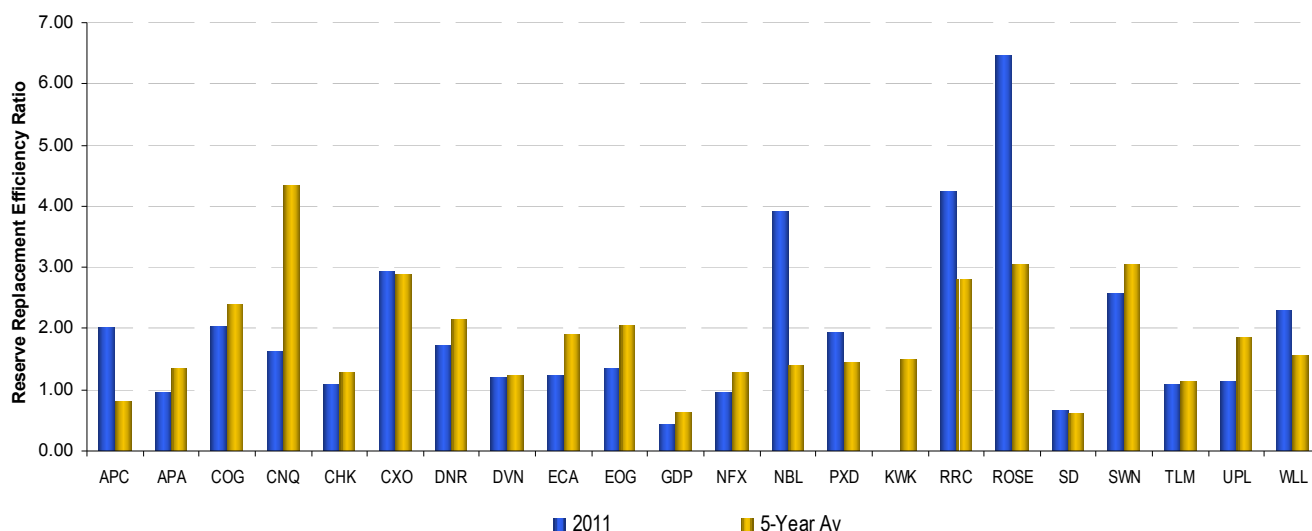
...While Reserve Replacement Efficiency (RRE) Rewards E&P Companies For Efficiently Growing Reserves

RRE measures the efficiency with which a producer grows reserves and companies that have demonstrated a consistent ability to grow cash flows at a faster rate with the same BOE of input have been rewarded with better-than-average share price performance.

RRE is our long-held measure of profitability and relative propensity for growth and is defined as after-tax discretionary cash flow (i.e. cash flow before changes in working capital items) per barrel of oil equivalent (BOE) produced divided by the fully loaded finding and development (F&D) cost per BOE of proven reserves added. We use RRE measure to evaluate the efficiency with which a company grows reserves, with a figure of 1.0x implying that each BOE produced generates enough cash to find one new BOE in the ground, fully replacing the produced BOE, assuming the same F&D cost. As illustrated in Figure 20 below, producers such as **Cabot**, **Concho**, **Range**, **Rosetta** and **Southwestern** have demonstrated a consistent ability to grow cash flows at a better-than-average pace with the same barrel of input, in turn leading to better stock performance. On the other hand, **SandRidge**, **Goodrich**, **Newfield**, **Chesapeake** and **Talisman** have seen their RRE figures lag the group average, often leading to share underperformance. The average 2011 RRE for our coverage group was 2.0x. In other words, if this group were to continue to exhibit the same operating and finding cost characteristics as it did in 2011 and commodity prices remained constant, then for every BOE produced, it would be able to replace that BOE with 2 new proven BOE's if 100% of after-tax operating cash flow was reinvested at the same F&D cost. The RRE formula to measures the efficiency with which a producer grows reserves is as follows:

$$\text{RRE} = \frac{\text{Discretionary Cash Flow per BOE}}{\text{Fully-Loaded Finding \& Development Cost per BOE}}$$

Figure 20. E&P Coverage Group 2011 and 5-Year Average Reserve Replacement Efficiency (RRE)



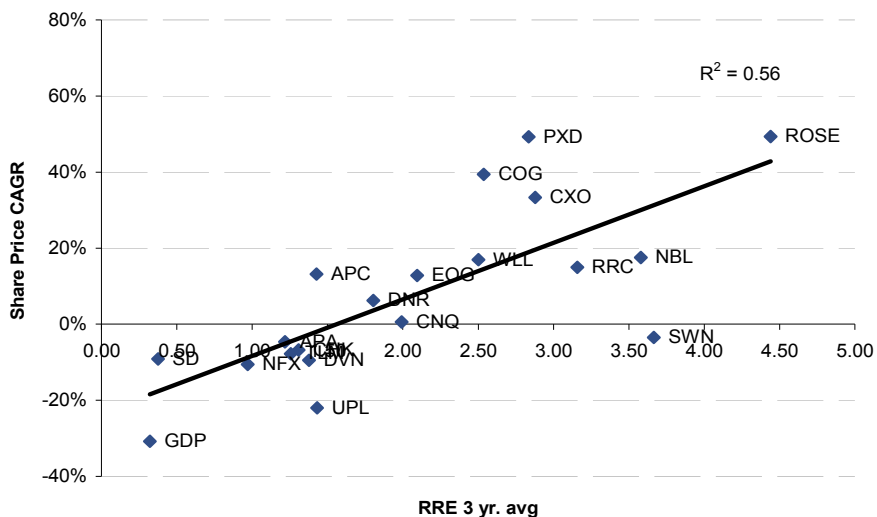
Source: Company Reports, Citi Research

Assessing the relationship between RRE and share price performance over three year offsetting periods...

Figure 21 illustrates the correlation between the most recently available three-year average RRE (2009-11) and share price performance over the past three years (2010-2012E). Given that E&P stocks trade on a combination of past and projected valuation metrics, we lag the RRE measure by one year. After excluding outliers due to company specific issues, our regression analysis suggests an R-squared of 56% between RRE and share prices. Thus, we note that RRE remains an important measure of share price performance, with the market rewarding companies that have demonstrated a consistent ability to grow cash flows at a faster rate with the same barrel of input.

...Also reveals a strong correlation with an R-squared of 56% (2009-11 RRE vs. 2010-12 share price performance)...

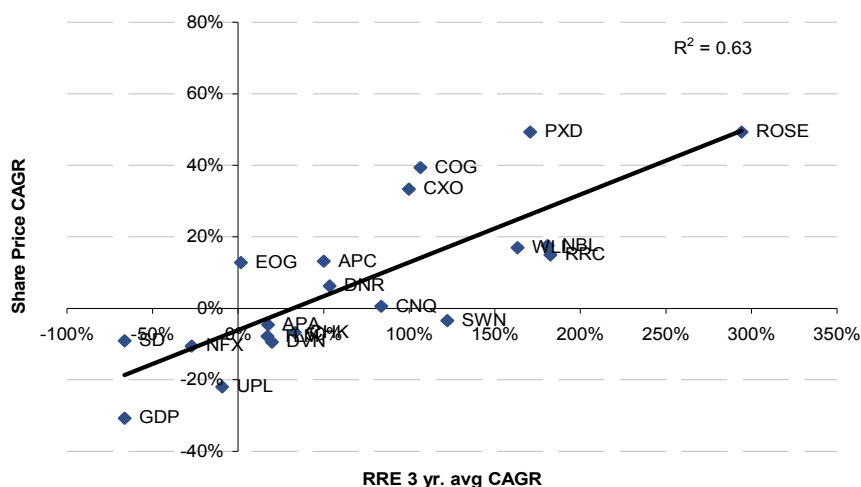
Figure 21. Three Year (2010-12E) Share Price CAGR and Three Year Average RRE (2009-11)



Source: Citi Research

...While looking at the *improvement (or growth)* in RRE over the past three years versus share price performance yields an even stronger R-squared value of 63%.

Figure 22. Three Year (2010-12E) Share Price CAGR and Average RRE Growth (2009-11)



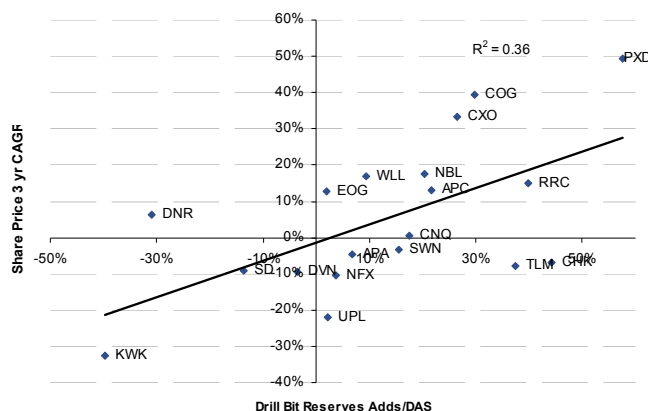
Source: Citi Research

Other Performance Drivers – Additional Metrics Considered

Looking at other metrics, total reserve additions, dill-bit reserve additions, dividend yield and free cash flow yield exhibit much lower correlations to share price performance than the three measures outlined above...

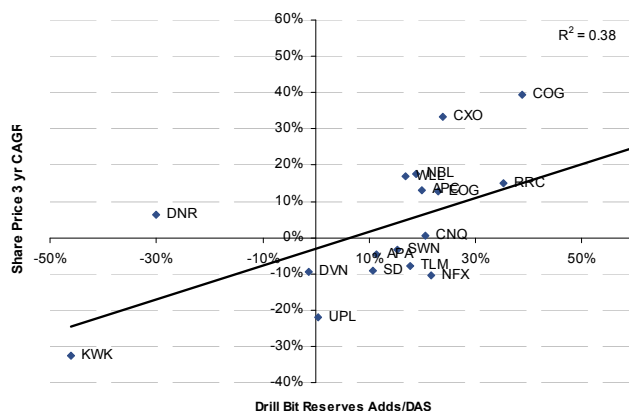
Among other metrics we examined for effectiveness at measuring E&P company share performance were: 1) total reserve additions; 2) drill-bit reserve additions; 3) dividend yield; and 4) free cash flow yield. As illustrated in Figures 23 and 24 below, while total reserve additions do exhibit a relationship to share performance, they are not as strong as the previously mentioned metrics we considered, indicating that it is not the most effective measure of share performance. As mentioned previously, most companies in our coverage group can grow production or reserves if provided free and unlimited financing. One of the best examples of this is **Chesapeake** as the company is shifting from one of the largest natural gas producers to an oil producer in just a few years at the cost of outspending cash flows by more than ~3x during this transition period. Although we expect shareholders to credit management for its oil growth in future years, this is hardly the case near term as the company is among the weakest performers in our group despite the strong rally in natural gas prices throughout this year.

Figure 23. Total Reserves (6:1) per Debt Adjusted Share CAGR (2009-11) versus Share Price Performance (2010-12E)



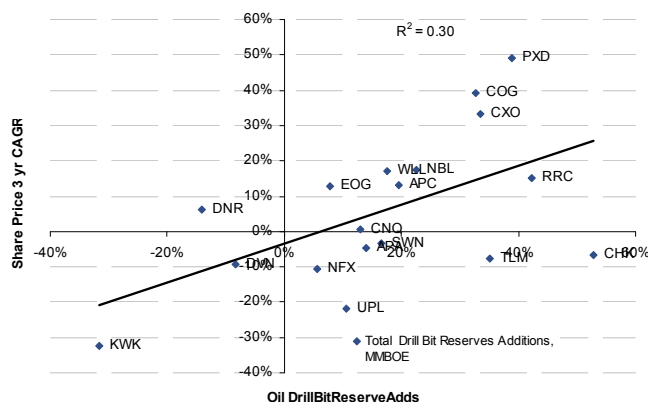
Source: Citi Research

Figure 24. Total Reserves (21:1) per Debt Adjusted Share CAGR (2009-11) versus Share Price Performance (2010-12E)



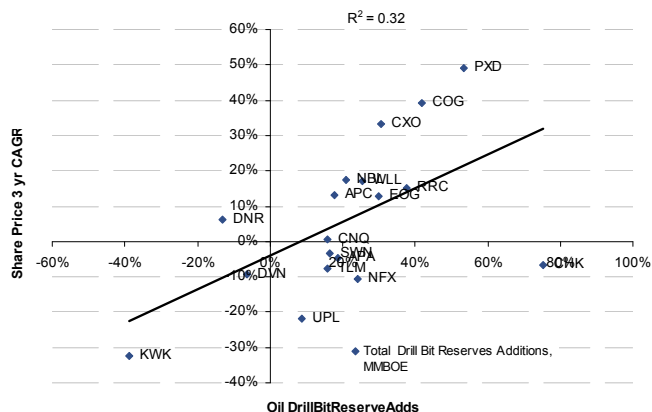
Source: Citi Research

Figure 25. Drill Bit Reserves Added (6:1) CAGR (2009-11) versus Share Price Performance (2010-12E)



Source: Citi Research

Figure 26. Drill Bit Reserves Added (21:1) CAGR (2009-11) versus Share Price Performance (2010-12E)



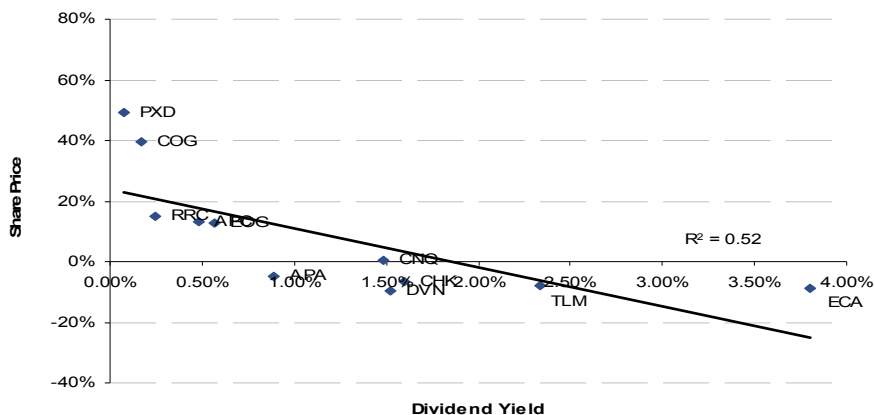
Source: Citi Research

...Although we observed a fairly strong inverse relationship between dividend yield and share price performance with an R-squared value of 52%...

While dividend yield has a fairly strong correlation to share performance, it is actually an inverse correlation with an R-square of 52% (see Figure 27 below), i.e. as dividend yield increases then share price performance drops. While this dynamic seems counterintuitive for most industries, it makes sense for the capital-intensive and growth focused E&P space where companies with positions in the best performing plays can generate returns far above those available to their investors. In this case, shareholders prefer that the producers reinvest excess capital to grow production or acquire acreage in the next emerging play. Thus, companies including **Pioneer**, **Cabot** and **Range** that pay no dividend but display strong growth characteristics, tend to trade at premium multiples. Meanwhile, companies that have good payout ratios are often viewed as not being able to find ample reinvestment opportunities, resulting in in-line or discounted multiples, often accompanied by weaker relative share performance. Lastly, our analysis indicated that there is no relationship between free cash flow yield (i.e. after-tax operating cash flow less capital expenditures, adjusted for DD&A and changes in working capital, on a per share basis, divided by share price) and share price performance (see Figure 28).

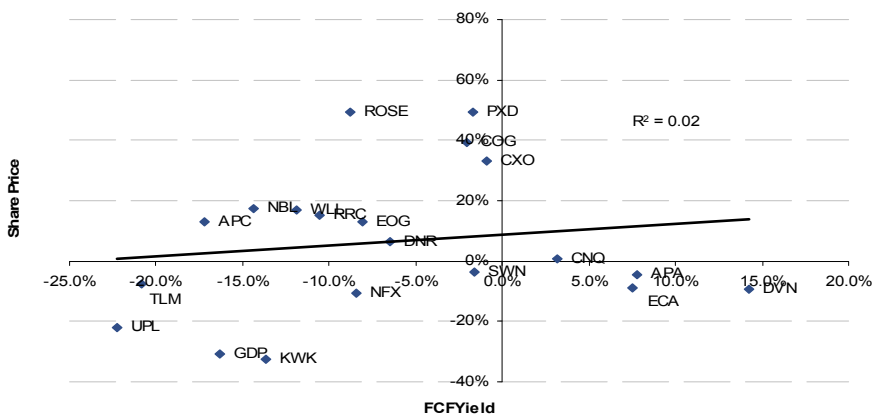
...As investors prefer that producers exhibit the ability to reinvest excess capital with strong returns to grow reserves and production, while companies that pay a meaningful dividend are often viewed as not having ample reinvestment opportunities.

Figure 27. Dividend Yield vs. Share Price Performance



Source: Citi Research

Figure 28. Free Cash Flow Yield vs. Share Price Performance



Source: Citi Research

Key Trends For The E&P Sector In 2013

The E&P Sector Is In Transition With No New Big Technology Wave On The Horizon...

The greatest challenge for the E&P industry has always been the reinvestment of capital and we believe this will be more challenging in 2013 than at any time over the past two decades...

The greatest challenge for the E&P industry has always been the reinvestment of capital in the face of daily base production declines. We believe the environment for the reinvestment of capital will be more challenging in 2013 than it has been at any point over the past two decades. This should drive a greater disparity in performance and valuation, in our opinion, for the companies in this sector between those that have in-hand already the assets to reinvest capital with solid returns (the "Haves") and those that lack a deep inventory of investible assets (the "Have Nots").

...With, after two decades of successive waves of new technology, no new breakthrough on the horizon to open up a new opportunity set for the sector...

Over the past two decades, there have been successive waves of technology to lift the entire sector and open up plentiful new opportunity sets. In the 1990s it was 3-D seismic. In the first half of the past decade it was horizontal drilling and fracture technology to unlock massive natural gas reserves in North America shale and tight sand plays. This was followed by the ability to apply this same technology to recovering oil from shales and unconventional formations with the result now that the U.S. is expected to perhaps surpass Saudi Arabia in oil production by 2020. However, we currently do not see any new technology or breakthrough on the horizon that will open up a vast new opportunity set for the industry.

...And Companies 'Coming Home To Roost' As US Onshore Plays Enter Development Mode...

...And both integrated and large-cap E&P companies 'coming home to roost' as the industry transitions from a 'land grab' to development mode in U.S. onshore shale and unconventional plays...

Over the last few years, the U.S. shale revolution has dominated E&P company activity and investor attention and, due to the breakthroughs in horizontal drilling and fracture technology to unlock shale and unconventional reserves, onshore North America has become "crowded." At this stage there are "not many stones left unturned" with most of the potential resource bearing acreage having been locked up or looked at. At the same time, nothing along the international front, apart from deepwater exploration offshore Africa or Brazil, which is limited to a handful of companies, appears to hold much promise for unlocking vast oil and gas reserves. This has created a dearth of opportunities for those companies that have not already locked up a deep inventory of drillable acreage or development projects. And we foresee the prospects for those that have to find new investible assets beyond the next five-to-ten years as more challenging than at any point over the past two decades while everyone seems to have a 'New Ventures' seeking the next new big opportunity.

...Thus suggesting that a deep inventory of investible assets is ever more critical in light of CF/DAS growth and RRE continuing to be the key drivers of relative share price performance.

Thus, with a growing portion of E&P companies' capital budgets re-allocated from exploration and acreage accumulation to development, the quality of existing resource bases and the ability to efficiently and economically develop them should be the focus in 2013 and going forward, in our view. Nearly every company can grow production and reserves if provided with unlimited funding irrespective of economic returns. But more important is whether they already have in hand a deep inventory to invest capital and can grow reserves and production profitably. Thus, we think that 'debt adjusted' metrics such as CF/DAS and P/DAS will continue to be superior measures of growth as it relates to share performance, along with RRE.

...With Deep And Quality Resource Bases To Reinvest Capital Critical To Performance...

With far less prospective acreage in North America left to be explored or leased, both the quantity and quality of existing inventories will be an important driver of future production and cash flow growth...

With a dearth of prospective acreage left to be explored or leased, both the quantity and quality of existing inventories will be an important driver of future production and cash flow growth, and subsequently share price performance. In evaluating E&P companies' existing resources, it is important to take into account both the proven reserves already booked as well as prospective and yet to be fully evaluated acreage and development projects. Thus, producers with extensive potential in core resource plays, multiple appraisal projects and meaningful exploration portfolios provide capital reinvestment opportunities for many years to come and warrant a premium versus their peers with a shallower inventory base and who are evermore challenged in identifying solid reinvestment opportunities.

Based on the criteria outlined above, we believe the following companies, in particular, have the deepest and highest quality inventory of resource potential to reinvest capital over the long term:

- **Anadarko** – Has a portfolio of domestic and international assets with a deep, multi-year inventory of identified prospects. The company has over 800+ MMBOE of net risked resources and prime acreage in leading U.S. onshore plays (Wattenberg, Eagle Ford, Permian and Haynesville) along with exploration/appraisal prospects in the deepwater Gulf of Mexico, West Africa, East Africa, China and other international exploration areas.
- **Cabot Oil & Gas** – Has established a concentrated 200k net acre position in the Marcellus shale in Susquehanna County, PA, which is arguably the best natural gas asset in the US. Results this year have provided increased confidence in developing both the lower and the upper Marcellus on this position. Based on the planned 2013 drilling pace, we estimate more than a 20 year inventory of locations that yield an average pre-tax IRR of close to 100% based on our normalized gas price of \$4.50/MMBtu. In addition, COG has posted successful 55-acre down-spacing tests in the oil window of the Eagle Ford, continued strong results in the oily Marmaton play and initial success in the emerging Pearsall formation in Texas.
- **Canadian Natural Resources** – The one aspect of CNQ that stands out is the long line of sight on future development projects to drive strong production growth – expected 9% CAGR through 2018. In fact, no other company in our E&P coverage group has such an identified inventory near term much less through 2018. CNQ's 4 BBOE of proved, 8 BBOE of 2P reserves and 12 BBOE of 3P resources, primarily in heavy oil and oil sands, underpin this growth. Furthermore, the company remains the 2nd largest (after EnCana) natural gas producer in Canada and the largest lease holder in the Montney liquids-rich development area providing a further production growth upside when of natural gas prices recover
- **Concho Resources** – Has established one of the premier positions in the Permian Basin, where it has accumulated ~750k net acres. Concho has ~0.5 BBOE of proven reserves and over 10,600 drilling locations in the Permian, which equates to a ~17 year drilling inventory at the 2013 drilling pace. The company delivered one of the highest production growth rates in our E&P coverage universe this year and has the assets in hand to deliver 15-20% "organic" growth for the next several years while generating solid rates of return, in our view. We expect further reserve additions as the company

allocates more capital towards higher impact and more capital efficient horizontal development in multiple zones in the Delaware Basin and NM Shelf and further de-risks the horizontal Wolfcamp and Cline formations in the Midland Basin.

- **Chesapeake Energy** – Even after all projected asset sales, CHK expects to remain among the top two acreage holders in ten U.S. shale plays: Haynesville, Barnett, Marcellus, Utica, Cleveland, Tonkowa, Eagle Ford, Powder River, Granite Wash and Mississippian Lime. However, with low U.S. natural gas prices providing sub-par returns from the ‘dry gas’ plays, the company’s rapid shift towards liquids, and the subsequent large funding gap and debt balance, will likely prevent it from realizing the full potential of this inventory in the short-to-medium term. Nonetheless, given its solid position in multiple regions and overall scope, Chesapeake should be well positioned to take advantage of any rebound in natural gas prices in the long run.
- **EOG Resources** – Was the first mover in four of the largest U.S. onshore horizontal oil plays including the Eagle Ford (largest oil producer and premium ~600k net acre position in the oil window), Bakken/Three Forks, Permian (Leonard and Wolfcamp Shale) and Barnett Combo, with a 10+ year inventory of crude oil/liquids drilling locations. Further, the company has a large inventory of HBP natural gas assets with core acreage held for future development at higher natural gas prices in the Marcellus, Haynesville, Barnett, Uinta and Horn River Basin.
- **Magnum Hunter** – For a small market cap company, MHR has established a strong foothold in three core areas: the Eagle Ford (26k net acres), Bakken/Three Forks (138k net acres) and the Marcellus (86k net acres). The company estimates more than 1,300 drilling locations from these regions, providing more than a 20 year inventory using its latest drilling plans. MHR also has a significant position of 82k net acres in the emerging Utica play.
- **Noble Energy** – While Noble’s YE’11 proven reserves can sustain projected 17% per annum production for 10-15 years, it encompasses just a portion of its existing inventory. The three largest natural gas fields in the offshore Eastern Mediterranean (Tamar, Leviathan, Cyprus) add another ~13.4 Tcf net to NBL or 192% of its YE’11 proven reserves. The company estimates its net risked resources at 2.4 BBOE, or 206% of its YE’11 proven reserves, from its vast exploration portfolio, including the deepwater Gulf of Mexico, West Africa, Nevada, Nicaragua and the Falkland Islands.
- **Pioneer Natural Resources** – Has repositioned its portfolio and is now solely focused on the Permian Basin (Spraberry Trend and Wolfcamp) and Eagle Ford shale where it has a high quality and growing inventory of resource potential. In addition to the 1.1 BBOE of proved reserves, Pioneer estimates it has additional net resource potential of 6.7 BBOE which may be an understated and conservative estimate given the 3.5 BBOE attributed to the horizontal Wolfcamp in for just 400k acres while it has ~850k net acres in the play. In total PXD has over 35,000 drilling locations.
- **Range Resources** – Has total net resource potential (44-60 Tcfe) that is 9-12 times its proven reserves base (5.1 Tcfe) and is driven by high rate or return, high growth assets led by the Marcellus and HZ Mississippian plays. The company’s resource potential continues to grow, even as reserves are moved to proven and its total net resource potential includes 1.5-2.0 BBOE of liquids while ethane can further increase this vast resource potential.

- **SandRidge Energy** – Holds 1.8mm net acres in the Mississippian, which yields over 11,000 net drilling locations on 160 acre spacing. This represents an inventory of almost 20 years based on the planned 2013 drilling pace. Using its internally estimated EUR of 422 MBOE (37% oil), we estimate a pre-tax IRR of ~30% using our normalized price deck of \$90/Bbl WTI and \$4.50/MMBtu.

...And companies with established positions in leading plays with the deepest and highest quality inventory to reinvest capital over the long term are best positioned to sustain industry-leading growth and returns.

Figure 29. E&P Coverage Group Resource Play Leverage

Anadarko Basin - Marmaton			Bakken Play - Williston Basin			Barnett Shale - Fort Worth		
	Acres	Acres/ EV		Acres	Acres/ EV		Acres	Acres/ EV
APA	512,000	9.91	WLL	714,567	102.84	KWK	140,000	52.61
COG	69,800	6.09	MHR	138,000	81.41	DVN	620,000	23.08
EOG	34,000	0.92	NFX	100,000	14.41	CHK	220,000	7.78
			APA	320,000	6.20	EOG	215,000	5.80
			EOG	90,000	2.43			
Duvernay			Eagle Ford Shale			Haynesville		
	Acres	Acres/ EV		Acres	Acres/ EV		Acres	Acres/ EV
ECA	445,000	24.35	MTDR	29,872	39.80	GDP	81,900	75.21
TLM	350,000	21.49	GDP	38,300	35.17	MTDR	24,979	33.28
CNQ	500,000	9.19	NFX	230,000	33.15	ECA	429,000	23.47
			ROSE	64,860	17.55	CHK	460,000	16.26
			EOG	644,000	17.38	END	6,745	6.32
			CHK	475,000	16.79	EOG	175,000	4.72
			MHR	26,000	15.34	APC	80,000	1.66
			APA	450,000	8.71			
			COG	62,000	5.41			
			PXD	120,000	7.44			
			APC	200,000	4.14			
			TLM	80,000	4.91			
Heath Shale			Marcellus Shale			Michigan Collingwood		
	Acres	Acres/ EV		Acres	Acres/ EV		Acres	Acres/ EV
END	94,000	88.11	CHK	1,800,000	63.63	ECA	430,000	23.53
COG	100,000	8.73	RRC	760,000	53.89	CHK	450,000	15.91
			UPL	260,000	48.87	DVN	395,000	14.70
			MHR	85,500	50.44			
			COG	200,000	17.46			
			NBL	314,000	14.68			
			END	15,830	14.84			
			SWN	186,893	13.66			
			TLM	218,000	13.39			
			NFX	85,000	12.25			
			EOG	210,000	5.67			
			APC	260,000	5.38			
Mississippian			Niobrara			Pearsall		
	Acres	Acres/ EV		Acres	Acres/ EV		Acres	Acres/ EV
SD	1,850,000	219.47	KWK	210,000	78.92	MHR	5,212	3.07
CHK	2,000,000	70.70	NBL	870,000	40.68	GDP	10,000	9.18
DVN	545,000	20.29	CHK	853,863	30.19	COG	94,000	8.20
ECA	360,000	19.70	UPL	136,600	25.68			
APA	580,000	11.23	SWN	302,000	22.07			
RRC	156,000	11.06	APC	900,000	18.63			
			ECA	240,000	13.13			
			WLL	77,608	11.17			
			EOG	358,000	9.66			
			DVN	32,000	1.19			
Permian			Tuscaloosa			Utica Shale		
	Acres	Acres/ EV		Acres	Acres/ EV		Acres	Acres/ EV
KWK	150,000	56.37	GDP	134,200	123.23	CHK	1,300,000	45.96
CXO	750,000	59.57	ECA	355,000	19.42	MHR	81,800	48.26
DVN	1,300,000	48.40	DVN	310,000	11.54	RRC	440,000	31.20
PXD	691,000	42.84				DVN	235,000	8.75
APA	1,800,000	34.85				APC	250,000	5.17
SD	225,000	26.69				COG	50,000	4.36
CHK	470,000	16.62						
WLL	91,259	13.13						
EOG	240,000	6.48						
MTDR	7,534	10.04						

Source: Citi Research

...Along With Operational Execution And Not Missing On Guidance...

Not missing on production and expense forecasts and avoiding third-party delays, and slower-than-expected project ramp-ups should remain key factors for share price performance in 2013...

As already outlined, companies that failed to meet their production forecasts largely underperformed the sector this year and we expect this dynamic will be true again in 2013. Notably, this trend applies to both oil and gas output and includes the impact of indirect production growth shortfalls due to third-party delays, slower-than-expected project start-ups or ramp-ups and lower production outlooks even if associated with lower spending forecasts. We would note the following:

- Lower production forecasts (and higher expense guidance) are usually followed by lower cash flow estimates, which has been the predominant driver of E&P share performance;
- Lower-than-expected production growth often suggests that the quality of the assets might be worse than originally expected or that there are operational issues that the company failed to anticipate;
- Changing forecasts to the downside leads to questions surrounding the management team's understanding of the company's asset base, decline rates, capital needs and operational capabilities. This is more of a trend to the downside, as beating projections and increasing guidance is seen as a sign of prudent or conservative management teams;

Among the companies in our coverage group, **Concho**, **EOG**, **Noble**, **Southwestern** and **Range** have historically been conservative in their production growth forecasts and are more apt to increase forecasts during the year. Meanwhile, **Apache**, **SandRidge**, **Devon**, **Newfield** and **Endeavour** have been aggressive with their forecasts in the past and have often been forced to lower their projections mid-way through the year.

...And Top Quality Management Being More Critical Than Ever

As companies exploit existing resources and seek new opportunities, we believe investors will continue to reward quality management teams with a solid track record of creating value.

As E&P companies focus on exploiting existing inventories while seeking new opportunities to reinvest capital, a management team with a proven track record of proven success in putting a company 'in the way of good opportunities' will remain critical to delivering strong results and maintaining credibility with investors. As a commodities business, E&P companies cannot differentiate by producing unique products or implementing pricing strategies. Rather, E&P companies differentiate themselves by finding and producing oil and gas more efficiently and profitably than their peers. We believe that companies that have consistently delivered on these facets will most likely continue to do so. In assessing an E&P management team, we deem the following as positive features:

- **Track record of operational success** – the ability to grow production and reserves in a capital efficient manner (as highlighted below) is key to long term success. Also, technological improvements and experience in certain plays, as demonstrated in operational efficiencies with lower per-well costs, reduced spud-to-spud times and better-than-expected well performance (even as producers reduce the number of operated rigs in many plays) will support strong margins.

- **Maintains capital discipline** – with many companies now able to grow production and reserves with increased spending, those companies that can grow in a capital efficient manner by spending within cash flow or establishing (and adhering to) maximum leverage targets should be well positioned. Along with a healthy balance sheet, the ability to push costs downward to improve margins and a robust hedging program are key areas of focus.
- **Seeks to create value** – companies that have and/or are seeking JVs or asset monetizations can, if done so at an attractive valuation, pull value forward to benefit shareholders while also providing additional funding flexibility while at the same time diversifying risk.
- **Clearly defines strategy** – a strategy that has been effectively communicated to investors is key, particularly as companies continue to rationalize portfolios and, in some cases, divest assets to concentrate efforts on specific regions.

Based on the criteria outlined above, we believe the management teams of the following companies, in particular, are positioned to deliver superior results:

- **Anadarko** – experienced management team with demonstrated exploration track record. Current areas of focus include navigating the Tronox trial, with a decision expected in Q1'13, and securing a JV partner in Mozambique.
- **Cabot Oil & Gas** – management has positioned the company in arguably the highest quality dry natural gas asset in the U.S. (Marcellus Shale in NE PA) and has taken measures to build out enough takeaway capacity to provide for more than 30% per annum growth through 2015. As the company moves into development mode, it is well positioned to generate meaningful free cash flow, which it will potentially use to accelerate development, buy back shares, and/or increase dividends.
- **Canadian Natural Resources** – management has maintained rigorous capital discipline with development of long-life projects while maintaining a strong financial position. At the same time, the company has a long sight of future development projects to deliver high single digits long term production growth. Few E&P companies in our coverage universe have a comparable inventory of long-term projects.
- **Concho Resources** – the company has consistently delivered one of the highest RRE metrics and production growth figures, both organically and through a slew of successfully executed acquisitions, transforming itself into one of the top players in the Permian Basin. We expect the company to continue to post solid RRE and high production growth rates as it transforms from drilling mostly vertical wells to mostly horizontal.
- **EOG Resources** – management has continuously put the company in the path of best-in-class resource opportunities and was the first mover in the Eagle Ford and Bakken shale plays. The company adheres to maintaining a <30% net debt-to-capital ratio and has sold off non-core assets to reallocate capital to the best return projects. We expect management to announce one or more new 'greenfield' projects next year.
- **Noble Energy** – with operations in five core regions and multiple exploration and appraisal wells drilling at the same time, Noble's management has done a superior job of managing expectations and delivering on them. Noble also maintains a good capital discipline, financing its 2012 capital budget gap via non-core asset sales without sacrificing production growth or reserve base.

- **Pioneer Natural Resources** – management has repositioned its portfolio and is now focused firmly on the Permian and Eagle Ford shale plays. Management is pursuing asset divestitures and JVs to provide funding flexibility and to more efficiently reallocate capital to areas of focus.
- **Range Resources** – experienced management team that has accumulated prime acreage in the Marcellus while also successfully ramping up liquids production with a projected ~51% year-over-year liquids production growth (~25% of total production) in 2013 versus ~28% year-over-year liquids growth (~21% of total production) this year. The company intends to outspend cash flow in 2013 by ~\$250mm but the funding shortfall can be filled by the revolving credit facility (~1.2bn available at the end of Q3'12) and management stated it would consider non-core asset sales, if necessary.

Also, Many Companies Have Catalysts In 2013 That Can Help Drive Price Performance...

Potential catalysts could help drive share price performance for several companies in 2013...

In 2012, several of the best performing companies in our coverage group benefited from successful catalysts that helped drive share price performance, with a recent example being **Cobalt**, which announced a significant oil discovery in the deepwater Gulf of Mexico in early December that led to a ~19% price increase on the day of announcement. Catalysts for companies in our coverage group include pending JVs, asset monetizations, and exploration results, along with potential M&A events. The potential catalysts for our coverage group are noted in the company pages located later in this note with selected key events as follows:

- **Anadarko** – we expect the judge's ruling on **Tronox** in Q1'13 and, absent a significant adverse settlement, we also believe a material increase in the company's dividend is a possibility thereafter. Management also intends to monetize a portion of its 36.5% interest in offshore **Mozambique** Area 1 and PTTEP's acquisition of Cove Energy suggests a rich valuation which is currently not recognized in APC's share price (APC's interest implied value is \$8.2 billion, or ~\$16 per share), in our opinion.
- **Chesapeake Energy** – Chesapeake hopes to announce a joint venture or an outright asset sale of its 2.0mm acre **Mississippian Lime** position in the first quarter of next year, with proceeds expected to be the largest piece of its estimated \$4-5bn in asset sales next year.
- **Cobalt International** – following the successful oil discovery in the Lower Tertiary trend in the deepwater Gulf of Mexico in early December 2012, results from the Anadarko-operated **Shenandoah #2 appraisal** well are expected in Q1'13, followed by drilling the **Ardennes** (42% WI) and **Aegean** (37.5% WI) exploration prospects, also in the Lower Tertiary. Furthermore, we expect results from the production test of the lower-most zone identified at the **Cameia** prospect (40% WI) offshore Angola in Q1'13.
- **Encana** – management intends to close separate **JVs** for U.S. liquids-rich acreage in the Tuscaloosa, Eaglebine and Mississippian and the Duvernay Shale in Canada. In addition, successful horizontal exploration program in Tuscaloosa and liquids-rich Duvernay shale could unlock substantial value.
- **Pioneer Natural Resources** – Pioneer has been running a formal **JV** process for its **southern Wolfcamp acreage** with bids due before the end of the year and a likely announcement in Q1'13. The company also plans to divest its Barnett shale assets which will provide additional flexibility and also help alleviate any funding constraints.

- **Talisman Energy** – the company is going through a **major transformation** under a strategic course set by its new CEO. Talisman may divest one or more of its North America natural gas or liquids-rich plays such as Marcellus, Eagle Ford, Duvernay, Montney and Canadian conventional as it focuses its efforts on the most capital efficient opportunities. The company is also expected to exit certain regions such as Poland as it focuses on few key operations. In addition, we expect further update on the status of its Duvernay shale pilot program, Colombia exploration as well as appraisal results in Kurdistan.
- **Quicksilver Resources** – management intends to bring a partner into the Barnett (potentially combined with launching a MLP) to significantly reduce debt. The company also remains in negotiations with international companies looking to form a **JV** in the Horn River Basin, while waiting for more well data to move forward on a **JV** in the Permian.

...And M&A Could Help Put A Floor Under Valuations For Some Companies

...While M&A activity could play a critical role in 2013, particularly among small to mid-cap names where expectations for an ultimate takeover could also put a floor under valuations.

While a host of transactions have been announced heading into year end, the M&A theme could play a critical role in 2013, particularly among the small to mid-cap E&P names. This derives from the fact that the “Have Nots” will ultimately realize that the best option will be to gain economies of scale through consolidation rather than chasing reinvestment options that do not hold out the prospect for above-average economic returns or sustainable growth. However, we would note that betting on M&A has not proven to be an investable theme since, even if you own the one or two names that are acquired, this does not offset what the fundamentals drive for the rest of your portfolio of E&P names unless you are shrewd enough to just own the one or two or three names that are acquired. M&A, per our analysis, has never proven to provide a sustainable lift to the entire sector based on the expectation for more deals. But, the expectation that a particular name is likely to be acquired at some point most often puts a floor under the valuation apart from distressed situations.

Overall, The Outlook For CF/DAS Growth And RRE Should Underscore The Outperformers

As a first step, we utilize CF/DAS projections to identify companies best positioned to outperform in 2013 and beyond...

As a first step, we looked to the metrics that have shown the highest correlation to share price performance over the past three years to identify companies best positioned to outperform in 2013 and beyond, with a focus on CF/DAS and P/DAS. In doing so, we plot projected CF/DAS and P/DAS for each company in our coverage group and compare the results to the historic regression of share price performance and the various metrics, with our framework based on:

- **CF/DAS and Share Price Performance** – over the past three years, companies in our coverage group have grown CF/DAS at ~9% per annum, on average, while share prices have increased by ~7% per year, on average. We use the historic three-year correlation for our coverage group and apply it to our forward looking three year cash flow projections to identify which companies appear best positioned to grow CF/DAS and, thus, drive share price appreciation. We project CF/DAS will increase by ~15%, on average, for our group through 2015. See Figure 30 below for our 2012-2015E CF/DAS CAGR projections for our coverage group.

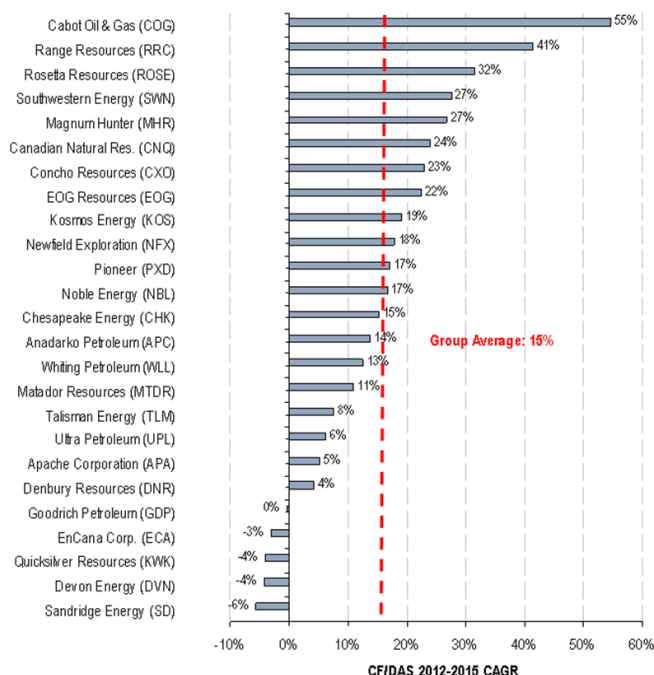
■ **P/DAS and Share Price Performance** – over the past three years, companies in our coverage group have grown P/DAS at ~12% per annum, on average, while share prices have increased by 7% per year, on average. We use the historic three-year correlation for our coverage group adjusting for disparity in oil and natural gas prices (21:1 ratio) and apply it to our forward looking three year production projections to identify which companies appear best positioned to grow P/DAS (21:1 ratio going forward based on our commodity price projections) and, thus, drive share price appreciation. Thus, on this ‘energy weighted’ basis, we project P/DAS will increase by ~8% per annum, on average, for our coverage group through 2015. See Figure 31 below for our ‘energy weighted’ 2012-2015E CF/DAS CAGR projections.

■ **Other factors** – we also consider RRE, inventory life and management quality (for reasons outlined above) as qualitative factors in our analysis.

...And believe EOG, NBL, CNQ, CXO, RRC, COG and APC are best positioned to outperform in 2013 based on our projections.

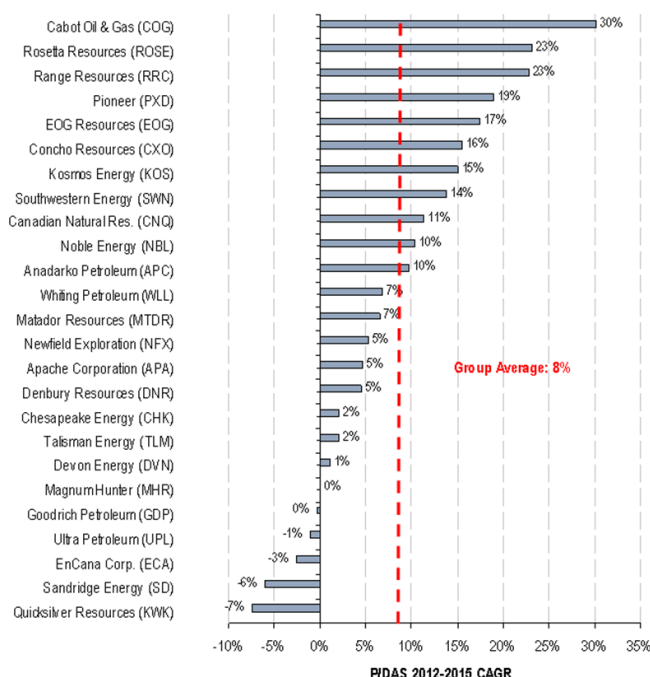
The results for each company in our coverage group are included in the following pages. Based on our methodology, we believe that those companies that have demonstrated the ability to reinvest capital with solid returns while growing production and who have the inventory to continue to do so will be the leading performers again in 2013. At the top of this list are **EOG Resources, Noble Energy, Canadian Natural Resources, Concho Resources, Range Resources** and **Cabot Oil & Gas** along with **Anadarko** once and if the Tronox litigation is resolved in the range of expectations (\$1.0-2.5bn before tax).

