

## Citi Global Energy Conference – Day 2

### Takeaways From E&P Company Presentations

- **Nine E&Ps In Our Coverage Group Presented On Day 2** – Nine E&P companies – **APC, CHK, CNQ, COG, DNR, EOG, GDP, NFX** and **RRC** made presentations during the second day of Citi's 2013 Global Energy and Utilities Conference in Boston. Eight E&P companies in our coverage group presented yesterday (see our recap note: [Citi Global Energy Conference – Day 1 - Takeaways from E&P Company Presentations](#)).
- **What To Do With Excess Cash Flow?** – A key theme today was that many companies are set to become free cash flow positive over the next few years as the industry transitions from capturing new acreage to developing existing leasehold. At the same time, companies are "squeezing more" out of existing plays via faster drilling times, pad drilling, longer laterals, tighter downspacing or better completion techniques. Thus, many companies mentioned they are now faced with a situation of deciding how to allocate excess cash. The top priority for companies including **COG, CHK, EOG**, and **PXD** is to further accelerate development in key plays which generate the highest rates of return and represent the most efficient use of capital. A second priority for many is to return capital to shareholders via increased or special dividends (**APC, CNQ, DNR, DVN**) or even share buybacks (**CNQ, DVN**).
- **Maintaining Discipline In The Face Of Rising Natural Gas Prices** – It seems every company has held true to its word of not putting natural gas rigs back to work in spite of the recent rally in natural gas prices. Many companies noted they would require sustained price levels over a ~6 month period before allocating capital to dry gas plays. For example, **APC** indicated it would require a sustained natural gas price of at least \$4.50/MMBtu before it would add additional rigs in the Marcellus while **EOG** would require a \$5.00-\$5.50/MMBtu natural gas price to make dry gas drilling competitive with its crude oil portfolio at ~\$92/Bbl WTI. **CNQ** also noted that at a sustainable price of \$4.00/MMBtu or more, the company will start reallocating some of the capital to liquids-rich natural gas projects, although dry gas plays would require \$5.00/MMBtu or higher.
- **Cash Flow Per Debt-Adjusted Share Recognized As Key Industry Metric** – As highlighted in our [2013 E&P Sector Outlook](#), we believe cash flow per debt-adjusted share (CF/DAS) growth is the most important driver of share price appreciation. Notably, many companies including **COG, DVN**, and **RRC** focused on CF/DAS and other debt-adjusted per share metrics in benchmarking themselves versus peers.
- **Oil Field Services Costs Are Moderating** – Most companies noted that oil field services costs are moderating or declining across key plays while not one company mentioned rising services costs. For example, **EOG** noted a "weak" cost environment while **DVN, NBL** and **PXD** mentioned increased availability of services.
- **Company Summaries On Following Pages** – For more detail by company on each of these trends or incremental takeaways, please refer to the company-specific write-ups contained within this note.
- **Reiterate Ratings** – We reiterate our Buy Ratings on **APC, CNQ, COG, EOG, RRC** and Neutral Ratings on **CHK, DNR, GDP**, and **NFX**.

---

**Robert S Morris**

+1-212-816-3139  
robert.s.morris@citi.com

**Rob Teahen**

rob.teahen@citi.com

**Chingiz Gadimov**

chingiz.gadimov@citi.com

**Bryan M Baritot**

bryan.baritot@citi.com

---

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

Citi Research is a division of Citigroup Global Markets Inc. (the "Firm"), which does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the Firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

## Company Focus

### ■ Company Update

<b>Buy</b>	<b>1</b>
Price (15 May 13)	US\$88.17
Target price	US\$105.00
Expected share price return	19.1%
Expected dividend yield	0.4%
<b>Expected total return</b>	<b>19.5%</b>
Market Cap	US\$44,215M

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



## Anadarko Petroleum Corp (APC) Highlighting Deepwater Gulf Of Mexico Portfolio

- **Deep Dive On Deepwater Gulf Of Mexico (GOM) Portfolio** – Anadarko's VP of Exploration, Ernie Leyendecker, presented today and highlighted the potential of APC's deepwater GOM portfolio. On the exploration front, both the Yucatan (APC 15% WI) and Raptor (APC 50% WI) prospects are currently drilling with results expected in the next ~30 days. Notably, the Shenandoah (see our March 19 note) discovery is currently expected to be developed on a stand-alone basis although, as previously contemplated, further results from the nearby Coronado discovery (see our March 26 note) and Yucatan prospect could still allow for joint development in the Shenandoah Basin. Also in the GOM, management emphasized APC focuses on drilling where it has infrastructure leverage as demonstrated by the recent Phobos (see our April 25 note) exploration well drilled ~11 miles south of the Lucius discovery. Further, the company indicated it will potentially pursue additional JV-carry development structures similar to the Lucius and Heidelberg (see our March 5th note) arrangements as it highlighted both the "optionality" and ability to pull NPV forward provided by the arrangements.
- **Actively Seeking To Monetize Brazil Assets** – Anadarko has begun the process to sell its offshore Brazil holdings with the data room still open and we expect the process will likely take up until the end of this year. Management noted that it has received strong interest and that this week's Brazil offshore licensing auction (the first in ~5 years), and which generated ~\$1.7bn in successful bids, demonstrates the strong market for offshore Brazil assets.
- **Positive Read-Through In Eastern Colorado** – Well results from a private E&P in Eastern Colorado are positive for Anadarko given its ~800k land grant acres in the play. Last week, according to the Rocky Mountain Oil Journal, private company Chama Mineral and Resources drilled a horizontal well in Eastern Colorado that flowed ~2,000 BOE/d (mostly oil, ~3,000 ft lateral) and targeted the Mississippian aged St. Louis formation. Recall that APC has favorable economics in the region due to its royalty ownership on the Land Grant acreage.
- **No Plans To Ramp Up In The Marcellus** – The company is currently running four operated rigs in the play and does not plan to add rigs in the current natural gas price environment. Management indicated it would require a sustained natural gas price of at least \$4.50/MMBtu before it would consider adding rigs in the play.
- **Dividend Increase Likely** – As previously mentioned, Anadarko is likely to increase its dividend to perhaps 2-3% at some point although this will not occur until after a Tronox resolution.
- **Maintain Buy Rating** – and \$105 per share 12-month price target.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2012A	0.95A	0.85A	0.84A	0.91A	3.54A	3.52A
2013E	1.09A	0.87E	1.15E	1.36E	4.53E	4.19E
Previous	1.09A	0.87E	1.15E	1.36E	4.53E	na
2014E	na	na	na	na	5.21E	5.34E
Previous	na	na	na	na	5.21E	na
2015E	na	na	na	na	5.27E	5.70E
Previous	na	na	na	na	5.27E	na

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

## Company Focus

### ■ Company Update

<b>Buy</b>	<b>1</b>
Price (15 May 13)	US\$68.53
Target price	US\$80.00
Expected share price return	16.7%
Expected dividend yield	0.2%
<b>Expected total return</b>	<b>16.9%</b>
Market Cap	US\$14,443M

**Price Performance**  
(RIC: COG.N, BB: COG US)



## Cabot Oil & Gas Corp (COG)

### Efficiency Gains Next Inflection Point For “Marcellus Machine”

- **Efficiency Gains Represent The “Next Inflection Point” For Cabot...** – Management noted that the next inflection point for the company should come with efficiency gains, specifically as it moves to more pad drilling. Cabot projects that a 10-well pad in the Marcellus could save over \$500k per well (average cost of \$6.0-\$6.8mm per well depending on the number of frac stages) as compared to a 2-well pad. Further, management expects finding costs will continue to decline and believes its all-in F&D tab in the Marcellus could drop below \$0.40/Mcfe (vs. \$0.49/Mcfe last year and \$0.65/Mcfe in 2011).
- **Options For Free Cash Flow** – As we pointed out in our [Q1'13 Wrap Up](#) note, we expect Cabot will generate a total of ~\$1.1bn of combined free cash flow during 2013-2015 (~\$140mm/\$360mm/\$600mm in 2013/2014/2015). Management emphasized that its first priority is to further accelerate the Marcellus (by potentially running an additional rigs and/or utilizing more completion crews) given the ~100% pre-tax IRRs generated in the play at a \$3.50/MMBtu natural gas price. The company also may return capital to shareholders via an increased and/or special dividend or share buybacks although it is still in a preliminary consideration stage at this point.
- **De-risking The Eastern Portion Of Marcellus Acreage...** – With Q1'13 earnings, the company noted continued success from its step-out drilling in the eastern portion of the Marcellus with two wells located ~3 miles to the east of the Zick pad (~10 mile step-out from initial area of development) posting 24-hr IP rates that were consistent with its typical Marcellus well (based on 2012 program). Further, Cabot intends to continue to move ~9 miles east of the Zick pad to the Reilly pad and management noted it has already completed some wells in between the two pads. Thus, at this stage, a significant portion of its core Marcellus acreage is de-risked. We would also note that management appears content with its current acreage position in the play and is not actively looking to add to its core position in the context of the recent Marcellus acreage sales and acquisitions by other companies.
- **...While Marcellus Infrastructure Build Out Is On Track** – Marcellus infrastructure continues to expand as projects near completion and we would note that the necessary paperwork for the Constitution Pipeline (COG 25% equity interest) is scheduled to be filed with FERC next month and that construction is expected to take 6-8 months with the pipeline expected to be online in March 2015. Current Marcellus takeaway capacity of ~1.4/1.2 Bcf/d gross/ net is expected to expand to ~2.0/1.8 Bcf/d gross/net by YE'13 and ~2.9/2.4 Bcf/d gross/net by YE'14.
- **Marmaton Potential Divestiture Candidate** – As previously mentioned (see our [Q1'13 Wrap Up](#) note) we believe mgmt would consider a sale of its Marmaton assets to redeploy proceeds to the higher-return Marcellus. Assuming ~\$1-2k/acre for its 70k net acre position implies a valuation of \$70-\$140mm (~\$0.30-\$0.70/sh).
- **Maintain Buy Rating** – and \$80 per share 12-month price target.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2012A	0.14A	0.05A	0.20A	0.27A	0.66A	0.66A
2013E	0.26A	0.37E	0.47E	0.55E	1.65E	1.49E
Previous	0.26A	0.37E	0.47E	0.55E	1.65E	na
2014E	na	na	na	na	2.90E	2.59E
Previous	na	na	na	na	2.90E	na
2015E	na	na	na	na	4.14E	3.72E
Previous	na	na	na	na	4.14E	na