Figure 30. 2012-2015E CF/DAS CAGR Projections



Source: Citi Research

Figure 31. 2012-2015E ‘Energy Weighted’ (21:1) P/DAS CAGR



Source: Citi Research

Company Focus

- Company Update
- Target Price Change

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Buy	1
Price (18 Dec 12)	US\$76.15
Target price	US\$105.00
from US\$115.00	
Expected share price return	37.9%
Expected dividend yield	0.5%
Expected total return	38.4%
Market Cap	US\$38,057M

Price Performance (RIC: APC.N, BB: APC US)



Anadarko Petroleum Corp (APC)

■ **2012 Share Price Performance** – Anadarko has outperformed our E&P coverage group YTD, with its share price declining ~2% versus an ~8% decline for the group, on average. Anadarko's share price was held back throughout the year due to the Tronox litigation but was helped by strong production growth of ~7% year-over-year and efficient capital allocation while spending within cash flow and pulling forward value via the deepwater Gulf of Mexico Lucius joint venture. Anadarko grew CF/DAS by +1% this year versus our coverage group average at -7%, and 'energy weighted' P/DAS declined by 8% in 2012 versus our coverage group average of 7% decline.

■ **2013 Production Outlook** – We currently project Anadarko will post 8% production growth in 2013 while spending within our projected ~\$7.5bn after-tax operating cash flow.

■ **Cash Flow Per Debt Adjusted Share** – We project 2012-2015 CF/DAS will grow at a rate of +14% per annum vs. a projected group average CAGR of +15%. For the 2010-2012 three-year period, Anadarko's posted an annual CAGR in CF/DAS of +20% versus our coverage group of ~9%, while it delivered a ~13% CAGR in share price appreciation, thus outperforming the coverage group CAGR of ~7%, on average (See Figure 32).

■ **'Energy Weighted' Production Per Debt Adjusted Share** – We project 2012-2015 'energy weighted' P/DAS will grow at a rate of 10% per annum vs. a projected group average CAGR of +8% (See Figure 33).

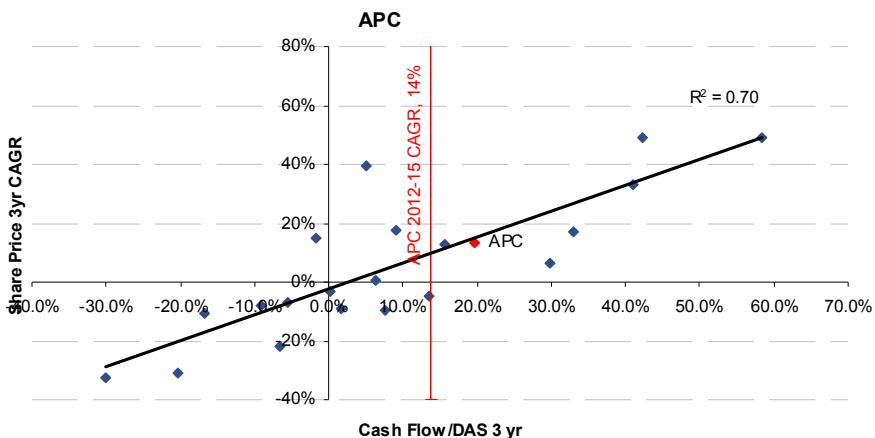
■ **Potential 2013 Catalysts** – Potential catalysts include 1) exploration results, with at least five wells likely to be announced in Q1'13; 2) greater visibility on the Tronox trial with the judge's decision also expected in Q1'13; 3) strong production growth driven by the Wattenberg, Marcellus and Eagle Ford shale; and 4) a potential JV partnership in Mozambique.

■ **Price Target** – Thus, based on our outlook for CF/DAS and 'energy weighted' P/DAS growth in 2013 along with the expected resolution of Tronox to free the stock to trade on our metrics, we have set a price target of \$105 per share. This is based on APC's stock achieving 2013/2014 EV/DACF multiples of 6.8x/6.2x based on normalized prices of \$90/Bbl and \$4.50/MMBtu, and ~100% of proven reserve only NAV based on our commodity price forecasts.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2011A	0.73A	1.14A	0.65A	0.85A	3.38A	3.37A
2012E	0.95A	0.85A	0.84A	0.78E	3.41E	3.29E
Previous	0.95A	0.85A	0.84A	0.78E	3.41E	na
2013E	0.90E	0.89E	1.05E	1.14E	3.99E	4.05E
Previous	0.90E	0.89E	1.05E	1.14E	3.99E	na
2014E	na	na	na	na	5.64E	5.21E
Previous	na	na	na	na	5.64E	na

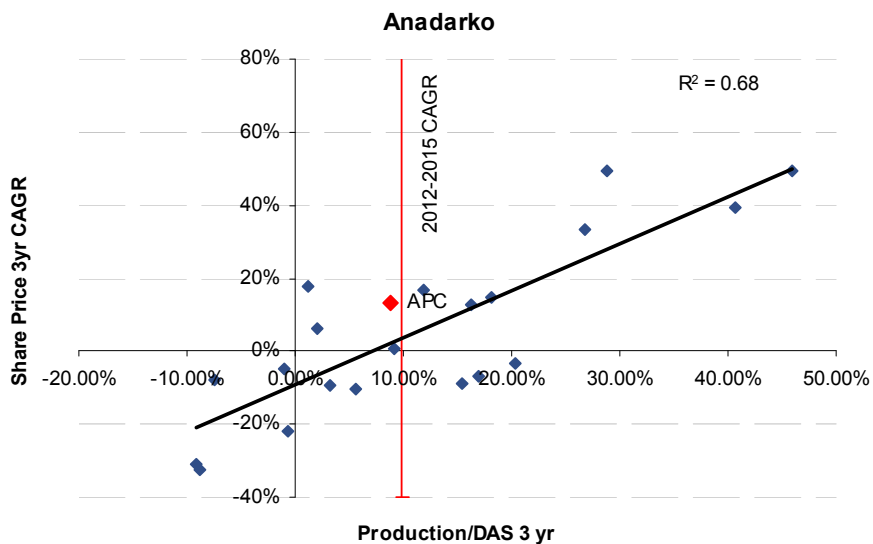
Source: Company Reports and dataCentral, Citi Research. FC Cons: First Call Consensus.

Figure 32. APC Cash Flow Per Debt Adjusted Share – 2010-2012 (E&P group and APC) and 2012-2015E



Source: Citi Research

Figure 33. APC 'Energy Weighted' Production Per Debt Adjusted Share – 2010-2012 (E&P group and APC) and 2012-2015E



Source: Citi Research

Company Focus

Apache Corp (APA)

- Company Update
- Target Price Change

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Buy	1
Price (18 Dec 12)	US\$80.16
Target price	US\$95.00
from US\$100.00	
Expected share price return	18.5%
Expected dividend yield	0.8%
Expected total return	19.4%
Market Cap	US\$31,365M

Price Performance (RIC: APA.N, BB: APA US)



■ **2012 Share Performance** – Apache has underperformed our E&P coverage group YTD, with its shares falling ~15% vs. an ~8% decline for the group, on average. Apache's share price was impacted during the year due to lowered organic growth expectations as the company reduced its guidance twice. In addition, the political situation in Egypt and Argentina continued to be an overhang for the stock. Apache's CF/DAS declined by 13% this year versus our coverage group average at -7% and 'Energy Weighted' P/DAS declined by 15% this year versus our coverage group average at -7%.

■ **2013 Production Outlook** – We currently project Apache will post ~7.5% production growth next year to 841 MBOE/d (51% liquids) while spending within our projected ~\$9.7bn after-tax operating cash flow

■ **Cash Flow Per Debt Adjusted Share** – We project a 2012-2015 CF/DAS growth of +5% per annum vs. a projected group average CAGR of +15%. For the 2010-2012 three-year period, Apache posted a CAGR of +13% for CF/DAS versus our coverage group at +9%, while its share price declined at a ~-5% CAGR vs. the coverage group posted a CAGR of ~7%, on average, share price appreciation. (See Figure 34).

■ **'Energy Weighted' Production Per Debt Adjusted Share** – We project a 2012-2015 'Energy Weighted' P/DAS growth rate of +5% per annum vs. a projected group average CAGR of +8% (See Figure 35).

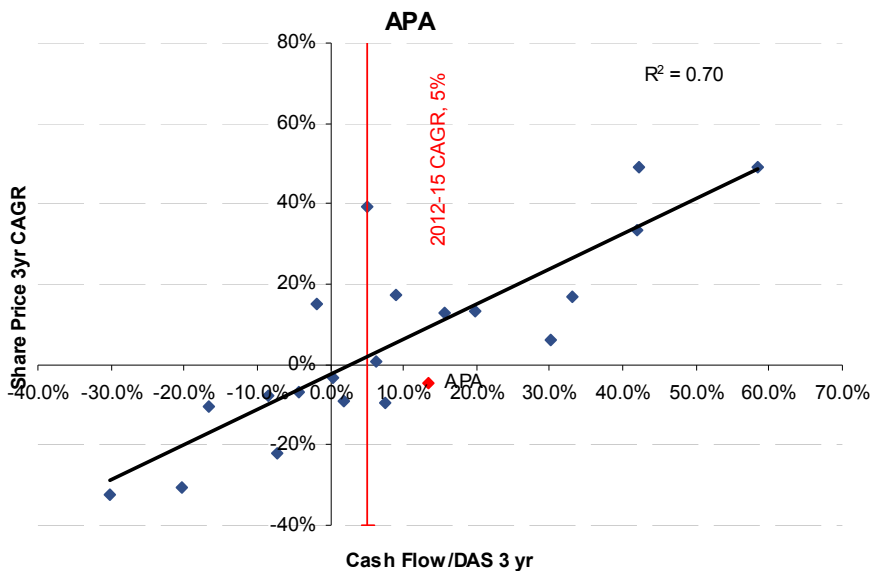
■ **Potential 2013 Catalysts** – Potential catalysts include 1) Williston Basin and Mississippian Lime assessment in Q1'13; 2) Improved political stability in Egypt ; 3) strong organic production growth driven by the Permian Basin, Central Region; and 4) Successful exploration program in Neuquén Basin in Argentina and Cook Inlet Alaska, and 5) Successful start-up of Forties Alpha in the North Sea.

■ **Price Target** – Thus, based on our outlook for CF/DAS share growth in 2013, expected improvement in 'energy weighted' production growth we are lowering our price target from \$100 to \$95 per share. This is based on APA's stock achieving 2013/2014 EV/DACF multiples of 4.9x/4.6x based on normalized prices of \$90/Bbl and \$4.50/MMBtu, and ~73% of proven reserve only NAV based on our actual commodity price forecasts.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2011A	2.90A	3.23A	2.95A	2.94A	12.01A	11.83A
2012E	3.00A	2.07A	2.16A	2.05E	9.29E	9.63E
Previous	3.00A	2.07A	2.16A	2.05E	9.29E	na
2013E	2.24E	2.02E	2.30E	2.25E	8.83E	9.72E
Previous	2.24E	2.02E	2.30E	2.25E	8.83E	na
2014E	na	na	na	na	10.73E	10.49E
Previous	na	na	na	na	10.73E	na

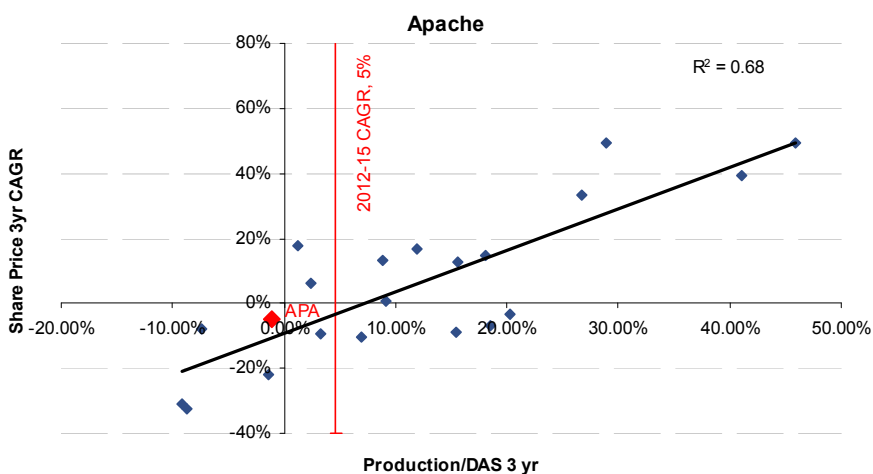
Source: Company Reports and dataCentral, Citi Research. FC Cons: First Call Consensus.

Figure 34. APA Cash Flow Per Debt Adjusted Share – 2010-2012 (E&P group and APA) and 2012-2015E



Source: Citi Research

Figure 35. APA 'Energy Weighted' Production Per Debt Adjusted Share – 2010-2012 (E&P group and APA) and 2012-2015E



Source: Citi Research

Company Focus

Cabot Oil & Gas Corp (COG)

- Company Update
- Target Price Change
- Estimate Change

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Buy	1
Price (18 Dec 12)	US\$48.72
Target price	US\$60.00
from US\$55.00	
Expected share price return	23.2%
Expected dividend yield	0.2%
Expected total return	23.4%
Market Cap	US\$10,243M

Price Performance

(RIC: COG.N, BB: COG US)



■ **2012 Share Price Performance** – Cabot has been the second best performer in our E&P coverage group YTD, rising ~24% versus an ~8% decline for the group, on average. Cabot's share price outperformance has been driven by rising confidence in its prime Marcellus resource base, increasing takeaway away capacity in the play, strong production growth this year and beyond ("organic" production growth projected at ~46% year-over-year in 2012), increased confidence in developing both the lower and the upper Marcellus in NE PA, successful 55 acre down spacing tests in the oil window of Eagle Ford, continued strong results in the oily Marmaton play and initial success in the emerging Pearsall play. Furthermore, COG grew CF/DAS by a projected +24% this year vs our coverage group average of a 7% decline and grew P/DAS by a projected 12% this year versus our coverage group average of 7% decline.

■ **2013 Production Outlook** – We project 2013 production of ~1,035 MMcf/d (~94% natural gas), or ~43% year-over-year growth, which is inline with the mid-point of the guidance range, while also spending within our projected ~\$1.1bn of after-tax operating cash flow.

■ **Cash Flow Per Debt Adjusted Share** – We project a 2012-2015 CF/DAS growth rate of +55% per year vs. a projected group average CAGR of +15%. For the 2010-2012E three-year period, COG posted an annual CAGR in CF/DAS of +5% versus our coverage group at +9%, while it delivered a +39% CAGR in share price appreciation versus the coverage group CAGR of +7%, on average (See Figure 36).

■ **'Energy Weighted' Production Per Debt Adjusted Share** – We project a 2012-2015 P/DAS growth rate of +30% per year vs. a projected group average CAGR of +8% (See Figure 37).

■ **Potential 2013 Catalysts** – Potential catalysts include increased Marcellus takeaway capacity, which is on track to reach 1.4 Bcf/d gross (1.2 Bcf/d net) by YE12 and exceed ~2.0 Bcf/d gross (1.8 Bcf/d net) by YE13, a strong YE12 reserve report, and results from the Utica and the oily Eagle Ford, Marmaton and Pearsall.

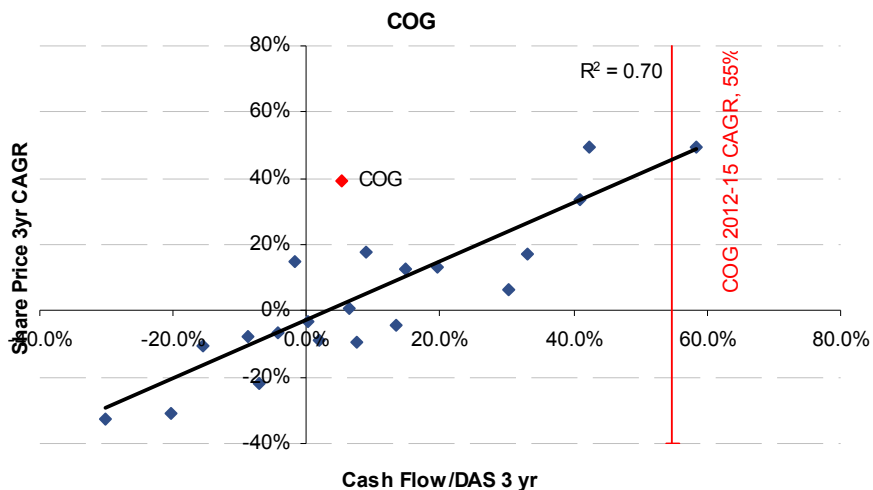
■ **Adjusting Estimates** – Based on our updated production and capital spending outlooks, we are adjusting our 2014 EPS/CFPS estimates to \$2.99/\$8.21 from \$2.80/\$7.69 and 2015 EPS/CFPS to \$4.60/\$11.45 from \$4.08/\$10.19.

■ **Price Target** – Thus, based on our outlook for COG to grow CF/DAS at a significantly above average rate along with its ability to generate free cash flow, solid balance sheet and large inventory of high ROR drilling locations, we have set a price target of \$60 per share. This is based on COG's stock achieving an EV/DACF multiple of 9.7x/7.1x for 2013/2014 based on normalized prices of \$90/Bbl and \$4.50/MMBtu, and ~255% of proven reserve only NAV based on our commodity price forecasts.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2011A	0.10A	0.20A	0.17A	0.19A	0.66A	0.67A
2012E	0.14A	0.05A	0.20A	0.20E	0.59E	0.63E
Previous	0.14A	0.05A	0.20A	0.20E	0.59E	na
2013E	0.27E	0.26E	0.39E	0.53E	1.46E	1.35E
Previous	0.27E	0.26E	0.39E	0.53E	1.46E	na
2014E	na	na	na	na	2.99E	2.69E
Previous	na	na	na	na	2.80E	na

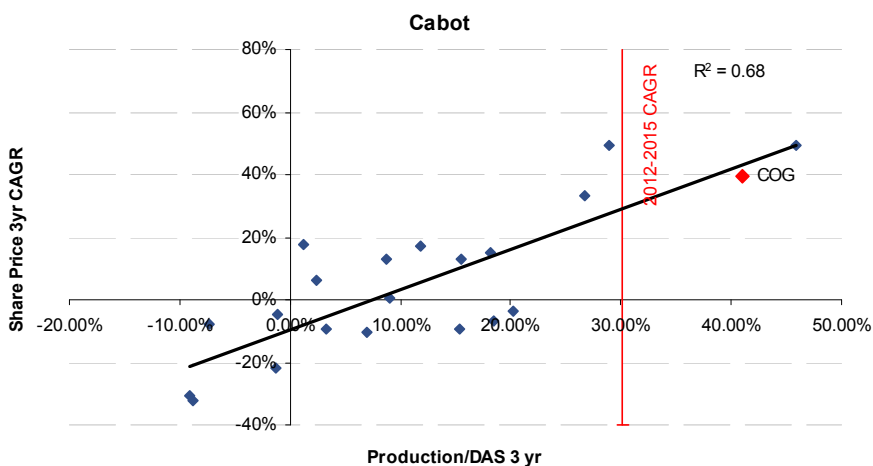
Source: Company Reports and dataCentral, Citi Research. FC Cons: First Call Consensus.

Figure 36. COG Cash Flow Per Debt Adjusted Share – 2010-2012 (E&P group and COG) and 2012-2015E



Source: Citi Research

Figure 37. COG 'Energy Weighted' Production Per Debt Adjusted Share – 2010-2012 (E&P group and COG) and 2012-2015E



Source: Citi Research

Company Focus

Canadian Natural Resources Ltd (CNQ)

Company Update

Robert S Morris

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Buy	1
Price (18 Dec 12)	US\$28.73
Target price	US\$40.00
Expected share price return	39.2%
Expected dividend yield	1.5%
Expected total return	40.7%
Market Cap	US\$31,442M

Price Performance

(RIC: CNQ.N, BB: CNQ US)



■ **2012 Share Performance** – Canadian Natural Resources has underperformed our E&P coverage group YTD, with its shares falling ~23% vs. an ~8% decline for the group, on average. CNQ has underperformed due to a number of factors including uncertainty around the operational performance at Horizon which continues to be plagued by problems, lower Canadian oil price realizations in the first half of the year due to refinery turnarounds, and lower-than-expected thermal in-situ oil and light oil production. CNQ's CF/DAS declined 13% this year versus our coverage group average at -7%, while 'Energy Weighted' P/DAS grew by +3% this year versus our coverage group average at -7%.

■ **2013 Production Outlook** – We project oil production will grow by ~11% next year to 506 MBOE/d driven by increases in Pelican Lake, primary heavy and Horizon oil production, offsetting a ~6% year-over-year decline in natural gas output to 1.15 Bcfe/d. Total volumes are projected to be up ~5.5% in 2013 to ~698 MBOE/d, versus guidance of 663-704 MBOE/d. We project 2013 after-tax cash flow of \$7.3 Bn will exceed a projected capital budget of \$6.9bn.

■ **Cash Flow Per Debt Adjusted Share** – We project 2012-2015 CF/DAS will grow at a rate of +24% per annum vs. a projected group average CAGR of +15%. For the 2010-2012 three-year period, CNQ posted a CAGR in CF/DAS of +6% vs. the coverage group CAGR of ~8%, while its share price appreciated at a 1% CAGR versus the coverage group CAGR share price increase of ~7%, on average (See Figure 38).

■ **'Energy Weighted' Production Per Debt Adjusted Share** – We project 'energy weighted' 2012-2015 P/DAS will increase at a rate of +11% per annum vs. a projected group average CAGR of +8%. (See Figure 39).

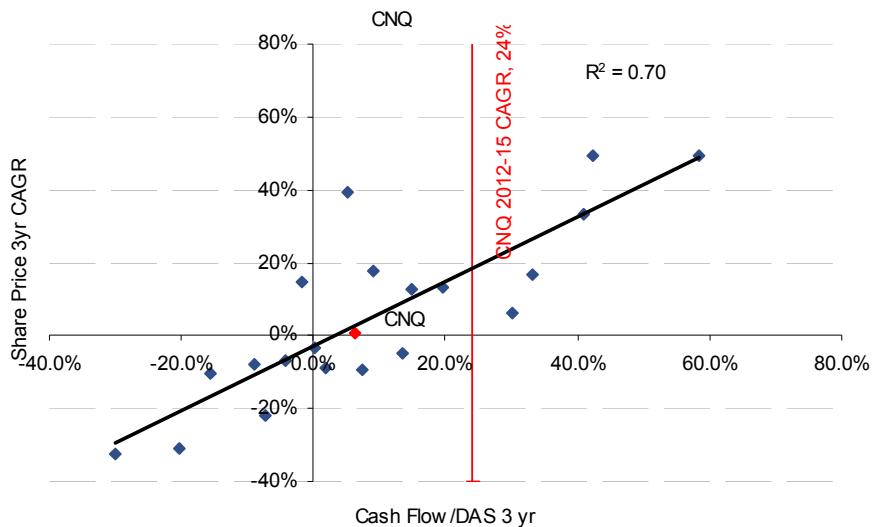
■ **Potential 2013 Catalysts** – Potential catalysts include 1) Horizon operations efficiency improvements and successful turnaround in May; 2) Kirby South SAGD start-up by year end, 3) Western Canadian oil price realization improvements and presidential approval of Keystone XL, 4) Restoration of natural gas curtailments with an improved natural gas price outlook, 5) Exploration results in the Duvernay Shale, and 6) Infill drilling results in the North Sea and Offshore Africa.

■ **Price Target** – Thus, based on our outlook for CF/DAS growth along with its ability to generate free cash flow, a solid balance sheet and large inventory of projects and drilling locations, we have set a price target of \$40 per share. This is based on CNQ's stock achieving 2013/2014 EV/DACF multiples of 6.2x/5.4x based on normalized prices of \$90/Bbl and \$4.50/MMBtu, and at 107% of proven reserve only NAV based on our commodity price forecasts.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2011A	0.21A	0.56A	0.65A	0.88A	2.30A	2.30A
2012E	0.27A	0.55A	0.33A	0.31E	1.36E	1.60E
Previous	0.27A	0.55A	0.33A	0.31E	1.36E	na
2013E	0.53E	0.46E	0.59E	0.62E	2.20E	2.30E
Previous	0.53E	0.46E	0.59E	0.62E	2.20E	na
2014E	na	na	na	na	3.63E	2.94E
Previous	na	na	na	na	3.63E	na

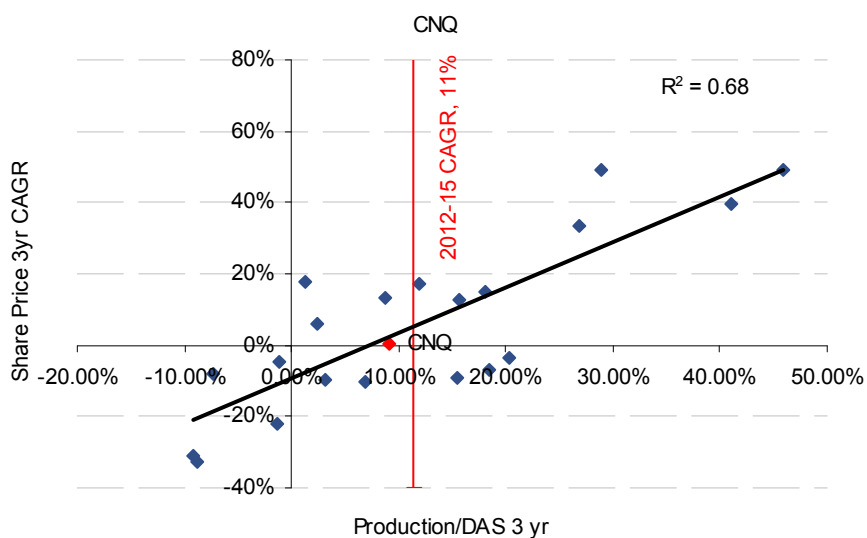
Source: Company Reports and dataCentral, Citi Research. FC Cons: First Call Consensus.

Figure 38. CNQ Cash Flow Per Debt Adjusted Share – 2010-2012 (E&P group and CNQ) and 2012-2015E



Source: Citi Research

Figure 39. CNQ 'Energy Weighted' Production Per Debt Adjusted Share – 2010-2012 (E&P group and CNQ) and 2012-2015E



Source: Citi Research

Company Focus

Chesapeake Energy Corp (CHK)

- Company Update
- Estimate Change

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Neutral/High Risk	2H
Price (18 Dec 12)	US\$17.25
Target price	US\$20.00
Expected share price return	15.9%
Expected dividend yield	1.7%
Expected total return	17.7%
Market Cap	US\$11,465M

Price Performance (RIC: CHK.N, BB: CHK US)



■ **2012 Share Performance** – CHK has underperformed our E&P coverage group YTD, with its shares declining ~25% versus an ~8% drop for the group, on average. Despite having acreage in some of the most prolific U.S. shale plays and raising production guidance during the year (twice for oil), CHK's shares were pressured due to its: 1) below average debt-adjusted CF and production growth; 2) massive funding gap, 3) complicated capital structure, 4) doubts about its ability to meet debt targets, 5) uncertainty around asset sales and 6) headline risk (Aubrey's hedge fund, collusion allegations with ECA, activist pressure, etc). Chesapeake's CF/DAS declined 30% this year versus our coverage group average of -7%, while 'energy weighted' P/DAS declined by 16% in 2012 versus our coverage group average of -7%.

■ **2013 Production Outlook** – We project CHK's production will be flat year-over-year in 2013 (+1% on an 'organic basis') as rapid liquids growth offsets natural gas declines and asset sales. The company should outspend our projected ~\$3.5bn after-tax operating cash flow by ~\$3.1bn, with the funding gap to be largely financed via asset sales.

■ **Cash Flow Per Debt Adjusted Share** – We project 2012-15 CF/DAS will grow at a rate of +16% per annum vs. a projected group average CAGR of +15%. For the 2010-12 three-year period, CHK posted an annual CAGR in CF/DAS of -6% vs. our coverage group at +9%, while its shares declined at a 7% CAGR vs. our coverage group CAGR of +7%, on average, in share price appreciation.

■ **'Energy Weighted' Production Per Debt Adjusted Share** – We project 2012-15 'energy weighted' P/DAS will grow at a rate of +3% per annum vs. a projected group average CAGR of +8%.

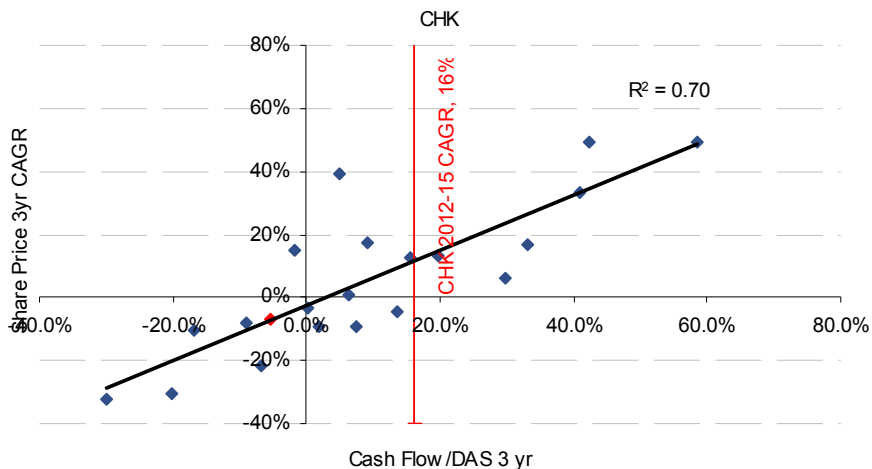
■ **Potential 2013 Catalysts** – Potential catalysts include: 1) asset sales or joint ventures, with its 2.0mm acre Miss Lime position, rest of the Permian, rest of the midstream and other non-core and fringe acreage up for grabs; 2) ability to meet its \$9.5bn debt target; and 3) oil production growth.

■ **Price Target** – Thus, based on our outlook for CF/DAS growth in 2013 and assuming the company will generate enough proceeds from asset sales to cover its funding gap, we have set a price target of \$20 per share. This is based on CHK's stock achieving 2013/2014 EV/DACF multiples of 5.0x/5.1x based on normalized prices of \$90/Bbl and \$4.50/MMBtu, and 53% of proven-only reserve NAV on our actual commodity price forecasts.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2011A	0.75A	0.76A	0.72A	0.58A	2.81A	2.80A
2012E	0.18A	0.06A	0.04A	0.06E	0.35E	0.48E
Previous	0.18A	0.06A	0.04A	0.06E	0.35E	na
2013E	0.17E	0.17E	0.29E	0.39E	1.01E	1.35E
Previous	na	na	na	na	1.01E	na
2014E	na	na	na	na	2.10E	2.06E
Previous	na	na	na	na	2.10E	na

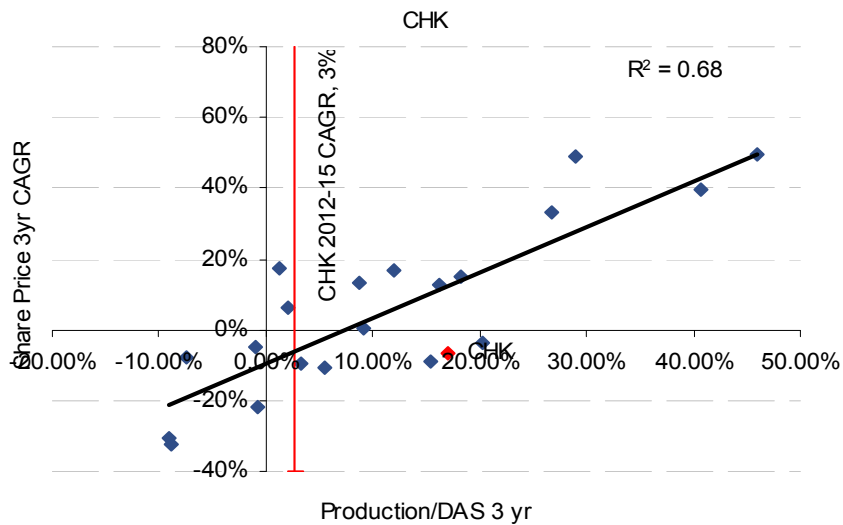
Source: Company Reports and dataCentral, Citi Research. FC Cons: First Call Consensus.

Figure 40. CHK Cash Flow Per Debt Adjusted Share – 2010-2012 (E&P group and CHK) and 2012-2015E



Source: Citi Research

Figure 41. CHK 'Energy Weighted' Production Per Debt Adjusted Share – 2010-2012 (E&P group and CHK) and 2012-2015E



Source: Citi Research

Company Focus

- **Company Update**
- **Target Price Change**
- **Estimate Change**

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Buy/High Risk	1H
Price (18 Dec 12)	US\$25.73
Target price	US\$38.00
from US\$40.00	
Expected share price return	47.7%
Expected dividend yield	0.0%
Expected total return	47.7%
Market Cap	US\$10,564M

Price Performance

(RIC: CIE.N, BB: CIE US)



Cobalt International Energy (CIE)

■ **2012 Share Price Performance** – CIE has been the best performer in our E&P coverage group YTD, rising ~61% versus a ~8% decline for the group, on average. CIE's share price outperformance has been driven by strong exploration results offshore Angola and, most recently, an oil discovery in the Lower Tertiary trend in the deepwater Gulf of Mexico (GoM).

■ **Potential 2013 Catalysts** – Potential positive catalysts include GoM drilling results from the Anadarko-operated Shenandoah #2 appraisal well (most likely in Q1'13), followed by results from the Ardennes #1 (42% WI) and the Aegean #1 (37.5% WI) exploration wells in the Lower Tertiary trend and then Rum Ramsey #1 (24% WI) and Racer #1 (24% WI) in the Miocene formation. Offshore Angola (West Africa), in the Cameia #2 well (40% WI), results from the lower zone are expected by February or March, followed by Lontra (40% WI), Mavinga (40% WI), and Bicular (40% WI), while TOTAL should spud the Mango #1 (CIE 21.25%) offshore Gabon.

■ **Adjusting Estimates and Price Target** – Based on the recently issued \$1.38bn convertible notes due 2019 at 2.625% per annum and resulting ~10% increase in diluted shares outstanding and ~\$36mm of interest expense per annum, we are adjusting our EPS/CFPS estimates in 2012 to (\$0.68)/(\$0.29) from (\$0.75)/(\$0.32), in 2013 to (\$0.97)/(\$0.78) from (\$0.98)/(\$0.86), in 2014 to (\$0.98)/(\$0.78) from (\$0.98)/(\$0.86), and in 2015 to (\$0.98)/(\$0.78) from (\$0.98)/(\$0.86) and are adjusting our 12-month price target to \$38/share from \$42/share based on the company achieving 100% of our updated risked NAV estimate.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2011A	-0.05A	-0.05A	-0.12A	-0.13A	-0.35A	-0.35A
2012E	-0.09A	-0.35A	-0.10A	-0.19E	-0.68E	-0.61E
Previous	-0.09A	-0.35A	-0.10A	-0.21E	-0.75E	na
2013E	-0.24E	-0.24E	-0.24E	-0.24E	-0.97E	-0.52E
Previous	-0.24E	-0.24E	-0.24E	-0.24E	-0.98E	na
2014E	na	na	na	na	-0.98E	-0.45E
Previous	na	na	na	na	-0.98E	na

Source: Company Reports and dataCentral, Citi Research. FC Cons: First Call Consensus.

Company Focus

- Company Update
- Target Price Change
- Estimate Change

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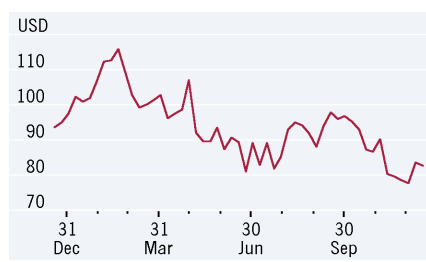
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Buy	1
Price (18 Dec 12)	US\$83.71
Target price	US\$107.00
from US\$116.00	
Expected share price return	27.8%
Expected dividend yield	0.0%
Expected total return	27.8%
Market Cap	US\$8,755M

Price Performance

(RIC: CXO.N, BB: CXO US)



Concho Resources Inc (CXO)

■ **2012 Share Performance** – Concho has underperformed our E&P coverage group YTD, with shares falling ~13% vs. a ~8% decline for the group, on average. Concerns regarding a potentially lower organic production growth profile, a “gassier” production mix, higher operating costs, lower Permian price realizations and uncertainty regarding potential acquisitions have been overhangs for the stock this year, in our opinion. CXO CF/DAS declined by -1% this year versus our coverage group average of -7%, and grew 'Energy Weighted' P/DAS by +5% versus our coverage group average of -7%.

■ **2013 Production Outlook** – We currently project Concho will post ~17% production growth in 2013 (20% “organic” growth) to 94.8 MBOE/d (61% liquids) versus guidance of 90-94 MBOE/d, while spending \$1.6 Bn, or slightly above our projected after-tax operating cash flow of \$1.5 Bn.

■ **Cash Flow Per Debt Adjusted Share** – We project a 2012-2015 CF/DAS growth rate of +23% per annum vs. a projected group average CAGR of +15%. For the 2010-2012 three year period CXO posted an annual CAGR in CF/DAS of +42% vs. the coverage group CAGR of ~8%, while it delivered a 33% CAGR in share price appreciation versus the coverage group CAGR of ~7%, on average (See Figure 42).

■ **Production Per Debt Adjusted Share** – We project 'energy weighted' 2012-2015 P/DAS growth rate of +16% per annum vs. a projected group average CAGR of +8% (See Figure 43).

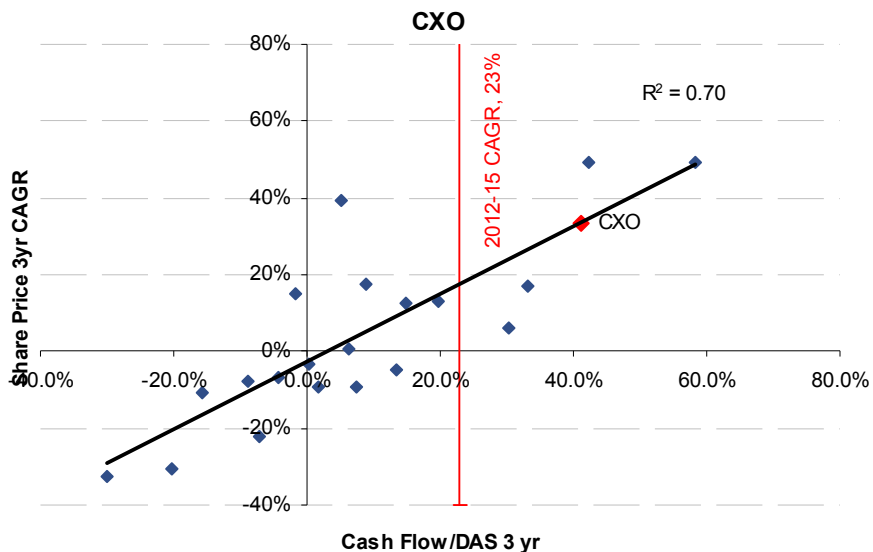
■ **Potential 2013 Catalysts** – Potential catalysts include: 1) hz well results in both the northern and southern Delaware Basin; 2) hz well results from the Cline and Wolfcamp formations in the Midland Basin; and 3) an improvement in oil price realizations post the addition of ~700 MBbl/d of takeaway capacity from the Permian to the Gulf Coast.

■ **Lowering Estimates And Price Target** – Based on our revised production estimates and other fine tuning we lowered our 2012 EPS/CFPS to \$3.65/\$11.97 from \$3.81/\$12.22, 2013 ests to \$4.75/\$14.40 from \$5.09/\$14.93, 2014 ests to \$6.01/\$17.57 from \$6.36/\$18.46, and 2015 ests to \$8.30/\$22.20 from \$9.02/\$24.20. Thus, based on our revised estimates and our outlook for CF/DAS share growth, we are lowering our price target from \$116 to \$107/share, which reflects the stock achieving a 2013/2014 EV/DACF multiple of 8.0x/7.2x (on normalized \$90/Bbl and \$4.50/MMBtu) and a P/NAV of 189%.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2011A	0.79A	1.09A	1.14A	1.15A	4.16A	4.15A
2012E	1.05A	0.78A	0.96A	0.87E	3.65E	3.88E
Previous	1.05A	0.78A	0.96A	1.02E	3.81E	na
2013E	1.09E	1.13E	1.23E	1.30E	4.75E	4.56E
Previous	1.17E	1.21E	1.32E	1.39E	5.09E	na
2014E	na	na	na	na	6.01E	5.85E
Previous	na	na	na	na	6.36E	na

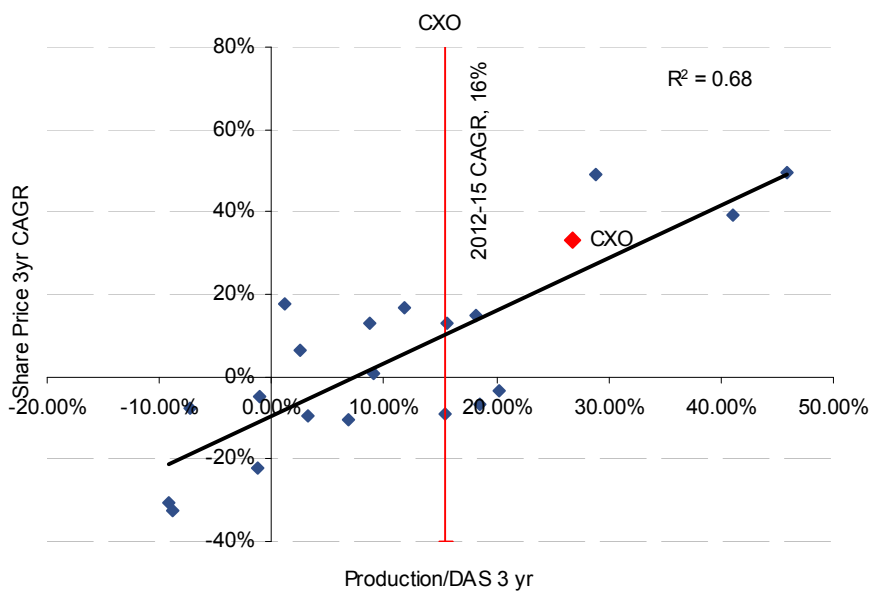
Source: Company Reports and dataCentral, Citi Research. FC Cons: First Call Consensus.

Figure 42. CXO Cash Flow Per Debt Adjusted Share – 2010-2012 (E&P group and CXO) and 2012-2015E



Source: Citi Research

Figure 43. CXO 'Energy Weighted' Production Per Debt Adjusted Share – 2010-2012 (E&P group and CXO) and 2012-2015E



Source: Citi Research

Company Focus

- **Company Update**
- **Target Price Change**
- **Estimate Change**

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Neutral	2
Price (18 Dec 12)	US\$16.39
Target price	US\$18.00
from US\$19.00	
Expected share price return	9.8%
Expected dividend yield	0.0%
Expected total return	9.8%
Market Cap	US\$6,343M

Price Performance

(RIC: DNR.N, BB: DNR US)



Denbury Resources, Inc. (DNR)

■ **2012 Share Performance** – DNR has outperformed our E&P coverage group YTD, with shares rising by ~5% vs. a ~8% decline for the group, on average. Recent performance was driven by 1) better-than-expected production growth, 2) improving Bakken differentials and 3) strong capital discipline. Denbury's CF/DAS increased by +1% this year versus our coverage group average of -7%, while 'energy-weighted' P/DAS grew by 7% in 2012 versus our coverage group average of -7%.

■ **2013 Production Outlook** – Based on production guidance of 60-64 MBOE/d, we project Denbury's production will decline by ~13% yr/yr due to the Bakken asset sale (expected to fully close by YE'12). On an 'organic basis' (adjusting for asset sales and acquisitions), volumes are estimated to grow by ~12% yr/yr. We expect its capital budget to be mostly in-line with our projected ~\$1.0bn after-tax operating cash flow.

■ **Cash Flow Per Debt Adjusted Share** – We project 2012-15 CF/DAS will grow at a rate of +5% per annum vs. a projected group average CAGR of +15%. For the 2010-12 three-year period, DNR posted an annual CAGR in CF/DAS of +30% versus our coverage group at +9%, while it delivered a +6% CAGR in share price appreciation vs. our coverage group CAGR of +7%, on average.

■ **'Energy Weighted' Production Per Debt Adjusted Share** – We project 2012-15 P/DAS will grow at a rate of +5% per annum vs. a projected group average CAGR of +8%.

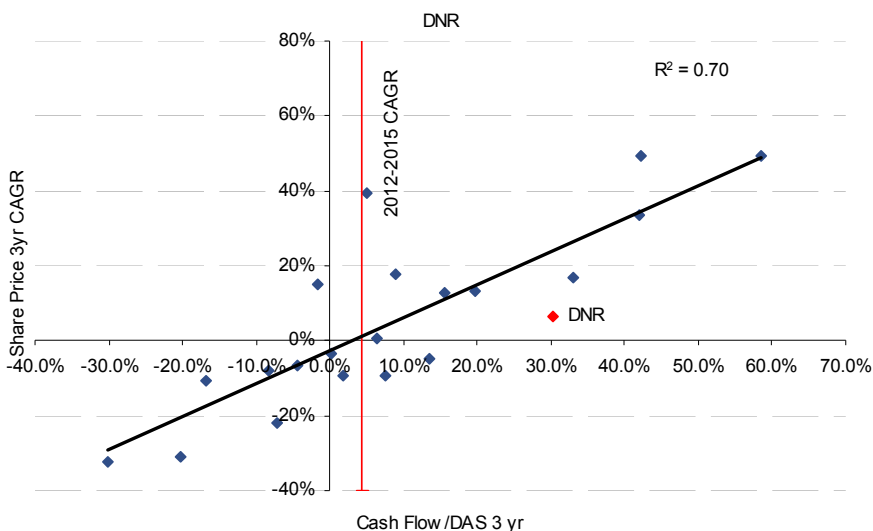
■ **Potential 2013 Catalysts** – Post closing of the Bakken sale and the announcement of any additional CO₂ purchases to lessen the associated tax burden (expected by January 15th), attention should focus on tertiary growth. Heidelberg, Hastings, Oyster Bayou and Tinsley output is projected to grow in 2013; also the Greencore pipeline is projected to be online in Q1'13.

■ **Price Target** – Based on our outlook for CF/DAS growth in 2013, we are lowering our price target to \$18 per share. This is based on DNR's stock achieving an 2013 EV/DACF multiple of 7.3x based on normalized prices of \$90/Bbl and \$4.50/MMBtu, and 85% of proven-only reserve NAV on our actual commodity price forecasts.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2011A	0.26A	0.36A	0.37A	0.43A	1.50A	1.43A
2012E	0.41A	0.35A	0.33A	0.26E	1.37E	1.42E
Previous	0.41A	0.35A	0.33A	0.28E	1.39E	na
2013E	0.20E	0.20E	0.21E	0.21E	0.83E	1.11E
Previous	0.20E	0.20E	0.21E	0.21E	0.83E	na
2014E	na	na	na	na	1.20E	1.33E
Previous	na	na	na	na	1.20E	na

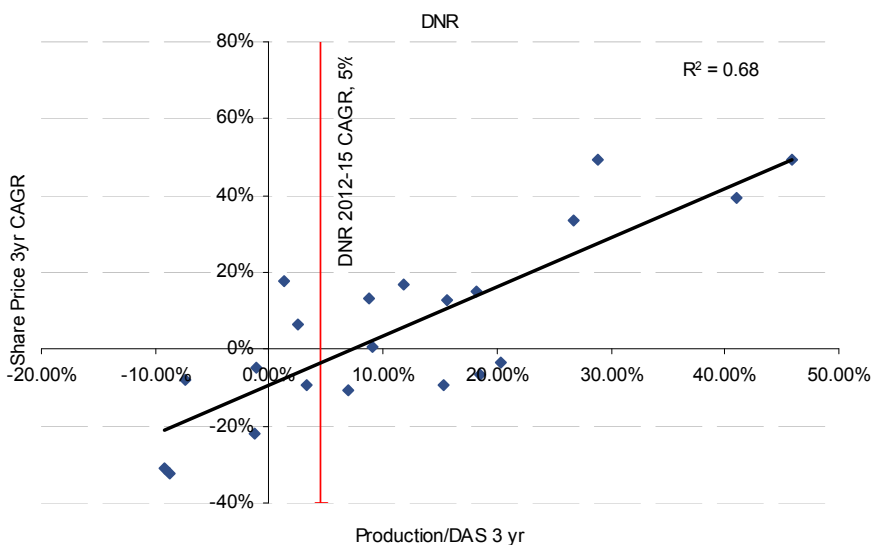
Source: Company Reports and dataCentral, Citi Research. FC Cons: First Call Consensus.

Figure 44. DNR Cash Flow Per Debt Adjusted Share – 2010-2012 (E&P group and DNR) and 2012-2015E



Source: Citi Research

Figure 45. DNR 'Energy Weighted' Production Per Debt Adjusted Share – 2010-2012 (E&P group and DNR) and 2012-2015E



Source: Citi Research

Company Focus

- Company Update
- Target Price Change

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Neutral	2
Price (18 Dec 12)	US\$54.16
Target price	US\$58.00
from US\$62.00	
Expected share price return	7.1%
Expected dividend yield	1.5%
Expected total return	8.6%
Market Cap	US\$21,935M

Price Performance (RIC: DVN.N, BB: DVN US)



Devon Energy Corp (DVN)

■ **2012 Share Performance** – DVN has underperformed our E&P coverage group YTD, with its shares declining ~16% versus an ~8% decline for the group, on average. This underperformance was driven by: 1) lower production guidance following two quarters of missing targets; 2) disappointing results or issues at Cana/Woodford and the Jackfish oil sands project; and 3) NGL price weakness. Devon's CF/DAS declined by 31% this year versus our coverage group average at -7%, while 'energy weighted' P/DAS declined by 15% in 2012 versus our coverage group average of -7%.

■ **2013 Production Outlook** – We project Devon's overall production will grow by 2% in 2013 as ~5% yr/yr growth in domestic volumes more than offset a ~6% projected decline in Canadian volumes. The company is expected to outspend our estimated ~\$4.8bn after-tax operating cash flow by ~\$2.0bn, with the funding gap largely financed via its revolving credit facility, while its \$7.0bn cash balance will likely remain in an offshore account.

■ **Cash Flow Per Debt Adjusted Share** – We project 2012-15 CF/DAS will decline at a rate of 4% per annum vs. a projected group average CAGR of +15%. For the 2010-12 three-year period, DVN posted an annual CAGR in CF/DAS of +8% versus our coverage group at +9%, while its share price declined at a 9% CAGR vs. our coverage group CAGR of +7%, on average.

■ **'Energy Weighted' Production Per Debt Adjusted Share** – We project 2012-15 'energy weighted' P/DAS will increase at a rate of +1% per annum vs. a projected group average CAGR of +8%.

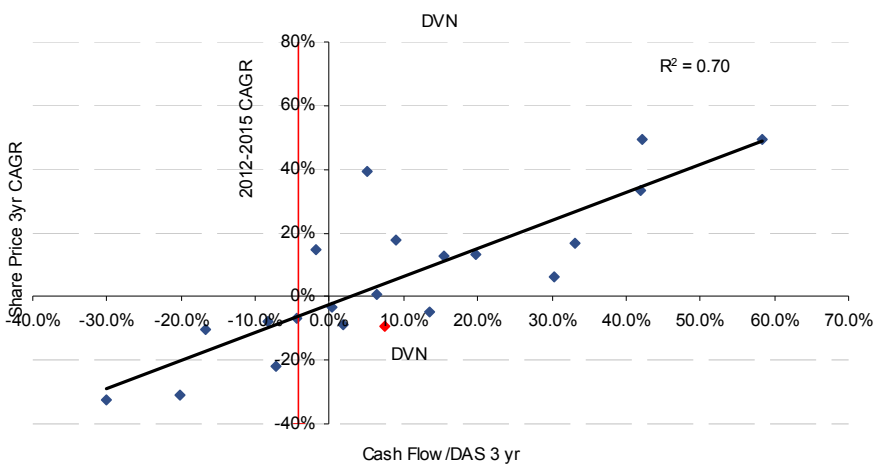
■ **Potential 2013 Catalysts** – Potential catalysts include: 1) Permian and Miss Lime well results should be in focus as these plays should underscore production growth next year; 2) Jackfish and Cana results after earlier management comments suggested their asset quality is below prior expectations or confront near-term issues; and 3) potential uses of the ~\$7bn offshore cash balance.

■ **Price Target** – Thus, based on our below-average outlook for CF/DAS and P/DAS growth in 2013, we are lowering our price target to \$58 per share. This is based on DVN's stock achieving 2013/2014 EV/DACF multiples of 5.1x/5.4x based on normalized prices of \$90/Bbl and \$4.50/MMBtu, and 78% of proven only NAV on our actual commodity price forecasts.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2011A	1.28A	1.71A	1.54A	1.55A	6.08A	6.00A
2012E	1.02A	0.55A	0.88A	0.80E	3.31E	3.25E
Previous	1.02A	0.55A	0.88A	0.80E	3.31E	na
2013E	0.88E	0.89E	1.02E	1.14E	3.92E	4.25E
Previous	0.88E	0.89E	1.02E	1.14E	3.92E	na
2014E	na	na	na	na	5.28E	5.27E
Previous	na	na	na	na	5.28E	na

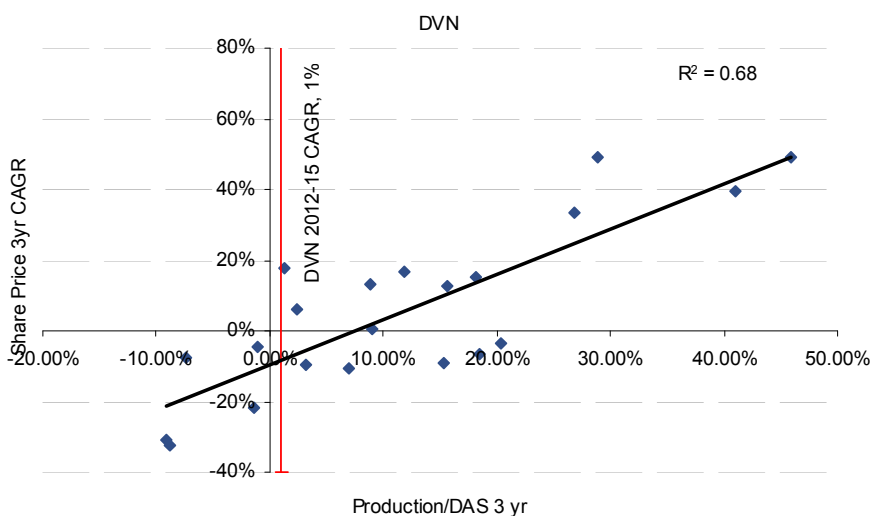
Source: Company Reports and dataCentral, Citi Research. FC Cons: First Call Consensus.

Figure 46. DVN Cash Flow Per Debt Adjusted Share – 2010-2012 (E&P group and DVN) and 2012-2015E



Source: Citi Research

Figure 47. DVN 'Energy Weighted' Production Per Debt Adjusted Share – 2010-2012 (E&P group and DVN) and 2012-2015E



Source: Citi Research

Company Focus

EnCana Corp (ECA)

Company Update

Robert S Morris

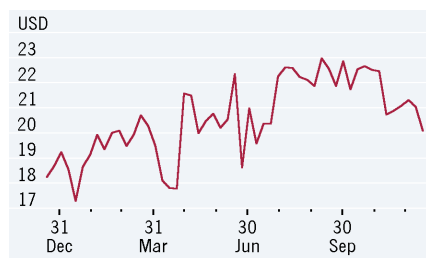
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Neutral	2
Price (18 Dec 12)	US\$20.32
Target price	US\$20.00
Expected share price return	-1.6%
Expected dividend yield	3.9%
Expected total return	2.4%
Market Cap	US\$14,944M

Price Performance

(RIC: ECA.N, BB: ECA US)



■ **2012 Share Performance** – Encana has outperformed our E&P coverage group YTD, with its shares increasing ~14% vs. an ~8% decline for the group, on average. The company's stock price benefitted from a combination of rising natural gas prices, transition to liquids-rich asset base as well as successful Cutbank Ridge dry gas and Duvernay liquids-rich joint ventures, which more than offset a largely-anticipated delay in the Deep Panuke start-up. ECA's CF/DAS declined by 19% this year versus our coverage group average of a 7% decline while its 'Energy Weighted' P/DAS declined by 33% this year versus our coverage group average of -7%.

■ **2013 Production Outlook** – We currently project liquids output will nearly double next year to 60 MBOE/d (largely increased ethane extraction), offsetting a ~3% projected year-over-year decline in natural gas output to 2.9 Bcf/d, with total volumes projected to increase by ~3% to ~3.25 Bcfe/d in 2013 vs. guidance of 3.25 Bcfe/d – 3.5 Bcfe/d. We expect ECA's next year capital spend of ~\$4.4bn to exceed after-tax operating cash flow of \$2.5bn.

■ **Cash Flow Per Debt Adjusted Share** – We project 2012-2015 CF/DAS will decline by -3% per year vs. a projected group average CAGR of +15% per year. For the 2010-12 three-year period, ECA posted an annual CAGR in CF/DAS of -12% versus our coverage group at +9%, while its share price declined at a 9% CAGR vs. our coverage group CAGR of +7%, on average. (See Figure 48).

■ **'Energy Weighted' Production Per Debt Adjusted Share** – We project 2012-2015 'energy weighted' P/DAS will decline by 3% per year vs. a projected group average CAGR of +8% (See Figure 49).

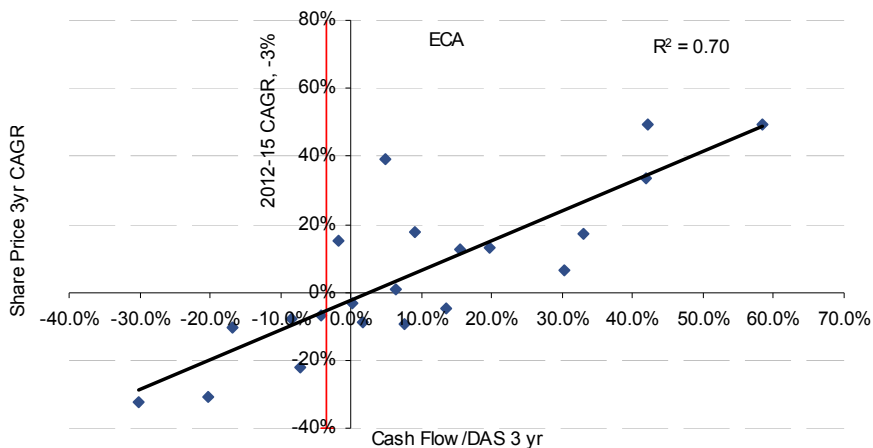
■ **Potential 2013 Catalysts** – Potential catalysts for Encana next year include 1) successful JVs for U.S. liquids-rich acreage in the Tuscaloosa, Eaglebine and Mississippian Lime plays, 2) Successful horizontal exploration program in Tuscaloosa with capital cost at \$11mm or below, 3) Drilling results under JV in the liquids-rich Duvernay shale in Canada, and 4) Production start-up at Deep Panuke platform offshore Nova Scotia during the second half of the year.

■ **Price Target** – Thus, based on ECA's below average outlook for CF/DAS growth along with its very large exposure to lower margin natural gas projects and unproven liquids-rich drilling inventory, we have set a price target of \$20 per share. This is based on ECA's stock achieving 2013/2014 EV/DACF multiples of 5.5x/5.7x based on normalized prices of \$90/Bbl and \$4.50/MMBtu, and at 167% of proven reserve only NAV based on our commodity price forecasts.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2011A	0.02A	0.22A	0.23A	0.06A	0.54A	0.54A
2012E	0.33A	0.27A	0.36A	0.34E	1.29E	1.26E
Previous	0.33A	0.27A	0.36A	0.34E	1.29E	na
2013E	0.15E	0.13E	0.20E	0.27E	0.75E	0.75E
Previous	0.15E	0.13E	0.20E	0.27E	0.75E	na
2014E	na	na	na	na	1.52E	1.42E
Previous	na	na	na	na	1.52E	na

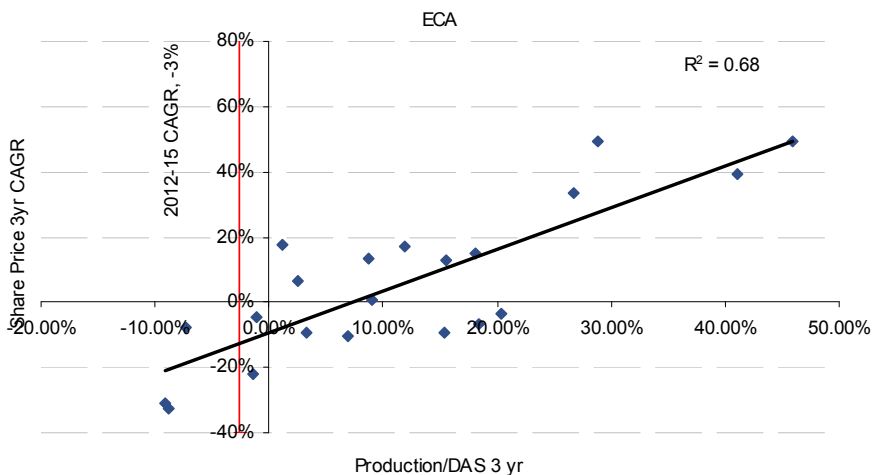
Source: Company Reports and dataCentral, Citi Research. FC Cons: First Call Consensus.

Figure 48. ECA Cash Flow Per Debt Adjusted Share – 2010-2012 (E&P group and ECA) and 2012-2015E



Source: Citi Research

Figure 49. ECA 'Energy Weighted' Production Per Debt Adjusted Share – 2010-2012 (E&P group and ECA) and 2012-2015E



Source: Citi Research

Company Focus

- **Company Update**
- **Target Price Change**
- **Estimate Change**

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Neutral/High Risk	2H
Price (18 Dec 12)	US\$5.20
Target price	US\$6.25
from US\$10.00	
Expected share price return	20.2%
Expected dividend yield	0.0%
Expected total return	20.2%
Market Cap	US\$242M

Price Performance

(RIC: END.N, BB: END US)



Endeavour International (END)

■ **2012 Share Performance** – END has underperformed our E&P coverage group YTD, with shares falling by ~28% vs. a ~8% decline for the group, on average. While the company does not give formal production guidance, forecasts declined throughout the year amid ongoing delays starting up the Bacchus and Rochelle fields in the North Sea and a slower-than-expected closing of the UK acquisition, the latter part of which was later called off.

■ **Update on UK Acquisition** – Earlier this week, END terminated the contract to purchase the MacCulloch and Nicol fields in the North Sea (see our Dec 27th, 2011 note: [END - Endeavour Adds To U.K. Portfolio After Scrapping Marcellus Deal](#)) due to the inability of parties to agree on the amount and timing of future decommissioning liabilities. We had previously modeled this portion of the acquisition to close by mid-Dec, adding a net 3 MBOE/d (27% of total) at capacity. Thus, our 2012 and 2013 production forecasts are now 7.6 MBOE/d (from 8.0 MBOE/d) and 16.6 MBOE/d (from 19.6 MBOE/d), respectively. Our EPS/CFPS estimates are now -\$0.84/\$0.72 (from -\$0.75/\$1.71) for 2012, \$0.81/\$4.75 (from \$1.40/\$6.52) for 2013 and \$0.62/\$4.59 (from \$1.11/\$6.17) for 2014.

■ **2013 Production Outlook** – Despite this announcement, we project END's production will grow by 118% in 2013 with a full year of Bacchus and Alba and the addition of the Rochelle field. END's projected after-tax operating cash flow of ~\$221mm should cover its projected capital spending tab of \$150mm.

■ **Cash Flow Per Debt Adjusted Share** – We project 2012-15 CF/DAS will grow by 72% per annum versus a projected group average CAGR of +15%.

■ **'Energy Weighted' Production Per Debt Adjusted Share** – We project 2012-15 P/DAS will grow at the rate of +13% per annum versus a projected group average CAGR of +8%.

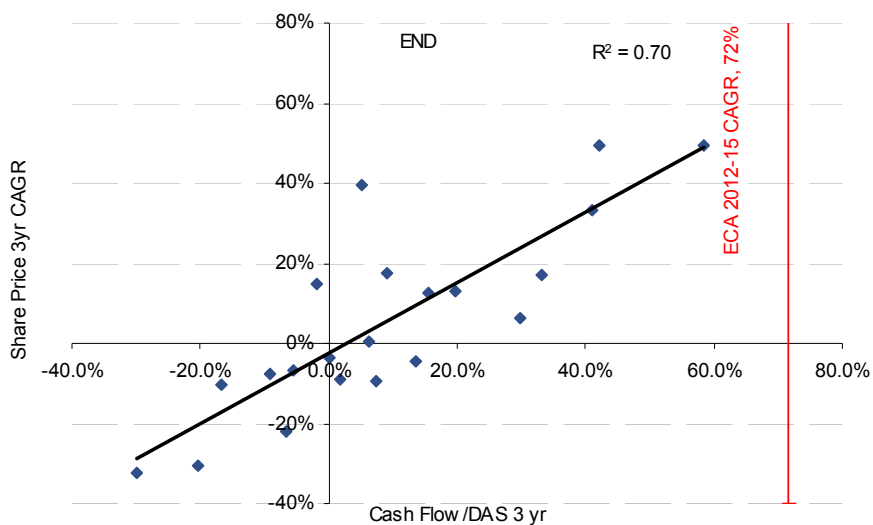
■ **Potential 2013 Catalysts** – Potential catalysts include: 1) third Bacchus oil well by mid-2013 and a water re-injection well by YE'13; 2) Rochelle field online by mid-Q1.

■ **Price Target** – Based on our lower production outlook and this week's announcement, which further weakens credibility, we are lowering our PT on END to \$6.25 per share. This is based on the stock achieving an EV/DACF multiple of 2.8x based on normalized prices of \$90/Bbl and \$4.50/MMBtu, and 47% of proven only NAV on our actual commodity price forecasts.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2011A	-0.30A	-0.25A	-0.58A	-0.14A	-1.17A	-1.41A
2012E	-0.41A	-0.90A	-0.10A	0.03E	-0.84E	-2.81E
Previous	-0.41A	-0.90A	-0.10A	0.12E	-0.75E	na
2013E	0.18E	0.10E	0.29E	0.23E	0.81E	0.85E
Previous	0.35E	0.24E	0.45E	0.37E	1.40E	na
2014E	na	na	na	na	0.62E	0.93E
Previous	na	na	na	na	1.11E	na

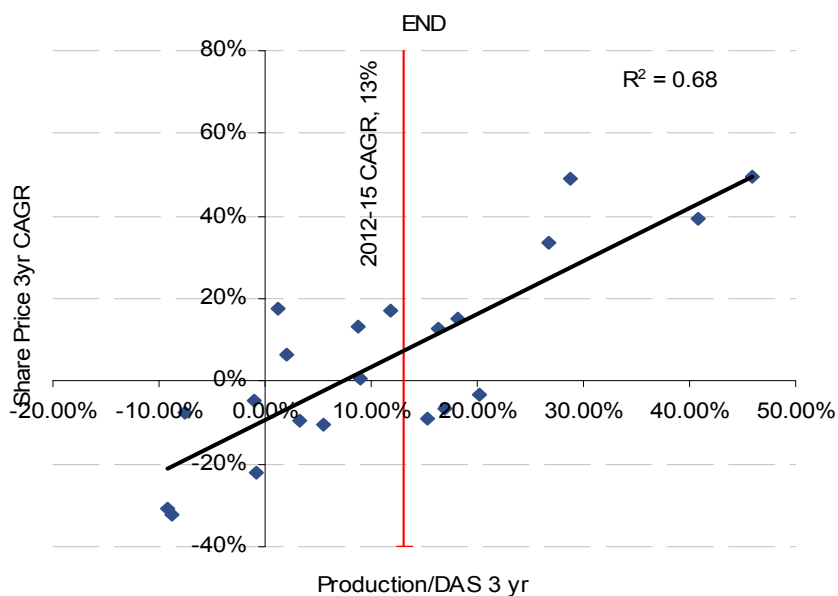
Source: Company Reports and dataCentral, Citi Research. FC Cons: First Call Consensus.

Figure 50. END Cash Flow Per Debt Adjusted Share – 2010-2012 (E&P group and END) and 2012-2015E



Source: Citi Research

Figure 51. END 'Energy Weighted' Production Per Debt Adjusted Share – 2010-2012 (E&P group and END) and 2012-2015E



Source: Citi Research

Company Focus

EOG Resources Inc (EOG)

- Company Update
- Estimate Change

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Buy	1
Price (18 Dec 12)	US\$123.92
Target price	US\$135.00
Expected share price return	8.9%
Expected dividend yield	0.5%
Expected total return	9.5%
Market Cap	US\$33,568M

Price Performance

(RIC: EOG.N, BB: EOG US)



■ **2012 Share Price Performance** – EOG has been the third best performing stock in our E&P coverage group YTD, rising ~20% versus a ~8% decline for the group, on average. EOG's share price outperformance has been driven by stronger-than-expected production as evidenced by the company raising full-year production guidance three times during the year and well performance in key plays including the Bakken and Eagle Ford, with total production projected to be up ~12% year-over-year (and liquids production up ~39% year-over-year). EOG has also been able to grow oil production at low cost, with self-sourced of sand and below average well completion costs. EOG grew CF/DAS by a projected +14% this year versus our coverage group average of a 7% decline and grew 'energy weighted' P/DAS by a 10% versus our coverage group average of -7%.

■ **2013 Production Outlook** – We currently project EOG will post ~12% production growth in 2013 while outspending our projected ~\$6.4bn after-tax operating cash flow by ~\$600mm. This outspend should be funded by its revolving credit facility (\$2.0bn available at the end of Q3'12) or non-core (mature gas assets or non-operated properties) asset sales.

■ **Cash Flow Per Debt Adjusted Share** – We project a 2012-2015 CF/DAS growth rate of +22% per year vs. a projected group average CAGR of +15%. For the 2010-2012 three-year period, EOG posted an annual CAGR in CF/DAS of +20% versus our coverage group at ~9%, while its share price appreciated at a +13% CAGR versus the coverage group CAGR of ~7%, on average (See Figure 52).

■ **'Energy Weighted' Production Per Debt Adjusted Share** – We project 2012-2015 'energy weighted' P/DAS will grow at a rate of +17% per annum vs. a projected group average CAGR of +8% (See Figure 53)

■ **Potential 2013 Catalysts** – Potential positive catalysts include further and successful downspacing in the Eagle Ford shale, resulting in higher per-well recovery and increased recoverable resource estimates along with increased Bakken recovery rates due to downspacing and better completion techniques. We also believe management will announce one or more new North American 'greenfield' projects next year.

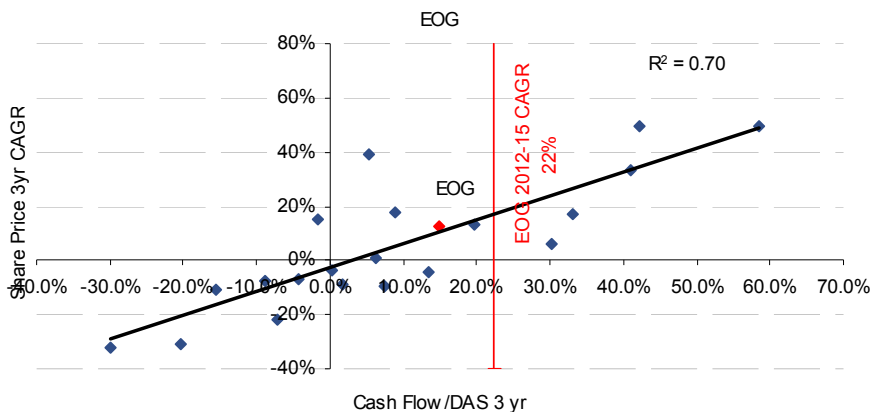
■ **Adjusting Estimates** – Based on an updated hedging schedule and outlook we adjust EPS/CFPS estimates for 2012 to \$4.94/\$20.67 from \$4.89/\$20.61, for 2013 to \$5.87/\$23.66 from \$5.45/\$23.51, for 2014 to \$7.92/\$29.35 from \$7.72/\$29.71, and for 2015 to \$10.93/\$35.94 from \$11.12/\$37.11.

■ **Price Target** – Thus, based on our outlook for CF/DAS share growth in 2013 and strong production growth outlook, along with one of the best reinvestment inventories, we have set a price target of \$135 per share. This is based on EOG's stock achieving 2013/2014 EV/DACF multiples of 6.0x/5.1x based on normalized prices of \$90/Bbl and \$4.50/MMBtu, and 148% of proven reserve only NAV based on our commodity price forecasts.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2011A	0.68A	1.11A	0.83A	1.15A	3.78A	3.79A
2012E	1.17A	1.16A	1.73A	0.97E	4.94E	5.45E
Previous	1.17A	1.16A	1.73A	0.92E	4.89E	na
2013E	1.20E	1.31E	1.55E	1.81E	5.87E	6.32E
Previous	1.13E	1.23E	1.42E	1.67E	5.45E	na
2014E	na	na	na	na	7.92E	8.50E
Previous	na	na	na	na	7.72E	na

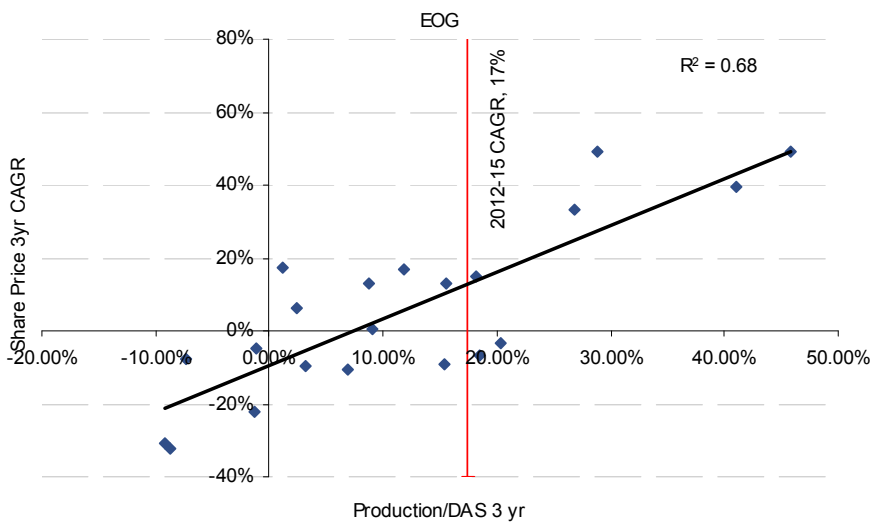
Source: Company Reports and dataCentral, Citi Research. FC Cons: First Call Consensus.

Figure 52. EOG Cash Flow Per Debt Adjusted Share – 2010-2012 (E&P group and EOG) and 2012-2015E



Source: Citi Research

Figure 53. EOG 'Energy Weighted' Production Per Debt Adjusted Share – 2010-2012 (E&P group and EOG) and 2012-2015E



Source: Citi Research

Company Focus

- Company Update
- Target Price Change
- Estimate Change

Joseph Stewart

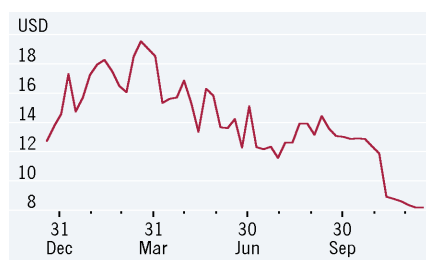
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Neutral	2
Price (18 Dec 12)	US\$9.22
Target price	US\$10.50
from US\$14.75	
Expected share price return	13.9%
Expected dividend yield	0.0%
Expected total return	13.9%
Market Cap	US\$336M

Price Performance

(RIC: GDP.N, BB: GDP US)



Goodrich Petroleum Corp (GDP)

■ **2012 Share Performance** – Goodrich has underperformed our E&P coverage group YTD, with shares falling by ~40% vs. a ~8% decline for the group, on average. GDP's shares underperformed as the company lowered its production outlook, struggled with a heavy balance sheet, delayed Tuscaloosa Marine shale (TMS) well results, and lowered its EUR estimates in the Eagle Ford. Furthermore, GDP's CF/DAS declined -20% this year versus our coverage group average of a -7% decline and 'Energy Weighted' P/DAS declined by 37% this year versus our coverage group average of -7%.

■ **2013 Production Outlook** – We project oil output to grow by ~45% yr/yr to 4.5 MBbl/d, offsetting the ~12% yr/yr decline in natural gas output to 60 MMcf/d (reflects previously announced asset sale), with total volumes projected to stay flat yr/yr at ~14.5 MBOE/d. We expect next year's capital budget of \$200 mm to exceed after-tax operating cash flow of ~\$125mm.

■ **Cash Flow Per Debt Adjusted Share** – We project 2012-2015 CF/DAS growth rate of 0% per annum vs. a projected group average CAGR of +15%. For the 2010-2012 three-year period, Goodrich Petroleum posted an annual CAGR in CF/DAS of -20% versus our coverage group of ~9%, while it delivered a -31% CAGR decline in share price versus the coverage group CAGR of 7% on average (See Figure 54).

■ **'Energy Weighted' Production Per Debt Adjusted Share** – We project a 2012-2015 'energy weighted' P/DAS growth rate of 0% per year vs. a projected group average CAGR of +8% per year (See Figure 55).

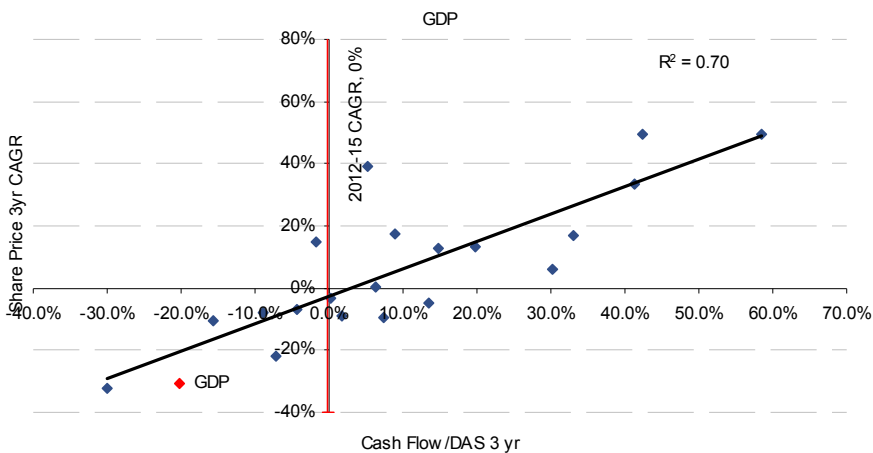
■ **Potential 2013 Catalysts** – Potential catalysts for Goodrich Petroleum next year include 1) TMS drilling results from other operators, including ECA, DVN and EOG; 2) operated TMS well results; 3) Haynesville Shale natural gas production growth and the expected increase in natural gas prices 4) Pearsall formation testing (10k net acres) in Frio County where a nearby well flowed 1.8 MBOE/d w/ 75% liquids; 5) drilling efficiency improvements in the Eagle Ford shale.

■ **Lowering Estimates And Price Target** – Based on our revised production estimates and other fine tuning, we lowered our 2013 EPS/CFPS to -(\$1.60)/\$3.41 from (\$0.53)/\$4.63, 2014 ests to (\$0.75)/\$4.81 from (\$0.07)/\$5.99, and 2015 ests to (\$0.10)/\$6.04 from \$0.73/\$7.65. We are also lowering our price target from \$14.75 to \$10.50, which is based on our CF/DAS growth outlook and the stock achieving a 2013/2014 EV/DACF multiple of 5.8x/5.5x (on normalized \$90/Bbl and \$4.50/MMBtu).

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2011A	-0.22A	-0.13A	-0.16A	-0.38A	-1.44A	-0.91A
2012E	-0.28A	-0.21A	-0.23A	0.00E	-0.72E	-0.78E
Previous	-0.28A	-0.21A	-0.23A	0.00E	-0.71E	na
2013E	-0.42E	-0.44E	-0.39E	-0.35E	-1.60E	-0.94E
Previous	-0.28E	-0.21E	-0.07E	0.03E	-0.53E	na
2014E	na	na	na	na	-0.75E	-0.28E
Previous	na	na	na	na	-0.07E	na

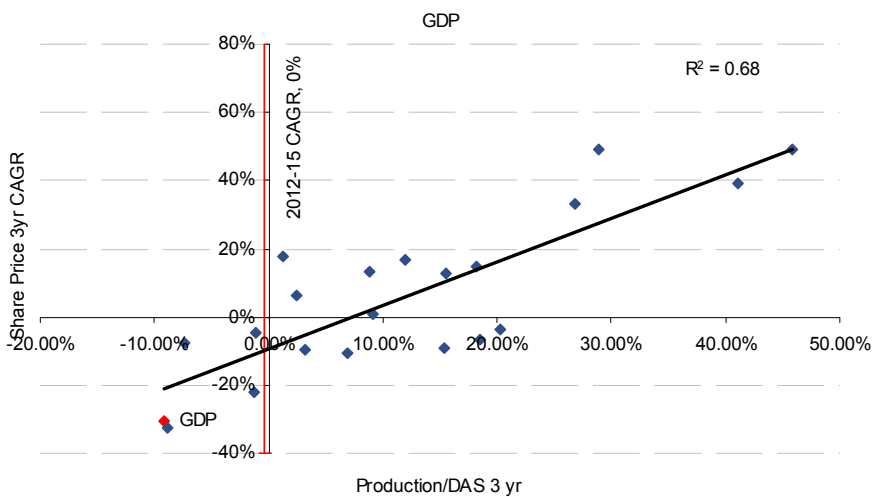
Source: Company Reports and dataCentral, Citi Research. FC Cons: First Call Consensus.

Figure 54. GDP Cash Flow Per Debt Adjusted Share – 2010-2012 (E&P group and GDP) and 2012-2015E



Source: Citi Research

Figure 55. GDP 'Energy Weighted' Production Per Debt Adjusted Share – 2010-2012 (E&P group and GDP) and 2012-2015E



Source: Citi Research

Company Focus

Kosmos Energy Ltd (KOS)

Company Update

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Buy	1
Price (18 Dec 12)	US\$12.17
Target price	US\$16.00
Expected share price return	31.5%
Expected dividend yield	0.0%
Expected total return	31.5%
Market Cap	US\$4,733M

Price Performance

(RIC: KOS.N, BB: KOS US)



■ **2012 Share Price Performance** – KOS has outperformed our E&P coverage group YTD, declining just ~3% versus an ~8% decline for the group, on average. KOS's share price performance has been driven by positive sentiment regarding the progress of Jubilee and a steady exploration calendar. KOS's CF/DAS declined by a projected 34% this year versus our coverage group average with a 7% decline, and grew 'energy weighted' P/DAS by a projected +13% this year versus our coverage group average of 7% decline.

■ **2013 Production Outlook** – Based on Jubilee's projected lifting schedule, and assuming Jubilee gross production ramps up to 120 MBbls/d in early 2013, we project nine liftings (equating to ~25 MBbls/d net) during the year versus a projected six this year (equating to ~16 MBbls/d net). Recall that Jubilee recorded sales are recognized on the actual crude oil liftings when title passes to the buyer and with the timing of individual partner liftings being pre-determined by the consortium. We project KOS will outspend our projected ~\$500mm in after-tax operating cash flow by ~\$300mm, which should be funded by cash on its balance sheet (~\$420mm of cash or equivalents at end of Q3'12) and revolving credit facility (~\$340mm available at the end of Q3'12).

■ **Cash Flow Per Debt Adjusted Share** – We project 2012-2015 CF/DAS will grow at a rate of +19% per annum vs. a projected group average CAGR of +15% (See Figure 56).

■ **'Energy Weighted' Production Per Debt Adjusted Share** – We project 2012-2015 'energy weighted' P/DAS will grow at a rate of 15% per annum vs. a projected group average CAGR of +8% (See Figure 57).

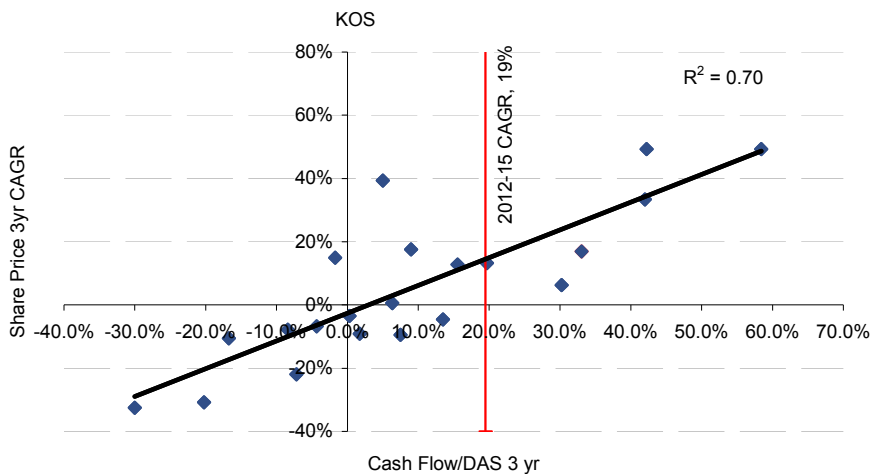
■ **Potential 2013 Catalysts** – Potential catalysts include Jubilee reaching production of 120 MBbls/d as expected in early 2013, and drilling results in Sapele in the deepwater Tano block and Sipo in Cameroon.

■ **Price Target** – Thus, based on our risk-adjusted NAV and outlook for CF/DAS share growth and Jubilee production ramp up in 2013, we have set a price target of \$16 per share. This is based on KOS's stock achieving 2013/2014 EV/DACF multiples of 10.6x/11.8x based on our normalized prices of \$90/Bbl and \$4.50/MMBtu, and ~211% of proven reserve only NAV based on our commodity price forecasts, but equal to 100% of our risk-adjusted NAV.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2011A	-0.18A	-0.05A	0.14A	0.09A	-0.01A	0.12A
2012E	-0.10A	-0.07A	-0.10A	0.04E	-0.22E	-0.20E
Previous	-0.10A	-0.07A	-0.10A	0.04E	-0.22E	na
2013E	0.05E	0.03E	0.05E	0.19E	0.32E	0.21E
Previous	0.05E	0.03E	0.05E	0.19E	0.32E	na
2014E	na	na	na	na	0.46E	0.34E
Previous	na	na	na	na	0.46E	na

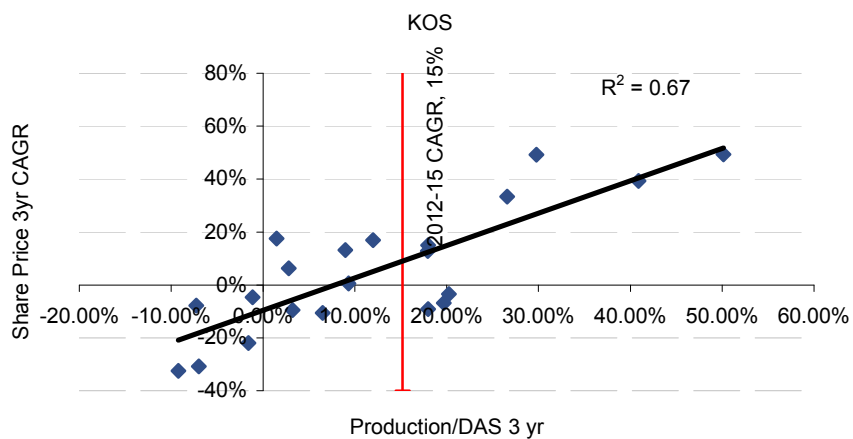
Source: Company Reports and dataCentral, Citi Research. FC Cons: First Call Consensus.