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

## Company Focus

### ■ Company Update

<b>Buy</b>	<b>1</b>
Price (15 May 13)	US\$29.27
Target price	US\$37.00
Expected share price return	26.4%
Expected dividend yield	1.7%
<b>Expected total return</b>	<b>28.1%</b>
Market Cap	US\$31,915M

### Price Performance (RIC: CNQ.N, BB: CNQ US)



## Canadian Natural Resources Ltd (CNQ) Evaluating Additional Crude Oil Export Options

- **Considering Several Alternatives To Keystone XL** – Management is considering several alternatives to Keystone XL for transporting crude oil, and feels confident about getting product to the market. Among these options are the Flanagan South pipeline (~585 MBbl/d), TransCanada gas pipeline conversion (~800 MBbl/d), and Trans Mountain (TMX) pipeline expansion ~890 MBbl/d. In a positive development for CNQ, the liberal party has won provincial elections in BC which cleared one of the hurdles for TMX pipeline expansion. CNQ currently is currently shipping ~15MBbl/d of crude by rail to the Gulf Coast, but sees pipelines as being a cheaper and safer option long-term.
- **Horizon Turnaround On Track** – The Horizon oil sands project (15% of total production) is currently undergoing a 24-day turnaround, which is proceeding according to plan. The plant is expected to be back up and operating next Friday, and is subsequently projected to average ~115 MBbls/d for the rest of the year and account for nearly one-half of CNQ's total production increase this year.
- **Montney Monetization Teed Up...** – The company is moving forward with the monetization of 250k of its over 1.0mm net acres in the Montney liquids-rich gas play. The company will provide more information about these assets during its Investor Open House in June. A data room will open in early July and bids should then be due in September. CNQ will consider either an outright sale or joint venture.
- **Delivering Strong Returns on Thermal and Primary Heavy Oil** – CNQ highlighted its strong inventory of primary heavy oil well locations where it is drilling ~900 wells a year, and doesn't see material service cost inflation. At Primrose, the company's operating costs are the lowest among other thermal heavy oil operators
- **Natural Gas Projects Await Higher Prices** – Management stated that it would need a price above \$5.00/MMBtu to start new dry gas programs. At a sustainable price of \$4.00/MMBtu or more, though, the company will start reallocating some capital to liquids-rich natural gas projects as they become competitive with light oil projects. But without dry gas drilling but with a ramp in liquids-rich plays, CNQ doesn't anticipate its natural gas production flattening and beginning to grow for another 2 years, unless it sees better economics in the Duvernay shale.
- **Acquisitions** – The company may acquire some assets domestically, with similar rates of returns to its thermal heavy oil projects and Horizon. Management is looking to consolidate infrastructure and reduce costs in Western Canada. At the same time, it is not looking to divest its international oil assets due to their free cash flow generation and light oil content which balances its heavy oil assets.
- **Maintain Buy Rating** – With \$37 per share price target.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2012A	0.27A	0.55A	0.33A	0.32A	1.47A	1.47A
2013E	0.37A	0.34E	0.55E	0.53E	1.78E	2.04E
Previous	0.37A	0.34E	0.55E	0.53E	1.78E	na
2014E	na	na	na	na	2.34E	2.67E
Previous	na	na	na	na	2.34E	na
2015E	na	na	na	na	2.93E	2.71E
Previous	na	na	na	na	2.93E	na

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

## Company Focus

### ■ Company Update

<b>Neutral/High Risk</b>	<b>2H</b>
Price (15 May 13)	US\$20.66
Target price	US\$20.00
Expected share price return	-3.2%
Expected dividend yield	1.5%
<b>Expected total return</b>	<b>-1.7%</b>
Market Cap	US\$13,769M

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



## Chesapeake Energy Corp (CHK) Focus On Value Realization For Existing Plays

■ **Focus On Improving Drilling Efficiencies Across Plays** – After several years of asset acquisitions and drilling-to-hold spending, CHK has shifted its focus to developing its existing acreage. The company highlighted that 2013 is the first year that the company is not involved in any new leasehold acquisitions, while D&C capex is expected to increase to 80% of its total budget compared to less than 50% previously. CHK emphasized that its drilling efforts will focus on the “core of the core” in unconventional resource plays. Drilling efficiencies are expected to improve with the implementation of pad drilling which is expected to increase from 50% currently to 75% of activity in 2014. Consequently, its rig count is expected to stay flat as it takes a more disciplined approach to capital spending.

■ **Asset Sales On Track** – The company reiterated its goal of \$4-7bn in asset sales this year, with \$2.0bn inked to date, including ~\$1.0bn from the Miss Lime j.v. set to close this quarter. It also plans to sell its Northern Eagle Ford position, remaining midstream assets and other non-core assets which it hopes to conclude near term. A JV for its dry gas Utica is also possible, although unlikely this year given the current natural gas price environment. In addition, CHK noted that the bottoming of natural gas markets has brought more buyers to the table including financial sponsors. Management also noted that its oilfield service business is not part of its asset sales plan this year, because of the current market.

■ **Marcellus, Eagle Ford And Utica Are Highest Return Assets** – Chesapeake highlighted three unconventional resource plays where it currently generates the highest rates of return – Marcellus, Eagle Ford and Utica. In the Marcellus shale (100%+ IRR), CHK is running 5 rigs in the northern ‘dry’ portion of the play and has had strong well results (10+ Bcf EURs). In the Eagle Ford (40-60% IRR), drilling efficiency gains and longer laterals should drive better production growth. In the Utica (40-80% IRR), a step-change in output should occur with gas processing capacity additions boosting production from 65 MMcf/d to 330 MMcf/d net by the end of this year. Notably, the MS Lime play isn’t among the top 5 highest return assets within its portfolio.

■ **Generating Positive Free Cash Flow By 2015** – Management mentioned that it could be free cash flow neutral starting next year and turn free cash flow positive in 2015 under its commodity price assumptions (\$95/Bbl, \$4.50/MMBtu). CHK expects meaningful liquids production growth next year as well as margin improvement due to higher drilling efficiencies and lower service costs. Most of the company’s drilling carries (\$1.5bn remaining in Utica and Niobrara), however, are projected to be used up by 2015.