Figure 56. KOS Cash Flow Per Debt Adjusted Share – 2010-2012 (E&P group and KOS) and 2012-2015E



Source: Citi Research

Figure 57. KOS 'Energy Weighted' Production Per Debt Adjusted Share – 2010-2012 (E&P group and KOS) and 2012-2015E



Source: Citi Research

Company Focus

- Company Update
- Estimate Change

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Buy	1
Price (18 Dec 12)	US\$4.10
Target price	US\$5.00
Expected share price return	22.0%
Expected dividend yield	0.0%
Expected total return	22.0%
Market Cap	US\$691M

Price Performance

(RIC: MHR.N, BB: MHR US)



Magnum Hunter Resources (MHR)

■ **2012 Share Performance** – MHR has underperformed our E&P coverage group YTD, with shares falling by ~34% vs. a ~8% decline for the group, on average. The underperformance was largely driven by: 1) lower production forecasts due to weather impacts and infrastructure constraints in the Marcellus; 2) dilutive equity (on a CFPS basis) and debt issuances to finance acquisitions; and 3) concerns about MHR looking to sell its highest margin Eagle Ford asset. Magnum Hunter's CF/DAS increased by +100% this year versus our coverage group average of -7%, while 'energy weighted' P/DAS grew by +25% in 2012 versus our coverage group average -7%.

■ **2013 Production Outlook** – We project Magnum Hunter's production will grow by ~54% yr/yr due to the ongoing ramp-up in the Bakken/Three Forks and Appalachia. MHR should outspend its projected ~\$194mm after-tax operating cash flow by ~\$196mm, with the funding gap likely to be more than funded by proceeds from the Eagle Ford sale.

■ **Cash Flow Per Debt Adjusted Share** – We project 2012-15 CF/DAS will grow at a rate of +26% per annum vs. a projected group average CAGR of +15%. For the 2010-12 three-year period, MHR posted an annual CAGR in CF/DAS of +97% vs. our coverage group at +9%, while it delivered a +62% CAGR in share appreciation vs. our coverage group CAGR of +7%, on average.

■ **'Energy Weighted' Production Per Debt Adjusted Share** – We project 2012-15 P/DAS will grow at a rate of +9% per annum vs. a projected group average CAGR of +8%.

■ **Potential 2013 Catalysts** – Potential catalysts include: 1) Eagle Ford sale; 2) Marcellus volumes ramp-up following weather and infrastructure related curtailments in 2H'12; and 3) mid-stream monetization.

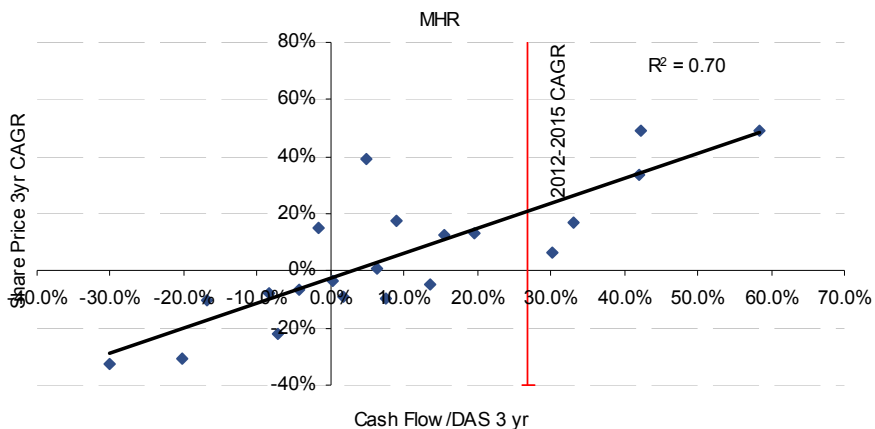
■ **Adjusting Estimates** – We adjusted our model for the recent addition to an earlier debt issuance and made other minor adjustments. Thus, we are adjusting our EPS/CFPS estimates in 2013 to (\$0.32)/\$1.10 from (\$0.29)/\$1.14 and in 2014 to (\$0.07)/\$1.52 from (\$0.05)/\$1.56.

■ **Price Target** – Based on our outlook for CF/DAS growth in 2013 (we are currently not modeling the Eagle Ford sale), we set a price target of \$5 per share. This is based on MHR's stock achieving an EV/DACF multiple of 6.4x based on our normalized prices of \$90/Bbl and \$4.50/MMBtu, and 91% of proven-only reserve NAV on our actual commodity price forecast.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2011A	-0.03A	-0.01A	-0.05A	-0.05A	-0.19A	-0.19A
2012E	-0.01A	-0.07A	-0.08A	-0.11E	-0.29E	-0.24E
Previous	-0.01A	-0.07A	-0.08A	-0.11E	-0.29E	na
2013E	-0.10E	-0.09E	-0.07E	-0.05E	-0.32E	-0.09E
Previous	-0.10E	-0.08E	-0.06E	-0.05E	-0.29E	na
2014E	na	na	na	na	-0.07E	0.27E
Previous	na	na	na	na	-0.05E	na

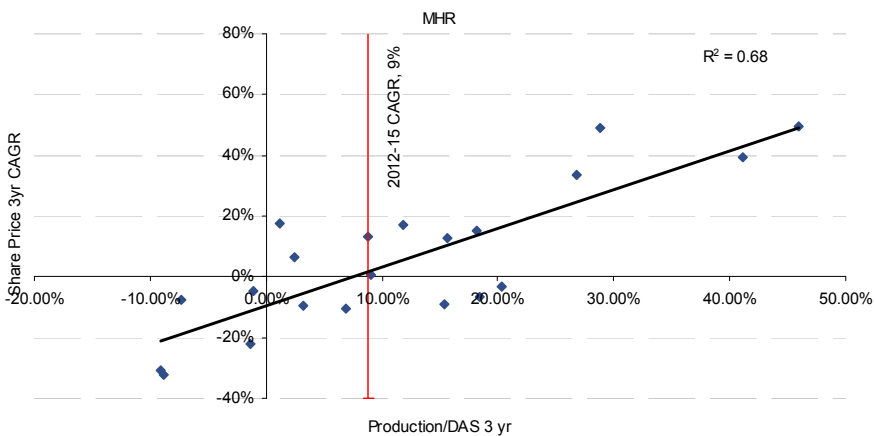
Source: Company Reports and dataCentral, Citi Research. FC Cons: First Call Consensus.

Figure 58. MHR Cash Flow Per Debt Adjusted Share – 2010-2012 (E&P group and MHR) and 2012-2015E



Source: Citi Research

Figure 59. MHR 'Energy Weighted' Production Per Debt Adjusted Share – 2010-2012 (E&P group and MHR) and 2012-2015E



Source: Citi Research

Company Focus

■ Company Update

Joseph Stewart

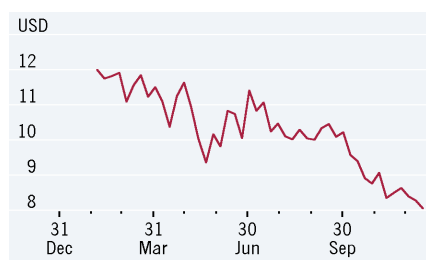
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Neutral/High Risk	2H
Price (18 Dec 12)	US\$8.16
Target price	US\$10.00
Expected share price return	22.5%
Expected dividend yield	0.0%
Expected total return	22.5%
Market Cap	US\$453M

Price Performance

(RIC: MTDR.N, BB: MTDR US)



Matador Resources Co (MTDR)

■ **2012 Share Performance** – MTDR has underperformed our E&P coverage group since its IPO earlier this year, with shares falling by ~32% vs. a ~8% decline for the group, on average. The share price underperformed the group as the company reduced its oil production guidance and costs came in above expectations.

■ **2013 Production Outlook** – We currently project liquids output to grow by 38% next year to 4.6 MBbl/d (versus guidance of 4.4-4.9 MBbl/d) offsetting an 8% decline in natural gas output to 31.5 MMcf/d (versus guidance of 30-33 MMcf/d, with total production expected to grow 9% yr/yr to 9.9 MBOE/d (47% liquids). We expect next year's budget of \$310 MM to exceed MTDR's after-tax operating cash flow of ~\$130 MM.

■ **Cash Flow Per Debt Adjusted Share** – We project a 2012-2015 CF/DAS growth rate of +10% per year vs. a projected group average CAGR of +15% per year (Figure 60).

■ **Production Per Debt Adjusted Share** – We project 2012-2015 'energy weighted' P/DAS growth rate of +5% per year vs. a projected group average CAGR of +8% per year. (Figure 61).

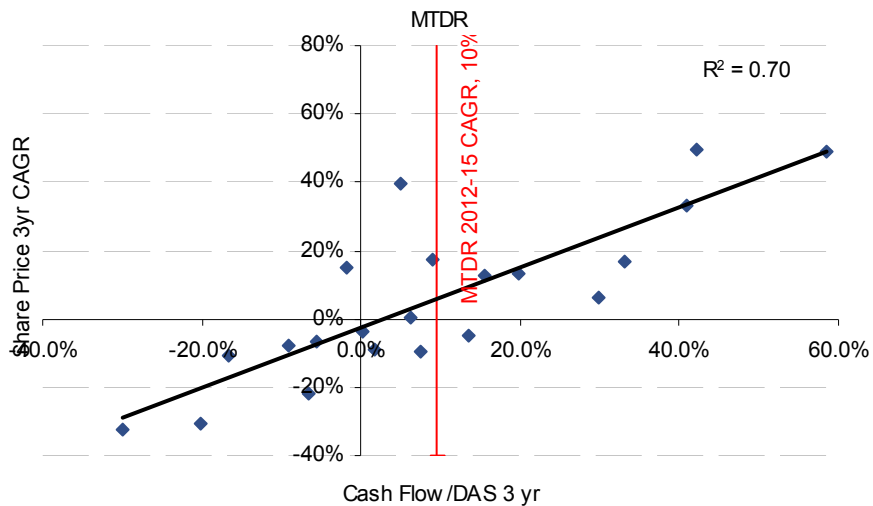
■ **Potential 2013 Catalysts** – Potential catalysts for Matador next year include: 1) three Hz. well results in the Wolfcamp and Bone Spring formations in the Delaware Basin in mid-2013; 2) completion of 1 Hz. well in the Meade Peake shale in WY; 3) exploration drilling to test the Austin Chalk, Buda and Edwards formations in South Texas; 4) improving results from the Eagle Ford ; 5) acreage bolt ons in the Eagle Ford and/or Permian; and 5) Haynesville production ramp-up in the case of a natural gas price rebound

■ **Price Target** – Incorporating our outlook for CF/DAS growth, we maintain our price target of \$10 per share. This is based on MTDR's stock achieving an EV/DACF multiple of 6.0x/5.3x for 2013/2014 using our normalized prices of \$90/Bbl and \$4.50/MMBtu, and 120% of proven only NAV based on our commodity price forecasts.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2011A	0.19A	0.17A	0.16A	0.02A	0.59A	na
2012E	0.11A	0.09A	0.12A	0.13E	0.45E	0.46E
Previous	0.11A	0.09A	0.12A	0.13E	0.45E	na
2013E	0.06E	0.04E	0.09E	0.10E	0.29E	0.56E
Previous	0.06E	0.04E	0.09E	0.10E	0.29E	na
2014E	na	na	na	na	0.53E	0.74E
Previous	na	na	na	na	0.53E	na

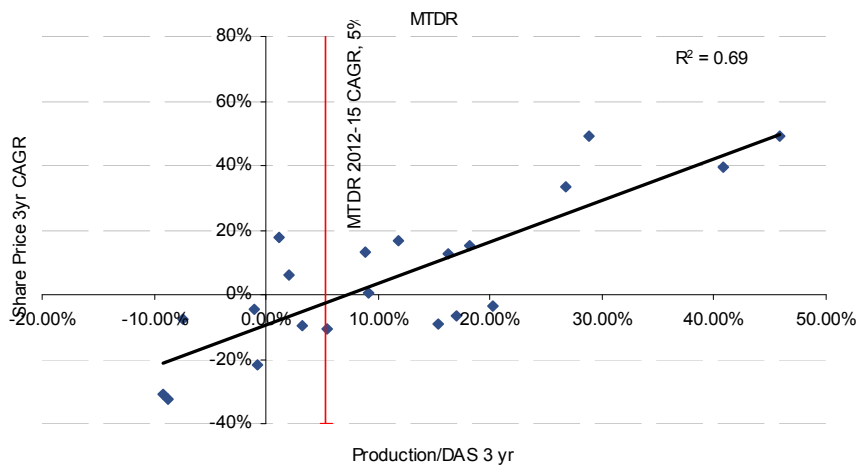
Source: Company Reports and dataCentral, Citi Research. FC Cons: First Call Consensus.

Figure 60. MTDR Cash Flow Per Debt Adjusted Share – 2010-2012 (E&P group and MTDR) and 2012-2015E



Source: Citi Research

Figure 61. MTDR 'Energy Weighted' Production Per Debt Adjusted Share – 2009-2012 (E&P group and MTDR) and 2012-2015E



Source: Citi Research

Company Focus

Newfield Exploration Co. (NFX)

- Company Update
- Estimate Change

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Neutral	2
Price (18 Dec 12)	US\$27.15
Target price	US\$30.00
Expected share price return	10.5%
Expected dividend yield	0.0%
Expected total return	10.5%
Market Cap	US\$3,671M

Price Performance

(RIC: NFX.N, BB: NFX US)



■ **2012 Share Performance** – Newfield has been the second worst performing stock within our E&P coverage group YTD, with its shares falling by ~31% vs. an ~8% decline for the group, on average. NFX went through a substantial portfolio restructuring this year following non-core asset sales, however its share price continued to underperform due to a number of factors: 1) disappointing 0% production growth guidance amidst escalating capital costs, 2) uncertainty regarding overall resource quality, particularly new exploration plays, and 3) next year's international oil output missing many analysts' expectations and thus lowered associated guidance. CF/DAS declined by 36% this year versus our coverage group average of a 7% decline and 'Energy Weighted' P/DAS declined by 21% this year versus our coverage group average of -7%.

■ **2013 Production Outlook** – We project U.S. output will be essentially flat next year at 661 MMcf/d as growth in the Bakken and Uinta Basin offsets a decline in the natural gas output. International volumes are projected to decline ~22% to 124 MMcf/d due to natural field declines and PSC impact in Malaysia. As a result, total volumes are projected to decline by ~4% year over year in 2013 to ~784 MMcf/d. We expect next year's capital budget of \$1.5bn to exceed our after-tax operating cash flow projection of ~\$1.3bn

■ **Cash Flow Per Debt Adjusted Share** – We project 2012-2015 CF/DAS will grow at a rate of +18% per annum vs. a projected group average CAGR of +15%. NFX posted an annual CAGR in CF/DAS of -17% versus our coverage group of +9%, while its share price declined at a ~-11% CAGR versus the coverage group CAGR of ~7% share price appreciation (See Figure 62).

■ **'Energy Weighted' Production Per Debt Adjusted Share** – We project 2012-2015 'energy weighted' P/DAS will grow at a rate of +5% per year vs. a projected group average CAGR of +8% per year (See Figure 63).

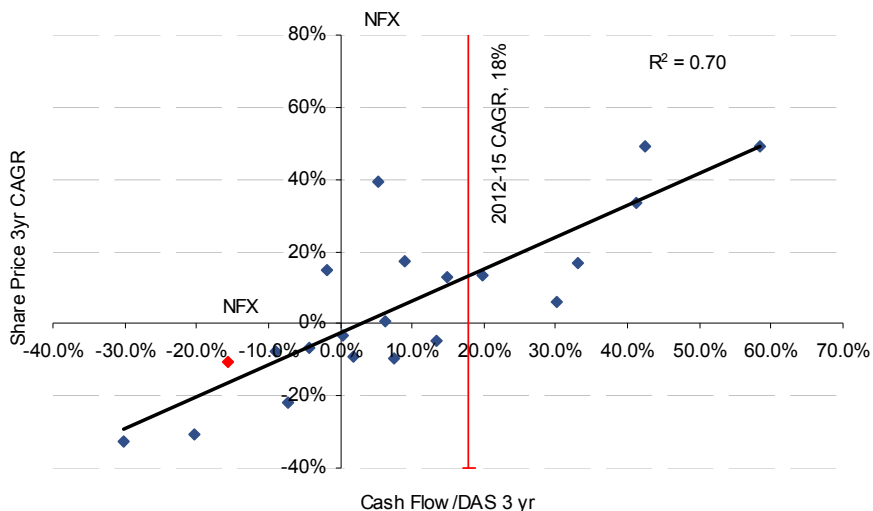
■ **Potential 2013 Catalysts** – Potential catalysts for Newfield next year include: 1) Horizontal drilling results in North Cana, 2) Additional well results from South Cana acreage and further visibility, 3) Further update to initial "monster" Hogshooter well results, 4) Bakken well cost improvements as service contracts roll off, 5) More visibility into Eagle Ford SXL drilling program, and 6) Malaysian liquids production PSC impact

■ **Price Target / Adjusting Estimates**– Thus, based on our outlook for CF/DAS growth along with its relatively poor quality drilling inventory, we have set a price target of \$30 per share. This is based on NFX's stock achieving an EV/DACF multiple of 5.0x/4.5x for 2013/2014 based on normalized prices of \$90/Bbl and \$4.50/MMBtu, and at 60% of proven reserve only NAV based on our commodity price forecasts. Based on our revised production estimates and other fine tuning we revised our 2014EPS/CFPS to \$4.15/\$12.34 from \$4.01/\$12.22 and 2015 estimates to \$5.50/\$14.97 from \$5.57/\$15.09.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2011A	0.99A	1.02A	1.04A	0.95A	3.99A	3.99A
2012E	0.91A	0.61A	0.48A	0.32E	2.31E	2.44E
Previous	0.91A	0.61A	0.48A	0.32E	2.31E	na
2013E	0.66E	0.69E	0.74E	0.80E	2.89E	2.39E
Previous	0.66E	0.69E	0.74E	0.80E	2.89E	na
2014E	na	na	na	na	4.15E	3.12E
Previous	na	na	na	na	4.01E	na

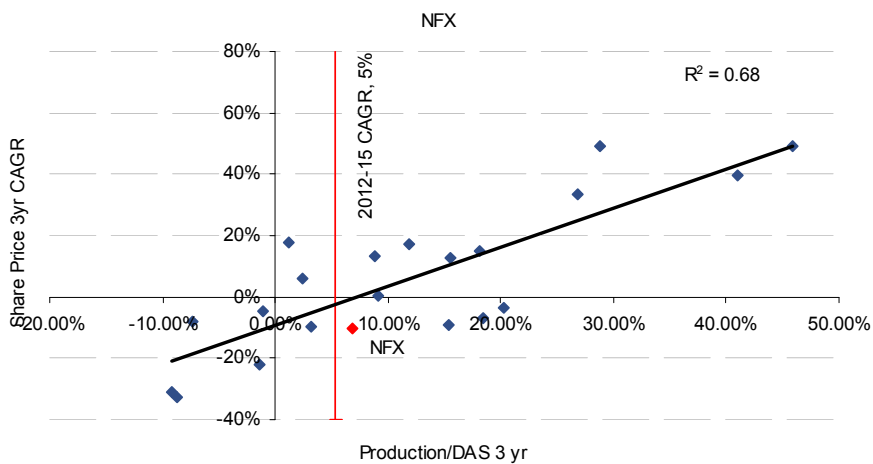
Source: Company Reports and dataCentral, Citi Research. FC Cons: First Call Consensus.

Figure 62. NFX Cash Flow Per Debt Adjusted Share – 2010-2012 (E&P group and NFX) and 2012-2015E



Source: Citi Research

Figure 63. NFX 'Energy Weighted' Production Per Debt Adjusted Share – 2010-2012 (E&P group and NFX) and 2012-2015E



Source: Citi Research

Company Focus

- Company Update
- Target Price Change

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Buy	1
Price (18 Dec 12)	US\$102.81
Target price	US\$125.00
from US\$110.00	
Expected share price return	21.6%
Expected dividend yield	0.9%
Expected total return	22.4%
Market Cap	US\$18,289M

Price Performance (RIC: NBL.N, BB: NBL US)



Noble Energy Inc (NBL)

■ **2012 Share Performance** – NBL has outperformed our E&P coverage group YTD, with its shares rising ~5% versus an ~8% decline for the group, on average. This outperformance was driven by: 1) two increases to production forecasts during the year with no changes to capital spending guidance, 2) higher-than-expected production and/or faster-than-anticipated ramp-up of several projects, and 3) exploration successes announced during the year.

■ **2013 Production Outlook** – We project Noble's production will grow by +17% in 2013 as output is expected to rise in every core area (DJ Basin, Marcellus, deepwater Gulf, Israel and West Africa). Noble will outspend our projected ~\$3.4bn after-tax operating cash flow by ~\$0.8bn, with the funding gap to be largely financed via its revolving facility and non-core asset sales.

■ **Cash Flow Per Debt Adjusted Share** – We project 2012-15 CF/DAS will grow at a rate of +17% per year versus a projected group average CAGR of +15%. For the 2010-12 three-year period, NBL posted an annual CAGR in CF/DAS of +9% vs. our coverage group of +9%, while its shares appreciated at a +18% CAGR vs. our coverage group CAGR of +7%, on average.

■ **'Energy Weighted' Production Per Debt Adjusted Share** – We project 2012-15 'energy weighted' P/DAS will grow at a rate of +10% per annum vs. a projected group average CAGR of +8%.

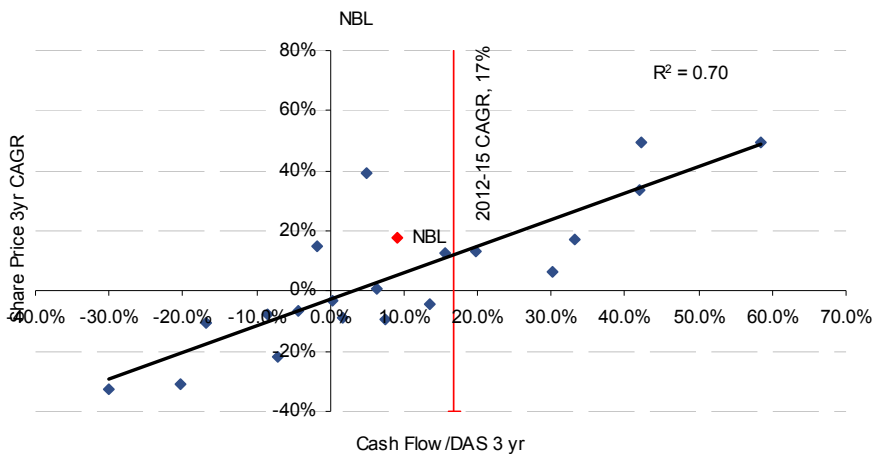
■ **Potential 2013 Catalysts** – With five core areas and multiple exploration wells drilling at once, Noble is one of the most catalyst heavy stocks in our group. Potential catalysts include: 1) results from the oily Wattenberg extension & North Co East Pony; 2) production from 'wet gas' Marcellus, estimated to grow at 5-year CAGR of ~55%; 3) development plans for Gunflint & Big Bend in the deepwater Gulf; 4) exploration results from Troubadour; 5) exploration results in Nevada; 6) first production from Tamar offshore Israel; 7) FID on the Leviathan export project; 8) appraisal results from Cyprus; 9) first oil from Alen offshore West Africa, and 10) spud of the Paraiso prospect in Nicaragua.

■ **Price Target** – Based on our outlook for CF/DAS and P/DAS growth in 2013 and noting that the company has several catalysts not factored into our production forecasts but likely to drive the stock price higher if successful, we note that NBL deserves a premium multiple versus the group. Our new \$125 per share price target is based on NBL's stock achieving 2013/2014 EV/DACF multiples of 8.1x/6.9x based on normalized prices of \$90/Bbl and \$4.50/MMBtu, and 120% of proven-only NAV.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2011A	1.35A	1.47A	1.24A	1.18A	5.23A	5.31A
2012E	1.74A	0.71A	0.93A	0.97E	4.35E	4.57E
Previous	1.74A	0.71A	0.93A	0.97E	4.35E	na
2013E	1.32E	1.24E	1.93E	1.68E	6.16E	6.54E
Previous	1.32E	1.24E	1.93E	1.68E	6.16E	na
2014E	na	na	na	na	8.69E	8.46E
Previous	na	na	na	na	8.69E	na

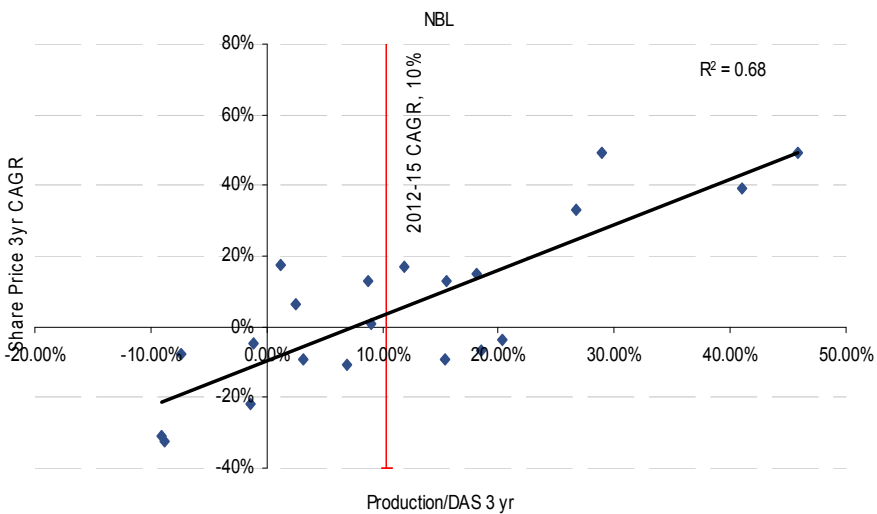
Source: Company Reports and dataCentral, Citi Research. FC Cons: First Call Consensus.

Figure 64. NBL Cash Flow Per Debt Adjusted Share – 2010-2012 (E&P group and NBL) and 2012-2015E



Source: Citi Research

Figure 65. NBL 'Energy Weighted' Production Per Debt Adjusted Share – 2010-2012 (E&P group and NBL) and 2012-2015E



Source: Citi Research

Company Focus

Pioneer Natural Resources Co. (PXD)

- Company Update
- Estimate Change

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Buy	1
Price (18 Dec 12)	US\$107.78
Target price	US\$120.00
Expected share price return	11.3%
Expected dividend yield	0.1%
Expected total return	11.4%
Market Cap	US\$13,282M

Price Performance

(RIC: PXD.N, BB: PXD US)



■ **2012 Share Price Performance** – Pioneer has been the fourth best performing stock in our E&P coverage group YTD, rising ~15% versus an ~8% decline for the group, on average. Pioneer's share price outperformance has been driven by stronger-than-expected production and well performance in its Permian and Eagle Ford plays, with total production projected to be up ~28% in 2012. Pioneer has also been able to drive down costs with self-sourced sand and below average well completion costs resulting in improved margins. PXD grew CF/DAS by a projected +20% this year versus our coverage group average of a 7% decline and grew 'energy weighted' P/DAS by a projected +18% this year versus our coverage group average of -7%.

■ **2013 Production Outlook** – We currently project Pioneer will post ~18% production growth in 2013 while spending within our projected ~\$2.3bn after-tax operating cash flow and we would note that proceeds from the expected Wolfcamp JV and Barnett asset sale (both expected to be Q1'13 events) will provide further funding flexibility.

■ **Cash Flow Per Debt Adjusted Share** – We project 2012-2015 CF/DAS will grow at a rate of 17% per annum vs. a projected group average CAGR of 15%. For the 2010-2012 three-year period, PXD posted an annual CAGR in CF/DAS of 58% versus our coverage group at ~9%, while its share price appreciated at a ~49% CAGR versus the coverage group CAGR of ~7% stock price appreciation, on average (See Figure 66).

■ **'Energy Weighted' Production Per Debt Adjusted Share** – We project 2012-2015 'energy weighted' P/DAS will grow at a rate of 19% per annum vs. a projected group average CAGR of +8% (See Figure 67).

■ **Potential 2013 Catalysts** – Potential catalysts include: 1) Wolfcamp JV as Pioneer has been running a formal JV process for its southern acreage and we expect an announcement in Q1'13; 2) Further Wolfcamp development after raising average EURs in the southern acreage to 575 BOE; 3) Barnett asset sale with proceeds providing additional flexibility, helping alleviate funding constraints and being reallocated to the horizontal Wolfcamp and Eagle Ford.

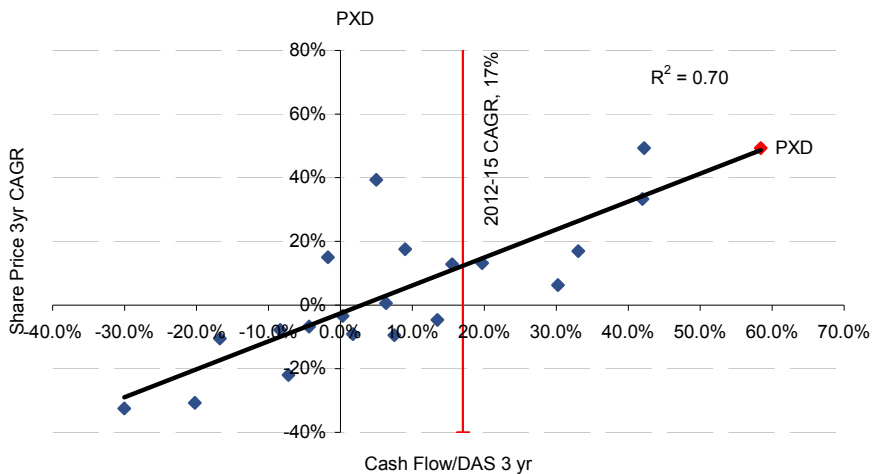
■ **Adjusting Estimates** – Based on an updated hedging schedule and outlook we are adjusting our EPS/CFPS estimates for 2013 to \$5.58/\$17.46 from \$5.64/\$17.82, for 2014 to \$6.83/\$20.20 from \$6.95/\$20.66 and for 2015 to \$6.76/\$23.57 from \$7.23/\$24.59.

■ **Price Target** – Thus, based on our outlook for CF/DAS share growth in 2013, expected improvement in RRE and strong production growth outlook, we have set a price target of \$120 per share. This is based on PXD's stock achieving 2013/2014 EV/DACF multiples of 7.0x/6.4x based on normalized prices of \$90/Bbl and \$4.50/MMBtu, and ~114% of proven reserve only NAV based on our commodity price forecasts.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2011A	0.70A	0.97A	1.37A	1.23A	4.21A	3.93A
2012E	1.21A	0.78A	0.82A	0.76E	3.56E	3.80E
Previous	1.21A	0.78A	0.82A	0.76E	3.56E	na
2013E	1.21E	1.33E	1.48E	1.56E	5.58E	5.08E
Previous	1.22E	1.35E	1.49E	1.58E	5.64E	na
2014E	na	na	na	na	6.83E	6.49E
Previous	na	na	na	na	6.95E	na

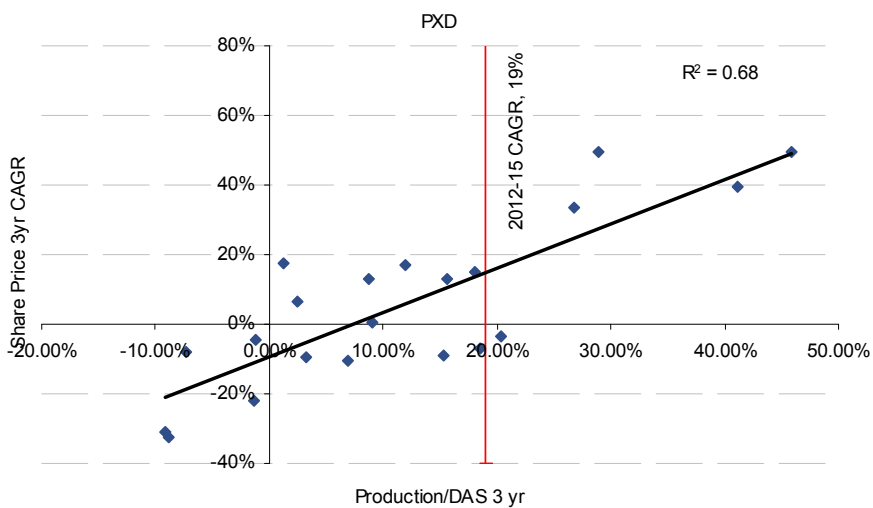
Source: Company Reports and dataCentral, Citi Research. FC Cons: First Call Consensus.

Figure 66. PXD Cash Flow Per Debt Adjusted Share – 2010-2012 (E&P group and PXD) and 2012-2015E



Source: Citi Research

Figure 67. PXD 'Energy Weighted' Production Per Debt Adjusted Share – 2010-2012 (E&P group and PXD) and 2012-2015E



Source: Citi Research

Company Focus

- Company Update
- Target Price Change
- Estimate Change

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Neutral	2
Price (18 Dec 12)	US\$3.40
Target price	US\$3.75
from US\$4.15	
Expected share price return	10.3%
Expected dividend yield	0.0%
Expected total return	10.3%
Market Cap	US\$588M

Price Performance

(RIC: KWK.N, BB: KWK US)



Quicksilver Resources Inc (KWK)

■ **2012 Share Price Performance** – Quicksilver has been the worst performer in our E&P coverage group YTD, falling ~50% versus a ~8% decline for the group, on average. KWK's share price underperformance has been driven by: 1) production slowdown; 2) concerns regarding its balance sheet; and 3) delayed asset monetizations. Furthermore, KWK's CF/DAS declined by a projected -54% this year versus our coverage group average of a 7% decline and 'energy weighted' P/DAS declined by a projected 61% this year versus our coverage group average of -7%.

■ **2013 Production Outlook** – We currently project Quicksilver will post ~6% production growth in 2013 while outspending our projected ~\$120mm after-tax operating cash flow by ~\$90mm. Management expects this outspend to be funded by potential asset monetizations (Barnett JV/asset sale/MLP, Horn River and Permian Basin JVs).

■ **Cash Flow Per Debt Adjusted Share** – We project 2012-2015 CF/DAS will decline at a rate of 4% per annum vs. a projected group average CAGR of +15%. For the 2010-2012 three-year period, Quicksilver posted an annual CAGR in CF/DAS of -30% versus our coverage group of +9%, while it delivered a -50% CAGR in share price appreciation versus the coverage group CAGR of 7%, on average (See Figure 68).

■ **'Energy Weighted' Production Per Debt Adjusted Share** – We project 2012-2015 P/DAS will decline at a rate of 7% per annum vs. a projected group average CAGR of +8% (See Figure 69).

■ **Potential 2013 Catalysts** – Potential catalysts include a JV or asset sale in the Barnett (potentially combined with launching a MLP) to significantly reduce debt along with possible JVs in the Horn River and Permian Basins. Well results in the Niobrara and Permian Basin could also be catalysts.

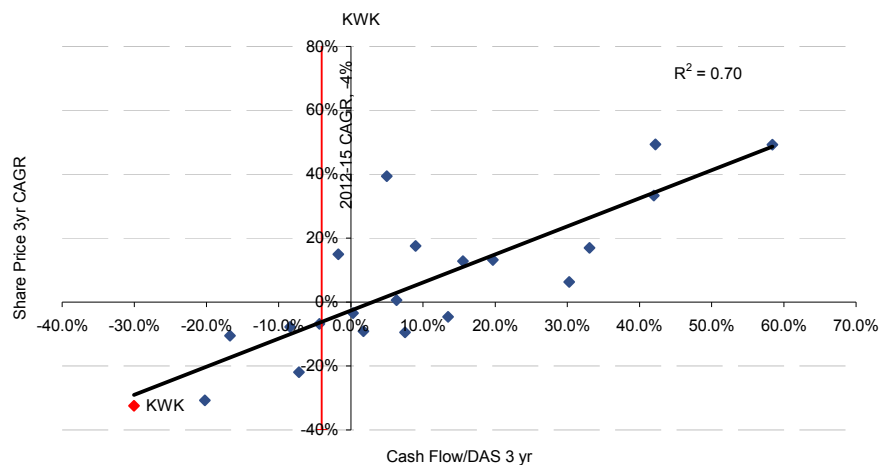
■ **Adjusting Estimates** – Based on our updated production outlook, we are adjusting our 2013 EPS/CFPS estimates to (\$0.56)/\$0.71 from (\$0.42)/\$0.84, 2014 to (\$0.21)/\$1.10 from (\$0.05)/\$1.27 and 2015 EPS/CFPS to \$0.12/\$1.59 from \$0.25/\$1.84.

■ **Price Target** – Thus, given our production outlook and view that the company's Horn River Basin and Barnett Shale assets will drive below average CF/DAS and 'energy weighted' P/DAS growth over the next few years, we have set a price target of \$3.75 per share. This is based on KWK's stock achieving an EV/DACF multiple of 7.7x/7.5x for 2013/2014 based on normalized prices of \$90/Bbl and \$4.50/MMBtu, and 88% of proven reserve only NAV based on our commodity price forecasts.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2011A	0.02A	0.06A	0.03A	0.00A	0.11A	0.12A
2012E	-0.09A	-0.13A	-0.04A	-0.02E	-0.28E	-0.25E
Previous	-0.09A	-0.13A	-0.04A	-0.02E	-0.28E	na
2013E	-0.15E	-0.16E	-0.13E	-0.11E	-0.56E	-0.25E
Previous	-0.12E	-0.13E	-0.10E	-0.07E	-0.42E	na
2014E	na	na	na	na	-0.21E	-0.27E
Previous	na	na	na	na	-0.05E	na

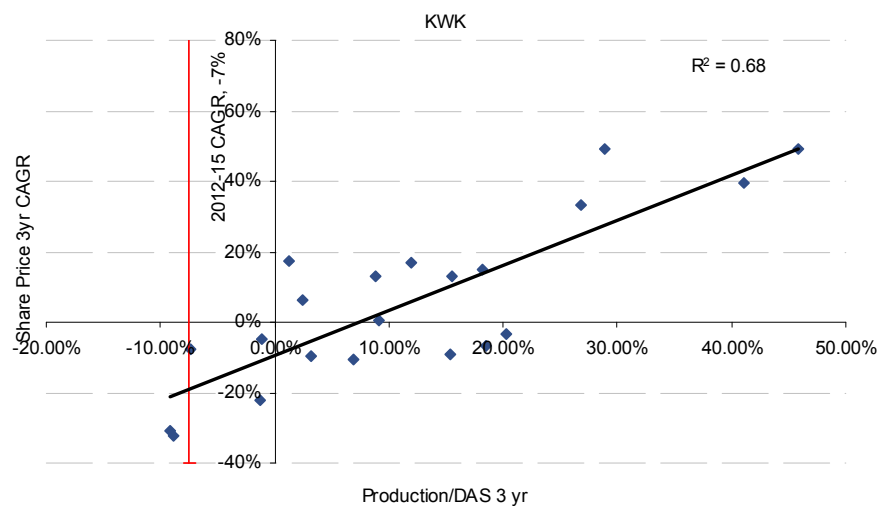
Source: Company Reports and dataCentral, Citi Research. FC Cons: First Call Consensus.

Figure 68. KWK Cash Flow Per Debt Adjusted Share – 2010-2012 (E&P group and KWK) and 2012-2015E



Source: Citi Research

Figure 69. KWK 'Energy Weighted' Production Per Debt Adjusted Share – 2010-2012 (E&P group and KWK) and 2012-2015E



Source: Citi Research

Company Focus

Range Resources Corp (RRC)

- Company Update
- Estimate Change

Robert S Morris

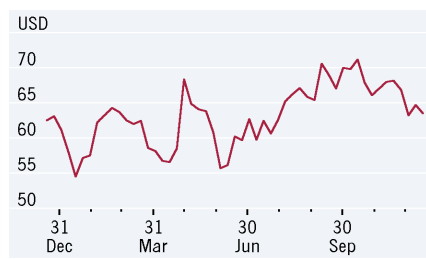
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Buy	1
Price (18 Dec 12)	US\$64.47
Target price	US\$76.00
Expected share price return	17.9%
Expected dividend yield	0.2%
Expected total return	18.1%
Market Cap	US\$10,485M

Price Performance

(RIC: RRC.N, BB: RRC US)



■ **2012 Share Price Performance** – Range has outperformed our E&P coverage group YTD, gaining ~3% versus an ~8% decline for the group, on average. Range's share price outperformance has been driven by stronger-than-expected production as evidenced by its increase to full-year production guidance during the year, with total production projected to be up ~37% in 2012, along with a ramp up in Mississippian Lime activity and concurrent slowdown in Marcellus "dry" gas activity as production is expected to comprise of proportionally more liquids. Range's CF/DAS declined by a projected 3% this year versus our coverage group average of a 7% decline and grew 'energy weighted' P/DAS by a projected +1% this year versus our coverage group average of -7%.

■ **2013 Production Outlook** – We currently project Range will post ~25% production growth in 2013 which is at the upper end of the guidance range of 20-25% growth, while outspending our projected ~900mm after-tax operating cash flow by ~\$500mm based on our commodity price assumptions (and note management stated plans to outspend cash flow by ~\$250mm based on commodity strip prices). This outspend should be funded by its credit facility (~\$1.2bn available at the end of Q3'12) and non-core asset sales, if necessary.

■ **Cash Flow Per Debt Adjusted Share** – We project 2012-2015 CF/DAS will grow at a rate of +41% per annum vs. a projected group average CAGR of +15%. For the 2010-2012 three-year period, RRC posted an annual CAGR in CF/DAS of -2% versus our coverage group of +9%, while its stock rose at a ~15% CAGR versus the coverage group CAGR of ~7% share price appreciation, on average (See Figure 70).

■ **'Energy Weighted' Production Per Debt Adjusted Share** – We project 2012-2015 'energy weighted' P/DAS will grow at a rate of +23% per annum vs. a projected group average CAGR of +8% (See Figure 71).

■ **Potential 2013 Catalysts** – Potential catalysts include well results in the super-rich Marcellus and Upper Devonian along with the Utica. The company is also ramping up activity in the Permian (Wolfberry and Cline) and Mississippian Lime.

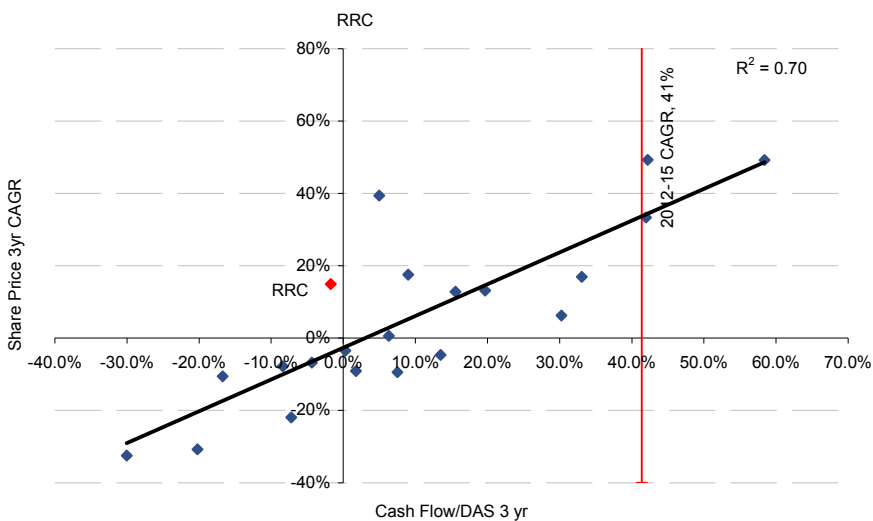
■ **Adjusting Estimates** – Based on an updated hedging schedule and outlook, we are adjusting our EPS/CFPS estimates for 2013 to \$1.07/\$5.54 from \$1.05/\$5.52 and for 2014 to \$2.72/\$9.18 from \$2.72/\$9.17.

■ **Price Target** – Thus, based on our outlook for CF/DAS share growth in 2013 and strong production growth outlook, we maintain a price target of \$76 per share. This is based on RRC's stock achieving 2013/2014 EV/DACF multiples of 13.3x/9.8x based on normalized prices of \$90/Bbl and \$4.50/MMBtu, and ~140% of proven reserve only NAV based on our commodity price forecasts.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2011A	0.22A	0.21A	0.28A	0.40A	1.10A	1.11A
2012E	0.15A	0.11A	0.20A	0.21E	0.68E	0.67E
Previous	0.15A	0.11A	0.20A	0.21E	0.68E	na
2013E	0.18E	0.24E	0.29E	0.36E	1.07E	1.09E
Previous	0.18E	0.24E	0.29E	0.35E	1.05E	na
2014E	na	na	na	na	2.72E	2.00E
Previous	na	na	na	na	2.72E	na

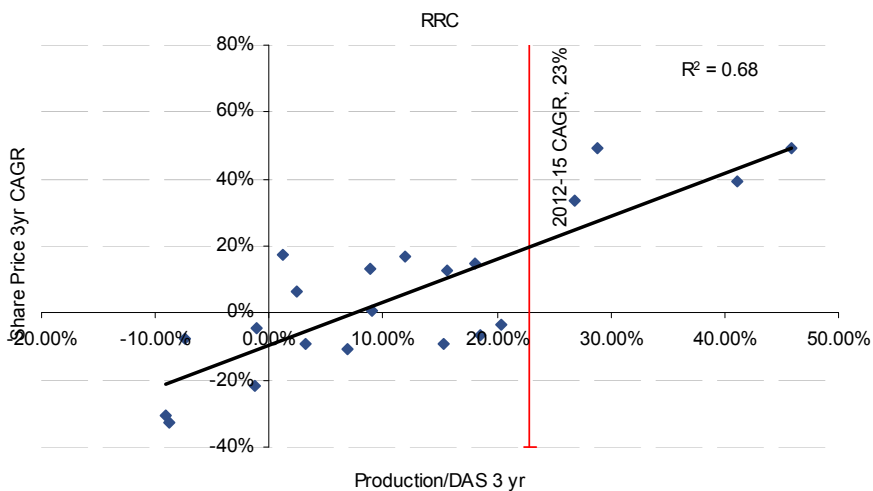
Source: Company Reports and dataCentral, Citi Research. FC Cons: First Call Consensus.

Figure 70. RRC Cash Flow Per Debt Adjusted Share – 2010-2012 (E&P group and RRC) and 2012-2015E



Source: Citi Research

Figure 71. RRC 'Energy Weighted' Production Per Debt Adjusted Share – 2010-2012 (E&P group and RRC) and 2012-2015E



Source: Citi Research

Company Focus

- Company Update
- Estimate Change

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Buy/High Risk	1H
Price (18 Dec 12)	US\$44.71
Target price	US\$60.00
Expected share price return	34.2%
Expected dividend yield	0.0%
Expected total return	34.2%
Market Cap	US\$2,349M

Price Performance

(RIC: ROSE.O, BB: ROSE US)



Rosetta Resources (ROSE)

■ **2012 Share Performance** – Rosetta has outperformed our E&P coverage group YTD, with shares rising by ~4% vs. a ~8% decline for the group, on average. The company 1) posted one of the highest RREs within our coverage universe at the beginning of this year due to impressive reserve adds in the Eagle Ford; 2) delivered results suggesting that downspacing in the prolific Gates Ranch field will work; and 3) substantially de-risked much of its oil and liquids-rich Eagle Ford acreage outside of Gates Ranch. However, NGL price realizations and concerns regarding a relatively limited drilling inventory in the Eagle Ford continued to be headwinds for the stock this year. ROSE grew CF/DAS by 34% this year versus our coverage group average of a 7% decline and grew 'Energy Weighted' P/DAS by 33% this year versus our coverage group average of -7%.

■ **2013 Production Outlook** – We project total output next year to grow 30% yr/yr to 48 MBOE/d (63% liquids) vs company guidance of 46-50 MBOE/d. We expect next year's capital budget of \$700million to exceed after-tax operating cash flow of \$540 million, but ROSE has more than enough liquidity to fund the shortfall.

■ **Cash Flow Per Debt Adjusted Share** – We project 2012-2015 CF/DAS will grow at a rate of 32% per annum vs. a projected group average CAGR of +15%. For the 2010-2012 three-year period ROSE posted an annual CAGR in CF/DAS of 42% versus our coverage group of ~+9%, while it delivered a ~49% CAGR in share price appreciation versus the coverage group of ~7% (See Figure 72).

■ **Production Per Debt Adjusted Share** – We project 2012-2015 "Energy Weighted" P/DAS growth rate of +23% per year vs. a projected group average CAGR of +8% per year (See Figure 73).

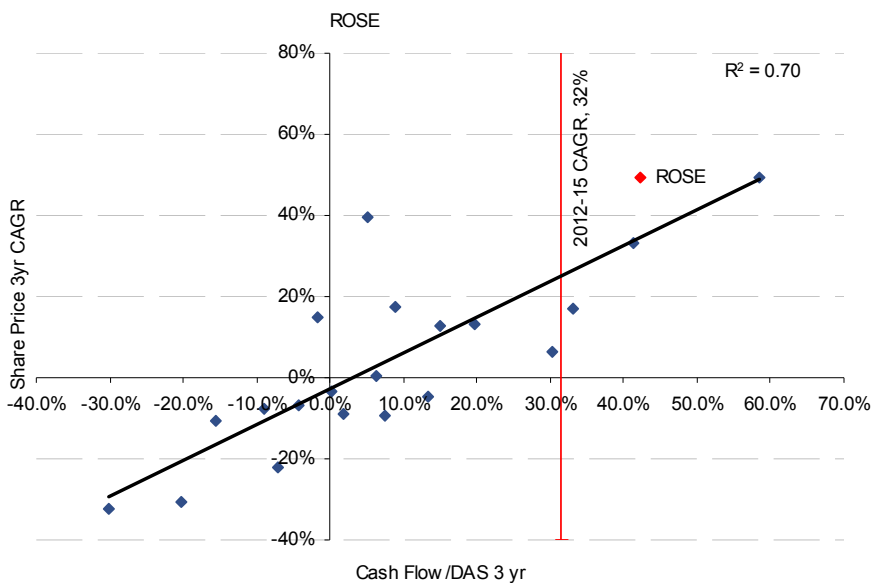
■ **Potential 2013 Catalysts** – Potential catalysts next year include 1) acquisitions; 2) Pearsall well results; 3) New Ventures update – results from Michigan Collingwood or other potential plays; 4) Karnes Trough production ramp up; 5) NGL realizations improvements due to higher U.S. propane export capacity; and 6) Central Dimmit well results and other inventory additions in the Eagle Ford.

■ **Adjusting Estimates** – Based on our revised production estimates and other fine tuning we lowered our 2014EPS/CFPS to \$5.94/\$14.24 from \$6.19/\$14.79 and 2015 ests to \$7.94/\$17.94 from \$8.53/\$19.22. Based on our outlook for above average CF/DAS share growth and industry leading RRE, we have set a price target of \$60 per share. This is based on ROSE's stock achieving a 2013/2014 multiple of 5.7x/4.8x based on normalized prices of \$90/bbl and \$4.50/MMBtu, and 110% of proven reserves only NAV based on our commodity price forecasts.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2011A	0.21A	0.48A	0.61A	0.61A	1.91A	1.91A
2012E	0.64A	0.58A	0.76A	0.81E	2.80E	2.91E
Previous	0.64A	0.58A	0.76A	0.81E	2.80E	na
2013E	0.98E	0.99E	1.06E	1.11E	4.13E	4.24E
Previous	0.98E	0.99E	1.06E	1.11E	4.13E	na
2014E	na	na	na	na	5.94E	5.82E
Previous	na	na	na	na	6.19E	na

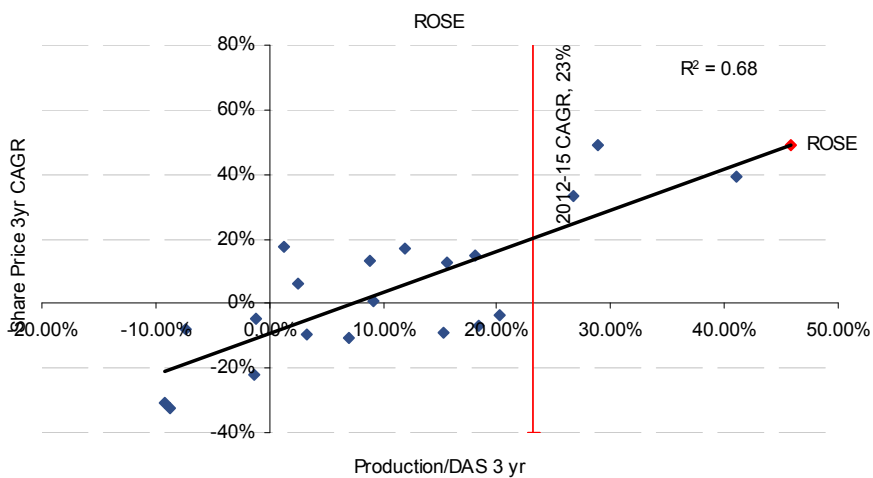
Source: Company Reports and dataCentral, Citi Research. FC Cons: First Call Consensus.

Figure 72. ROSE Cash Flow Per Debt Adjusted Share – 2010-2012 (E&P group and ROSE) and 2012-2015E



Source: Citi Research

Figure 73. ROSE 'Energy Weighted' Production Per Debt Adjusted Share – 2010-2012 (E&P group and ROSE) and 2012-2015E



Source: Citi Research

Company Focus

- Company Update
- Rating Change
- Target Price Change
- Estimate Change

Joseph Stewart

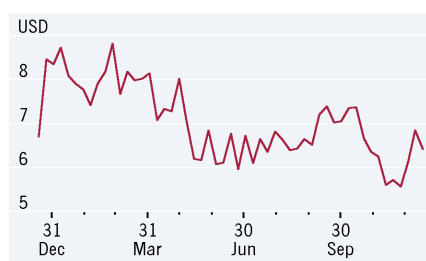
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Neutral	2
from Buy	
Price (18 Dec 12)	US\$6.48
Target price	US\$7.00
from US\$8.50	
Expected share price return	8.0%
Expected dividend yield	0.0%
Expected total return	8.0%
Market Cap	US\$3,178M

Price Performance

(RIC: SD.N, BB: SD US)



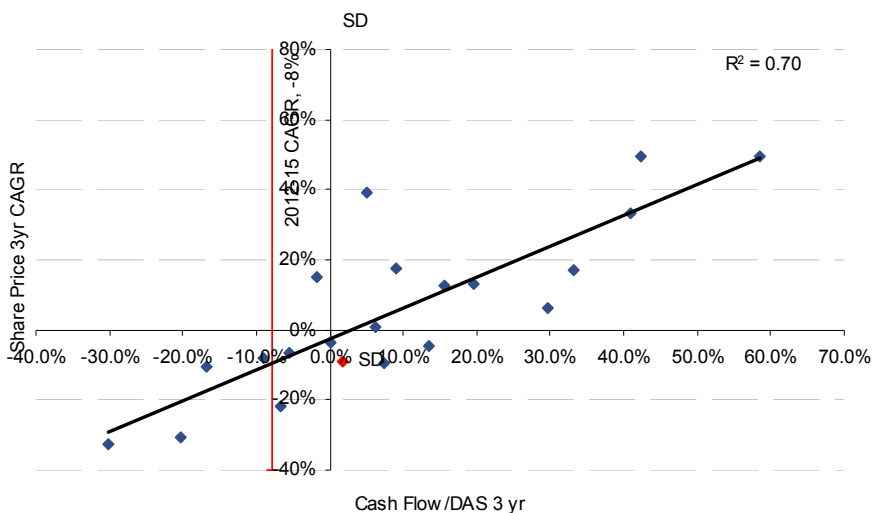
SandRidge Energy Inc (SD)

- **2012 Share Performance** – SD underperformed our E&P coverage group YTD, with shares falling by ~18% vs. a ~8% decline for the group, on average. The underperformance was driven by 1) a controversial acquisition in the Gulf of Mexico Shelf; 2) overspending its capital budget; and 3) a lower-than-expected production outlook for 2013 along with a “gassier” production mix, which was partially driven by a significant reduction in the oil content in the estimated EURs in the Mississippian. Furthermore, news that management plans to sell its oily Permian Basin assets was not well-received by the Street, and a number of activists in the shareholder base has added further complexity to the story.
- **2013 Production Outlook** – Based on guidance of 107 MBOE/d, we project Sandridge’s production will grow by ~18% yr/yr (we are not modeling the sale of the Permian pending an announcement). SD should outspend its projected ~\$1.0bn after-tax operating cash flow by ~\$0.8bn, with the funding gap to be easily financed from cash on hand and borrowings under the revolver.
- **Cash Flow Per Debt Adjusted Share** – We project 2012-15 CF/DAS will decline by 8% per annum vs. a projected group average CAGR of +15%. For the 2010-12 three-year period, SD posted an annual CAGR in CF/DAS of +2% vs. our coverage group at +9%, while it delivered a -9% share depreciation vs. our coverage group CAGR of +7% on average.
- **‘Energy Weighted’ Production Per Debt Adjusted Share** – We project 2012-15 P/DAS will decline at a rate of 8% per annum vs. a projected group average CAGR of +8%.
- **2013 Catalysts** – The results of the upcoming Permian asset sale will likely be a key driver of SD’s share performance in the coming months, with a deal likely to be announced sometime in 1H’13. Street expectations seem to range from \$2.0-\$3.0bn, in our view, and we think any number above or below this range would have a material impact on the stock price. The markets will also be watching 1) whether SD spends within its 2013 capital budget of \$1.75bn; 2) well results from the Mississippian and the production ramp in the play; and 3) the results of activist shareholders’ attempts to de-stagger the board of directors, replace directors and members of management, and pursue strategic alternatives.
- **Lowering Price Target And Stepping To The Sideline** – Incorporating our outlook for CF/DAS growth in 2013 we have set a 12-month price target of \$7.00/share (down from \$8.50). This is based on SD’s stock achieving an EV/DACF multiple of 6.4x using normalized prices of \$90/Bbl and \$4.50/MMBtu, and 117% of proven only NAV based on our actual commodity price forecasts. We continue to believe that there is considerable value in SD’s Mississippian asset that is not reflected in the stock today and we maintain a favorable view of management. However, we are lowering our rating to a Neutral from a Buy as we step to the sidelines and watch for the results of the Permian Basin asset sale and the outcome of the situation with the activist shareholders.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2011A	-0.03A	0.00A	0.01A	0.02A	0.00A	0.01A
2012E	0.04A	0.07A	0.05A	0.00E	0.16E	0.16E
Previous	0.04A	0.07A	0.05A	0.00E	0.16E	na
2013E	-0.03E	-0.06E	-0.04E	-0.03E	-0.16E	-0.06E
Previous	-0.03E	-0.06E	-0.04E	-0.03E	-0.16E	na
2014E	na	na	na	na	-0.18E	-0.16E
Previous	na	na	na	na	-0.16E	na

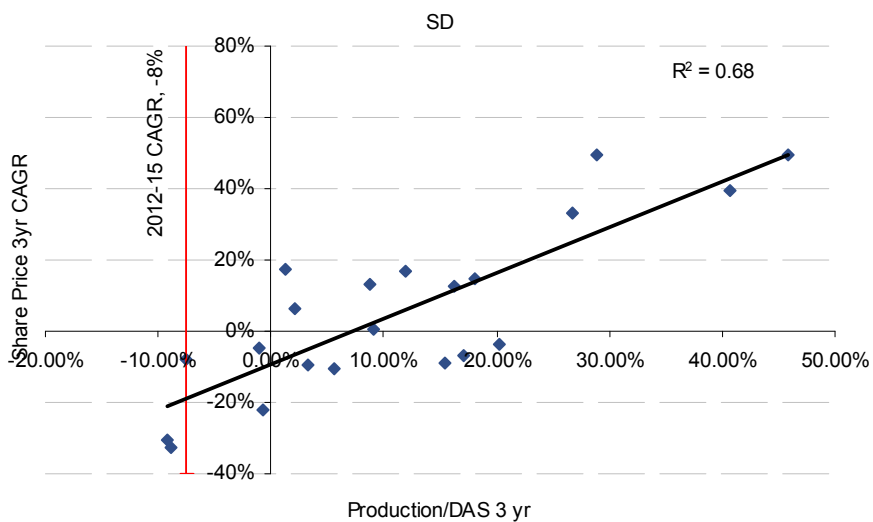
Source: Company Reports and dataCentral, Citi Research. FC Cons: First Call Consensus.

Figure 74. SD Cash Flow Per Debt Adjusted Share – 2010-2012 (E&P group and SD) and 2012-2015E



Source: Citi Research

Figure 75. SD 'Energy Weighted' Production Per Debt Adjusted Share – 2010-2012 (E&P group and SD) and 2012-2015E



Source: Citi Research

Company Focus

- Company Update
- Estimate Change

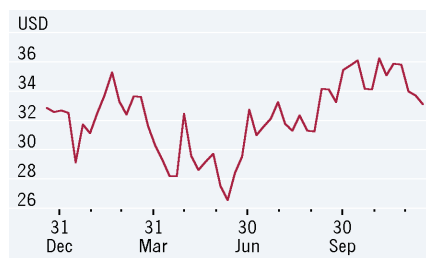
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Buy	1
Price (18 Dec 12)	US\$33.95
Target price	US\$38.00
Expected share price return	11.9%
Expected dividend yield	0.0%
Expected total return	11.9%
Market Cap	US\$11,894M

Price Performance

(RIC: SWN.N, BB: SWN US)



Southwestern Energy Co (SWN)

■ **2012 Share Performance** – SWN has outperformed our E&P coverage group YTD, with its shares gaining ~4% versus an ~8% decline for the group, on average. The company's stock price benefitted from a combination of rising natural gas prices, better-than-expected Fayetteville well performance and ability to deliver on expectations, which more than offset mixed Brown Dense well results. SWN's CF/DAS declined by 14% this year versus our coverage group average of a 7% decline, while 'energy weighted' P/DAS declined by 23% in 2012 versus our coverage group average of -7%.

■ **2013 Production Outlook** – Based on recent guidance of 11-13% production growth (we are modeling 13% noting that SWN tends to be conservative in its output forecasts), we project Southwestern's production will grow by 13% in 2013, largely driven by ramping volumes from the Marcellus. SWN's projected cash flows of ~\$1.7bn should cover most of its projected 2013 capex budget of ~\$2.0bn.

■ **Cash Flow Per Debt Adjusted Share** – We project 2012-15 CF/DAS will grow at a rate of +25% per annum vs. a projected group average CAGR of +15%. For the 2010-12 three-year period, SWN posted an annual CAGR in CF/DAS of +0.2% vs. our coverage group at +9%, while its stock declined at a 3% CAGR vs. our coverage group CAGR of +7% price appreciation, on average.

■ **'Energy Weighted' Production Per Debt Adjusted Share** – We project 2012-15 'energy weighted' P/DAS will grow at a rate of +14% per annum vs. a projected group average CAGR of +8%.

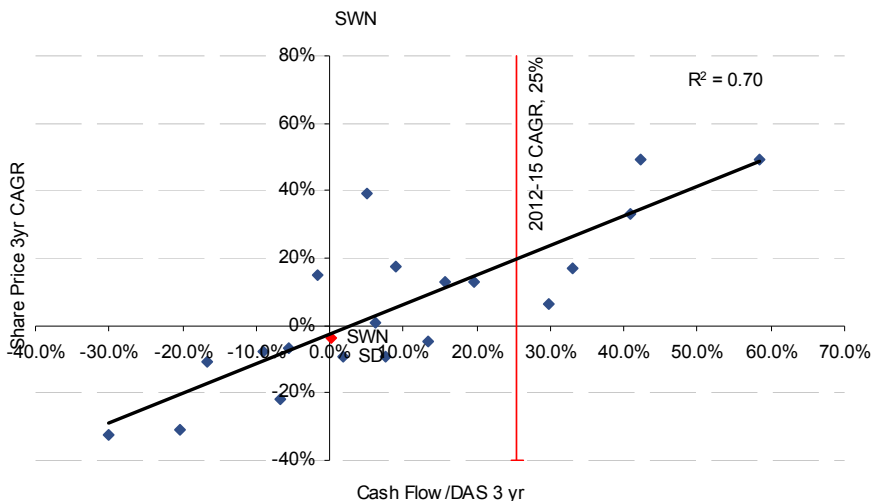
■ **Potential 2013 Catalysts** – Potential catalysts include: 1) Marcellus growth ramp-up with the Bluestone pipeline online; 2) future well results from the Brown Dense; 3) first well results from Colorado and Montana; 4) initial results from a yet announced play (along with 2013 guidance, SWN noted plans to drill a few wells in "at least one more new project in 2013").

■ **Price Target / Adjusting Estimates** – Thus, based on our outlook for CF/DAS growth in 2013 and above-average RRE, we maintain a price target of \$38 per share, which is based on SWN's stock achieving 2013/2014 EV/DACF multiples of 6.9x/6.3x based on normalized prices of \$90/Bbl and \$4.50/MMBtu, and 133% of proven-only reserve NAV on our actual commodity price forecasts. We adjusted our model for updated production, costs and differentials guidance. Our EPS/CFPS estimates are now \$1.37/\$4.35 (from \$1.38/\$4.36) for 2012, \$1.62/\$4.87 (from \$1.76/\$5.20) for 2013 and \$2.31/\$6.37 (from \$2.48/\$6.76) for 2014.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2011A	0.39A	0.48A	0.50A	0.45A	1.82A	1.82A
2012E	0.31A	0.26A	0.38A	0.43E	1.37E	1.36E
Previous	0.31A	0.26A	0.38A	0.43E	1.38E	na
2013E	0.40E	0.34E	0.41E	0.48E	1.62E	1.75E
Previous	0.42E	0.37E	0.45E	0.52E	1.76E	na
2014E	na	na	na	na	2.31E	1.95E
Previous	na	na	na	na	2.48E	na

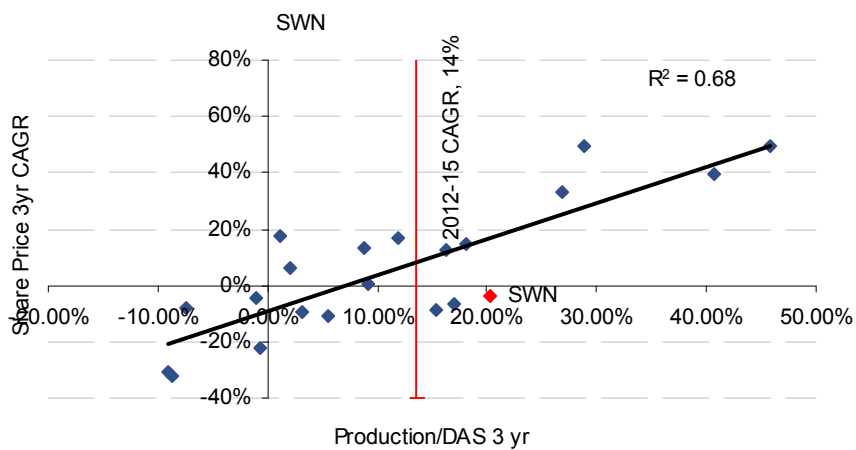
Source: Company Reports and dataCentral, Citi Research. FC Cons: First Call Consensus.

Figure 76. SWN Cash Flow Per Debt Adjusted Share – 2010-2012 (E&P group and SWN) and 2012-2015E



Source: Citi Research

Figure 77. SWN 'Energy Weighted' Production Per Debt Adjusted Share – 2010-2012 (E&P group and SWN) and 2012-2015E



Source: Citi Research

Company Focus

Talisman Energy Inc (TLM)

- Company Update
- Estimate Change

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Neutral	2
Price (18 Dec 12)	US\$11.47
Target price	US\$12.50
Expected share price return	9.0%
Expected dividend yield	2.4%
Expected total return	11.3%
Market Cap	US\$11,842M

Price Performance (RIC: TLM.N, BB: TLM US)



■ **2012 Share Performance** – Talisman has underperformed our E&P coverage group YTD, with its shares declining ~10% vs. an ~8% decline for the group, on average. Talisman's share price was driven by lower-than-expected production outlook due to continued issues in the North Sea, in addition to uncertainty regarding overall strategic course for the company even post announcement of the new CEO. TLM's CF/DAS declined by 17% this year versus our coverage group average of a 7% decline, and its 'Energy Weighted' P/DAS declined by 23% this year versus our coverage group average of -7%.

■ **2013 Production Outlook** – We project total production will decline 5% in 2012 to 401 MBOE/d (39% liquids) in 2013, with capital spending within our projected ~\$3.2 bn after-tax operating cash flow.

■ **Cash Flow Per Debt Adjusted Share** – We currently project TLM will post 2012-2015 CF/DAS growth rate of +8% per year vs. a projected group average CAGR of +15% per year. For the 2010-2012 three-year period, TLM posted an annual CAGR in CF/DAS of -8% versus our coverage group of ~9%, while its share price declined at a 8% CAGR versus the coverage group posting a ~7% CAGR in share price appreciation, on average (See Figure 78).

■ **Production Per Debt Adjusted Share** – We project TLM will post 2012-2015 'energy weighted' P/DAS growth of +2% per year vs. a projected group average CAGR of +8% (See Figure 79).

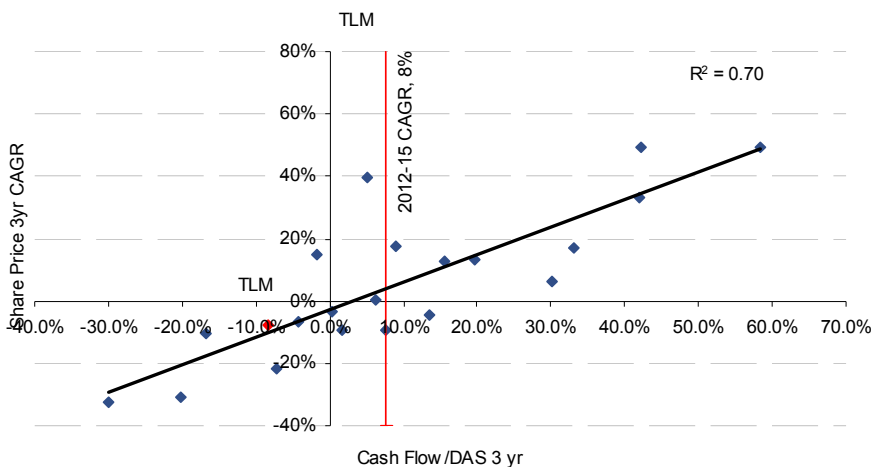
■ **Potential 2013 Catalysts** – Potential positive catalysts for Talisman next year include 1) Faster-than-expected Eagle Ford liquids production, 2) Lower-than-expected North Sea production maintenance impact, 3) Kurdamir-3 well results and potential asset monetization, 4) Poland Shale asset monetization, 5) Colombia exploration program and Huron-2 appraisal results, 6) Duvernay shale pilot results, 7) Marcellus or other shale asset monetizations, and 8) Reductions in the corporate overhead costs

■ **Adjusting Estimates** – Based on our revised production estimates and other fine tuning we have lowered our 2012EPS/CFPS to \$0.26/\$2.99 from \$0.29/\$3.05, 2013 ests to \$0.34/\$3.12 from \$0.35/\$3.15, 2014 to \$0.50/\$3.37 from \$0.50/\$3.39 and 2015 ests to \$0.68/\$3.67 from \$0.69/\$3.69. Based on our outlook for below than average CF/DAS and 'energy weighted' production per debt adjusted share growth we have set a price target of \$12.50 per share, which is based on TLM's stock achieving 2013/2014 multiples of 4.4x/4.4x based on normalized prices of \$90/bbl and \$4.50/MMBtu, and 81% of proven reserves only NAV based on our actual commodity price forecasts.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2011A	0.15A	0.16A	0.16A	0.11A	0.59A	0.58A
2012E	0.16A	0.07A	-0.03A	0.07E	0.26E	0.35E
Previous	0.16A	0.07A	-0.03A	0.09E	0.29E	na
2013E	0.11E	0.05E	0.07E	0.11E	0.34E	0.53E
Previous	0.11E	0.05E	0.08E	0.11E	0.35E	na
2014E	na	na	na	na	0.50E	0.64E
Previous	na	na	na	na	0.50E	na

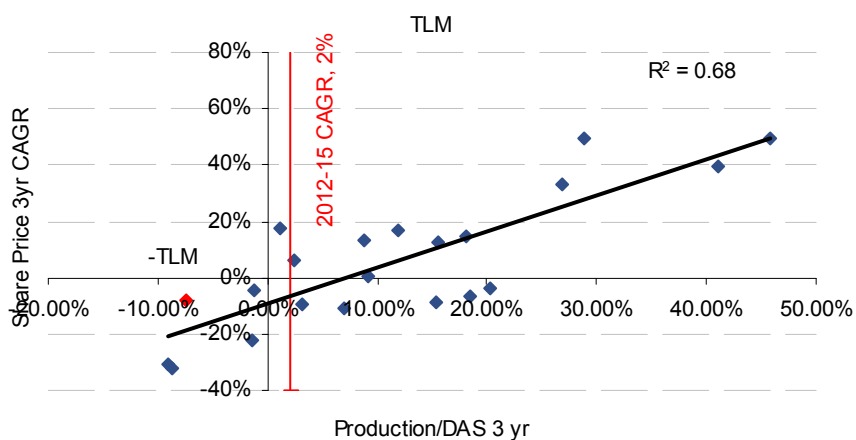
Source: Company Reports and dataCentral, Citi Research. FC Cons: First Call Consensus.

Figure 78. TLM Cash Flow Per Debt Adjusted Share – 2010-2012 (E&P group and TLM) and 2012-2015E



Source: Citi Research

Figure 79. TLM 'Energy Weighted' Production Per Debt Adjusted Share – 2010-2012 (E&P group and TLM) and 2012-2015E



Source: Citi Research

Company Focus

Ultra Petroleum Corp. (UPL)

- Company Update
- Estimate Change

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Neutral	2
Price (18 Dec 12)	US\$20.08
Target price	US\$22.00
Expected share price return	9.6%
Expected dividend yield	0.0%
Expected total return	9.6%
Market Cap	US\$3,071M

Price Performance

(RIC: UPL.N, BB: UPL US)



■ **2012 Share Performance** – UPL has underperformed our E&P coverage group YTD, with shares falling by ~35% vs. a ~8% decline for the group, on average as production forecasts fell throughout the year and the company struggled with its over leveraged balance sheet. Furthermore, UPL's CF/DAS decreased by 36% this year versus a 7% decline for our coverage group, while 'energy weighted' P/DAS declined by 37% in 2012 versus an average increase for our coverage group of -7%.

■ **2013 Production Outlook** – We project UPL's production will decline by ~7% next year along with lower spending amidst ongoing weakness in domestic gas prices. UPL's capital spending should be in-line with its projected ~\$500mm after-tax operating cash flow.

■ **Cash Flow Per Debt Adjusted Share** – We project 2012-15 CF/DAS will grow at a rate of +4% per annum vs. a projected group average CAGR in CF/DAS of +15%. For the 2010-12 three-year period, UPL posted an annual CAGR in CF/DAS of -7% vs. our coverage group at +9%, while it delivered a -22% CAGR stock price depreciation vs. our coverage group CAGR of +7%, on average.

■ **'Energy Weighted' Production Per Debt Adjusted Share** – We project 2012-15 P/DAS will decline at a rate of 3% per annum vs. a projected group average CAGR of +8%.

■ **Potential 2013 Catalysts** – With most of its activity brought down to a minimum due to weak domestic gas prices, the company's performance will likely be tied to movements in gas prices and its spending plans.

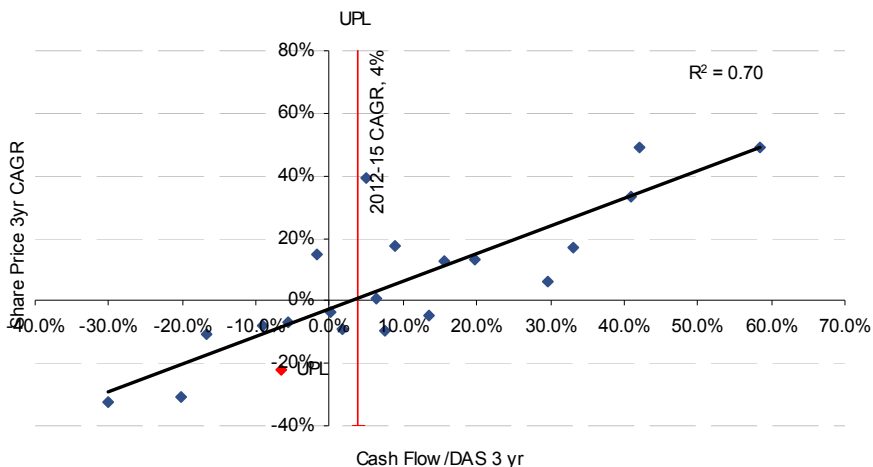
■ **Adjusting Estimates** – As a result of minor model updates, our EPS/CFPS estimates are now \$1.10/\$3.27 (from \$1.09/\$3.26) for 2013 and \$2.11/\$4.57 (from \$2.18/\$4.69) for 2013.

■ **Price Target** – Incorporating our outlook for CF/DAS growth in 2013, we set a price target of \$22 per share. This is based on UPL's shares achieving an 2013 EV/DACF multiple of 6.6x based on normalized prices of \$90/Bbl and \$4.50/MMBtu, and 154% of proven-only reserve NAV on our actual commodity price forecast.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2011A	0.59A	0.66A	0.72A	0.58A	2.55A	2.52A
2012E	0.32A	0.36A	0.64A	0.40E	1.72E	1.75E
Previous	0.32A	0.36A	0.64A	0.40E	1.72E	na
2013E	0.29E	0.16E	0.28E	0.37E	1.10E	1.07E
Previous	0.28E	0.16E	0.27E	0.37E	1.09E	na
2014E	na	na	na	na	2.11E	1.87E
Previous	na	na	na	na	2.18E	na

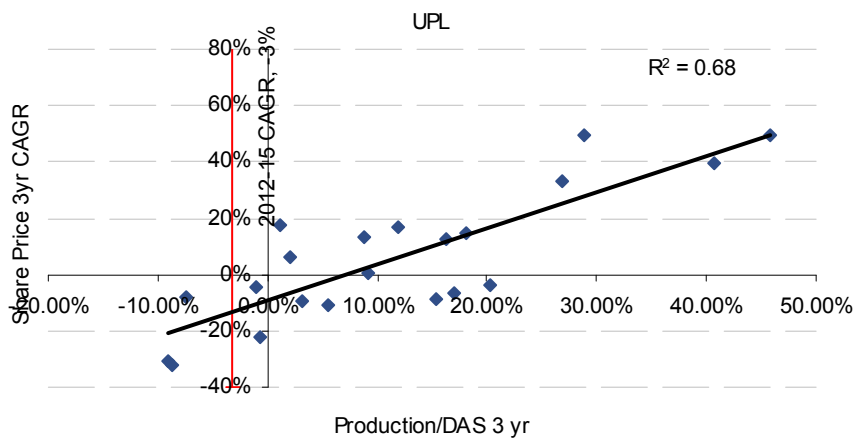
Source: Company Reports and dataCentral, Citi Research. FC Cons: First Call Consensus.

Figure 80. UPL Cash Flow Per Debt Adjusted Share – 2010-2012 (E&P group and UPL) and 2012-2015E



Source: Citi Research

Figure 81. UPL 'Energy Weighted' Production Per Debt Adjusted Share – 2010-2012 (E&P group and UPL) and 2012-2015E



Source: Citi Research

Company Focus

- Company Update
- Target Price Change
- Estimate Change

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Buy	1
Price (18 Dec 12)	US\$43.49
Target price	US\$52.00
from US\$55.00	
Expected share price return	19.6%
Expected dividend yield	0.0%
Expected total return	19.6%
Market Cap	US\$5,116M

Price Performance

(RIC: WLL.N, BB: WLL US)



Whiting Petroleum Corp (WLL)

■ **2012 Share Price Performance** – Whiting has underperformed our E&P coverage group YTD, falling ~10% versus a ~8% decline for the group, on average. Whiting's share price underperformance has been due to 1) continued concerns around its drilling inventory and capital efficiency as it moves outside of its core Sanish area in the Williston Basin; and 2) overall worse-than-expected well results from the Permian Basin. WLL's CF/DAS declined by a projected 5% this year versus our coverage group average of a 7% decline and 'energy weighted' P/DAS grew by a projected 6% this year versus our coverage group average of -7%.

■ **2013 Production Outlook** – We currently project Whiting will post ~10% production growth (~12% organic growth) in 2013 while outspending our projected ~\$1.5bn after-tax operating cash flow by ~\$300mm. This outspend should be funded by its revolving credit facility (~\$500mm available at the end of Q3'12) and potential asset monetizations as described in the catalysts section below.

■ **Cash Flow Per Debt Adjusted Share** – We project 2012-2015 CF/DAS will grow at a rate of +13% per annum vs. a projected group average CAGR of +15%. For the 2010-2012 three-year period, Whiting posted an annual CAGR in CF/DAS of +33% versus our coverage group at +9%, while it delivered a ~17% CAGR in share price appreciation versus the coverage group CAGR of ~7%, on average (See Figure 82).

■ **'Energy Weighted' Production Per Debt Adjusted Share** – We project 2012-2015 P/DAS will grow at a rate of +7% per annum vs. a projected group average CAGR of +8% (See Figure 83).

■ **Potential 2013 Catalysts** – Potential catalysts include asset monetizations of its mature Postle EOR field and/or a MLP of its midstream processing plant in the Williston Basin along with potential JVs for oily assets within its portfolio. The company would also benefit from sustained strong oil price differentials in the Williston Basin and further successful results in the Niobrara.

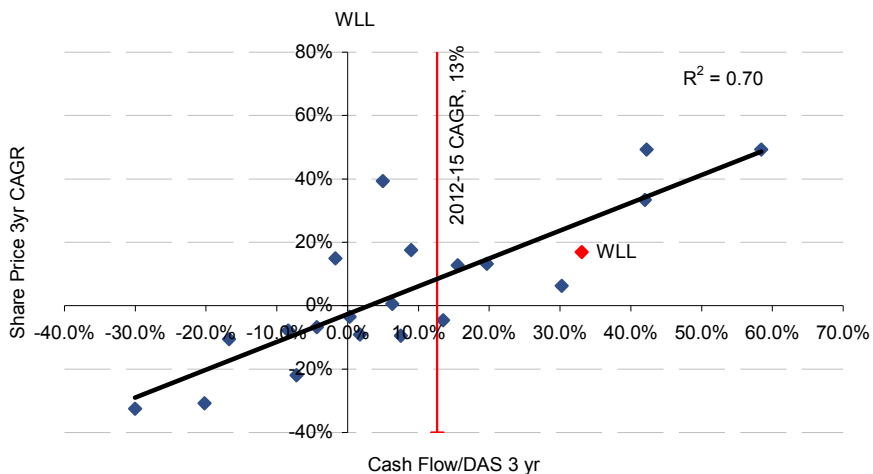
■ **Adjusting Estimates** – Based on our updated production outlook, we are adjusting our 2013 EPS/CFPS estimates to \$3.77/\$12.53 from \$3.82/\$12.66, 2014 to \$4.95/\$15.02 from \$5.02/\$15.20 and 2015 EPS/CFPS to \$6.44/\$18.10 from \$6.24/\$17.61.

■ **Price Target** – Thus, based on our production outlook and estimates that the company's CF/DAS and 'energy weighted' P/DAS growth will be nearly in line with the group average, we have set a price target of \$52 per share. This is based on WLL's stock achieving an EV/DACF multiple of 5.3x/4.9x for 2013/2014 based on normalized prices of \$90/Bbl and \$4.50/MMBtu, and ~77% of proven reserve only NAV based on our commodity price forecasts.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2011A	0.85A	1.01A	0.95A	1.05A	3.86A	3.85A
2012E	1.03A	0.73A	0.73A	0.56E	3.04E	3.29E
Previous	1.03A	0.73A	0.73A	0.56E	3.04E	na
2013E	0.88E	0.91E	0.98E	1.00E	3.77E	3.63E
Previous	0.89E	0.92E	0.99E	1.02E	3.82E	na
2014E	na	na	na	na	4.95E	4.62E
Previous	na	na	na	na	5.02E	na

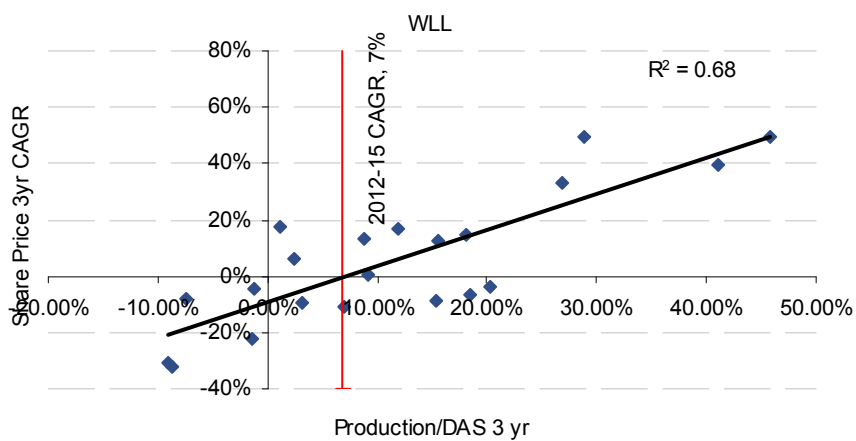
Source: Company Reports and dataCentral, Citi Research. FC Cons: First Call Consensus.

Figure 82. WLL Cash Flow Per Debt Adjusted Share – 2010-2012 (E&P group and WLL) and 2012-2015E



Source: Citi Research

Figure 83. WLL 'Energy Weighted' Production Per Debt Adjusted Share – 2010-2012 (E&P group and WLL) and 2012-2015E



Source: Citi Research

Anadarko Petroleum Corp

Company description

Anadarko Petroleum Corporation explores for, develops and produces natural gas, crude oil and natural gas liquids with about 2.3 billion barrels of oil equivalent (BOE) of proved reserves. It also produces hard minerals from land grant holdings, and owns and operates midstream assets to gather, treat and process natural gas. The company is has about 60% of its reserves and production as natural gas, and 40% as crude oil. Anadarko was founded in 1959 with headquarters in The Woodlands, Texas.

In the U.S., Anadarko operates both onshore including the Rockies and Southern region (which includes the Marcellus, Haynesville and Eagleford shale areas), as well as offshore in the deepwater Gulf of Mexico. Internationally, Anadarko has an extensive operation in Algeria including the in-development El Merk project, as well as production at Bohai Bay in China. In Ghana, Anadarko (along with its partners) is developing the Jubilee project. Anadarko is a prolific deepwater explorer hold exploration acreage and conducting extensive exploration in the deepwater Gulf, Brazil, Ghana, Mozambique, China, Sierra Leone, Liberia as well as other countries.

Investment strategy

We rate Anadarko Buy (1) based on the upside to our current price target. Anadarko is unique among its peers in maintaining a high-risk but high-potential exploration program around the globe and has posted exceptional success over the past year. Consequently, the company has significant potential in both discoveries already notched and prospects, many of which have been enhanced by its recent successes, yet to be drilled. At the same time, like many of its peers, the company also possesses meaningful upside potential in North American shale plays. And even though Anadarko is expected to generate more moderate production growth near-term, its inventory of mega projects essentially assures strong growth longer term. Finally, Anadarko has well above average sensitivity to changes in crude oil prices and below average sensitivity to changes to natural gas prices, which we are much more cautious on near term. Therefore, as we look forward to continued success with the exploration drill bit, we assign Anadarko a Buy rating.

Valuation

Our \$105 price target is based on APC's stock achieving an EV multiple of 6.8x/6.2x our 2013/2014 debt-adjusted cash flow estimates based on 'normalized' WTI spot oil and composite spot gas prices of \$90.00/Bbl and \$4.50/MMBtu, respectively, and ~100% of proved-only NAV.

Risks

Risks to achieving our target price include:

Volatile Commodity Prices – Anadarko is sensitive to changes in the prices of crude oil, and natural gas. Their exposure is substantially reduced due to extensive hedging of expected natural gas and crude oil production in 2010, but a portion of their production is unhedged.

Political Risks – Anadarko operates or explores in developing countries such as Algeria, Ghana, Sierra Leone, Liberia, Cote d'Ivoire, Mozambique and thus is subject to political risks including changes in operating terms, taxes, or expropriation.

Expensive Long-Term Projects – Anadarko pursues long-term projects which require large capital outlays and several years of development before any cash flows are realized. These projects are subject to substantial uncertainties in terms of projects costs, as well as the timing and amount of eventual returns.

Exploration Risk - Anadarko is conducting or is planning to conduct exploration in several under-explored areas within Mozambique, Sierra Leone, Liberia, Cote d'Ivoire and elsewhere, and such exploration projects have a high probability of failure.