■ **Maintain Neutral Rating** – With \$20 per share price target.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2012A	0.18A	0.06A	0.04A	0.26A	0.55A	0.61A
2013E	0.30A	0.40E	0.44E	0.48E	1.62E	1.45E
Previous	0.30A	0.40E	0.44E	0.48E	1.62E	na
2014E	na	na	na	na	2.55E	1.99E
Previous	na	na	na	na	2.55E	na
2015E	na	na	na	na	2.68E	2.39E
Previous	na	na	na	na	2.68E	na

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

## Company Focus

### ■ Company Update

<b>Neutral</b>	<b>2</b>
Price (15 May 13)	US\$18.66
Target price	US\$18.00
Expected share price return	-3.5%
Expected dividend yield	0.0%
<b>Expected total return</b>	<b>-3.5%</b>
Market Cap	US\$6,963M

### Price Performance (RIC: DNR.N, BB: DNR US)



## Denbury Resources, Inc. (DNR) On Track To Be An Income And Growth Company

- **MLP Still On The Table** – In today's presentation, Phil Rykhoek, Director, President & CEO of Denbury Resources, indicated that the company's focus is on becoming an income and growth company as they work towards creating a positive free cash flow operating environment. Notably, without additional acquisitions, the company expects to be quite free cash flow positive in 2017. Also, Rykhoek mentioned that an MLP structure for the company was still a possibility and that details of their decision making process will be disclosed at their analyst day meeting in November. Additionally, the company entertained the idea of an MLP for its pipeline infrastructure, similar to what other operators have done in the past.
- **EOR In Focus** – The company mentioned that initial Rockies EOR production is expected to come on line later this year while the first gas and helium output at Riley Ridge is on track for the third quarter. Notably, Mr. Rykhoek offered his bullish outlook for the helium market ("20-25% of revenue stream" at Riley Ridge) where it expects to realize up to \$80.00/Mcf. Also, in terms of operational flexibility, the company indicated that it is able to hold production flat even if it were to decide to cut capex by half.
- **Share Repurchases "Slowing"** – Over the last year and half, the company has bought back over 9% of its outstanding shares, although today it noted a reduction in the pace of repurchases given the recent stock price appreciation. Approximately \$229mm remains under the current stock repurchase authorization, implying another ~13mm shares (~4%) at \$18/share.
- **Maintain Neutral Rating** –with \$18.00 per share Target Price

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
<b>2012A</b>	0.41A	0.35A	0.33A	0.36A	1.47A	1.45A
<b>2013E</b>	<b>0.33A</b>	<b>0.30E</b>	<b>0.32E</b>	<b>0.30E</b>	<b>1.26E</b>	<b>1.31E</b>
Previous	0.33A	0.30E	0.32E	0.30E	1.26E	na
<b>2014E</b>	<b>na</b>	<b>na</b>	<b>na</b>	<b>na</b>	<b>1.11E</b>	<b>1.29E</b>
Previous	na	na	na	na	1.11E	na
<b>2015E</b>	<b>na</b>	<b>na</b>	<b>na</b>	<b>na</b>	<b>1.15E</b>	<b>1.21E</b>
Previous	na	na	na	na	1.15E	na

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



## Company Focus

### ■ Company Update

<b>Buy</b>	<b>1</b>
Price (15 May 13)	US\$134.69
Target price	US\$155.00
Expected share price return	15.1%
Expected dividend yield	0.5%
<b>Expected total return</b>	<b>15.6%</b>
Market Cap	US\$36,646M

### Price Performance (RIC: EOG.N, BB: EOG US)



## EOG Resources Inc (EOG)

### Focus On Increasing Recovery Factors While Generating The Highest Returns In Company History

- **Focus On Increasing Recovery Factors Across Plays** – After boosting its net resource potential in the Eagle Ford to 2.2 BBOE (from 1.6 BBOE) at the end of last year, management indicated its main focus is increasing recovery rates across its key plays. The Eagle Ford resource estimate implies ~8% recovery of the 26.4 BBOE net resource estimate remaining in place and current optimal downspacing (40-acre spacing in the east and 65-acre spacing in the western portion of the play) while further downspacing and dry gas injection could yield higher recovery. The company indicated it also seeks to improve recovery factors in the Bakken and Delaware Basin via tighter spacing and secondary recovery methods.
- **Now Generating Highest Returns In Company History...** – The company is now generating its highest rates of returns ever on new wells drilled. IRRs in the Eagle Ford and Bakken are both ~100% as the Eagle Ford continues to surprise to the upside (see our May 7<sup>th</sup> Q1'13 Wrap Up [note](#)). Further management noted that oil field services costs in the industry are “weak” right now across key plays.
- **...While Further Upside Exists In The Bakken** – Management noted that it believes its Bakken position is “under-drilled” and the acreage has been “under-stimulated.” Thus, the company continues to test tighter downspacing in the play and, after beginning to test 160-acre spacing late last year (vs. 320-acre previously) across its ~90k net acre core position, it plans to drill ~50 wells over the remainder of 2013 using 160-acre spacing. Further, management noted that it is achieving after-tax rates of return in the Bakken that are comparable to the ~100%-plus returns generated in the Eagle Ford. Also recall that during Q1'13, EOG completed its first production test of the Three Forks second bench in the Antelope Extension area with a completed-to-sales rate substantially higher than previously highlighted IP rates (see our May 7<sup>th</sup> [note](#)). Early indications are that the second bench may have better potential than the first bench and the Bakken formation in this area and the company also plans to test the third bench in the Three Forks in this area next year.
- **Free Cash Flow Options** – Looking ahead, we project EOG will generate ~\$900mm of excess cash flow beyond capital outlays in 2014 and 2015. The company's priorities for excess cash flow are: 1) reinvest in its highest rate of return projects by drilling more Eagle Ford and Bakken wells, and 2) increase the dividend or buy back shares. With regard to the dividend, management previously indicated it would prefer to increase it to a 2-3% yield over the next 5 years rather than buy back stock.
- **Maintain Buy Rating** – and \$155 per share 12-month price target.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2012A	1.17A	1.16A	1.73A	1.61A	2.10A	5.67A
2013E	1.80A	1.46E	1.53E	1.65E	6.46E	6.58E
Previous	1.80A	1.46E	1.53E	1.65E	6.46E	na
2014E	na	na	na	na	7.33E	8.03E
Previous	na	na	na	na	7.33E	na
2015E	na	na	na	na	9.71E	9.08E
Previous	na	na	na	na	9.71E	na

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

## Company Focus

### ■ Company Update

<b>Neutral</b>	<b>2</b>
Price (15 May 13)	US\$13.07
Target price	US\$16.00
Expected share price return	22.4%
Expected dividend yield	0.0%
<b>Expected total return</b>	<b>22.4%</b>
Market Cap	US\$480M

### Price Performance (RIC: GDP.N, BB: GDP US)



## Goodrich Petroleum Corp (GDP) Awaiting Further Results From The Tuscaloosa

- **TMS Well Performs Above Expectations...** – Goodrich has the most leverage to the Tuscaloosa Marine Shale (TMS) of any company, and so far initial well results are encouraging. The Crosby 12H-1 well (see our 2/6/13 [Note](#)) continues to outperform the company's 800 MBOE type curve and is currently producing ~700 BOE/d after 3 months on production. Industry well results have been less impressive tracking closer to 600 MBOE type curve. GDP, however, believes it has found the most optimal hz well lateral length and completions design, which will help to improve IP rates and performance. At base case EUR of 600 MBOE, rates of return are estimated at ~28% (\$90/Bbl oil, \$13mm well costs), however the returns could nearly double if the Crosby well performance can be repeated.
- **...With Focus On Driving Down Future Well Costs** – The main concern for the TMS is bringing costs down from \$15mm+ to under \$13mm per well in development mode. Management is optimistic about achieving this goal this year, as the latest Ash 1, 2 and Smith wells are already close to reaching this target. Among other opportunities for well cost improvements are, reduction in drilling days, shift to pad drilling, and an increased availability of oil field services in the region, as the play moves into the development stage.
- **More Results Coming Soon** – In addition to its operated Smith well, GDP is participating with Encana in two Anderson wells (7% WI), with results from all three expected in ~45 days. Overall, GDP plans 6–10 gross (2–4 net) TMS wells, and expects to spend \$50 million, in the play this year.
- **Awaiting Higher Prices For Natural Gas** – Management stated that at a \$4.50/MMBtu natural gas price, its Haynesville wells generate 25-30% rates of return. However, that is still not sufficient to move rigs away from the Eagle Ford where the company is generating 40-50% RORs.
- **Maintain Neutral Rating** – And \$16 per share price target.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
<b>2012A</b>	-0.28A	-0.21A	-0.23A	-0.19A	-0.90A	-0.90A
<b>2013E</b>	-0.76A	-0.58E	-0.54E	-0.47E	-2.38E	-2.14E
Previous	-0.76A	-0.58E	-0.54E	-0.47E	-2.38E	na
<b>2014E</b>	na	na	na	na	-2.28E	-1.12E
Previous	na	na	na	na	-2.28E	na
<b>2015E</b>	na	na	na	na	-2.51E	-0.91E
Previous	na	na	na	na	-2.51E	na

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



## Company Focus

### ■ Company Update

<b>Neutral</b>	<b>2</b>
Price (15 May 13)	US\$23.79
Target price	US\$25.00
Expected share price return	5.1%
Expected dividend yield	0.0%
<b>Expected total return</b>	<b>5.1%</b>
Market Cap	US\$3,222M

### Price Performance (RIC: NFX.N, BB: NFX US)



## Newfield Exploration Co. (NFX) Rail Could Provide Upside to Uinta Volumes

■ **Excited About Rail Options** – This morning, Lee Boothby, President & CEO of Newfield Exploration Co., kicked off the second day of our conference by highlighting his company's transition to becoming an entirely onshore U.S. liquids focused E&P. In this regard, one of the "most exciting" things currently going on for the company is the emergence of a rail option for its Uinta Basin crude. Following regional refinery curtailments (Salt Lake City) which plagued its Uinta production last year, the company now believes that rail could ultimately provide "incremental upside" to production volumes. Also, including transportation costs, the company anticipates realizations to be at a 17-18% differential to WTI prices. Ultimately, the company believes it can take rail capacity from 30 MBbls to 150 MBbls.