Apache Corp

Company description

Apache Corporation explores for, develops and produces natural gas, crude oil and natural gas liquids with about 3 billion barrels of oil equivalent (BOE) of proved reserves at year-end 2010. The company is evenly balanced with about half of its reserves and production as natural gas, and half as crude oil. Apache was founded in 1954 with headquarters in Houston, Texas.

In the U.S., Apache operates on the Gulf Coast, as well as the Permian and Anadarko basins, and East Texas. In Canada, Apache operates in British Columbia (including the Horn River area), Alberta and Saskatchewan. Internationally, Apache has extensive operations in Egypt and the U.K. North Sea, and smaller operations in Argentina and Australia. Apache also holds exploration interests in Chile.

In the last few years, Apache has focused on being capital disciplined, spending within cash flow to maintain a strong balance sheet, expanding North American onshore shale production, pursuing development and exploration opportunities internationally, as well as recently taking a 16.25% stake in Chevron's Wheatstone LNG project.

Investment strategy

We rate Apache Buy (1). We expect Apache will continue to exhibit solid financial discipline while posting high organic production growth. Apache also has above-average sensitivity to changes in oil prices and well below average sensitivity to changes in natural gas prices. Therefore, we are confident in Apache's ability to continue to create shareholder value and at this juncture, assign a Buy rating.

Valuation

Our \$95 price target is based on the stock reaching a 4.7x/4.4x multiple of our 2013/2014 debt-adjusted cash flow estimates using our "normalized" forecast of \$90.00/Bbl crude, \$4.50/MMBtu gas and 69% of NAV.

Risks

Risks to our target price include:

Volatile Commodity Prices – Apache is sensitive to changes in the prices of crude oil, and natural gas. Their exposure to natural gas is reduced through a combination of hedges and long-term fixed-price contracts, but most of their crude production is unhedged and subject to market price volatility.

Political Risks – Apache operates in developing countries such as Argentina, Chile and Egypt and thus is subject to political risks including changes in operating terms, taxes, or expropriation.

Expensive Long-Term Projects – Apache pursues long-term projects which require large capital outlays and several years of development before any cash flows are realized. These projects are subject to substantial uncertainties in terms of projects costs, as well as the timing and amount of eventual returns.

If the impact on the company from any of these factors proves to be less than we anticipate, the stock could materially outperform our target. Conversely, if the impact on the company from any of these factors proves to be greater than we anticipate, the stock could underperform our target price.

Cabot Oil & Gas Corp

Company description

Cabot Oil & Gas is an independent oil and gas E&P Company. The company has three key operations: the Marcellus shale in northeast Pennsylvania, the Eagle Ford in south Texas, and the Marmaton in Oklahoma and Texas, in addition to other oil and gas properties in Appalachia, the Rockies and the Mid-Continent. Cabot was founded in 1989 and is headquartered in Houston, Texas with over 400 employees.

Investment strategy

We rate Cabot Oil & Gas Buy based on the upside to our price target. Overall, we believe that Cabot has established an advantageous position in one of the most economic, large-scale resource plays in North America. The company's Marcellus shale position should allow it to continue to post industry-leading returns and production growth for several years into the future. Also, the company has established meaningful positions in the oily Eagle Ford shale (S TX), Pearsall (S TX), and Marmaton (OK/TX) plays, in addition to the "wet" Utica play (NW PA). These oil and liquids-rich assets should help keep the production mix relatively constant over the next several years, materially augmenting our cash flow projections over the next several years.

Valuation

Our price target of \$60 is based on the stock achieving an EV/debt-adjusted cash flow multiple of 9.7x/7.1x for 2013E/2014E based on 'normalized' WTI spot oil and composite spot gas prices of \$90.00/Bbl and \$4.50/MMBtu and ~255% of our proven-only NAV.

Risks

Risks to our target price include:

Regulatory Risk - With future growth primarily hinging on the Marcellus, Cabot is significantly exposed to the developing natural gas regulatory environment in Pennsylvania. Conversely, political and regulatory risks could subside and relieve pressure on Cabot's stock.

Drilling Results - Disappointing drilling results or positive drilling results, particularly in the Marcellus, Eagle Ford and Marmaton, could impact COG's share performance.

Volatile Commodity Prices - Hydrocarbon prices have shown increasing volatility in recent years, as well as cash flow and earnings. This volatility tends to significantly impact sector stock performance, both positive and negative.

Canadian Natural Resources Ltd

Company description

Canadian National Resources Limited (CNRL) explores for, develops and produces natural gas, crude oil and natural gas liquids with about 4.5 billion barrels of oil equivalent (BOE) of proved reserves. The company has about two-thirds of its production as crude oil, and one-third as natural gas. CNRL was founded in 1973 with headquarters in Calgary, Canada.

Canada accounts for most of CNRL's production and reserves with the company holding over 18 million acres in British Columbia, Alberta, and Saskatchewan, and is the second-largest Canadian producer of natural gas. It holds extensive conventional gas assets as well as a sizeable position in the emerging Montney shale area. To produce crude oil, CNRL owns and operates their flagship Horizon Oil Sands Projects in Alberta, the Primrose thermal project, as well as heavy crude production at Pelican Lake and elsewhere in Western Canada. Internationally, CNRL owns and operates assets in the UK North Sea. It also operates in offshore Africa – Cote d'Ivoire and Gabon, with exploration planned in offshore South Africa.

In the last few years, CNRL has focused on successfully starting up the Horizon project, and utilizing free cash flow to pay down debt to improve balance sheet metrics. The company has long-term potential to expand Horizon as well as expand and develop thermal assets at Primrose, Kirby and five other potential locations.

Investment strategy

We rate Canadian National Resources Buy (1). CNQ has built an attractive highly oil-oriented, long reserve life portfolio with significant expansion potential. We believe that the firm provides an excellent vehicle for investors to position themselves for secularly higher oil prices and structurally limited supply. With 95% of its production coming from either Canada or the UK, the company has broad upside potential without any of the political risk inherent in many other oil companies that operate in unstable countries.

Valuation

Our \$40 price target is based on CNQ's stock achieving an EV multiple of 6.2x/5.4x our 2013/2014 debt-adjusted cash flow estimates based on 'normalized' WTI spot oil and composite spot gas prices of \$90.00/Bbl and \$4.50/MMBtu, respectively, and ~107% of NAV.

Risks

Risks to our target price include:

Volatile Commodity Prices – CNQ is sensitive to changes in the prices of crude oil, and natural gas. They have some commodity hedges in place, but the majority of their natural gas and crude oil production is unhedged and subject to market price volatility.

Expensive Long-Term Projects – CNQ pursues long-term oil projects which require large capital outlays and several years of development before any cash flows are realized. These projects are subject to substantial uncertainties in terms of projects costs, as well as the timing and amount of eventual returns.

Environmental Risks – CNQ's existing and proposed oil sand and thermal oil assets in Canada could be subject to both increased scrutiny as well as new rules to mitigate environmental impact. These changes could substantially increase costs, decrease viability, or block certain projects.

If the impact on the company from any of these factors proves to be less than we anticipate, the stock could materially outperform our target. Conversely, if the impact on the company from any of these factors proves to be greater than we anticipate, the stock could underperform our target price.

Chesapeake Energy Corp

Company description

Chesapeake Energy Corporation (CHK) is one of the largest independent producers of natural gas in the United States, with natural gas output of 2.6 Billion cubic feet per day, or >3% of total US natural gas production. The company had 14.6 Tcf of proved reserves as of year-end 2010 (pro-forma for the recent sale of the Fayetteville properties). It is either the largest or second-largest leased acreage holder in the Barnett, Haynesville and Marcellus shale along with the Granite Wash plays.

Investment strategy

We rate Chesapeake Energy Corporation Neutral/High Risk (2H). Chesapeake possesses significant upside potential to its proven reserve base. Over the last couple of years, the go-forward visibility of Chesapeake's cash flows has improved greatly as the company has rounded out its portfolio with a diverse mix of natural gas and liquids/oil-focused shale gas assets. We recognize that Chesapeake possesses significant upside potential to its proven reserve base but given its above average operating and enterprise value risk associated with weaker natural gas prices and near-term gas price headwinds, we are comfortable with a Neutral/High Risk rating on the stock at this juncture.

Valuation

Our \$20 price target is based on CHK's stock achieving an EV multiple of 5.0x our 2013 debt-adjusted cash flow estimates based on 'normalized' WTI spot oil and composite spot gas prices of \$90.00/Bbl and \$4.50/MMBtu, respectively, and ~53% of proven-only NAV.

Risks

We assign CHK a High Risk rating based on its exposure to commodity price movements amidst lack of natural gas hedges, high headline risk and substantial funding gap. Risks to our target price include:

Balance Sheet Risk -The overriding constraint on CHK's output is its debt-laden balance sheet. CHK is currently one of the most financially levered large-cap E&P companies, though it is taking steps to reduce financial leverage.

Deal Execution Risk - As part of its stated operating strategy, Chesapeake acquires leasehold positions in natural gas plays and markets these positions to other industry players at prices above its cost basis. Chesapeake may amass a larger position than it can prudently sell or develop.

Drilling and Operational Risk - With future production growth pinned on natural gas shale plays, disappointing drilling results could impact Chesapeake's share price. However, if results exceed our estimates, this would constitute an upside risk to our target price.

If the impact on the company from any of these factors proves to be greater/less than we anticipate, the stock could materially underperform/outperform our target price.

Cobalt International Energy

Company description

Cobalt International Energy is an exploration company focused on the Gulf of Mexico and West Africa. Currently, the company has no proven reserves or production as up until now, it has been in the "access," or lease acquisition phase of its development. However, with that phase now largely complete, the company has shifted gears to the drilling of its massive portfolio. It has recently made large discoveries offshore Angola (the Cameia prospect) and the deepwater GoM (the North Platte prospect). The company also has a full drilling slate over the next two years, with many high impact wells to be drilled in both of its core areas. Cobalt is headquartered in Houston, TX.

Investment strategy

We rate Cobalt Buy/High Risk (1H). Cobalt has no debt, it is fully funded through 2013 and we believe that it could farm down interests in some of its acreage or pursue other financing alternatives to cover capital spending beyond then. Further, we believe that the market is giving very little value to the prospects that will be drilled post 2012. Thus, there could be significant upside.

Valuation

Our \$38 price target is based on the stock achieving ~100% of our risked NAV estimate based on a "normalized" spot crude oil price of \$90/Bbl. Since the company does not currently generate cash flow and will not begin to do so for at least the next four years, multiple analysis is not applicable to the shares.

Risks

We rate Cobalt High Risk based on a combination of quantitative and qualitative risk assessments compared to other stocks covered by Citi Research.

- Exploration drilling results - While Cobalt already made a large hydrocarbon discovery with its success at Cameia offshore Angola, it still has a broad inventory of high-impact prospects which could have a very large impact on share price.

- Issues with bringing a discovery to production - Post Cameia or any other discovery, it will be key for Cobalt to demonstrate the ability to smoothly bring the discovery on line. Any potential delays or unforeseen problems that might hint at inexperience with securing the necessary equipment, contractors, and agreements, will likely be negatively perceived by investors.

- Funding/capital markets risk - Even though Cobalt is well funded through the end of 2013, there will still inevitably be a lag between the time when the current sources of liquidity runs out and the company's initial cash flow generation. Thus, should capital markets conditions be poor at the time when Cobalt next needs to access capital, the company will likely find decreased investor appetite to fund development activity or a continued high risk exploration program.

If the impact on the company from any of these factors proves to be greater/less than we anticipate, we believe the stock will likely have difficulty achieving our target price or could outperform it.

Concho Resources Inc

Company description

Concho is one of the premier operators in the Permian Basin in New Mexico and West Texas. The company is the largest oil producer in New Mexico and holds ~750k net Permian acres including ~310k net prospective for the emerging Avalon Shale/Bone Spring horizontal oil plays in the Delaware Basin. Nearly two-thirds of CXO's current production is crude oil with high-BTU natural gas accounting for most of the rest. Concho was founded in April 2004, went public in July 2007 and is headquartered in Midland, Texas.

Investment strategy

We rate Concho Buy. Since its founding less than seven years ago, Concho has grown both organically and through a slew of successfully executed acquisitions into a major Permian Basin player. The company has high-quality liquids-asset base and we expect it to continue to post strong production and earnings growth in 2012 and beyond.

Valuation

Our 12-month price target of \$107 is based on the company trading at a premium multiple to our E&P group, based on higher investor premium for U.S. onshore oil producers, of 8.0x/7.2x our 2013E/2014E debt-adjusted cash flow estimates and ~189% of NAV based on "normalized" WTI spot crude oil and composite spot natural gas prices of \$90.00/Bbl and \$4.50/MMBtu, respectively.

Risks

Risks to our target price include:

- 1) Although we believe Concho to be richly valued limiting its attractiveness, we note that its current ~\$12 billion enterprise value makes it potentially "acquirable" by an oil major. However, we note that such a transaction would likely be dilutive for the purchaser given the valuation disparity.
- 2) The company holds 145k net acres in the emerging TX Delaware Basin horizontal oil plays. If production and oil recoveries from this area were markedly greater than currently understood, this could be an upside surprise, although if they were less, this could lead to a downside surprise.
- 3) Geographical concentration — All of Concho's production comes from the Permian Basin areas of New Mexico and West Texas. The company may face competition for equipment and personnel and is vulnerable to infrastructure disruptions in the region.

If the impact on the company from any of these factors proves to be less than we anticipate, the stock could materially outperform our target. Conversely, if the impact on the company from any of these factors proves to be greater than we anticipate, the stock could underperform our target price.

Denbury Resources, Inc.

Company description

Denbury Resources explores for, develops, and produces crude oil and natural gas in two regions - the Gulf Coast including Mississippi, Louisiana, Texas and Alabama, and the Rockies (Wyoming). It specializes in CO₂-driven tertiary oil recovery that sweeps remaining oil from mature, conventional fields. It controls its own CO₂ source, an old volcano located near Jackson, MS as well as its 835-mile proprietary pipeline network. Denbury was founded in 1951 with headquarters in Plano, Texas.

Investment strategy

We rate Denbury Neutral. We believe that Denbury is effectively executing its strategy of focusing on tertiary oil recovery. The company has a clear competitive advantage in this niche over the vast majority of other E&Ps and even majors, through its control of both a CO₂ source as well as means of distribution. Via its extensive holdings of mature conventional oil fields, it can grow tertiary output at double-digit rates for the foreseeable future. However, it is a relatively high-cost producer with above-average debt levels and an extensive hedging program that, although it protects downside, also substantially limits near-term upside above \$100/Bbl. The company's stock already trades at a substantial valuation premium to the group and therefore we believe that its tertiary oil advantage is already reflected in its share price.

Valuation

Our \$18.00 price target is based on the stock achieving a 7.3x our 2013 debt-adjusted cash flow estimate based on 'normalized' WTI spot oil and composite spot natural gas prices of \$90/Bbl and \$4.50/MMBtu, respectively, and ~85% of proved reserves only NAV.

Risks

Risks to our price target include:

Volatile Commodity Prices – Denbury, especially due to the high operating costs associated with tertiary oil recovery, is sensitive to changes in the prices of crude oil, and to a lesser extent, natural gas. Their exposure is substantially reduced due to an extensive hedging program, but a portion of their anticipated future production is unhedged.

If the impact on the company from any of these factors proves to be less than we anticipate, the stock could materially outperform our target. Conversely, if the impact on the company from any of these factors proves to be greater than we anticipate, the stock could underperform our target price.

Devon Energy Corp

Company description

Oklahoma City-based Devon Energy is one of the largest producing independent North American E&P companies with current output of near 4 Bcfe/d. The company has recently re-focusing its operations to solely operate onshore North America. Devon's production mix is approximately two-thirds natural gas and one-third oil. Devon's near-term production growth is derived from the Permian, Mississippian Lime, Barnett, Cana-Woodford natural gas and liquids-focused shale plays and the Jackfish Canadian oil sands project.

Investment strategy

We rate Devon Neutral (2). We view Devon in a positive light given its diversified asset base, oil production growth and one of the strongest balance sheets in our coverage group. We also see potential upside from the company's positions in New Venture plays, which are not modeled into our production or reserve estimates. Given that nearly three-quarters of these play's future development costs are covered by joint venture proceeds, they essentially provide a free option value to shareholders. However, we note that production issues at its Canadian oil sands projects, weak NGL output growth and unavailability of its ~\$7bn offshore cash balance, which forces the company to use debt to finance everyday operations, are likely to limit share appreciation.

Valuation

Our \$58 price target is based on the company achieving a multiple of 5.1x our 2013 total company debt-adjusted cash flow estimates based on "normalized" WTI spot crude oil and composite spot natural gas prices of \$90.00/Bbl and \$4.50/MMBtu, respectively and ~78% of NAV.

Risks

Risks to our price target include:

Drilling Results - With future production growth pinned on US shale plays, disappointing drilling results, particularly in the Haynesville, Horn River and Cana-Woodford shale plays could impact Devon's share performance.

Volatile Commodity Prices - Hydrocarbon prices have shown increasing volatility in recent years, as well as cash flow and earnings. This volatility tends to significantly impact sector stock performance. Devon has mitigated some commodity price risk by assuming historically high levels of hedging into 2010.

If the impact on the company from any of these factors proves to be less than we anticipate, the stock could materially outperform our target. Conversely, if the impact on the company from any of these factors proves to be greater than we anticipate, the stock could underperform our target price.

EnCana Corp

Company description

EnCana Corporation has recently re-positioned itself as a "pure-play" North American natural gas producer, by spinning off their crude oil production, and refinery assets in a new company Cenovus. The "new" EnCana holds about 14 Tcf of proved natural gas reserves, controls about 15 million net acres in North America, with about 99% of production from natural gas or natural gas liquids. EnCana was formed in 2002 with the merger of PanCanadian Energy and Alberta Energy Company, with headquarters in Calgary, Canada.

In Canada, EnCana will remain the largest producer of natural gas with extensive land holdings in British Columbia and Alberta, encompassing both conventional assets as well as sizeable positions in the Horn River and Montney shale plays. EnCana also owns and will operate the in-development Deep Panuke project in offshore Nova Scotia. In the U.S., EnCana holds natural gas positions in Colorado, Wyoming, Louisiana, and Texas including the Haynesville and Barnett shale.

Investment strategy

We rate EnCana Neutral (2). We continue to be cautious on gas-oriented names and believe that most unconventional players are barely profitable on a full-cycle basis at current low natural gas prices, yet continue to grow production on the basis on half-cycle supply costs and hedge gains.

Valuation

Our \$20 price target is based on ECA's stock achieving 2013E/2014E EV/DACF multiples of 5.5x/5.7x respectively and ~168% of proven NAV, based on 'normalized' WTI spot oil and composite spot gas prices of \$90.00/Bbl.

Risks

Risks to our target price include:

Volatile Commodity Prices - EnCana is sensitive to changes in the price of natural gas. A portion of their exposure is hedged, however some of their expected natural gas production is unhedged and subject to market price volatility.

Lack Of Diversification - All of the EnCana assets are now related to natural gas production in North America, and so they lack commodity or geographic diversification and will be adversely affected if natural gas prices are low.

If the impact on the company from any of these factors proves to be less than we anticipate, the stock could materially outperform our target. Conversely, if the impact on the company from any of these factors proves to be greater than we anticipate, the stock could underperform our target price.

Endeavour International

Company description

Endeavour International explores for, develops and produces crude oil and natural gas with about 42 million barrels of oil equivalent (BOE) of pro forma proved reserves at year-end 2011. The company has operations in the U.S. and the U.K. North Sea. Endeavour headquarters is in Houston, Texas.

In the U.S., Endeavour operates in the Haynesville Shale in Texas and the Marcellus Shale in Pennsylvania. The company also has acreage in the frontier Heath play in Montana. In the North Sea, Endeavour has stakes in multiple producing oil and natural gas fields with interest in one more projected to come online in the coming months (Rochelle).

Investment strategy

We rate Endeavour Neutral/High Risk (2H). We think Endeavour's anticipated steep production ramp-up and high leverage to Brent oil prices and North Sea gas prices are attractive. We also note that if the rest of the acquisition of the COP North Sea assets closes and once volumes ramp-up at Bacchus, Endeavour will be able to generate substantial free cash flows and focus on further development activity. However, until this occurs, we expect END's tight capital situation to remain an overhang on both future E&D activity and its share price.

Valuation

Our \$6.25 price target is based on the stock reaching 2.8x multiple of our 2013 debt-adjusted cash flow estimates using our "normalized" forecast of \$90.00/Bbl crude, \$4.50/MMBtu gas and 47% of NAV.

Risks

We rate Endeavour High Risk. The following could prevent the shares achieving our target price.

Liquidity Risk: If the acquisition of COP's North Sea assets does not close in time or other alternatives are arranged, END would be required to redeem its 2018 Notes plus penalties and interest, and repay borrowings under its revolver. However, the company does not currently have sufficient funds to make these payments.

Potential Project Delays: Much of Endeavour's output growth is expected to be driven by initial production at Bacchus. However, a number of factors, including operational issues, political developments and weather delays, could delay field start-up.

Volatile Commodity Prices: Endeavour is sensitive to changes in the prices of crude oil and natural gas. Although a portion of their exposure to both commodities is reduced through hedging contracts, a part of output is still subject to market price volatility.

Expensive Long-Term Projects: Endeavour pursues long-term projects which require large capital outlays and several years of development before any cash flows are realized. These projects are subject to substantial uncertainties in terms of projects costs, as well as the timing and amount of eventual returns.

EOG Resources Inc

Company description

EOG Resources is a leading independent exploration & production company that explores for, develops and produces natural gas, crude oil and natural gas liquids. The company's key operating regions are the Barnett oil and gas plays, the Bakken, East Texas, Appalachia, the Mid-Continent, Canada, Trinidad, and the U.K. North Sea.

Investment strategy

We rate EOG Resources Buy. Overall, we note that well results this quarter in the Eagle Ford shale continue to yield further credence to EOG's claim of 1,600 MMBOE (nearly 50% of its total year-end proven reserve base) of reserve potential while possible downspacing and future recovery improvements could raise this estimate. Second, following consistent production results over the first three quarters of last year, concern has eased regarding the company's ability to hit its production guidance for the year. We are modeling ~13% in 2013 and ~10% in 2014, all driven by North America oil and liquids. Also, EOG's margins are expanding as its shifts to higher-priced liquids plays out and as its pricing realizations improve.

Valuation

Our \$135 price target equates to a 2013/2014 EV/DACF multiples of 6.0x/5.1x and 148% of proven reserve only NAV using our "normalized" WTI and composite spot price deck of \$90.00/Bbl and \$4.50/MMBtu, respectively.

Risks

Risks to our target price include:

Drilling Results - Disappointing drilling results, particularly in EOG's key operating areas in the Eagle Ford, Barnett Combo play, the Bakken, the Haynesville shale, the Marcellus shale and the Horn River Basin, could impact EOG's share performance.

Volatile Commodity Prices - Hydrocarbon prices have shown increasing volatility in recent years, as well as cash flow and earnings. This volatility tends to significantly impact sector stock performance.

If the impact on the company from any of these factors proves to be less than we anticipate, the stock could materially outperform our target. Conversely, if the impact on the company from any of these factors proves to be greater than we anticipate, the stock could underperform our target price.

Goodrich Petroleum Corp

Company description

Goodrich Petroleum is an independent oil and gas exploration & production company with primary operations in East Texas and North Louisiana (ETNL) and South Texas. Goodrich currently holds over 90k net acres in ETNL (comprises its largest assets), where it primarily targets the Haynesville, Bossier and Cotton Valley Taylor Sands formations. While over 90% of proved reserves and ~82% of current production are natural gas, the Company has shifted much of its focus away from natural gas in ETNL to more oil and liquids opportunities. In South Texas, Goodrich holds 39k net acres concentrated on the oily Eagle Ford Shale and the Buda Lime formations. Goodrich also has an 132k net acre position in the emerging Tuscaloosa Oil Shale in Louisiana and Mississippi. Goodrich resulted from a business combination in 1995 between La/Cal Energy Partners and Patrick Petroleum Company. The combination was a reverse merger in which the current management, largely led by Gil Goodrich and Rob Turnham, gained control of the combined company. Goodrich is headquartered in Houston, TX and has 116 employees.

Investment strategy

We rate Goodrich Petroleum Neutral. Overall, we think management has done a very good job ramping up oil production in the Eagle Ford trend and we think the Tuscaloosa has "company maker" type potential. However, Goodrich has a highly leveraged balance sheet and is still primarily a natural gas company. While management would like to sell some of its natural gas assets and de-leverage its balance sheet, we think this is unlikely near term considering the depressed natural gas price environment. Although we expect Goodrich to have sufficient liquidity to fund its program over the next two years or more, we believe the company's capital constraints and leverage to natural gas in the Haynesville will remain a drag on shares over the next 12 months. However, we would reconsider our rating were the Tuscaloosa to prove commercial.

Valuation

Our \$10.50 price target is based on GDP's stock achieving a multiple of 5.8x/5.5x our 2012/2013 debt-adjusted cash flow estimates based on "normalized" WTI spot crude oil and composite spot natural gas prices of \$90.00/Bbl and \$4.50/MMBtu, respectively.

Risks

Risks to our price target include:

Drilling Results - Disappointing drilling results, particularly in the Eagle Ford shale, Buda Lime, Haynesille/Bossier, Cotton Valley Taylor Sand and Tuscaloosa plays could negatively impact GDP's share performance. Conversely, positive results, especially from the Tuscaloosa, would be favorable for GDP's shares.

Repeatability - Goodrich has delivered relatively consistent results from the southern 60% of its Eagle Ford shale position. However, if this consistency were to deteriorate, we think investors would assign less value to the position.

Leverage - Goodrich has substantially more debt than most of its peers. If the Company is not able to reduce its leverage by selling non-core assets, management may elect to raise capital via other potentially more dilutive alternatives.

Small Company Size - Goodrich is significantly smaller than many of its competitors within the oil & gas sector. Thus, it may have difficulty securing the necessary equipment, personnel and financing for its operations.

Volatile Commodity Prices - Hydrocarbon prices have shown increasing volatility in recent years, impacting cash flow and earnings. This volatility tends to significantly impact sector stock performance.

If the positive impact on the company from any of these factors proves to be greater than we anticipate, the stock could materially outperform our target. Conversely, if the negative impact on the Company from any of these factors proves to be greater than we anticipate, the stock could underperform our target price.

Kosmos Energy Ltd

Company description

Kosmos Energy explores for, develops and produces crude oil and natural gas with 51 MMBOE of proved reserves (94% oil) at year-end 2011. Currently all of the company's production comes from its flagship Jubilee oil project offshore Ghana. It also holds exploration acreage offshore Ghana, onshore Cameroon and offshore Morocco.

The company was founded in 2003 and went public in May 2011. Its official headquarters are in Hamilton, Bermuda although the majority of its employees are located in Dallas, Texas.

Investment strategy

We rate Kosmos Buy (1). Kosmos has been fiscally prudent, generates free cash flow at current oil prices via its Jubilee project, while providing direct upside exposure to emerging, high-potential Africa oil plays. We also note management's

successful track record in opening hereto unexplored basins. Additionally, we see impending well results as potential positive catalysts near term. Despite the numerous risk factors to consider, on balance we are positive on the company's future outlook.

Valuation

Our \$16 price target is based on the stock achieving a 2013/2014 EV multiple of 10.6x/11.8 our debt-adjusted cash flow estimate respectively, 211% of proved-only NAV and 100% of our risked NAV estimate based on a "normalized" WTI spot crude oil price of \$90/Bbl.

Risks

Risks to our target price include:

Jubilee facility risk – Currently, and likely for the next three years at least, all of Kosmos' production/cash flow will come from the Jubilee oil project offshore Ghana. Consequently, the company's financial results are highly sensitive to unscheduled outages, poor well performance, weather, labor or other potential disruptions at Jubilee.

Ghana political risk – The Jubilee development, all of its other current oil discoveries and the majority of the company's exploration prospects are located offshore Ghana. Potential risks including nationalization, tax law changes etc.

Low public float/minority interest risk – Only ~9% of outstanding Kosmos shares were sold in the recent IPO, and thus public shareholders have limited control over the company along with a quite limited outstanding share float.

Exploration risk – Although the company's exploratory track record is favorable, all drilling entails geological risk and its future wells may not be successful.

Development risk – Kosmos pursues long-term projects which require large capital outlays and several years of development before any cash flows are realized. Such projects are subject to substantial uncertainties in terms of costs, partner commitments/abilities, as well as the timing and amount of eventual returns.

Commodity price risk – The company's financial results are highly sensitive to benchmark Brent crude oil prices.

Magnum Hunter Resources

Company description

Magnum Hunter is a small-cap independent oil and gas exploration & production company focused on acquiring and developing oil and natural gas resource plays. In May 2009, members of the current management team, led by Gary Evans, took over leadership of Petro Resources Corp., restructured the company, refocused its business strategy and renamed it Magnum Hunter Resources Corp. Management has rapidly increased the size of the company with current production and proven reserves increasing by more than 20x since the team took over. Current operations are located primarily in the oily Eagle Ford shale in south Texas, where it holds ~26,000 net acres, the Bakken and Three Forks Sanish in North Dakota and Saskatchewan, with ~138,000 net acres, and the Marcellus Shale in West Virginia and Ohio, with ~86,000 net acres. The company also holds ~82,000 net acres in the

Utica Shale, in West Virginia and Ohio and ~300,000 net acres in the Southern Appalachian basin. Magnum Hunter is also engaged in midstream operations involving the gathering of natural gas through its ownership and operation of a gas gathering system in West Virginia and Ohio, referred to as its Eureka Hunter Pipeline System. The company is headquartered in Houston, TX and has 305 employees.

Investment strategy

We rate MHR shares Buy (1). Since the common stock and sr notes offering announced in early May 2012, MHR's shares have sharply underperformed the E&P sector and the broader markets. Thus, shares currently trade at a much larger discount to proven only NAV (based on YE11 reserves, pro forma for acquisitions) than the average for our E&P coverage group. Considering MHR's long-life drilling inventory with attractive economics, the substantial upside relative to its proven reserve base and solid oily production growth outlook, we think the stock should trade at least inline with the group on this metric.

Valuation

Our \$5.00 price target is based on MHR's stock achieving 91% of proven only NAV and a multiple of 6.4x our 2013 debt-adjusted cash flow estimates based on "normalized" WTI spot crude oil and composite spot natural gas prices of \$90.00/Bbl and \$4.50/MMBtu, respectively.

Risks

Drilling Results - Disappointing drilling results in the company's core areas, particularly the Eagle Ford, Bakken/Three Forks and Marcellus could negatively impact production forecasts and cash flows.

Small Company Size – Magnum Hunter is significantly smaller than many of its competitors in the oil & gas sector. Thus, it may have difficulty securing the necessary equipment, personnel and financing for its operations.

Liquidity - Based on the company's current borrowing base under its credit facility and our projections, we expect MHR to run out of borrowing capacity in 2013. Thus, the company will need to raise additional capital to fund a portion of the expected shortfall between our estimates for cash flow and capital expenditures.

Acquisition risk – MHR has been aggressively acquiring assets over about the last 3 years and there is a risk that the company will over-pay to further expand its asset base.

Volatile Commodity Prices - Hydrocarbon prices have shown increasing volatility in recent years, impacting cash flow and earnings. This volatility tends to significantly impact sector stock performance.

If the positive impact on the company from any of these factors proves to be greater than we anticipate, the stock could materially outperform our target. Conversely, if the negative impact on the Company from any of these factors proves to be greater than we anticipate, the stock could underperform our target price.

Matador Resources Co

Company description

Matador Resources Company is an independent oil and gas exploration & production company with primary operations in East Texas and North Louisiana (ETNL) and South Texas. Matador holds ~25k net acres in ETNL (currently its largest asset by production, proved reserves and resource potential), where it primarily targets the Haynesville (~15k net acres), and Cotton Valley formations. While almost 90% of YE11 proved reserves and ~60% of current production are natural gas, the company has shifted much of its focus away from natural gas in ETNL to more oil and liquids opportunities, namely in South Texas, where Matador holds ~30k net acres concentrated in the oily Eagle Ford Shale. Matador also has a toe hold of <10k net acres in the Permian Basin, which it hopes to expand, and ~30k net acres in the Gracie Prospect located in Wyoming, Utah and Idaho that are prospective for the Meade Peak formation (natural gas). The Company was founded by Joseph W. Foran and Scott E. King in July 2003, completed its initial public offering in February 2012 and is headquartered in Dallas, TX with 41 employees.

Investment strategy

We rate Matador Petroleum Neutral/High Risk (2H). Overall, we think management has done a good job positioning the Company for a rapid transition from natural gas to oil and we expect its operations in the Eagle Ford to drive solid production growth over the next several years. However, Matador has a relatively small inventory of oily drilling locations currently in its portfolio and we think the company may need to raise more capital before it could fully develop and meaningfully add to its 'oily' inventory. Furthermore, while we see considerable value in the Eagle Ford position, we think much of this value is currently reflected in the stock price. Finally, we think the depressed natural gas price environment and MTDR's leverage to the commodity will remain a drag on shares over the next 12 months. Thus, while we see some price upside for MTDR, we await a material increase in its oily drilling inventory or an improvement in natural gas prices to foresee additional upside and we assign it a High Risk rating.

Valuation

Our \$10/share price target for Matador is based on the its shares achieving 2013/2014 EV/DACF multiples of 6.0x/5.3x, based on "normalized" WTI spot crude oil and composite spot natural gas prices of \$90.00/Bbl and \$4.50/MMBtu, respectively, and ~120% of proven only NAV.

Risks

We rate Matador High Risk. Our risk rating is based on a combination of quantitative and qualitative risk assessments compared to other stocks covered by Citi Research.

Risks to our price target include:

Drilling Results - Disappointing drilling results, particularly in the Eagle Ford and Haynesville could negatively impact MTDR's share performance. Conversely, positive results, especially from the Eagle Ford, would be very favorable for MTDR's shares.

Operational risks – the company will need to continue to execute on its drilling, completion and transportation plans in the Eagle Ford across a scattered acreage position in a play that is very active with significantly larger competitors.

Limited Inventory - We expect MTDR to drill up its inventory of drilling locations in the Eagle Ford in a relatively short time frame. Furthermore, we think MTDR will need to raise additional capital before it could meaningfully add to its oily inventory.

Capital Constraints – Considering Matador's current capital expenditure plans and our cash flow projections, the company will most likely need to raise additional capital to fund its operations over the next 12 months.

Repeatability - Matador has a scattered acreage position in the Eagle Ford, making it difficult for the company to realize efficiencies and deliver consistent results. However, if MTDR were able to achieve efficiencies and deliver consistent results, we think investors would assign more value to the position.

Small Company Size - Matador is significantly smaller than many of its competitors within the oil & gas sector. Thus, it may have difficulty securing the necessary equipment, personnel and financing for its operations.

Volatile Commodity Prices - Hydrocarbon prices have shown increasing volatility in recent years, impacting cash flow and earnings. This volatility tends to significantly impact sector stock performance.

If the positive impact on the company from any of these factors proves to be greater than we anticipate, the stock could materially outperform our target. Conversely, if the negative impact on the Company from any of these factors proves to be greater than we anticipate, the stock could underperform our target price.

Newfield Exploration Co.

Company description

Newfield Exploration is a Houston-based exploration and production company with key operations in the Woodford shale, the Monument Butte oil field, the liquids-rich Granite Wash, the Bakken oil shale, offshore Gulf of Mexico and Malaysia. The company also is a recent entrant in the Eagle Ford shale and the Alberta Basin.

Investment strategy

We rate Newfield Resources Neutral. While Newfield fits within our preference for the more oil-leveraged names, the company's recent 0% production growth guidance for 2012 was disappointing. In addition, Newfield's year-end reserves reflect continued asset quality issues that the company needs to address.

Valuation

Our \$30 price target is based on the company achieving multiples of 5.0x and 4.3x our 2013E and 2014E DACF, respectively, based on "normalized" WTI spot crude oil and composite spot natural gas prices of \$90.00/Bbl and \$4.50/MMBtu, respectively, and ~60% of proven reserve-only NAV.

Risks

Risks to our price target include:

Drilling Results - Disappointing drilling results, particularly in NFX's key operating areas in the Woodford shale, Monument Butte, the Granite Wash, the Bakken, offshore Gulf of Mexico, the Eagle Ford shale, the Alberta Basin or the Marcellus shale could impact NFX's share performance.

Gulf of Mexico uncertainties - Increased regulation, higher costs and possible delays in the Gulf of Mexico could impact NFX's GOM operations.

Volatile Commodity Prices - Hydrocarbon prices have shown increasing volatility in recent years, as well as cash flow and earnings. This volatility tends to significantly impact sector stock performance.

If the impact on the company from any of these factors proves to be less than we anticipate, the stock could materially outperform our target. Conversely, if the impact on the company from any of these factors proves to be greater than we anticipate, the stock could underperform our target price.

Noble Energy Inc

Company description

Noble Energy is a Houston-based independent energy company engaged in oil and gas exploration and production. Operations are located in the U.S. Rockies, Mid-Continent, and onshore and offshore Gulf of Mexico, while international operations are focused offshore West Africa, Israel and China.

Investment strategy

We rate Noble Energy Buy. Overall, Noble has a host of domestic and international development projects that should significantly boost production over the next 18 months, including the Galapagos project offshore Gulf of Mexico, the Noa and Tamar fields offshore Israel, and Aseng field offshore Africa. We acknowledge Noble's success with the drill bit and upside exploration exposure and assign the company a Buy rating.

Valuation

Our \$125 price target is based on Noble's share achieving a 2013E EV/DACF multiple of 8.1x and a Price/NAV ratio of 120% based on our "normalized" WTI spot crude oil and composite spot natural gas prices of \$90.00/Bbl and \$4.50/MMBtu, respectively.

Risks

Risks to our price target include:

Exploration Results - Noble allocates ~20% of its capital budget to its exploration program. Exploration results, particularly in the deepwater Gulf of Mexico, offshore West Africa and offshore Israel, may impact on NBL's share price.

Volatile Commodity Prices - Hydrocarbon prices have shown increasing volatility in recent years, as well as cash flow and earnings. This volatility tends to significantly impact sector stock performance. NBL has mitigated some commodity price risk by assuming high levels of hedging into 2010.

If the impact on the company from any of these factors proves to be less than we anticipate, the stock could materially outperform our target. Conversely, if the impact on the company from any of these factors proves to be greater than we anticipate, the stock could underperform our target price.

Pioneer Natural Resources Co.

Company description

Pioneer Natural Resources is a domestic E&P company with primary operations in the Permian (Spraberry Trend and Horizontal Wolfcamp), Eagle Ford and Alaska, and also has legacy gas assets in the Rockies, Mid-Continent and South Texas regions. The company is focused on the development of the Permian, where it holds nearly ~700k net acres and is targeting the Spraberry trend via vertical drilling and the Wolfcamp shale via horizontal drilling, and the Eagle Ford, where it holds ~120k net acres. Pioneer is headquartered in Irving, Texas and was formed through the 1997 merger of Parker & Parsley Petroleum Company and MESA Inc.

Investment strategy

We rate Pioneer Natural Resources Buy. Overall, Pioneer has successfully repositioned its portfolio to focus on two core areas and is poised to deliver above-average production growth via a ramp-up from its Permian Basin Spraberry vertical program, horizontal Wolfcamp and the Eagle Ford shale. The company has a high quality resource inventory (1.1 BBOE of proved reserves and 6.7 BBOE net resource potential as of YE11) set to provide continued future development and also benefits from vertical integration (includes pulling units, frac tanks, water trucks, hot oilers, and field equipment) that will help drive down costs.

Valuation

Our 12-month price target of \$120 is based on PXD achieving 2013E/2014E EV multiples of 7.0x/6.4x our respective debt-adjusted cash flow estimates based on "normalized" WTI spot crude oil and composite spot natural gas prices of \$90.00/Bbl and \$4.50/MMBtu, respectively, and 114% of proven-only NAV. Our valuation multiples reflect a premium to the peer group average as we project above-average production growth and returns for PXD.

Risks

Funding requirements - Our model indicates that Pioneer will be able to meet future capital requirements through a combination of discretionary cash flow, JV proceeds, asset sales and, if necessary, debt issuances. However, if these fail to materialize, or occur at lower-than-expected valuations, and credit conditions deteriorate, Pioneer could face more substantial funding gaps over the next few years.

Drilling results - Disappointing drilling results from the Eagle Ford and particularly the horizontal Wolfcamp, given its early-stage nature and high expectations, or wells results that do not support the higher EUR estimates in the southern Wolfcamp acreage, could have a negative effect on the company's outlook.

Commodity prices and NGL exposure - While Pioneer boasts a strong hedging program that provides insulation from severe commodity price swings, our 2013 production estimate is ~65% liquids and stock performance will still likely move with the direction of oil prices. Also, projected 2013 production comprises ~20% NGL and we note a weak NGL pricing environment next year could impact our projections. A depressed commodity price environment could also alter company development plans and growth targets.

If the impact on the company from any of these factors proves to be more than we anticipate, the stock could materially underperform our target. Conversely, if the impact on the company from any of these factors proves to be less than we anticipate, the stock could outperform our target price.

Quicksilver Resources Inc

Company description

Quicksilver is an independent oil and gas exploration & production company with primary operations in the Barnett Shale in Texas and the Horseshoe Canyon in Alberta, Canada. Most of the Company's upside potential comes from natural gas with ~130k net acres in the Horn River Basin. However, KWK also has meaningful oily potential with ~150k net in the Permian Basin, ~210k net acres in the Niobrara, and ~170k net acres in the Alberta Basin Bakken. Members of the Darden family manage KWK and are its largest shareholder on a combined basis. The Company was founded in 1997 and is headquartered in Fort Worth, TX with ~450 employees.

Investment strategy

We rate Quicksilver Resources Neutral. Overall, we expect the Company's Horn River Basin and Barnett Shale natural gas assets to drive below average production growth over the next few years. While KWK is primarily leveraged to natural gas, there are multiple oily resource-type play opportunities in its portfolio, including its positions in the Niobrara, Permian Basin, Alberta Basin Bakken, and the Exshaw oil play in the Horn River Basin. While commercial development has not yet been proven in any of these positions to date, each could potentially add significant value to the asset base. However, after failing to take the Company private in 2011, the Darden family has struggled to bring KWK's leverage more inline with its peers and the Company remains capital constrained in a depressed natural gas price environment.

Valuation

Our price target of \$3.75 is based on the stock achieving EV/ debt adjusted cash flow multiples of 7.7x/7.5x for 2013/2014, and 88% of our proven only NAV (using our near term 'normalized' price deck of \$90.00/Bbl WTI and \$4.50/MMBtu composite spot price).

Risks

Risks to our price target include:

Drilling Results - Disappointing drilling results, particularly in the Niobrara, Barnett, Horn River Basin and Permian Basin could negatively impact KWK's share performance.

Repeatability - In the past, Quicksilver has achieved good organic growth and low F&D costs through the exploitation of its Barnett shale position. However, as the Barnett play matures, Quicksilver is at risk of not securing as compelling of opportunities.

Leverage - KWK has substantially more debt than most of its peers. If the Company is not able to reduce its leverage via its proposed MLP drop downs, management may elect to raise capital via other potentially more dilutive alternatives.

Volatile Commodity Prices - Hydrocarbon prices have shown increasing volatility in recent years, as well as cash flow and earnings. This volatility tends to significantly impact sector stock performance.

If the impact on the company from any of these factors proves to be less than we anticipate, the stock could materially outperform our target. Conversely, if the impact on the company from any of these factors proves to be greater than we anticipate, the stock could underperform our target price.

Range Resources Corp

Company description

Range Resources is a Fort Worth, Texas-based independent Exploration and Production company. The company's key operating area is the Marcellus shale in Pennsylvania, while it also operates in the Nora field in Virginia in addition to traditional oil and gas properties in the Mid-Continent, Appalachia and the Southwestern US. Range's production mix is ~76% natural gas and ~24% crude oil or natural gas liquids.

Investment strategy

We rate Range Resources Buy. Overall, we believe that Range Resources has established an enviable position in one of the key future, if not among the highest resource potential, shale plays in North America. The company's Marcellus shale position should allow it to continue to post industry leading returns and production growth for several years into the future. Our recent industry-wide F&D study highlighted RRC's superior and improving Reserve Replacement Efficiency (RRE), or our simple measure of economic returns, which has historically correlated to a premium EV/DACF multiple. Also, following the recent acquisition of HK by BHP, we believe that RRC's stock will continue to reflect a strong premium to proven NAV and comparable metrics to HK's take-out price could value RRC at \$80-100 /share although we are not making a case for RRC to be acquired in the near term.

Valuation

Our \$76 target is based RRC's stock achieving 2013/2014 EV/DACF multiples of 13.3x/9.8x respectively, and ~140% of proven NAV using "normalized" WTI spot oil and composite spot gas prices of \$90.00/Bbl and \$4.50/MMBtu.

Risks

Risks to our target price include:

Regulatory Risk - With future growth pinned largely on the Marcellus, Range is significantly exposed to the developing natural gas regulatory environment in Pennsylvania. Conversely, political and regulatory risks could subside and relieve pressure on Range's stock.

Funding Risk - Range relies on asset sales, debt or equity issuance to fund continued production growth. Failure to secure these funds could put future growth at risk.

Drilling Results - Disappointing drilling results or positive drilling results, particularly in the Marcellus could impact RRC's share performance.

Volatile Commodity Prices - Hydrocarbon prices have shown increasing volatility in recent years, as well as cash flow and earnings. This volatility tends to significantly impact sector stock performance, both positive and negative. RRC has partially mitigated commodity price risk with high levels of hedging over the next year.

Rosetta Resources

Company description

Rosetta Resources explores for, develops and produces crude oil, natural gas and natural gas liquids (NGLs) across several regions in the U.S. including Texas, Montana and Wyoming. It holds ~65k net acres in the prolific TX Eagle Ford Shale area and this play now accounts for nearly all of its total production. Rosetta was founded in 2005 and is headquartered in Houston, Texas.

Investment strategy

We rate Rosetta Resources Buy/High Risk (1H). The company has successfully built a sizeable position in the Texas Eagle Ford shale, condensing itself from a scattered dry gas player to a focused liquids-oriented producer. We estimate that more than 60% of its 2013 production will come from crude oil or NGLs. ROSE now has a longer-term liquids-rich drilling inventory in the Eagle Ford shale and we expect the company to post substantially better-than-average production growth while generating industry-leading rates of return. We estimate ROSE's reserve replacement efficiency ratio (RRE), or our simple measure of economic returns, to be 4.8x, which is the highest in our US E&P coverage group and more than 2x the average.

Valuation

Our 12-month price target of \$60.00 is based on the company achieving a multiple of 5.7x/4.8x our 2013/2014 debt-adjusted cash flow estimates, using "normalized" WTI spot crude oil and composite spot natural gas prices of \$90.00/Bbl and \$4.50/MMBtu, respectively, and 110% of proven-only NAV. We note that these multiples reflect a discount to the average for our US E&P coverage group.

Risks

We rate Rosetta Resources High Risk based on a combination of quantitative and qualitative risk assessments:

Volatile Commodity Prices - Rosetta is sensitive to changes in the prices of crude oil, natural gas and natural gas liquids (NGLs). Their exposure is partially reduced due to its hedging program, but a significant portion of its anticipated future production is not hedged.

High Exposure To Single Play - Nearly all of its current production comes from the relatively new Texas Eagle Ford Shale play, where long-term results have yet to be definitively established. Additionally, insufficient gathering and processing infrastructure in this emerging area may constrain Rosetta's production.

Small Company Size - Rosetta is significantly smaller than many of its major competitors within the oil & gas sector. Thus, it may have difficulty securing necessary equipment, personnel and financing for its operations.

If the impact on the company from any of these factors proves to be less than we anticipate, the stock could materially outperform our target. Conversely, if the impact on the company from any of these factors proves to be greater than we anticipate, the stock could underperform our target price.

SandRidge Energy Inc

Company description

SandRidge Energy is a domestic oil and gas E&P company primarily focused in the Mid-Continent Region (Mississippian Play), West Texas (Permian Basin and West Texas Overthrust), and Gulf of Mexico shelf. Over the last several years, SandRidge has transitioned from a natural gas focus to an oil focus, with two acquisitions in the Permian and an aggressive rig ramp in the Mississippian driving up its oil production mix from 17% in Q3'09 to over 50% currently. The Company also operates a drilling rig and oil services subsidiary, Lariat Services, Inc., and owns a gas marketing business. SandRidge completed its IPO in 2007 and is headquartered in Oklahoma City with more than 2,200 employees.

Investment strategy

We currently assign SandRidge Energy a Neutral rating. We think the aggressive ramp up, combined with the economics of the Mississippian, implies a net present value for the risked resource potential of this play alone that is close to the company's current market cap, while shares are currently trading below proven only NAV. However, given SD's relatively high cost structure and our forecasts for capital expenditures to exceed discretionary cash flow through 2015, we expect 2012-2015 cash flow per debt-adjusted share to decline by close to 10% per annum, significantly below an average CAGR of more than +10% for our E&P coverage group. Furthermore, we prefer to watch for the results of the potential Permian Basin asset sale and the outcome of the situation with the activist shareholders from the sideline. Nevertheless, we maintain a favorable view of management and its core assets and would easily return to a more constructive rating if our outlook for cash flow per debt-adjusted share growth were to improve.

Valuation

Our 12-month price target of \$7.00 per share is based on SD achieving a 2013 EV multiple of 6.4x our debt-adjusted cash flow estimates based on "normalized" WTI spot crude oil and composite spot natural gas prices of \$90.00/Bbl and \$4.50/MMBtu, respectively, and 117% of proven only NAV.

Risks

Risks to our price target include:

Liquidity Risk - SandRidge plans to significantly outspend its discretionary cash flow over the next few years. If the Company is not able to raise sufficient non-debt capital to fund its aggressive development plans, we would expect shares to underperform.

Transaction Risk - The results of the potential Permian Basin asset sale will likely be a key driver of SD's share performance in the coming months, with a deal likely to be announced sometime in 1H'13. Street expectations seem to range from \$2.0-\$3.0bn, in our view, and we think any number above or below this range would have a material impact on the stock price.

Drilling Results - Disappointing drilling results, particularly in the Mississippian and Permian could negatively impact SD's share performance. Conversely, better than expected results, especially from the extension area of the Mississippian would be very favorable for SD's shares.

Operational Risk - SandRidge has outlined an aggressive program in the Mississippian to drive production growth. If the Company fails to efficiently operate the increasing rig count, production could grow less than expected and costs could escalate more than anticipated. Furthermore, with the acquisition of Dynamic Offshore Resources in H1'12, SandRidge will need to efficiently manage an area in which it has relatively limited experience and which is prone to weather-related interruptions.

If the positive impact on the company from any of these factors proves to be greater than we anticipate, the stock could materially outperform our target. Conversely, if the negative impact on the Company from any of these factors proves to be greater than we anticipate, the stock could underperform our target price.

Southwestern Energy Co

Company description

Southwestern Energy is a domestic onshore natural gas-leveraged E&P company primarily focused in the Arkoma Basin (Arkansas and Oklahoma), East Texas, and Appalachia. The company is also focused on creating and capturing additional value at and beyond the wellhead through established natural gas distribution, marketing and transportation businesses and expanding gathering activities.

Investment strategy

We rate Southwestern Energy Buy (1). With less than five months before the "clock is effectively reset" with natural gas storage being "full" starting out the winter, and based on the assumption of a normal winter, and thus our still much more constructive outlook for natural gas prices next year, we believe it is prudent to continue to add to or build positions in the more natural gas leveraged names.

Valuation

Our \$38 price target is based on Southwestern's stock achieving a multiple of 6.9x our 2013 debt-adjusted cash flow estimates based on "normalized" WTI spot crude oil and composite spot natural gas prices of \$90.00/Bbl and \$4.50/MMBtu, respectively and ~133% of proven NAV.

Risks

Risks to our target price include:

Drilling Results - Disappointing drilling results, particularly in the Fayetteville, Haynesville, and Marcellus shale plays, could negatively impact SWN's share performance. Conversely, positive exploration results from its New Ventures group could be favorable for SWN's shares.

Repeatability - SWN has achieved high organic growth and low F&D costs through the exploitation of its Fayetteville shale position. Once the Fayetteville play matures, SWN is at risk of not securing as compelling of opportunities.

Infrastructure Build Out - The overarching bottleneck in developing the Fayetteville play has traditionally been overall takeaway capacity from third party operators. Delays in future expansions of takeaway capacity could delay SWN's production growth.

Volatile Commodity Prices - With 100% natural gas production and minimal hedges in place, SWN is the most natural gas levered name in our universe.

The impact on the company from any of these factors proves to be less than we anticipate, the stock could materially outperform our target. Conversely, if the impact on the company from any of these factors proves to be greater than we anticipate, the stock could underperform our target price.

Talisman Energy Inc

Company description

Talisman Energy Inc. explores for, develops and produces natural gas, crude oil and natural gas liquids with about 1.4 billion barrels of oil equivalent (BOE) of proved reserves at year-end 2011. The company is roughly evenly balanced with about 50% of its production as natural gas, and 50% as crude oil. Talisman was originally part of British Petroleum but became an independent company in 1992 and is headquartered in Calgary, Canada.

Within North America, Talisman holds both conventional and unconventional natural gas assets with a land position exceeding 2 million acres including the Marcellus Shale (Pennsylvania/New York), the Montney Shale (British Columbia), the Utica Shale (Quebec) and recently the Eagle Ford Shale (TX). Internationally, in the North Sea, Talisman owns producing assets on both the U.K. and Norwegian sides, and pursues both development and exploration projects. Talisman has substantial operations in South East Asia including Indonesia, Malaysia and Vietnam and is conducting extensive exploration throughout S.E. Asia as well as in Australia and Papua New Guinea. Talisman also operates in Algeria, and explores in Kurdistan (Northern Iraq), Columbia and Peru.

Talisman is now focused on growth from North American unconventional gas, generating cash flow from mature North Sea assets, and is pursuing large international development and exploration targets.

Investment strategy

We rate Talisman Neutral. Talisman has markedly improved the quality of its portfolio both in North America as well as globally. TLM also recently announced major changes to company's strategic direction. While we don't disagree with the company's efforts to set a new strategic course, we believe execution and delivering results will take some time while there is substantial uncertainty as to how the new strategy will play out particularly with regard to asset divestitures and possible future acquisitions. In the mean time, we see no catalyst to drive outperformance and we have sharply reduced our production growth and bottom-line estimates.

Valuation

Our 12-month price target of \$12.50 is based on the company achieving multiples of 4.4x and 4.4x our respective 2013/2014 debt-adjusted cash flow estimates and ~81% of proven-only NAV based on "normalized" WTI spot crude oil and composite spot natural gas prices of \$90.00/Bbl and \$4.50/MMBtu, respectively.

Risks

Risks to our target price include:

Volatile Commodity Prices – Talisman is sensitive to changes in the prices of crude oil, and natural gas. Only some of their expected natural gas and crude oil exposure is hedged, with the majority unhedged and subject to market price volatility.

Political Risks – Talisman operates in developing countries including Indonesia, Vietnam, Kurdistan, Columbia and Papua New Guinea and thus is subject to political risks including changes in operating terms, taxes, or expropriation.

Exploration Risk – Talisman is conducting exploration in several under-explored areas within Indonesia, Kurdistan, Peru, and Papua New Guinea, and these exploration projects have a high-probability of failure.

If the impact on the company from any of these factors proves to be less than we anticipate, the stock could materially outperform our target. Conversely, if the impact on the company from any of these factors proves to be greater than we anticipate, the stock could underperform our target price.

Ultra Petroleum Corp.

Company description

Ultra Petroleum Corporation (founded in 1979) is a Houston-based independent exploration & production company with almost 5 Tcfe of proved reserves. Its operations are in two areas: an established position in Wyoming's Green River Basin and newer positions in Pennsylvania's Marcellus Shale and Colorado's Niobrara Shale. About 97% of the company's production is natural gas.

Investment strategy

We rate Ultra Neutral (2). Overall, we believe that Ultra is following a simple yet effective strategy of truly being a low-cost producer of dry natural gas. The company has built sizable positions in two key producing areas - Wyoming's Green River Basin and Pennsylvania's Marcellus Shale which provide a relatively low risk and attractive drilling inventory of more than 10 years. Its core Rockies region provides a stable cash flow base with UPL benefiting from a secular improvement in Rockies price realizations following the completion of the REX-East pipeline. The newer Marcellus position had been growing rapidly and is poised to account for close to one-third of total production next year. However, given that 97% of Ultra's production is U.S. natural gas, our concerns about the outlook for the commodity, our production forecasts over the next two years, and UPL's leveraged balance sheet, we believe that its current valuation is appropriate. Therefore, we assign a Neutral rating.

Valuation

Our \$22.00 price target is based on the company achieving a multiple of 6.6x our 2013 debt-adjusted cash flow estimates and ~154% of NAV based on "normalized" WTI spot crude oil and composite spot natural gas prices of \$90.00/Bbl and \$4.50/MMBtu, respectively.

Risks

Risks to our target price include:

Regulatory Risk – Ultra operates in only two areas: Rockies and Marcellus. In the Rockies (Wyoming), the company leases federal land and thus is subject to tight government oversight, environment rules, and regulatory scrutiny. In the Marcellus (Pennsylvania), Ultra is significantly exposed to evolving regulations, restrictions and potentially new taxes.

Volatile Commodity Prices – Ultra is highly sensitive to changes in the price of natural gas given that the commodity makes up so much of its production volumes and that 2013/2014 volumes are unhedged.

If the impact on the company from any of these factors proves to be less than we anticipate, the stock could materially outperform our target. Conversely, if the impact on the company from any of these factors proves to be greater than we anticipate, the stock could underperform our target price.

Whiting Petroleum Corp

Company description

Whiting Petroleum is a domestic onshore oil-leveraged E&P with primary operations in the Rocky Mountain, Permian, and Mid-Continent Regions. In the Rockies, the company holds over 700k net acres in the Williston Basin, where it focuses on the Bakken Shale, Three Forks and Pronghorn Sand, and has ~90k net acres in the DJ Basin, where it targets the Niobrara. Whiting has significant EOR projects in the Mid-Continent (Postle) and the Permian Basin (Northward Estes), where it also holds ~90k net acres prospective for the Bone Spring and Wolfcamp plays. Whiting is headquartered in Denver, Colorado with 561 employees and was founded by Kenneth R. Whiting and J. Bert Ladd in 1980.

Investment strategy

We rate Whiting Petroleum Buy. Overall, Whiting has successfully added to its oily drilling inventory in the Williston Basin where the company has proven its operational capabilities by consistently posting strong well results while maintaining industry-leading well costs. Thus, we estimate close to 10 years worth of drilling in the Williston Basin with solid economic returns. The company also has two EOR projects, providing a relatively stable production ramp over the next few years, and option value in the Wolfcamp and Bone Spring plays in the Permian Basin and Niobrara play in the DJ Basin. Furthermore, Whiting is one of the most oil-levered names in our E&P group and we expect it to be one of the primary beneficiaries of the anticipated strength in oil prices. Finally, we consider Whiting's current valuation attractive, with the stock trading at a substantial discount to our E&P group and its peers.

Valuation

Our 12-month price target of \$52 is based on WLL achieving a 2013/2014 EV/DACF multiple of 5.3x/4.9x our respective debt-adjusted cash flow estimates based on "normalized" WTI spot crude oil and composite spot natural gas prices of \$90.00/Bbl and \$4.50/MMBtu, respectively, and 77% of proven only NAV.

Risks

Risks to our target price include:

Drilling Results - Disappointing drilling results, particularly in the Williston Basin outside of Whiting's core Sanish Field, could negatively impact WLL's share performance.

Repeatability - Whiting has achieved solid organic growth and low F&D costs through the exploitation of its core Bakken acreage in the operated Sanish and non-operated Parshall fields in the Williston Basin. Now that those areas have matured, Whiting is at risk of not repeating this success in the other parts of the Williston Basin or operating areas.

Volatile Commodity Prices - Whiting is highly sensitive to changes in oil prices. While it has significant volumes hedged in 2012 and some in 2013, the weighted average collar floor price is substantially below our forecasts, offering little protection unless crude prices were to fall below \$65/Bbl in 2012 and \$50/Bbl in 2013.

Regulatory Risk - Whiting primarily operates in only three regions: Rockies (mostly the Williston Basin), Permian, and Mid-Continent. In the Williston Basin (almost 1/2 of current production), there is a risk that fracking could be much more heavily regulated, which could have a material negative impact on production and proved reserves in the area.

If the impact on the company from any of these factors proves to be more than we anticipate, the stock could materially underperform our target. Conversely, if the impact on the company from any of these factors proves to be less than we anticipate, the stock could outperform our target price.

Appendix A-1

Analyst Certification

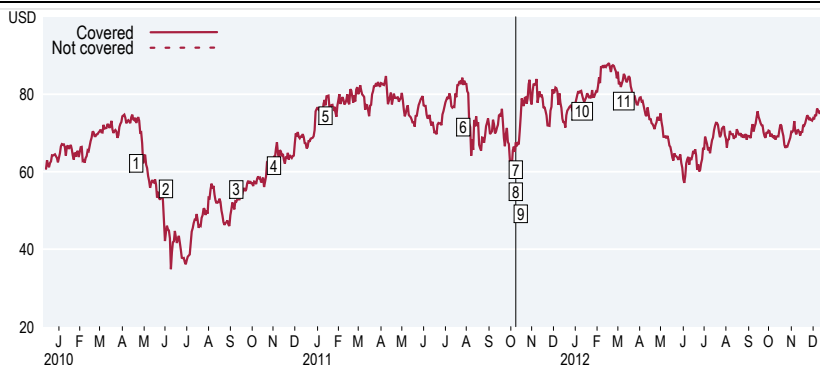
The research analyst(s) primarily responsible for the preparation and content of this research report are named in bold text in the author block at the front of the product except for those sections where an analyst's name appears in bold alongside content which is attributable to that analyst. Each of these analyst(s) certify, with respect to the section(s) of the report for which they are responsible, that the views expressed therein accurately reflect their personal views about each issuer and security referenced and were prepared in an independent manner, including with respect to Citigroup Global Markets Inc and its affiliates. No part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendation(s) or view(s) expressed by that research analyst in this report.

IMPORTANT DISCLOSURES

Anadarko Petroleum Corp (APC)

Ratings and Target Price History Fundamental Research

Analyst: Robert S Morris



	Date	Rating	Target Price	Closing Price
1	21-Apr-10	1H	*100.00	72.58
2	2-Jun-10	1H	*75.00	44.36
3	9-Sep-10	1H	*74.00	52.28
4	2-Nov-10	1H	*80.00	63.82

* Indicates change

	Date	Rating	Target Price	Closing Price
5	13-Jan-11	1H	*95.00	77.14
6	27-Jul-11	1H	*100.00	82.39
7	8-Oct-11	Stock rating system changed		
8	8-Oct-11	*1	100.00	65.12

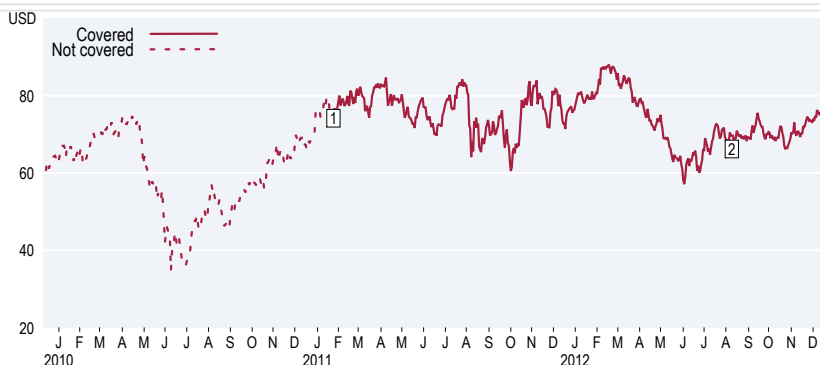
	Date	Rating	Target Price	Closing Price
9	17-Oct-11	1	*120.00	74.44
10	11-Jan-12	1	*110.00	79.72
11	9-Mar-12	1	*115.00	85.25

Rating/target price changes above reflect Eastern Standard Time

Anadarko Petroleum Corp (APC)

Ratings and Target Price History Best Ideas Research Relative Call (3 Month)

Analyst: Robert S Morris



	Date	Rating	Target Price	Closing Price
1	25-Jan-11	*ADD MP	-	75.70

* Indicates change

	Date	Rating	Target Price	Closing Price
2	9-Aug-12	*REM MP	-	69.66

Rating/target price changes above reflect Eastern Standard Time

Apache Corp (APA)

Ratings and Target Price History

Fundamental Research

Analyst: Robert S Morris



	Date	Rating	Target Price	Closing Price
1	13-Jan-11	1M	*150.00	125.18
2	8-Oct-11	Stock rating system changed		

* Indicates change

	Date	Rating	Target Price	Closing Price
3	8-Oct-11	*1	150.00	84.84
4	4-May-12	1	*135.00	89.06

	Date	Rating	Target Price	Closing Price
5	2-Aug-12	1	*120.00	82.58
6	1-Nov-12	1	*100.00	81.85

Rating/target price changes above reflect Eastern Standard Time

Apache Corp (APA)

Ratings and Target Price History

Best Ideas Research

Relative Call (3 Month)

Analyst: Robert S Morris



	Date	Rating	Target Price	Closing Price
1	25-Jan-11	*ADD MP	-	122.64

* Indicates change

	Date	Rating	Target Price	Closing Price
2	10-Jul-12	*REM MP	-	83.68

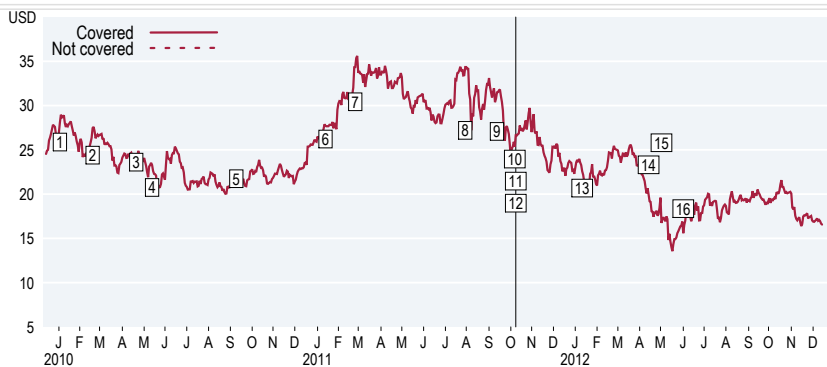
Rating/target price changes above reflect Eastern Standard Time

Chesapeake Energy Corp (CHK)

Ratings and Target Price History

Fundamental Research

Analyst: Robert S Morris



	Date	Rating	Target Price	Closing Price
1	4-Jan-10	2S	*32.00	28.09
2	18-Feb-10	2S	*36.00	27.46
3	21-Apr-10	2S	*30.00	23.68
4	13-May-10	2S	*28.00	23.29
5	9-Sep-10	2S	*26.00	20.91
6	13-Jan-11	2S	*28.00	27.70

* Indicates change

	Date	Rating	Target Price	Closing Price
7	24-Feb-11	2S	*35.00	34.35
8	29-Jul-11	*2H	*38.00	34.35
9	13-Sep-11	2H	*34.00	31.49
10	7-Oct-11	*1H	*32.00	25.35
11	8-Oct-11	Stock rating system changed		
12	8-Oct-11	*1	32.00	25.35

	Date	Rating	Target Price	Closing Price
13	11-Jan-12	1	*28.00	22.58
14	13-Apr-12	*2	*22.00	19.95
15	2-May-12	2	*20.00	16.74
16	1-Jun-12	*2H	20.00	15.58

Rating/target price changes above reflect Eastern Standard Time

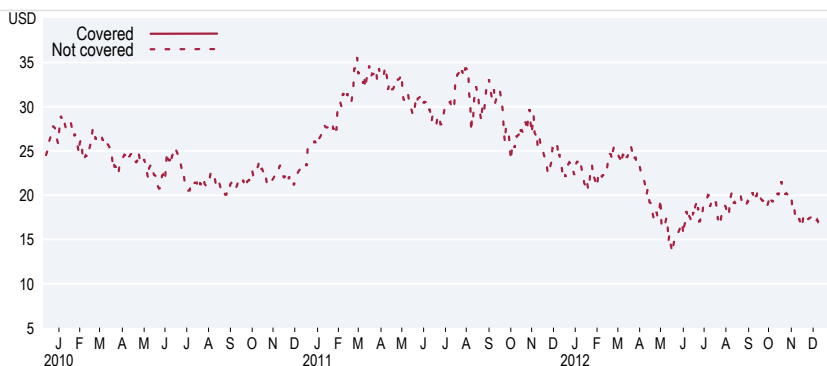
Chesapeake Energy Corp (CHK)

Ratings and Target Price History

Best Ideas Research

Relative Call (3 Month)

Analyst: Robert S Morris



* Indicates change

Rating/target price changes above reflect Eastern Standard Time

Cobalt International Energy (CIE)

Ratings and Target Price History

Fundamental Research

Analyst: Joseph Stewart

Covered since January 27 2012



	Date	Rating	Target Price	Closing Price
1	20-Jun-11	*IS	*18.00	12.58
2	8-Oct-11	Stock rating system changed		
3	8-Oct-11	*1H	18.00	7.77

* Indicates change

	Date	Rating	Target Price	Closing Price
4	27-Jan-12	1H	*26.00	20.43
5	10-Feb-12	1H	*42.00	31.68
6	2-May-12	1H	*40.00	24.75

	Date	Rating	Target Price	Closing Price
7	25-Jun-12	1H	*37.00	20.66
8	5-Dec-12	1H	*40.00	28.21

Rating/target price changes above reflect Eastern Standard Time

Cobalt International Energy (CIE)

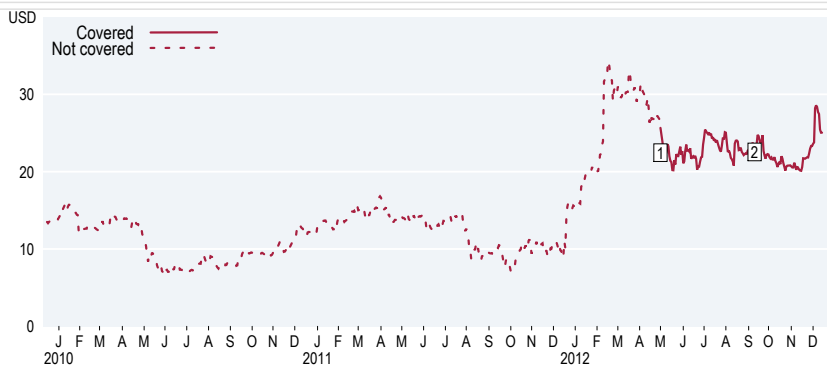
Ratings and Target Price History

Best Ideas Research

Relative Call (3 Month)

Analyst: Joseph Stewart

Covered since January 27 2012



	Date	Rating	Target Price	Closing Price
1	1-May-12	*ADD MP	-	25.66

* Indicates change

	Date	Rating	Target Price	Closing Price
2	11-Sep-12	*REM MP	-	22.59

Rating/target price changes above reflect Eastern Standard Time

Canadian Natural Resources Ltd (CNQ)

Ratings and Target Price History Fundamental Research

Analyst: Robert S Morris



	Date	Rating	Target Price	Closing Price
1	9-Sep-10	1H	*40.00	33.29
2	3-Dec-10	1H	*48.00	41.82
3	4-Mar-11	1H	*60.00	51.12

* Indicates change

	Date	Rating	Target Price	Closing Price
4	13-Sep-11	1H	*50.00	34.31
5	8-Oct-11	Stock rating system changed		
6	8-Oct-11	*1	50.00	29.13

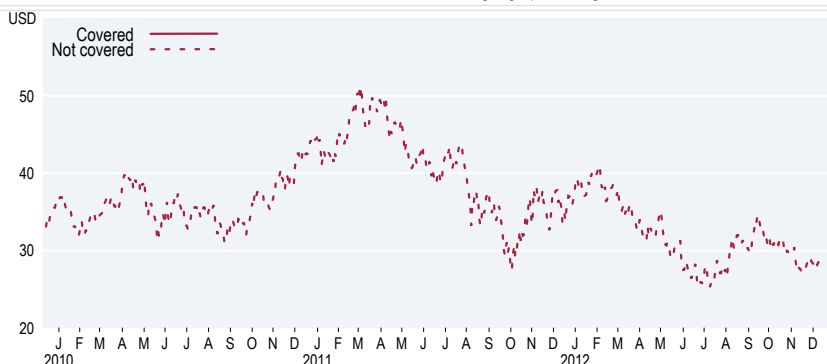
	Date	Rating	Target Price	Closing Price
7	8-Mar-12	1	*48.00	35.61
8	25-Jun-12	1	*44.00	25.92
9	9-Nov-12	1	*40.00	28.48

Rating/target price changes above reflect Eastern Standard Time

Canadian Natural Resources Ltd (CNQ)

Ratings and Target Price History Best Ideas Research Relative Call (3 Month)

Analyst: Robert S Morris



* Indicates change

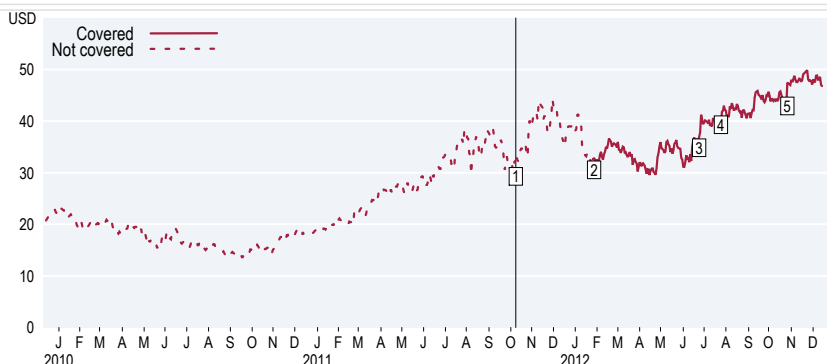
Rating/target price changes above reflect Eastern Standard Time

Cabot Oil & Gas Corp (COG)

Ratings and Target Price History Fundamental Research

Analyst: Joseph Stewart

Covered since January 27 2012



	Date	Rating	Target Price	Closing Price
1	8-Oct-11	Stock rating system changed		
2	27-Jan-12	*1	*40.00	32.88

* Indicates change

	Date	Rating	Target Price	Closing Price
3	25-Jun-12	1	*43.00	36.89
4	25-Jul-12	1	*45.00	39.30

	Date	Rating	Target Price	Closing Price
5	26-Oct-12	1	*55.00	47.46

Rating/target price changes above reflect Eastern Standard Time

Cabot Oil & Gas Corp (COG)

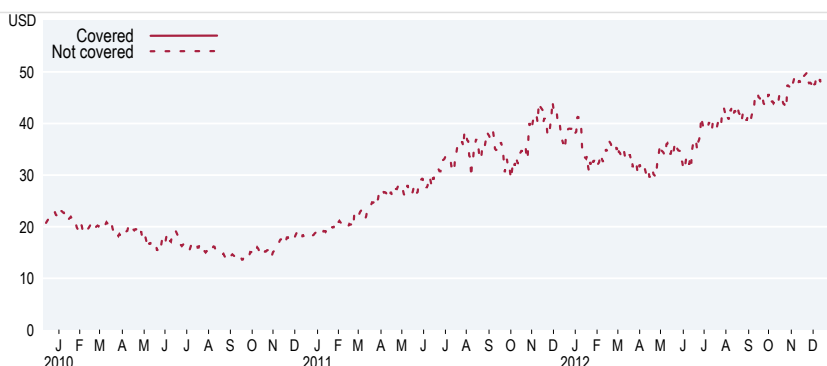
Ratings and Target Price History

Best Ideas Research

Relative Call (3 Month)

Analyst: Joseph Stewart

Covered since January 27 2012



* Indicates change

Rating/target price changes above reflect Eastern Standard Time

Concho Resources Inc (CXO)

Ratings and Target Price History

Fundamental Research

Analyst: Joseph Stewart

Covered since January 27 2012



* Indicates change

Rating/target price changes above reflect Eastern Standard Time

	Date	Rating	Target Price	Closing Price
1	5-Jan-11	*3H	*\$81.00	86.51
2	13-Jan-11	3H	*\$83.00	91.97
3	24-Feb-11	3H	*\$95.00	107.53
4	6-May-11	*2H	95.00	94.34

	Date	Rating	Target Price	Closing Price
5	13-Sep-11	2H	*\$92.00	83.01
6	7-Oct-11	*1H	92.00	75.35
7	8-Oct-11	Stock rating system changed		
8	8-Oct-11	*1	92.00	75.35

	Date	Rating	Target Price	Closing Price
9	27-Jan-12	1	*\$124.00	106.60
10	25-Jun-12	1	*\$116.00	78.48

Concho Resources Inc (CXO)

Ratings and Target Price History

Best Ideas Research

Relative Call (3 Month)

Analyst: Joseph Stewart

Covered since January 27 2012



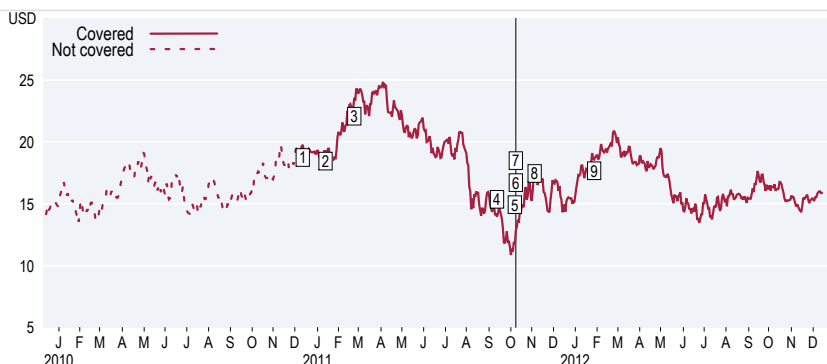
* Indicates change

Rating/target price changes above reflect Eastern Standard Time

Denbury Resources, Inc. (DNR)

Ratings and Target Price History Fundamental Research

Analyst: Joseph Stewart
Covered since January 27 2012



	Date	Rating	Target Price	Closing Price
1	13-Dec-10	*2H	*20.00	19.77
2	13-Jan-11	2H	*21.00	19.06
3	23-Feb-11	2H	*24.00	23.56

* Indicates change

	Date	Rating	Target Price	Closing Price
4	13-Sep-11	2H	*17.00	13.96
5	7-Oct-11	2H	*12.75	11.72
6	8-Oct-11	Stock rating system changed		

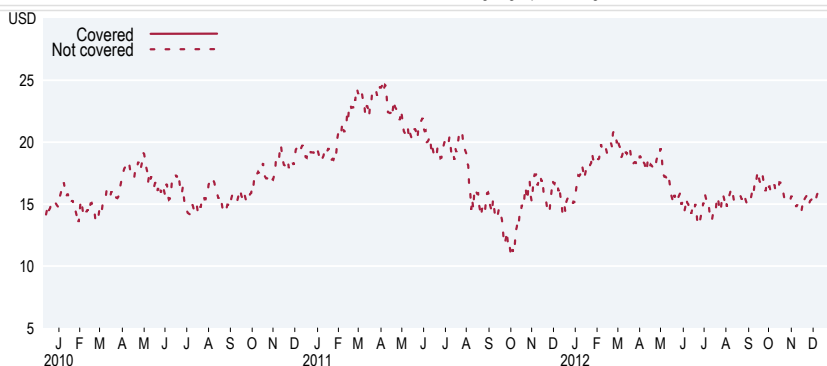
	Date	Rating	Target Price	Closing Price
7	8-Oct-11	*2	12.75	11.72
8	4-Nov-11	2	*18.00	17.38
9	27-Jan-12	2	*19.00	18.57

Rating/target price changes above reflect Eastern Standard Time

Denbury Resources, Inc. (DNR)

Ratings and Target Price History Best Ideas Research Relative Call (3 Month)

Analyst: Joseph Stewart
Covered since January 27 2012



* Indicates change

Rating/target price changes above reflect Eastern Standard Time

Devon Energy Corp (DVN)

Ratings and Target Price History Fundamental Research

Analyst: Robert S Morris



	Date	Rating	Target Price	Closing Price
1	11-Mar-10	2M	*78.00	72.04
2	9-Sep-10	2M	*68.00	62.86
3	3-Nov-10	2M	*72.00	68.22
4	13-Jan-11	2M	*82.00	81.94
5	5-May-11	2M	*90.00	83.46

* Indicates change

	Date	Rating	Target Price	Closing Price
6	13-Sep-11	2M	*75.00	64.13
7	7-Oct-11	*1M	75.00	56.48
8	8-Oct-11	Stock rating system changed		
9	8-Oct-11	*1	75.00	56.48
10	16-Feb-12	1	*85.00	75.02

	Date	Rating	Target Price	Closing Price
11	25-Jun-12	1	*75.00	54.32
12	2-Aug-12	1	*70.00	55.41
13	8-Nov-12	*2	*62.00	54.02

Rating/target price changes above reflect Eastern Standard Time

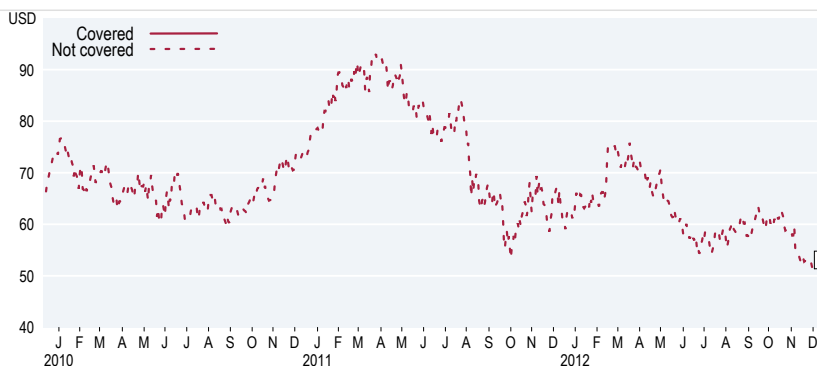
Devon Energy Corp (DVN)

Ratings and Target Price History

Best Ideas Research

Relative Call (3 Month)

Analyst: Robert S Morris



	Date	Rating	Target Price	Closing Price
1	13-Dec-12	*ADD LP	-	52.33

* Indicates change

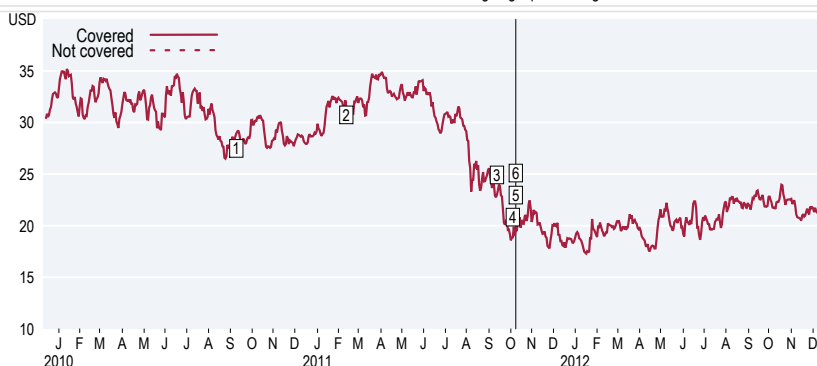
Rating/target price changes above reflect Eastern Standard Time

EnCana Corp (ECA)

Ratings and Target Price History

Fundamental Research

Analyst: Robert S Morris



	Date	Rating	Target Price	Closing Price
1	9-Sep-10	2M	*28.00	28.94
2	11-Feb-11	2M	*32.00	31.45

* Indicates change

	Date	Rating	Target Price	Closing Price
3	13-Sep-11	2M	*24.00	23.00
4	5-Oct-11	2M	*20.00	18.87

	Date	Rating	Target Price	Closing Price
5	8-Oct-11	Stock rating system changed		
6	8-Oct-11	*2	20.00	18.99

Rating/target price changes above reflect Eastern Standard Time

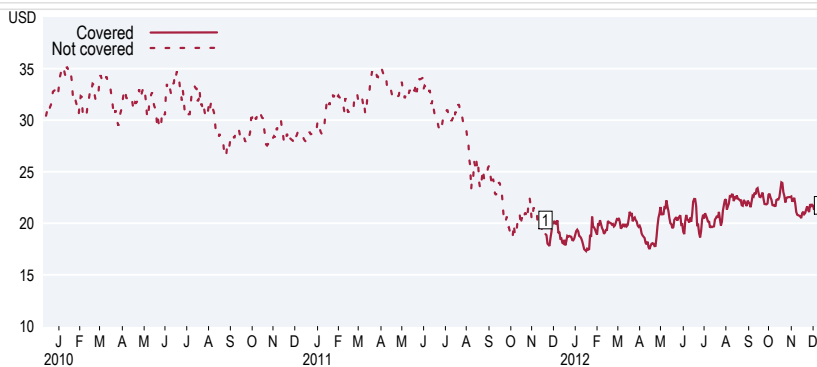
EnCana Corp (ECA)

Ratings and Target Price History

Best Ideas Research

Relative Call (3 Month)

Analyst: Robert S Morris



	Date	Rating	Target Price	Closing Price
1	20-Nov-11	*ADD LP	-	19.45

* Indicates change

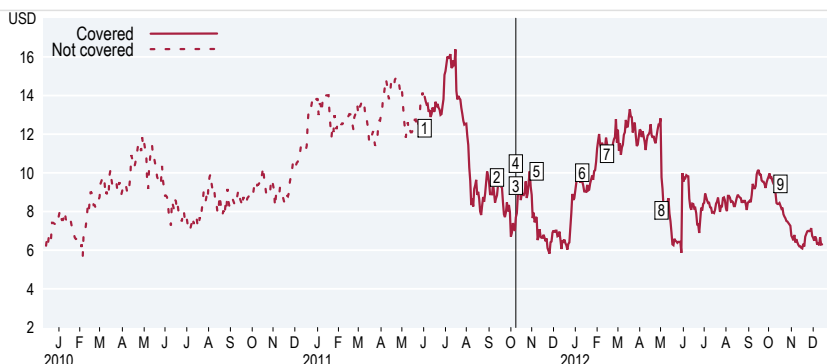
	Date	Rating	Target Price	Closing Price
2	13-Dec-12	*REM LP	-	21.08

Rating/target price changes above reflect Eastern Standard Time

Endeavour International (END)

Ratings and Target Price History Fundamental Research

Analyst: Joseph Stewart
Covered since January 27 2012



	Date	Rating	Target Price	Closing Price
1	2-Jun-11	*1S	*18.00	13.94
2	13-Sep-11	1S	*16.00	8.84
3	8-Oct-11	Stock rating system changed		

* Indicates change

	Date	Rating	Target Price	Closing Price
4	8-Oct-11	*1H	16.00	6.99
5	8-Nov-11	*2H	*9.00	7.71
6	11-Jan-12	2H	*10.00	9.56

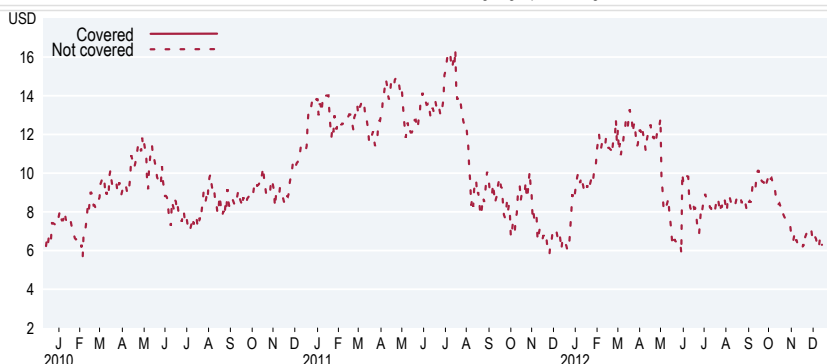
	Date	Rating	Target Price	Closing Price
7	15-Feb-12	2H	*13.00	11.51
8	2-May-12	*2	-	9.77
9	17-Oct-12	*2H	*10.00	8.30

Rating/target price changes above reflect Eastern Standard Time

Endeavour International (END)

Ratings and Target Price History Best Ideas Research Relative Call (3 Month)