■ **SXL Program Picking Up** – Newfield recently drilled its first SXL well in the Utteland Butte (results expected in June) and has also received approval to drill two SXL wells in the Wasatch formation. The company plans to drive production growth in the play via rapid horizontal development in both the Wasatch and Utteland Butte formations with much of the upside potential being driven by lateral programs in several different oil horizons present throughout the region. Across its portfolio, the company pointed to continued improvements in operating efficiencies and well costs.

■ **International Asset Sale On Track** – The company disclosed that a data room for the sale of its international assets (Malaysia and China) opened last week and that responses have been better than expected. Management mentioned that they expect a resolution to occur later this year while also noting the assets' YE'12 PV-10 value of \$1.3bn-1.4bn (\$1.0+bn after-tax) not including recent gas discovery and Pearl field in China. Notably, a third exploration wells is expected to be drilled this summer in an adjacent region to their most recent gas discovery (see our April 2<sup>nd</sup> note: [Newfield Exploration Co. \(NFX\) - Alert: Large Gas Discovery Offshore Malaysia; Asset Sale Update](#)) in offshore Malaysia's SK-10 area where they've gone two for two on the exploration front.

■ **Maintain Neutral Rating** – with \$25.00 per share Price Target

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
2012A	0.91A	0.61A	0.48A	0.28A	2.28A	2.27A
2013E	0.45A	0.36E	0.44E	0.46E	1.72E	1.81E
Previous	0.45A	0.36E	0.44E	0.46E	1.72E	na
2014E	na	na	na	na	2.06E	2.47E
Previous	na	na	na	na	2.06E	na
2015E	na	na	na	na	2.67E	2.73E
Previous	na	na	na	na	2.67E	na

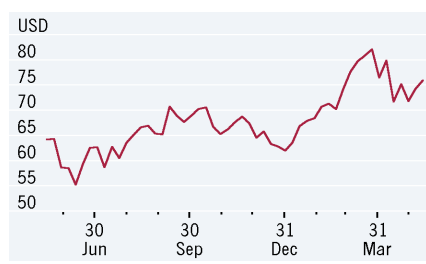
Source: Company Reports and dataCentral, Citi Research. FC Cons: First Call Consensus.

## Company Focus

### ■ Company Update

<b>Buy</b>	<b>1</b>
Price (15 May 13)	US\$75.73
Target price	US\$95.00
Expected share price return	25.4%
Expected dividend yield	0.2%
<b>Expected total return</b>	<b>25.6%</b>
Market Cap	US\$12,349M

### Price Performance (RIC: RRC.N, BB: RRC US)



## Range Resources Corp (RRC) Squeezing Even More From The Marcellus

- **Squeezing More From The Marcellus...** – Management noted continued improvements in drilling and completion results in the Marcellus shale which help underscore its long line of sight on 20-25% per annum total company production growth for at least the next several years. With Q1'13 earnings, the company highlighted multi-well pad drilling in the 'super-rich' region (see our April 26<sup>th</sup> [note](#)) that posted strong per-well IP rates in regions where offsets had already been drilled and wherein the wells were choked back due to facility constraints. Further, the company is drilling wells with 'moderate' lateral lengths in order to move on to other areas to hold its acreage. Thus, we believe Range's expansive resource base (6.5 Tcfe of proved reserves and 48-68 Tcfe of resource potential) could prove to be conservative as longer laterals, reduced cluster spacing (RCS) and better completion techniques continue to expand what is already a significant drilling inventory in the Marcellus where it holds ~1mm net acres.
- **...And Miss Lime Getting Better...** – In the Mississippian Lime play (~5% of current total output), well results continue to be quite variable but efficiencies continue to make positive strides here also. Range now plans (due to higher WI with successful forced pooling in Oklahoma) to drill fewer *gross* wells while drilling times are down ~30% with spud-to-spud now at ~25 days. We would note that management stated that returns in the Miss Lime (~130% IRR based on NYMEX strip pricing and 600 MBOE EUR) are higher, on average, than those generated in the Marcellus shale but that significantly more variability exists in the Miss Lime.
- **...While Company Wide Per-unit Costs Continue To Decline** – Management emphasized its focus on driving down per-unit costs which have decreased ~30% over the past five years. Notably, only transportation & gathering costs have increased over this time period on a per-unit basis due to the ramp up in production with the infrastructure build out while all other per-unit costs have fallen.
- **Monitoring Industry Activity Near Emerging Plays** – Management plans to observe industry results in its emerging plays including the Utica and Cline shale before allocating capital to its positions here, and likely not before 2014. In the Utica, (~180k net acres), Range drilled its first well (50% WI) in Q1'13 and encountered 285 ft of pay. The well confirmed the acreage is in the wet gas window but it was not landed within the formation or stimulated effectively and tested at just ~1.4 MMcfe/d. In the West Texas Cline (~100k net acres), the company is encouraged by its first three wells but we would note did not announce any new well results with Q1'13 earnings.
- **Maintain Buy Rating** – and \$95 per share 12-month price target.

EPS	Q1	Q2	Q3	Q4	FY	FC Cons
<b>2012A</b>	0.15A	0.11A	0.20A	0.46A	0.93A	0.92A
<b>2013E</b>	<b>0.33A</b>	<b>0.30E</b>	<b>0.38E</b>	<b>0.50E</b>	<b>1.51E</b>	<b>1.51E</b>
Previous	0.33A	0.30E	0.38E	0.50E	1.51E	na
<b>2014E</b>	<b>na</b>	<b>na</b>	<b>na</b>	<b>na</b>	<b>2.58E</b>	<b>2.21E</b>
Previous	na	na	na	na	2.58E	na
<b>2015E</b>	<b>na</b>	<b>na</b>	<b>na</b>	<b>na</b>	<b>4.06E</b>	<b>3.35E</b>
Previous	na	na	na	na	4.06E	na

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

## Anadarko Petroleum Corp

### Company description

Anadarko Petroleum Corporation explores for, develops and produces natural gas, crude oil and natural gas liquids. It also produces hard minerals from land grant holdings, and owns and operates midstream assets to gather, treat and process natural gas. 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, Kenya, New Zealand 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 6.6x/6.0x 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, ~100% of proved-only NAV and ~88% of our risked resource sum-of-the-parts 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, 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, Kenya and elsewhere, and such exploration projects have a high probability of failure.

## 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.

### 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 \$80 is based on the stock achieving an EV/debt-adjusted cash flow multiple of 12.8x/9.0x for 2013E/2014E based on 'normalized' WTI spot oil and composite spot gas prices of \$90.00/Bbl and \$4.50/MMBtu and ~210% 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 \$37 price target is based on CNQ's stock achieving EV multiples of 7.0x/5.8x 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 ~104% of proven reserve only NAV, but just 87% of our sum-of-the-parts risked resource NAV assessment.

### Risks

**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 3.9 Billion cubic feet per day, or >6% of total US natural gas production. The company had 15.7 Tcfe of proved reserves as of YE'12. It is either the largest or second-largest leased acreage holder in the Barnett, Haynesville, Marcellus, Granite Wash, Miss Lime, Niobrara, Cleveland/Tonkowa, Eagle Ford, Utica and Anadarko Basin.

### 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 EV multiples of 5.2x and 4.2x our 2013-14 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 ~45% 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.

## **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 CO<sub>2</sub>-driven tertiary oil recovery that sweeps remaining oil from mature, conventional fields. It controls its own CO<sub>2</sub> 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 CO<sub>2</sub> 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. 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 6.8x and 6.2x our 2013-14 debt-adjusted cash flow estimates based on 'normalized' WTI spot oil and composite spot natural gas prices of \$90/Bbl and \$4.50/MMBtu, respectively, and ~90% 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.

## 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 Eagle Ford Shale, the Bakken Shale, the Permian (Delaware Basin and Midland Basin), the Barnett combo play, Canada, Trinidad, and the U.K. North Sea.

### Investment strategy

We rate EOG Resources Buy. The company boosted liquids production by ~37% yr/yr in 2012 driven by crude oil production increasing ~39% yr/yr and initial guidance for 2013 calls for 16-30% yr/yr liquids growth while we project liquids volumes at the upper-end of this range. EOG also updated net recoverable resource estimates for the Eagle Ford shale and Leonard/Wolfcamp shales, which combined rose from ~1.67 BBOE to ~3.55 BBOE (YE'12 total proven reserves were ~1.8 BBOE).

### Valuation

Our \$155 price target equates to a 2013/2014 EV/DACF multiples of 6.7x/5.7x and ~140% 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, the Bakken, the Barnett and the Permian, 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 80k net acres in ETNL (comprises its largest assets), where it primarily targets the Haynesville, Bossier and Cotton Valley Taylor Sands formations. While over 75% of YE12 proved reserves and ~70% 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 close to 40k net acres concentrated on the oily Eagle Ford Shale and the Buda Lime formations with an additional 10k net acres prospective for the

Pearsall. Goodrich also has over 130k net acres 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 close to 120 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 its cash flows are still sensitive to natural gas prices. Although we expect Goodrich to have sufficient liquidity to fund its program through 2013, 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 \$16 price target is based on GDP's stock achieving a multiple of 7.8x/7.0x our 2013/2014 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, Tuscaloosa Marine Shale, and Pearsall 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 or executing a JV in the Tuscaloosa, 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.

## 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 25% international production decline guidance for 2013 was disappointing. In addition, Newfield's year-end reserves reflect continued asset quality issues that the company needs to address.

### Valuation

Our \$25 price target is based on the company achieving multiples of 5.0x and 5.5x 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 ~98% 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.

## 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 in 2013 is expected to be ~78% natural gas and ~22% 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.

## Valuation

Our \$95 target is based RRC's stock achieving 2013/2014 EV/DACF multiples of 16.1x/12.0x respectively, and ~150% 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 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.

## Appendix A-1

### Analyst Certification

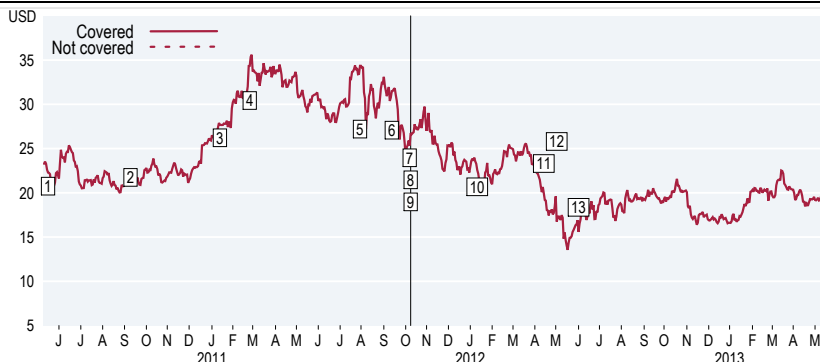
The research analyst(s) primarily responsible for the preparation and content of this research report are named in bold text in the author block at the front of the product except for those sections where an analyst's name appears in bold alongside content which is attributable to that analyst. Each 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

#### Chesapeake Energy Corp (CHK)

##### Ratings and Target Price History Fundamental Research

Analyst: Robert S Morris



	Date	Rating	Target Price	Closing Price
1	13-May-10	2S	*28.00	23.29
2	9-Sep-10	2S	*26.00	20.91
3	13-Jan-11	2S	*28.00	27.70
4	24-Feb-11	2S	*35.00	34.35
5	29-Jul-11	*2H	*38.00	34.35

\* Indicates change

	Date	Rating	Target Price	Closing Price
6	13-Sep-11	2H	*34.00	31.49
7	7-Oct-11	*1H	*32.00	25.35
8	8-Oct-11	Stock rating system changed		
9	8-Oct-11	*1	32.00	25.35
10	11-Jan-12	1	*28.00	22.58

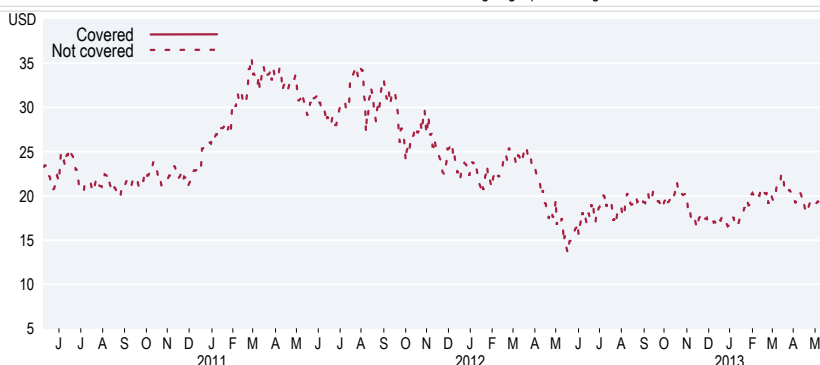
	Date	Rating	Target Price	Closing Price
11	13-Apr-12	*2	*22.00	19.95
12	2-May-12	2	*20.00	16.74
13	1-Jun-12	*2H	20.00	15.58

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

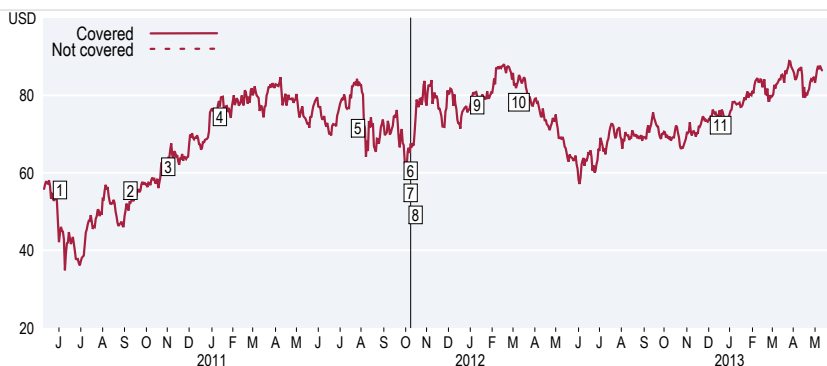
Rating/target price changes above reflect Eastern Standard Time



## Anadarko Petroleum Corp (APC)

### Ratings and Target Price History Fundamental Research

Analyst: Robert S Morris



	Date	Rating	Target Price	Closing Price
1	2-Jun-10	1H	*75.00	44.36
2	9-Sep-10	1H	*74.00	52.28
3	2-Nov-10	1H	*80.00	63.82
4	13-Jan-11	1H	*95.00	77.14

\* Indicates change

	Date	Rating	Target Price	Closing Price
5	27-Jul-11	1H	*100.00	82.39
6	8-Oct-11	Stock rating system changed		
7	8-Oct-11	*1	100.00	65.12
8	17-Oct-11	1	*120.00	74.44

	Date	Rating	Target Price	Closing Price
9	11-Jan-12	1	*110.00	79.72
10	9-Mar-12	1	*115.00	85.25
11	19-Dec-12	1	*105.00	74.45

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

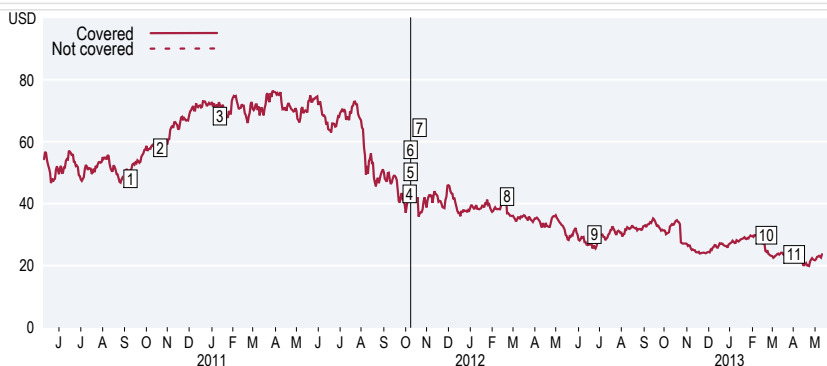
	Date	Rating	Target Price	Closing Price
2	9-Aug-12	*REM MP	-	69.66

Rating/target price changes above reflect Eastern Standard Time

## Newfield Exploration Co. (NFX)

### Ratings and Target Price History Fundamental Research

Analyst: Robert S Morris



	Date	Rating	Target Price	Closing Price
1	9-Sep-10	1M	*60.00	50.67
2	21-Oct-10	1M	*68.00	58.91
3	13-Jan-11	*2M	*76.00	71.86
4	7-Oct-11	*1M	*58.00	40.65

\* Indicates change

	Date	Rating	Target Price	Closing Price
5	8-Oct-11	Stock rating system changed		
6	8-Oct-11	*1	58.00	40.65
7	21-Oct-11	1	*48.00	36.73
8	22-Feb-12	*2	*46.00	36.88

	Date	Rating	Target Price	Closing Price
9	25-Jun-12	2	*30.00	25.81
10	21-Feb-13	2	*27.00	24.43
11	2-Apr-13	2	*25.00	22.10