Analyst: Joseph Stewart
Covered since January 27 2012



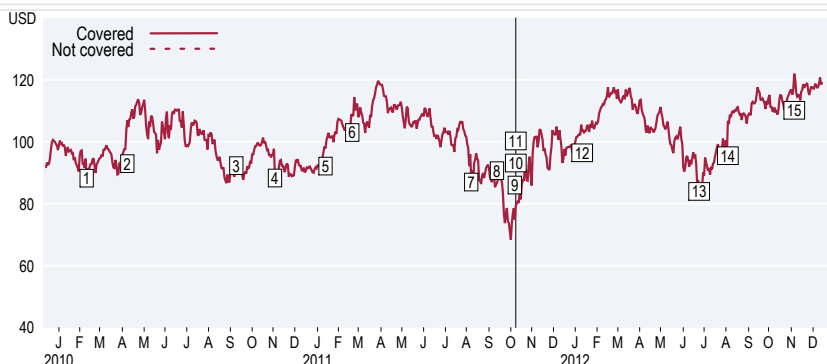
* Indicates change

Rating/target price changes above reflect Eastern Standard Time

EOG Resources Inc (EOG)

Ratings and Target Price History Fundamental Research

Analyst: Robert S Morris



	Date	Rating	Target Price	Closing Price
1	10-Feb-10	1M	*102.00	88.24
2	8-Apr-10	1M	*120.00	106.96
3	9-Sep-10	1M	*110.00	89.37
4	3-Nov-10	*2M	*95.00	88.64
5	13-Jan-11	2M	*105.00	97.86

* Indicates change

	Date	Rating	Target Price	Closing Price
6	21-Feb-11	2M	*120.00	108.89
7	7-Aug-11	*1M	*130.00	95.92
8	13-Sep-11	1M	*126.00	86.75
9	7-Oct-11	1M	*110.00	74.90
10	8-Oct-11	Stock rating system changed		

	Date	Rating	Target Price	Closing Price
11	8-Oct-11	*1	110.00	74.90
12	11-Jan-12	1	*125.00	103.17
13	25-Jun-12	1	*115.00	84.90
14	3-Aug-12	1	*120.00	106.75
15	6-Nov-12	1	*135.00	121.98

Rating/target price changes above reflect Eastern Standard Time

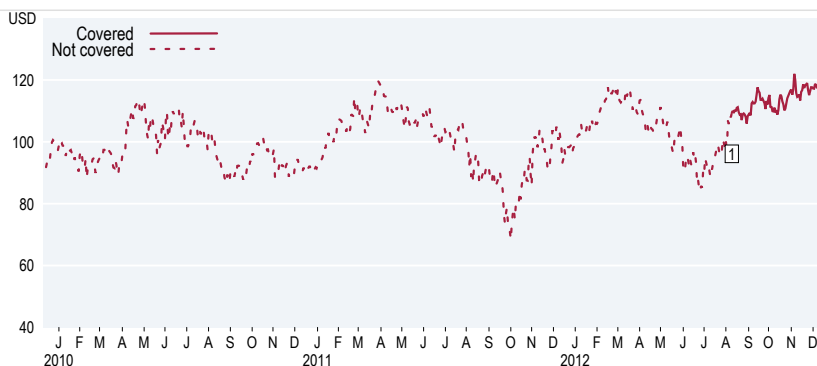
EOG Resources Inc (EOG)

Ratings and Target Price History

Best Ideas Research

Relative Call (3 Month)

Analyst: Robert S Morris



	Date	Rating	Target Price	Closing Price
1	9-Aug-12	*ADD MP	-	109.41

* Indicates change

Rating/target price changes above reflect Eastern Standard Time

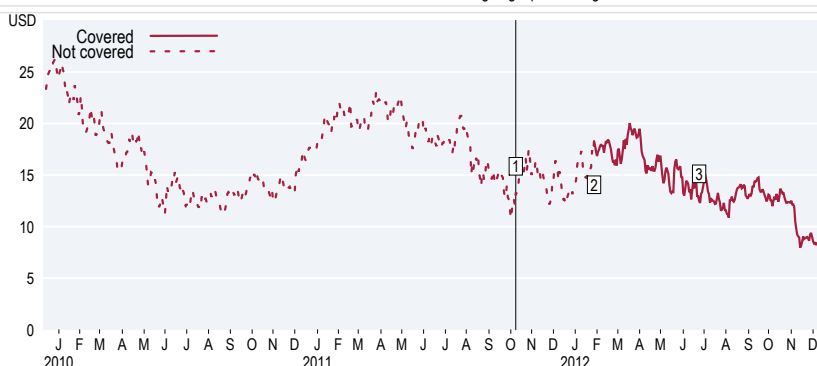
Goodrich Petroleum Corp (GDP)

Ratings and Target Price History

Fundamental Research

Analyst: Joseph Stewart

Covered since January 27 2012



	Date	Rating	Target Price	Closing Price
1	8-Oct-11	Stock rating system changed		

* Indicates change

	Date	Rating	Target Price	Closing Price
2	27-Jan-12	*2	*18.00	18.29

	Date	Rating	Target Price	Closing Price
3	25-Jun-12	2	*14.75	12.49

Rating/target price changes above reflect Eastern Standard Time

Goodrich Petroleum Corp (GDP)

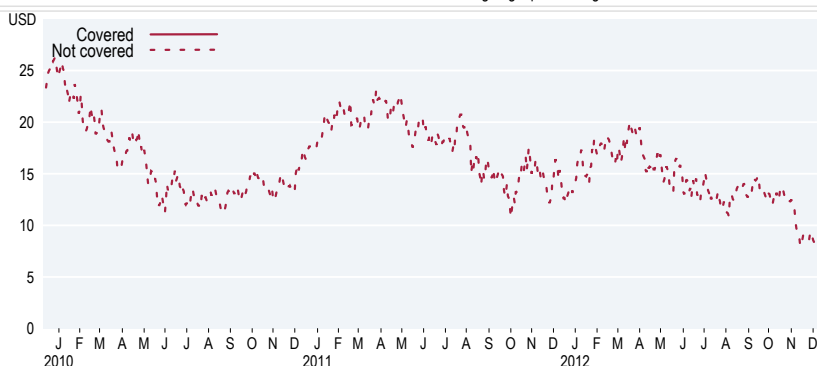
Ratings and Target Price History

Best Ideas Research

Relative Call (3 Month)

Analyst: Joseph Stewart

Covered since January 27 2012



* Indicates change

Rating/target price changes above reflect Eastern Standard Time

Kosmos Energy Ltd (KOS)

Ratings and Target Price History

Fundamental Research

Analyst: Robert S Morris
Covered since June 20 2011



	Date	Rating	Target Price	Closing Price
1	20-Jun-11	*1H	*22.00	18.15
2	12-Aug-11	1H	*20.00	11.59

* Indicates change

	Date	Rating	Target Price	Closing Price
3	8-Oct-11	Stock rating system changed		
4	8-Oct-11	*1	20.00	10.80

	Date	Rating	Target Price	Closing Price
5	7-May-12	1	*18.00	11.25
6	6-Aug-12	1	*16.00	10.00

Rating/target price changes above reflect Eastern Standard Time

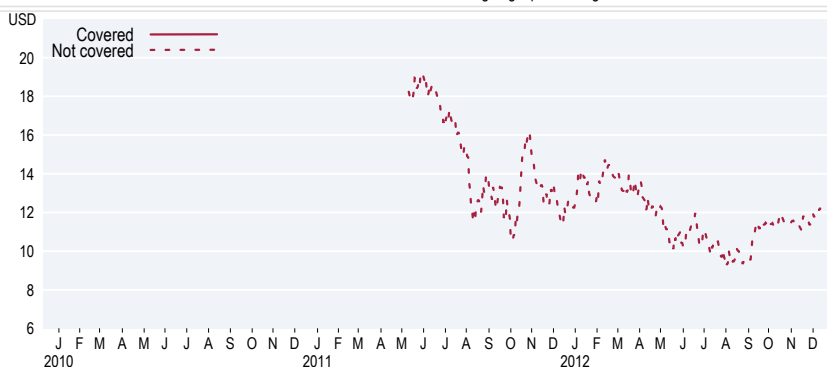
Kosmos Energy Ltd (KOS)

Ratings and Target Price History

Best Ideas Research

Relative Call (3 Month)

Analyst: Robert S Morris
Covered since June 20 2011



* Indicates change

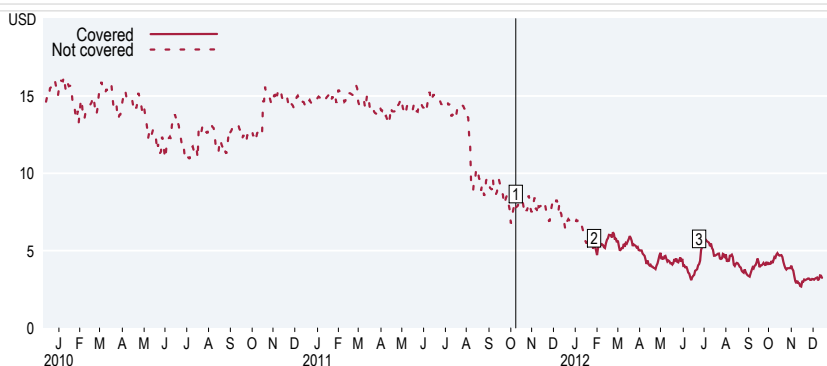
Rating/target price changes above reflect Eastern Standard Time

Quicksilver Resources Inc (KWK)

Ratings and Target Price History

Fundamental Research

Analyst: Joseph Stewart
Covered since January 27 2012



	Date	Rating	Target Price	Closing Price
1	8-Oct-11	Stock rating system changed		

* Indicates change

	Date	Rating	Target Price	Closing Price
2	27-Jan-12	*2	*5.75	5.29

	Date	Rating	Target Price	Closing Price
3	25-Jun-12	2	*4.15	4.13

Rating/target price changes above reflect Eastern Standard Time

Quicksilver Resources Inc (KWK)

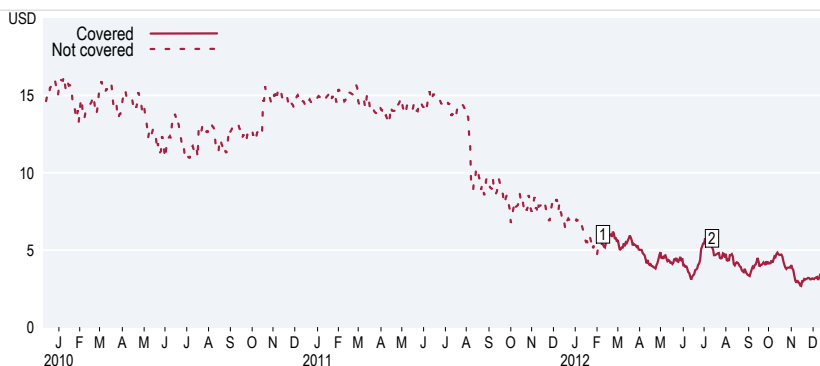
Ratings and Target Price History

Best Ideas Research

Relative Call (3 Month)

Analyst: Joseph Stewart

Covered since January 27 2012



	Date	Rating	Target Price	Closing Price
[1]	9-Feb-12	*ADD LP	-	5.36

* Indicates change

	Date	Rating	Target Price	Closing Price
[2]	12-Jul-12	*REM LP	-	5.17

Rating/target price changes above reflect Eastern Standard Time

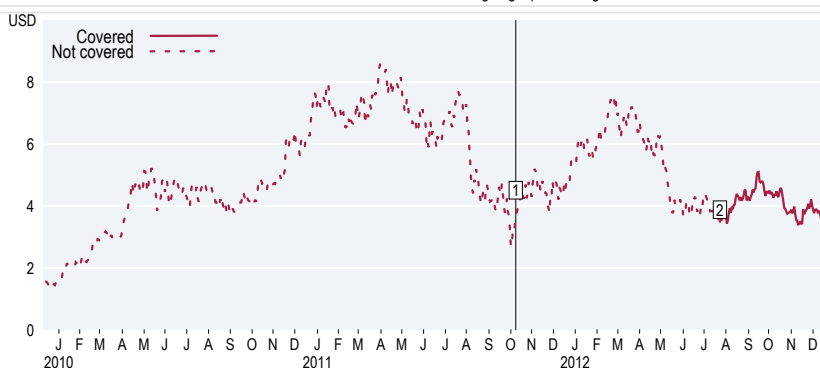
Magnum Hunter Resources (MHR)

Ratings and Target Price History

Fundamental Research

Analyst: Joseph Stewart

Covered since July 24 2012



	Date	Rating	Target Price	Closing Price
[1]	8-Oct-11	Stock rating system changed	-	-

* Indicates change

	Date	Rating	Target Price	Closing Price
[2]	24-Jul-12	*1	*5.00	3.49

Rating/target price changes above reflect Eastern Standard Time

Magnum Hunter Resources (MHR)

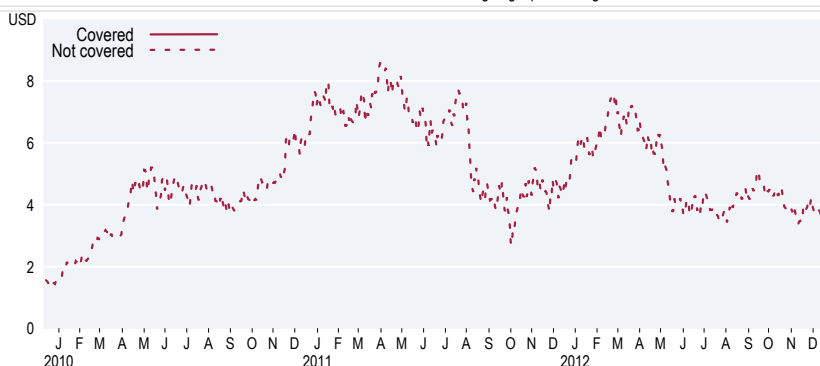
Ratings and Target Price History

Best Ideas Research

Relative Call (3 Month)

Analyst: Joseph Stewart

Covered since July 24 2012



* Indicates change

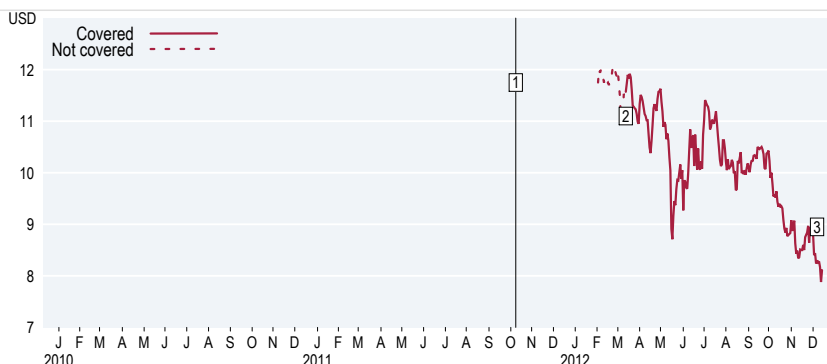
Rating/target price changes above reflect Eastern Standard Time

Matador Resources Co (MTDR)

Ratings and Target Price History Fundamental Research

Analyst: Joseph Stewart

Covered since March 13 2012



	Date	Rating	Target Price	Closing Price
[1]	8-Oct-11	Stock rating system changed		

* Indicates change

	Date	Rating	Target Price	Closing Price
[2]	13-Mar-12	*2H	*13.00	11.57

	Date	Rating	Target Price	Closing Price
[3]	7-Dec-12	2H	*10.00	8.30

Rating/target price changes above reflect Eastern Standard Time

Matador Resources Co (MTDR)

Ratings and Target Price History Best Ideas Research Relative Call (3 Month)

Analyst: Joseph Stewart

Covered since March 13 2012



* Indicates change

Rating/target price changes above reflect Eastern Standard Time

Noble Energy Inc (NBL)

Ratings and Target Price History Fundamental Research

Analyst: Robert S Morris



	Date	Rating	Target Price	Closing Price
[1]	27-Jan-10	2M	*74.00	75.00
[2]	29-Oct-10	2M	*80.00	81.48
[3]	29-Dec-10	2M	*90.00	87.16
[4]	29-Apr-11	2M	*98.00	96.27

* Indicates change

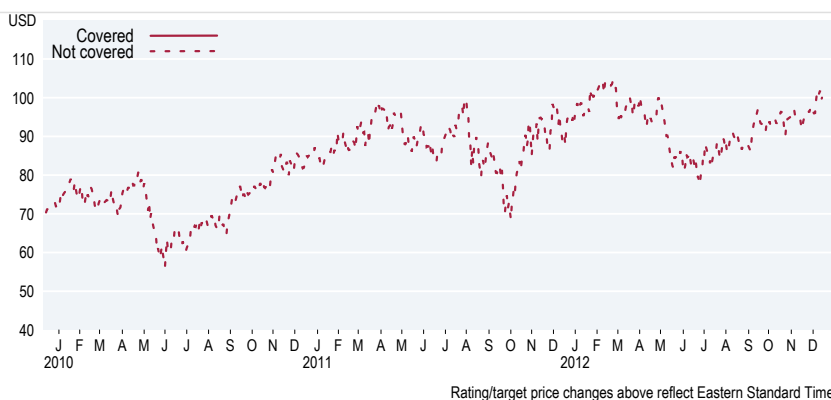
	Date	Rating	Target Price	Closing Price
[5]	29-Jul-11	2M	*110.00	99.68
[6]	7-Oct-11	*1M	110.00	75.28
[7]	8-Oct-11	Stock rating system changed		
[8]	8-Oct-11	*1	110.00	75.28

	Date	Rating	Target Price	Closing Price
[9]	10-Feb-12	1	*120.00	101.15
[10]	25-Jun-12	1	*110.00	77.59

Rating/target price changes above reflect Eastern Standard Time

Noble Energy Inc (NBL)
Ratings and Target Price History
Best Ideas Research
Relative Call (3 Month)

Analyst: Robert S Morris



Newfield Exploration Co. (NFX)
Ratings and Target Price History
Fundamental Research

Analyst: Robert S Morris
Covered since May 6 2010



	Date	Rating	Target Price	Closing Price
1	5-May-10	*1M	*66.00	54.66
2	9-Sep-10	1M	*60.00	50.67
3	21-Oct-10	1M	*68.00	58.91
4	13-Jan-11	*2M	*76.00	71.86

	Date	Rating	Target Price	Closing Price
5	7-Oct-11	*1M	*58.00	40.65
6	8-Oct-11	Stock rating system changed		
7	8-Oct-11	*1	58.00	40.65
8	21-Oct-11	1	*48.00	36.73

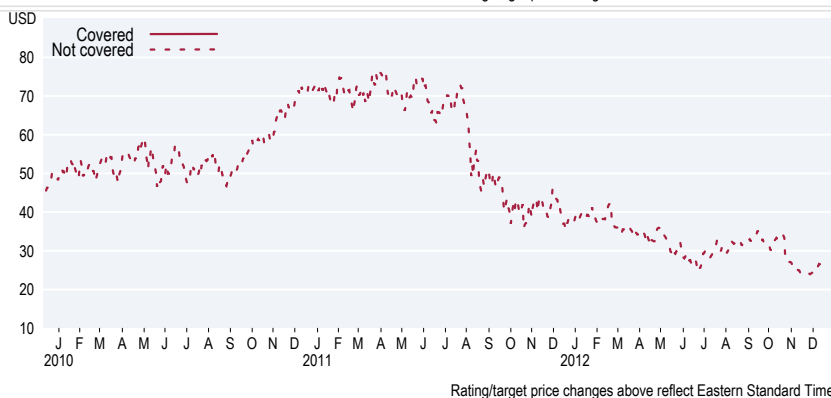
	Date	Rating	Target Price	Closing Price
9	22-Feb-12	*2	*46.00	36.88
10	25-Jun-12	2	*30.00	25.81

* Indicates change

Rating/target price changes above reflect Eastern Standard Time

Newfield Exploration Co. (NFX)
Ratings and Target Price History
Best Ideas Research
Relative Call (3 Month)

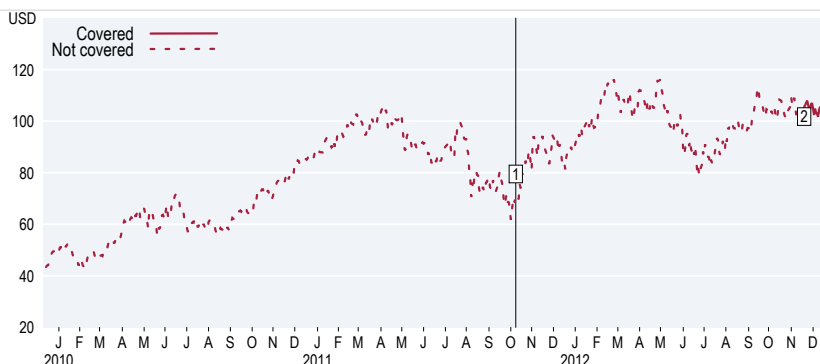
Analyst: Robert S Morris
Covered since May 6 2010



Pioneer Natural Resources Co. (PXD)

Ratings and Target Price History Fundamental Research

Analyst: Robert S Morris
Covered since November 21 2012



	Date	Rating	Target Price	Closing Price
1	8-Oct-11	Stock rating system changed		

* Indicates change

	Date	Rating	Target Price	Closing Price
2	20-Nov-12	*1	*120.00	105.52

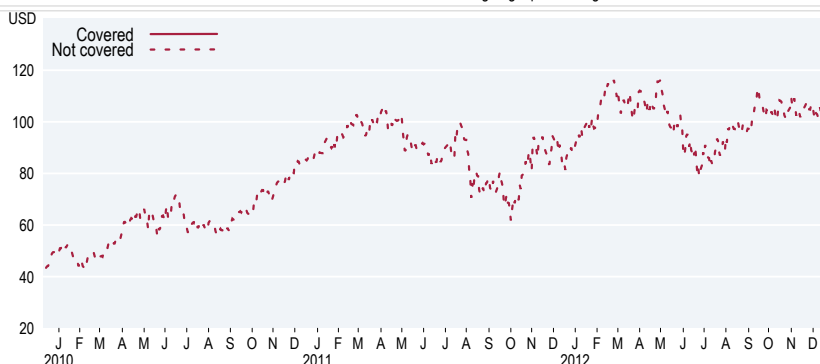
Rating/target price changes above reflect Eastern Standard Time

Pioneer Natural Resources Co. (PXD)

Ratings and Target Price History Best Ideas Research

Relative Call (3 Month)

Analyst: Robert S Morris
Covered since November 21 2012



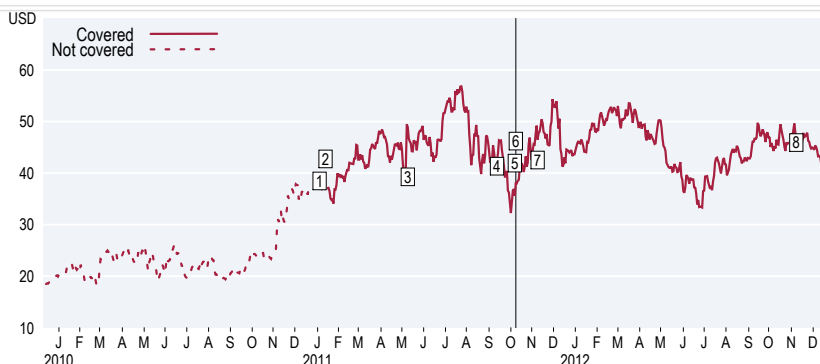
* Indicates change

Rating/target price changes above reflect Eastern Standard Time

Rosetta Resources (ROSE)

Ratings and Target Price History Fundamental Research

Analyst: Joseph Stewart
Covered since January 31 2012



	Date	Rating	Target Price	Closing Price
1	5-Jan-11	*2H	*42.00	37.67
2	13-Jan-11	2H	*44.00	36.94
3	10-May-11	*1H	*60.00	48.87

* Indicates change

	Date	Rating	Target Price	Closing Price
4	13-Sep-11	1H	*55.00	42.54
5	7-Oct-11	*2H	*45.00	35.56
6	8-Oct-11	Stock rating system changed		

	Date	Rating	Target Price	Closing Price
7	9-Nov-11	2H	*50.00	46.49
8	8-Nov-12	*1H	*60.00	46.12

Rating/target price changes above reflect Eastern Standard Time

Rosetta Resources (ROSE)

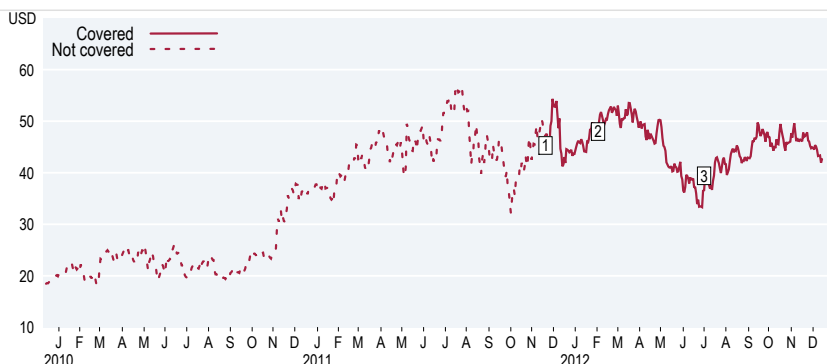
Ratings and Target Price History

Best Ideas Research

Relative Call (3 Month)

Analyst: Joseph Stewart

Covered since January 31 2012



	Date	Rating	Target Price	Closing Price
1	20-Nov-11	*ADD LP	-	47.71

* Indicates change

	Date	Rating	Target Price	Closing Price
2	2-Feb-12	*REM LP	-	48.14

	Date	Rating	Target Price	Closing Price
3	30-Jun-12	*N	-	36.62

Rating/target price changes above reflect Eastern Standard Time

Range Resources Corp (RRC)

Ratings and Target Price History

Fundamental Research

Analyst: Robert S Morris

Covered since August 5 2010



	Date	Rating	Target Price	Closing Price
1	4-Aug-10	*2H	*42.00	39.46
2	9-Sep-10	2H	*40.00	36.47
3	13-Jan-11	*3H	*44.00	48.16
4	28-Apr-11	3H	*48.00	54.92

* Indicates change

	Date	Rating	Target Price	Closing Price
5	26-Jul-11	*2H	*65.00	64.59
6	7-Oct-11	*1H	*70.00	59.98
7	8-Oct-11	Stock rating system changed		
8	8-Oct-11	*1	70.00	59.98

	Date	Rating	Target Price	Closing Price
9	18-Jan-12	1	*65.00	56.37
10	22-Feb-12	1	*76.00	66.10

Rating/target price changes above reflect Eastern Standard Time

Range Resources Corp (RRC)

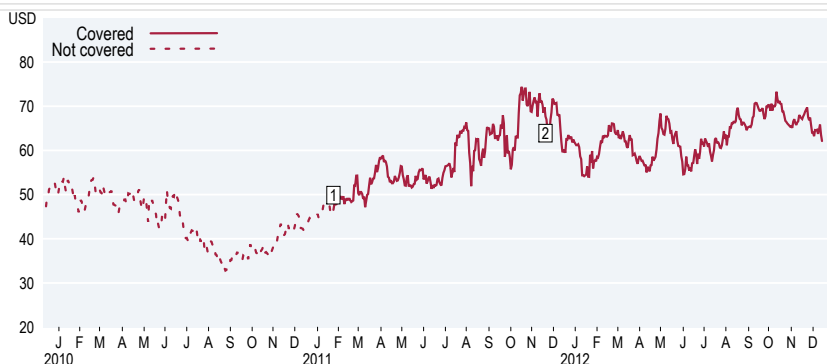
Ratings and Target Price History

Best Ideas Research

Relative Call (3 Month)

Analyst: Robert S Morris

Covered since August 5 2010



	Date	Rating	Target Price	Closing Price
1	25-Jan-11	*ADD LP	-	46.54

* Indicates change

	Date	Rating	Target Price	Closing Price
2	20-Nov-11	*REM LP	-	69.76

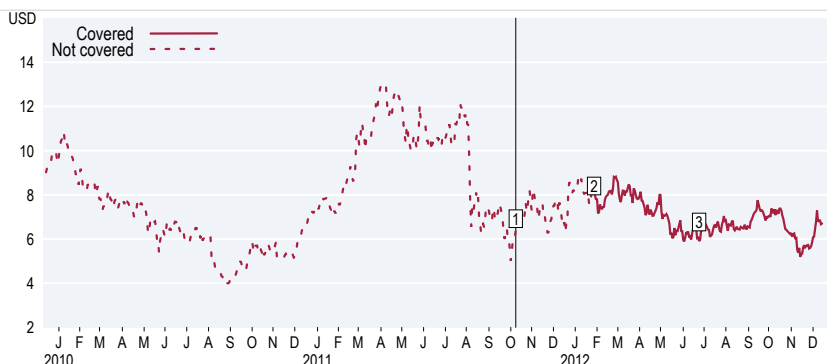
Rating/target price changes above reflect Eastern Standard Time

SandRidge Energy Inc (SD)

Ratings and Target Price History Fundamental Research

Analyst: Joseph Stewart

Covered since January 27 2012



	Date	Rating	Target Price	Closing Price
[1]	8-Oct-11	Stock rating system changed		

* Indicates change

	Date	Rating	Target Price	Closing Price
[2]	27-Jan-12	*1	*9.50	8.18

	Date	Rating	Target Price	Closing Price
[3]	25-Jun-12	1	*8.50	5.91

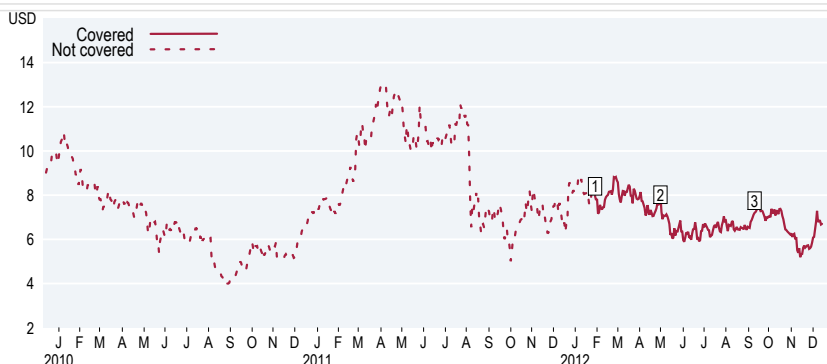
Rating/target price changes above reflect Eastern Standard Time

SandRidge Energy Inc (SD)

Ratings and Target Price History Best Ideas Research Relative Call (3 Month)

Analyst: Joseph Stewart

Covered since January 27 2012



	Date	Rating	Target Price	Closing Price
[1]	30-Jan-12	*ADD MP	-	7.96

* Indicates change

	Date	Rating	Target Price	Closing Price
[2]	1-May-12	*REM MP	-	8.02

	Date	Rating	Target Price	Closing Price
[3]	11-Sep-12	*ADD MP	-	7.20

Rating/target price changes above reflect Eastern Standard Time

Southwestern Energy Co (SWN)

Ratings and Target Price History Fundamental Research

Analyst: Robert S Morris



	Date	Rating	Target Price	Closing Price
[1]	17-Dec-09	2H	*50.00	45.40
[2]	9-Sep-10	2H	*40.00	32.94
[3]	29-Jul-11	2H	*45.00	44.56

* Indicates change

	Date	Rating	Target Price	Closing Price
[4]	13-Sep-11	2H	*42.00	36.93
[5]	7-Oct-11	2H	*40.00	34.38
[6]	8-Oct-11	Stock rating system changed		

	Date	Rating	Target Price	Closing Price
[7]	8-Oct-11	*2	40.00	34.38
[8]	11-Jan-12	2	*38.00	29.92
[9]	25-Jun-12	*1	38.00	29.15

Rating/target price changes above reflect Eastern Standard Time

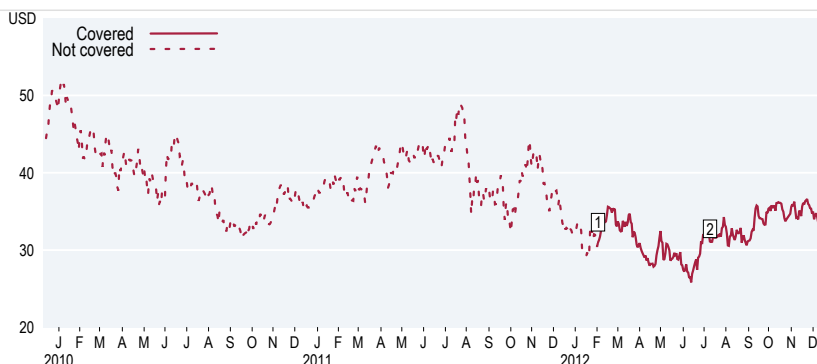
Southwestern Energy Co (SWN)

Ratings and Target Price History

Best Ideas Research

Relative Call (3 Month)

Analyst: Robert S Morris



	Date	Rating	Target Price	Closing Price
[1]	2-Feb-12	*ADD LP	-	30.98

	Date	Rating	Target Price	Closing Price
[2]	10-Jul-12	*REM LP	-	31.01

* Indicates change

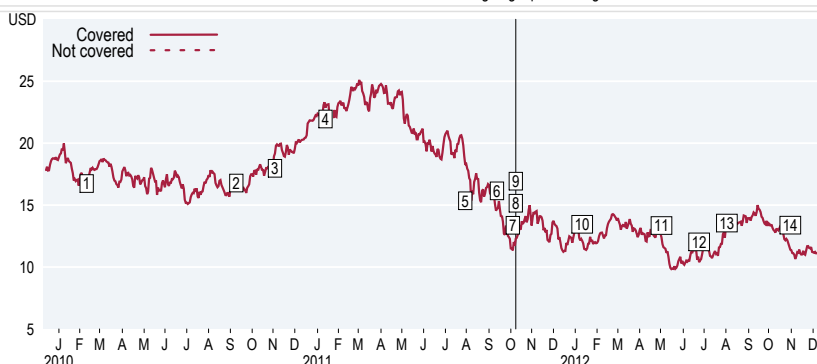
Rating/target price changes above reflect Eastern Standard Time

Talisman Energy Inc (TLM)

Ratings and Target Price History

Fundamental Research

Analyst: Robert S Morris



	Date	Rating	Target Price	Closing Price
[1]	10-Feb-10	1H	*21.00	16.74
[2]	9-Sep-10	1H	*20.00	16.53
[3]	3-Nov-10	1H	*22.00	19.17
[4]	13-Jan-11	*1M	*27.00	22.87
[5]	29-Jul-11	1M	*23.00	18.25

	Date	Rating	Target Price	Closing Price
[6]	13-Sep-11	1M	*22.00	14.68
[7]	5-Oct-11	1M	*18.00	11.34
[8]	8-Oct-11	Stock rating system changed		
[9]	8-Oct-11	*1	18.00	11.73
[10]	11-Jan-12	1	*16.00	12.12

	Date	Rating	Target Price	Closing Price
[11]	2-May-12	1	*15.00	12.40
[12]	25-Jun-12	1	*14.00	10.39
[13]	2-Aug-12	1	*16.00	12.94
[14]	31-Oct-12	*2	*12.50	11.40

* Indicates change

Rating/target price changes above reflect Eastern Standard Time

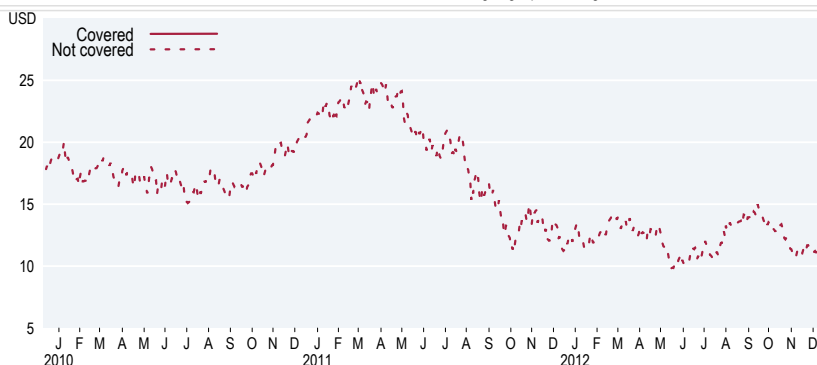
Talisman Energy Inc (TLM)

Ratings and Target Price History

Best Ideas Research

Relative Call (3 Month)

Analyst: Robert S Morris



* Indicates change

Rating/target price changes above reflect Eastern Standard Time

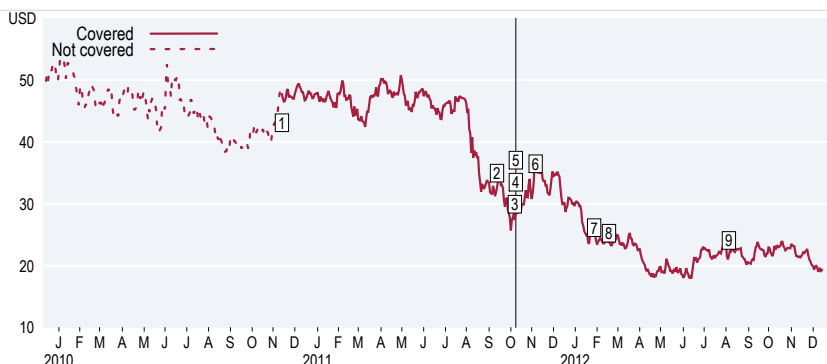
Ultra Petroleum Corp. (UPL)

Ratings and Target Price History

Fundamental Research

Analyst: Joseph Stewart

Covered since January 27 2012



	Date	Rating	Target Price	Closing Price
1	12-Nov-10	*2H	*50.00	47.77
2	13-Sep-11	2H	*38.00	32.59
3	7-Oct-11	2H	*32.00	27.34

* Indicates change

	Date	Rating	Target Price	Closing Price
4	8-Oct-11	Stock rating system changed		
5	8-Oct-11	*2	32.00	27.34
6	6-Nov-11	2	*40.00	36.47

	Date	Rating	Target Price	Closing Price
7	27-Jan-12	2	*28.00	24.97
8	17-Feb-12	2	*25.00	23.92
9	6-Aug-12	2	*22.00	21.58

Rating/target price changes above reflect Eastern Standard Time

Ultra Petroleum Corp. (UPL)

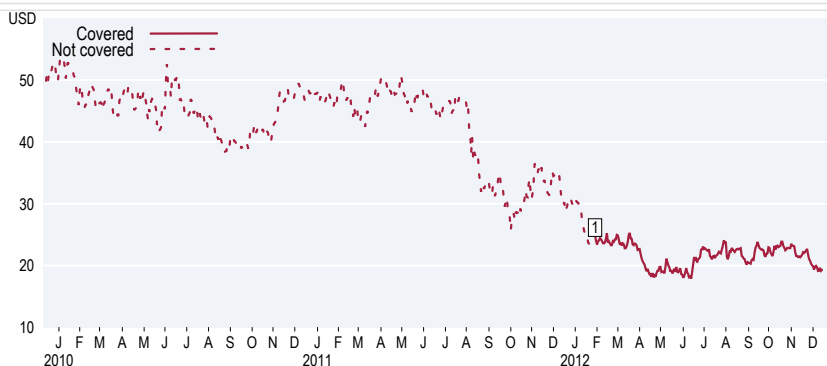
Ratings and Target Price History

Best Ideas Research

Relative Call (3 Month)

Analyst: Joseph Stewart

Covered since January 27 2012



	Date	Rating	Target Price	Closing Price
1	30-Jan-12	*ADD LP	-	24.94

* Indicates change

Rating/target price changes above reflect Eastern Standard Time

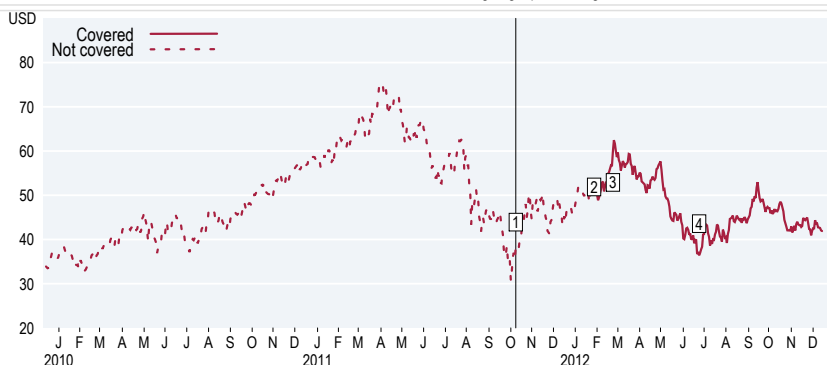
Whiting Petroleum Corp (WLL)

Ratings and Target Price History

Fundamental Research

Analyst: Joseph Stewart

Covered since January 27 2012



	Date	Rating	Target Price	Closing Price
1	8-Oct-11	Stock rating system changed		
2	27-Jan-12	*1	*60.00	50.74

* Indicates change

	Date	Rating	Target Price	Closing Price
3	23-Feb-12	1	*70.00	59.93
4	25-Jun-12	1	*55.00	36.41

Rating/target price changes above reflect Eastern Standard Time

Whiting Petroleum Corp (WLL)

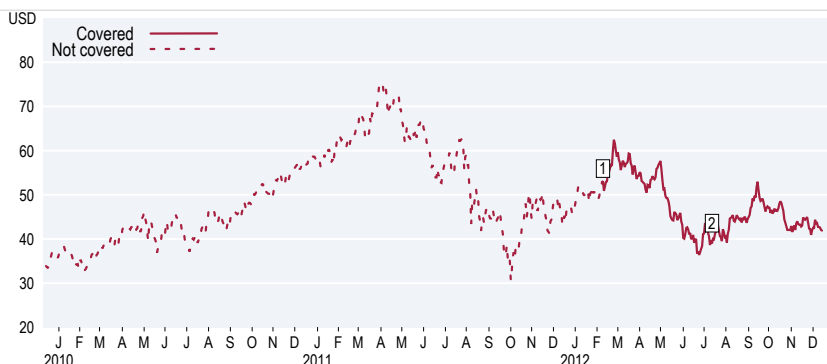
Ratings and Target Price History

Best Ideas Research

Relative Call (3 Month)

Analyst: Joseph Stewart

Covered since January 27 2012



	Date	Rating	Target Price	Closing Price
[1]	9-Feb-12	*ADD MP	-	53.09

* Indicates change

	Date	Rating	Target Price	Closing Price
[2]	12-Jul-12	*REM MP	-	39.00

Rating/target price changes above reflect Eastern Standard Time

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Citigroup Global Markets Inc. owns a position of 1 million USD or more in the debt securities of Magnum Hunter Resources Corp

Citigroup Global Markets Inc. owns a position of 1 million USD or more in the debt securities of Newfield Exploration Co

Citigroup Global Markets Inc. owns a position of 1 million USD or more in the debt securities of Pioneer Natural Resources Co

Citigroup Global Markets Inc. owns a position of 1 million USD or more in the debt securities of Rosetta Resources Inc

Citigroup Global Markets Inc. owns a position of 1 million USD or more in the debt securities of Range Resources Corp

Citigroup Global Markets Inc. owns a position of 1 million USD or more in the debt securities of SandRidge Energy Inc

Citigroup Global Markets Inc. owns a position of 1 million USD or more in the debt securities of Whiting Petroleum Corp

Rob Teahen, Associate, holds a long position in the securities of Chesapeake Energy Corp.

Joseph Stewart, Analyst, holds a long position in the securities of SandRidge Energy Inc.

Dilya Safine, CFA, Associate, holds a long position in the securities of Chesapeake Energy Corp.

Robert S Morris, Analyst, holds a long position in the securities of Chesapeake Energy Corp, EOG Resources Inc, Canadian Natural Resources Ltd.

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Endeavour International, EOG Resources Inc, Kosmos Energy Ltd, Quicksilver Resources Inc, Magnum Hunter Resources, Matador Resources Co, Noble Energy Inc, Newfield Exploration Co., Pioneer Natural Resources Co., Range Resources Corp, SandRidge Energy Inc, Southwestern Energy Co, Talisman Energy Inc, Ultra Petroleum Corp. in the past 12 months.

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The Firm is a market maker in the publicly traded equity securities of Rosetta Resources.

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Citi Research Equity Ratings Distribution

Data current as of 5 Oct 2012

	12 Month Rating			Relative Rating		
	Buy	Hold	Sell	Buy	Hold	Sell
Citi Research Global Fundamental Coverage	51%	38%	11%	7%	85%	7%
% of companies in each rating category that are investment banking clients	50%	47%	45%	59%	47%	50%

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