Rating/target price changes above reflect Eastern Standard Time

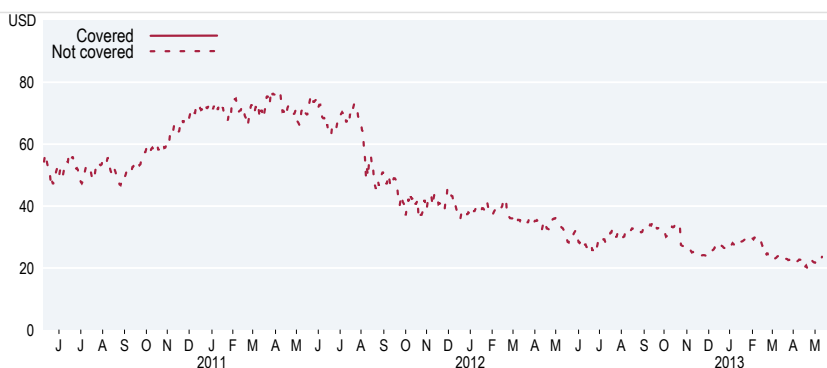
## Newfield Exploration Co. (NFX)

### Ratings and Target Price History

#### Best Ideas Research

#### Relative Call (3 Month)

Analyst: Robert S Morris



\* 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	9-Sep-10	1M	*110.00	89.37
2	3-Nov-10	*2M	*95.00	88.64
3	13-Jan-11	2M	*105.00	97.86
4	21-Feb-11	2M	*120.00	108.89
5	7-Aug-11	*1M	*130.00	95.92

\* Indicates change

	Date	Rating	Target Price	Closing Price
6	13-Sep-11	1M	*126.00	86.75
7	7-Oct-11	1M	*110.00	74.90
8	8-Oct-11	Stock rating system changed		
9	8-Oct-11	*1	110.00	74.90
10	11-Jan-12	1	*125.00	103.17

	Date	Rating	Target Price	Closing Price
11	25-Jun-12	1	*115.00	84.90
12	3-Aug-12	1	*120.00	106.75
13	6-Nov-12	1	*135.00	121.98
14	14-Feb-13	1	*155.00	133.33

Rating/target price changes above reflect Eastern Standard Time

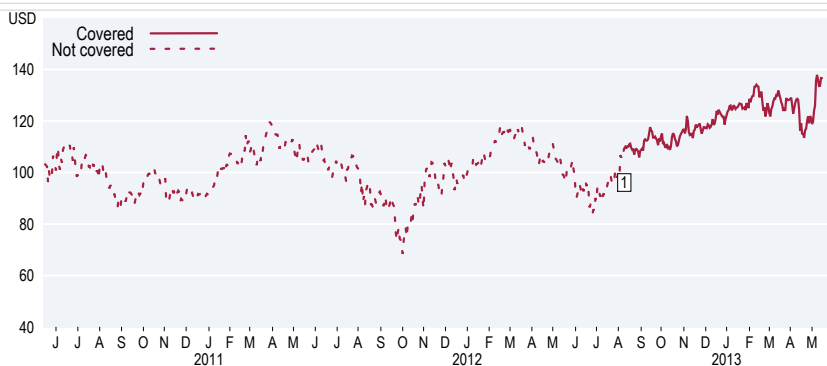
## EOG Resources Inc (EOG)

### 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

## 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
11	2-Apr-13	1	*95.00	79.10

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

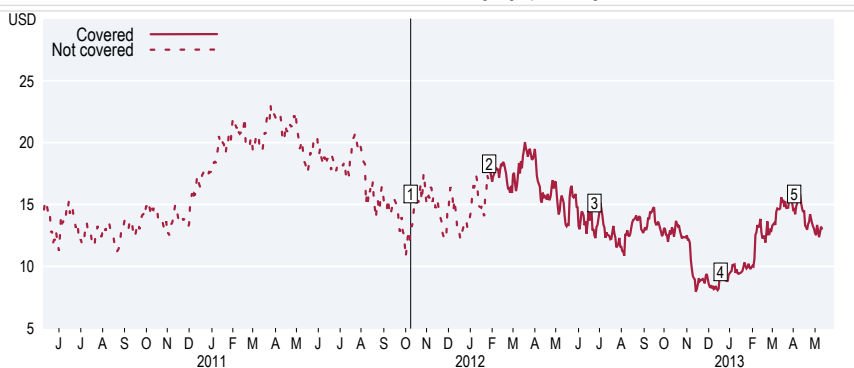
## Goodrich Petroleum Corp (GDP)

### Ratings and Target Price History

#### Fundamental Research

Analyst: Robert S Morris

Covered since March 6 2013



	Date	Rating	Target Price	Closing Price
1	8-Oct-11	Stock rating system changed		
2	27-Jan-12	*2	*18.00	18.29

\* Indicates change

	Date	Rating	Target Price	Closing Price
3	25-Jun-12	2	*14.75	12.49
4	19-Dec-12	2	*10.50	9.56

	Date	Rating	Target Price	Closing Price
5	2-Apr-13	2	*16.00	14.62

Rating/target price changes above reflect Eastern Standard Time

## Goodrich Petroleum Corp (GDP)

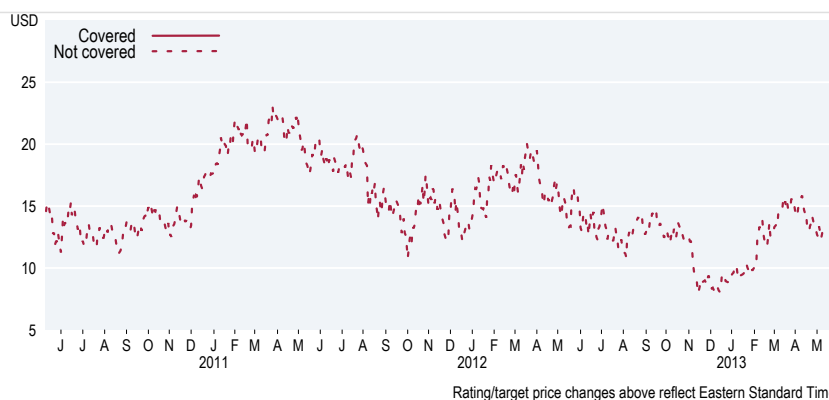
### Ratings and Target Price History

#### Best Ideas Research

#### Relative Call (3 Month)

Analyst: Robert S Morris

Covered since March 6 2013



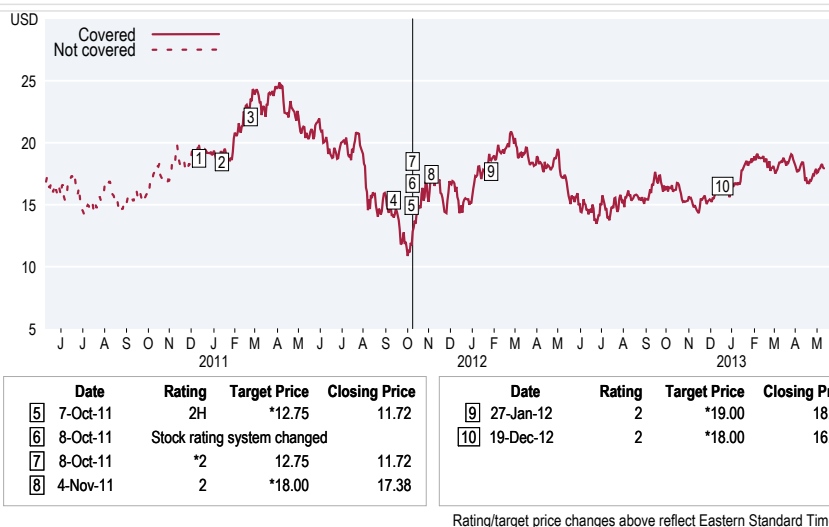
## Denbury Resources, Inc. (DNR)

### Ratings and Target Price History

#### Fundamental Research

Analyst: Robert S Morris

Covered since March 6 2013



## Denbury Resources, Inc. (DNR)

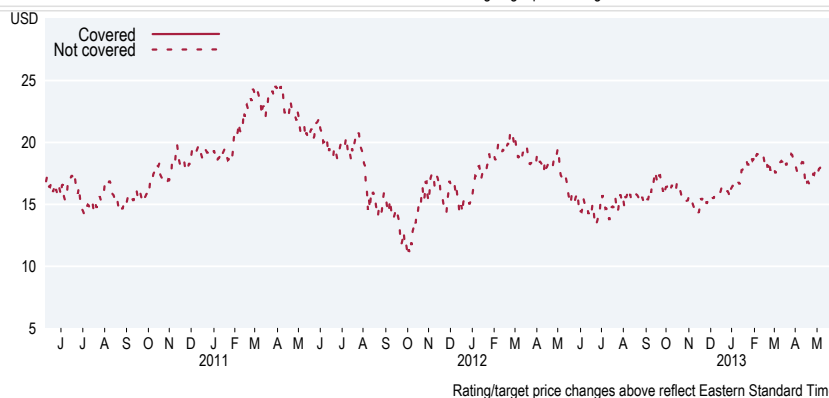
### Ratings and Target Price History

#### Best Ideas Research

#### Relative Call (3 Month)

Analyst: Robert S Morris

Covered since March 6 2013

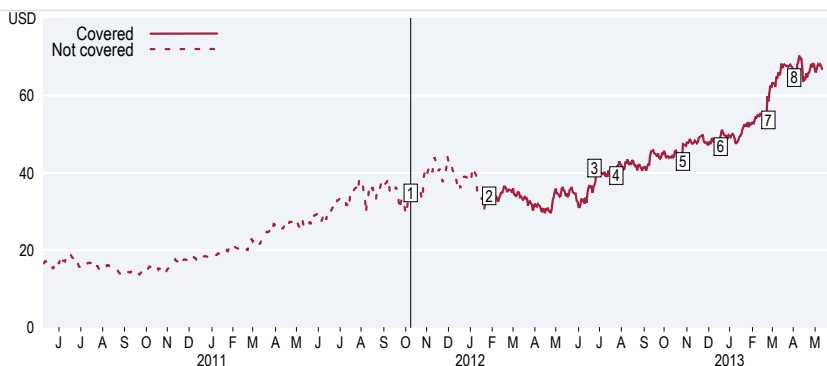


## Cabot Oil & Gas Corp (COG)

### Ratings and Target Price History Fundamental Research

Analyst: Robert S Morris

Covered since March 6 2013



	Date	Rating	Target Price	Closing Price
1	8-Oct-11	Stock rating system changed		
2	27-Jan-12	*1	*40.00	32.88
3	25-Jun-12	1	*43.00	36.89

\* Indicates change

	Date	Rating	Target Price	Closing Price
4	25-Jul-12	1	*45.00	39.30
5	26-Oct-12	1	*55.00	47.46
6	19-Dec-12	1	*60.00	49.62

	Date	Rating	Target Price	Closing Price
7	24-Feb-13	1	*69.00	59.81
8	2-Apr-13	1	*80.00	66.65

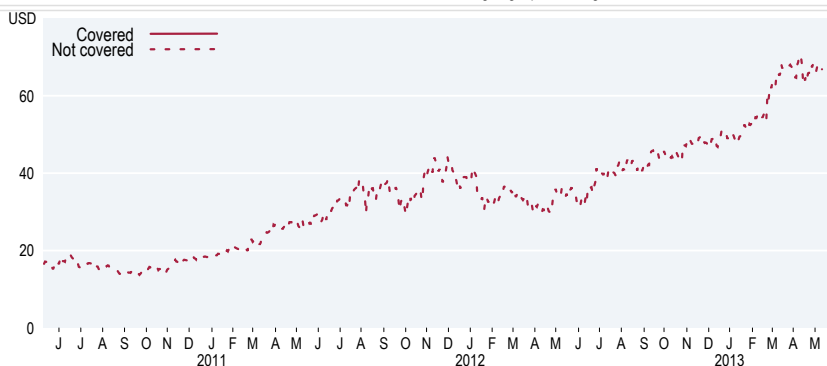
Rating/target price changes above reflect Eastern Standard Time

## Cabot Oil & Gas Corp (COG)

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

Analyst: Robert S Morris

Covered since March 6 2013



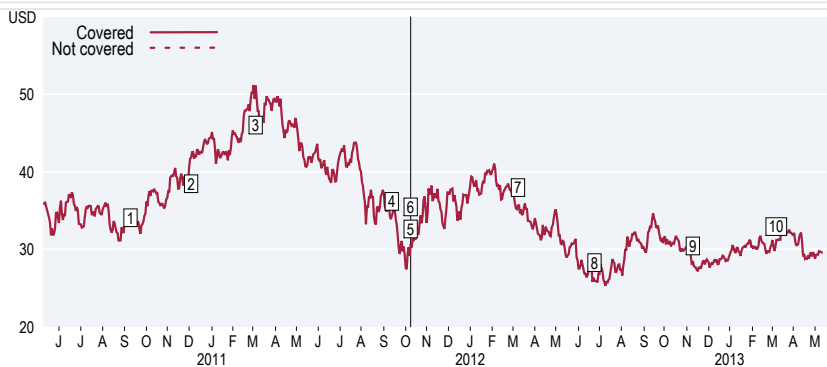
\* Indicates change

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
4	13-Sep-11	1H	*50.00	34.31

\* Indicates change

	Date	Rating	Target Price	Closing Price
5	8-Oct-11	Stock rating system changed		
6	8-Oct-11	*1	50.00	29.13
7	8-Mar-12	1	*48.00	35.61
8	25-Jun-12	1	*44.00	25.92

	Date	Rating	Target Price	Closing Price
9	9-Nov-12	1	*40.00	28.48
10	7-Mar-13	1	*37.00	31.19

Rating/target price changes above reflect Eastern Standard Time

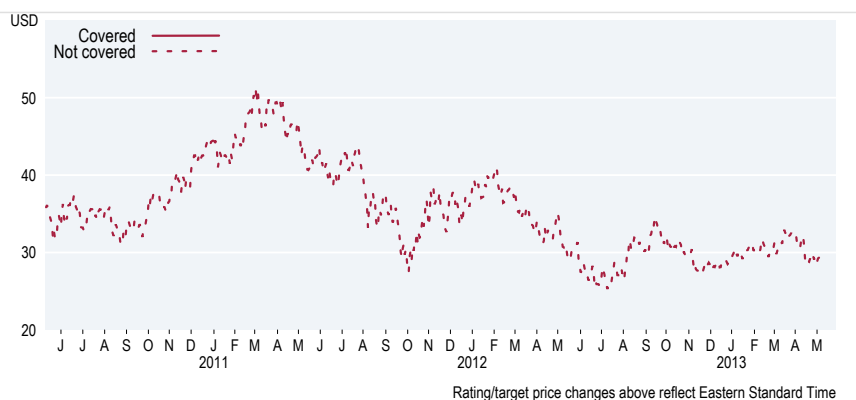
## Canadian Natural Resources Ltd (CNQ)

### Ratings and Target Price History

#### Best Ideas Research

#### Relative Call (3 Month)

Analyst: Robert S Morris



Citigroup Global Markets Inc. owns a position of 1 million USD or more in the debt securities of Chesapeake Energy Corp

Citigroup Global Markets Inc. owns a position of 1 million USD or more in the debt securities of Anadarko Petroleum 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 EOG 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 Denbury Resources Inc

Citigroup Global Markets Inc. owns a position of 1 million USD or more in the debt securities of Canadian Natural Resources Ltd

Rob Teahen, 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.

Within the past 12 months, Citigroup Global Markets Inc. or its affiliates has acted as manager or co-manager of an offering of securities of Chesapeake Energy Corp, Anadarko Petroleum Corp, Newfield Exploration Co., EOG Resources Inc, Range Resources Corp.

Citigroup Global Markets Inc. or its affiliates has received compensation for investment banking services provided within the past 12 months from Chesapeake Energy Corp, Anadarko Petroleum Corp, Newfield Exploration Co., EOG Resources Inc, Range Resources Corp, Canadian Natural Resources Ltd.

Citigroup Global Markets Inc. or its affiliates expects to receive or intends to seek, within the next three months, compensation for investment banking services from Anadarko Petroleum Corp, Range Resources Corp.

Citigroup Global Markets Inc. or an affiliate received compensation for products and services other than investment banking services from Chesapeake Energy Corp, Anadarko Petroleum Corp, Newfield Exploration Co., EOG Resources Inc, Range Resources Corp, Canadian Natural Resources Ltd in the past 12 months.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as investment banking client(s): Anadarko Petroleum Corp, Chesapeake Energy Corp, Newfield Exploration Co., EOG Resources Inc, Range Resources Corp, Canadian Natural Resources Ltd.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, securities-related: Chesapeake Energy Corp, Anadarko Petroleum Corp, Newfield Exploration Co., EOG Resources Inc, Range Resources Corp, Goodrich Petroleum Corp, Cabot Oil & Gas Corp, Canadian Natural Resources Ltd.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, non-securities-related: Chesapeake Energy Corp, Anadarko Petroleum Corp, Newfield Exploration Co., EOG Resources Inc, Range Resources Corp, Canadian Natural Resources Ltd.

Analysts' compensation is determined based upon activities and services intended to benefit the investor clients of Citigroup Global Markets Inc. and its affiliates ("the Firm"). Like all Firm employees, analysts receive compensation that is impacted by overall firm profitability which includes investment banking revenues.

For important disclosures (including copies of historical disclosures) regarding the companies that are the subject of this Citi Research product ("the Product"), please contact Citi Research, 388 Greenwich Street, 28th Floor, New York, NY, 10013, Attention: Legal/Compliance [E6WYB6412478]. In addition, the same important disclosures, with the exception of the Valuation and Risk assessments and historical disclosures, are contained on the Firm's disclosure website at [https://www.citivelocity.com/cvr/eppublic/citi\\_research\\_disclosures](https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures). Valuation and Risk assessments can be found in the text of the most recent research note/report regarding the subject company. Historical disclosures (for up to the past three years) will be provided upon request.

### Citi Research Equity Ratings Distribution

Data current as of 31 Mar 2013

Citi Research Global Fundamental Coverage

% of companies in each rating category that are investment banking clients

12 Month Rating			Relative Rating		
Buy	Hold	Sell	Buy	Hold	Sell
48%	39%	12%	7%	87%	7%
53%	49%	43%	65%	49%	51%



#### Guide to Citi Research Fundamental Research Investment Ratings:

Citi Research stock recommendations include an investment rating and an optional risk rating to highlight high risk stocks.

**Risk rating** takes into account both price volatility and fundamental criteria. Stocks will either have no risk rating or a High risk rating assigned.

**Investment Ratings:** Citi Research investment ratings are Buy, Neutral and Sell. Our ratings are a function of analyst expectations of expected total return ("ETR") and risk. ETR is the sum of the forecast price appreciation (or depreciation) plus the dividend yield for a stock within the next 12 months. The Investment rating definitions are: Buy (1) ETR of 15% or more or 25% or more for High risk stocks; and Sell (3) for negative ETR. Any covered stock not assigned a Buy or a Sell is a Neutral (2). For stocks rated Neutral (2), if an analyst believes that there are insufficient valuation drivers and/or investment catalysts to derive a positive or negative investment view, they may elect with the approval of Citi Research management not to assign a target price and, thus, not derive an ETR. Analysts may place covered stocks "Under Review" in response to exceptional circumstances (e.g. lack of information critical to the analyst's thesis) affecting the company and / or trading in the company's securities (e.g. trading suspension). As soon as practically possible, the analyst will publish a note re-establishing a rating and investment thesis. To satisfy regulatory requirements, we correspond Under Review and Neutral to Hold in our ratings distribution table for our 12-month fundamental rating system. However, we reiterate that we do not consider Under Review to be a recommendation.

**Relative three-month ratings:** Citi Research may also assign a three-month relative call (or rating) to a stock to highlight expected out-performance (most preferred) or under-performance (least preferred) versus the geographic and industry sector over a 3 month period. The relative call may highlight a specific near-term catalyst or event impacting the company or the market that is anticipated to have a short-term price impact on the equity securities of the company. Absent any specific catalyst the analyst(s) will indicate the most and least preferred stocks in the universe of stocks under consideration, explaining the basis for this short-term view. This three-month view may be different from and does not affect a stock's fundamental equity rating, which reflects a longer-term total absolute return expectation. For purposes of NASD/NYSE ratings-distribution-disclosure rules, most preferred calls correspond to a buy recommendation and least preferred calls correspond to a sell recommendation. Any stock not assigned to a most preferred or least preferred call is considered non-relative-rated (NRR). For purposes of NASD/NYSE ratings-distribution-disclosure rules we correspond NRR to Hold in our ratings distribution table for our 3-month relative rating system. However, we reiterate that we do not consider NRR to be a recommendation.

Prior to October 8, 2011, the firm's stock recommendation system included a risk rating and an investment rating. **Risk ratings**, which took into account both price volatility and fundamental criteria, were: Low (L), Medium (M), High (H), and Speculative (S). **Investment Ratings** of Buy, Hold and Sell were a function of the Citi Research expectation of total return (forecast price appreciation and dividend yield within the next 12 months) and risk rating. Additionally, analysts could have placed covered stocks "Under Review" in response to exceptional circumstances (e.g. lack of information critical to the analyst's thesis) affecting the company and/or trading in the company's securities (e.g. trading suspension). Stocks placed "Under Review" were monitored daily by management and as practically possible, the analyst published a note re-establishing a rating and investment thesis. For securities in developed markets (US, UK, Europe, Japan, and Australia/New Zealand), investment ratings were: Buy (1) (expected total return of 10% or more for Low-Risk stocks, 15% or more for Medium-Risk stocks, 20% or more for High-Risk stocks, and 35% or more for Speculative stocks); Hold (2) (0%-10% for Low-Risk stocks, 0%-15% for Medium-Risk stocks, 0%-20% for High-Risk stocks, and 0%-35% for Speculative stocks); and Sell (3) (negative total return). For securities in emerging markets (Asia Pacific, Emerging Europe/Middle East/Africa, and Latin America), investment ratings were: Buy (1) (expected total return of 15% or more for Low-Risk stocks, 20% or more for Medium-Risk stocks, 30% or more for High-Risk stocks, and 40% or more for Speculative stocks); Hold (2) (5%-15% for Low-Risk stocks, 10%-20% for Medium-Risk stocks, 15%-30% for High-Risk stocks, and 20%-40% for Speculative stocks); and Sell (3) (5% or less for Low-Risk stocks, 10% or less for Medium-Risk stocks, 15% or less for High-Risk stocks, and 20% or less for Speculative stocks).

Investment ratings are determined by the ranges described above at the time of initiation of coverage, a change in investment and/or risk rating, or a change in target price (subject to limited management discretion). At other times, the expected total returns may fall outside of these ranges because of market price movements and/or other short-term volatility or trading patterns. Such interim deviations from specified ranges will be permitted but will become subject to review by Research Management. Your decision to buy or sell a security should be based upon your personal investment objectives and should be made only after evaluating the stock's expected performance and risk.

#### NON-US RESEARCH ANALYST DISCLOSURES

Non-US research analysts who have prepared this report (i.e., all research analysts listed below other than those identified as employed by Citigroup Global Markets Inc.) are not registered/qualified as research analysts with FINRA. Such research analysts may not be associated persons of the member organization and therefore may not be subject to the NYSE Rule 472 and NASD Rule 2711 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account. The legal entities employing the authors of this report are listed below:

Citigroup Global Markets Inc

Robert S Morris; Rob Teahen; Chingiz Gadimov; Bryan M Baritot

#### OTHER DISCLOSURES

The subject company's share price set out on the front page of this Product is quoted as at 13 May 2013 04:00 PM on the issuer's primary market.

Citigroup Global Markets Inc. and/or its affiliates has a significant financial interest in relation to Anadarko Petroleum Corp, Newfield Exploration Co., EOG Resources Inc, Range Resources Corp, Canadian Natural Resources Ltd. (For an explanation of the determination of significant financial interest, please refer to the policy for managing conflicts of interest which can be found at [www.citiVelocity.com](http://www.citiVelocity.com).)

For securities recommended in the Product in which the Firm is not a market maker, the Firm is a liquidity provider in the issuers' financial instruments and may act as principal in connection with such transactions. The Firm is a regular issuer of traded financial instruments linked to securities that may have been recommended in the Product. The Firm regularly trades in the securities of the issuer(s) discussed in the Product. The Firm may engage in securities transactions in a manner inconsistent with the Product and, with respect to securities covered by the Product, will buy or sell from customers on a principal basis.

Securities recommended, offered, or sold by the Firm: (i) are not insured by the Federal Deposit Insurance Corporation; (ii) are not deposits or other obligations of any insured depository institution (including Citibank); and (iii) are subject to investment risks, including the possible loss of the principal amount invested. Although information has been obtained from and is based upon sources that the Firm believes to be reliable, we do not guarantee its accuracy and it may be incomplete and condensed. Note, however, that the Firm has taken all reasonable steps to determine the accuracy and completeness of the disclosures made in the Important Disclosures section of the Product. The Firm's research department has received assistance from

the subject company(ies) referred to in this Product including, but not limited to, discussions with management of the subject company(ies). Firm policy prohibits research analysts from sending draft research to subject companies. However, it should be presumed that the author of the Product has had discussions with the subject company to ensure factual accuracy prior to publication. All opinions, projections and estimates constitute the judgment of the author as of the date of the Product and these, plus any other information contained in the Product, are subject to change without notice. Prices and availability of financial instruments also are subject to change without notice. Notwithstanding other departments within the Firm advising the companies discussed in this Product, information obtained in such role is not used in the preparation of the Product. Although Citi Research does not set a predetermined frequency for publication, if the Product is a fundamental research report, it is the intention of Citi Research to provide research coverage of the/those issuer(s) mentioned therein, including in response to news affecting this issuer, subject to applicable quiet periods and capacity constraints. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security. Any decision to purchase securities mentioned in the Product must take into account existing public information on such security or any registered prospectus.

Investing in non-U.S. securities, including ADRs, may entail certain risks. The securities of non-U.S. issuers may not be registered with, nor be subject to the reporting requirements of the U.S. Securities and Exchange Commission. There may be limited information available on foreign securities. Foreign companies are generally not subject to uniform audit and reporting standards, practices and requirements comparable to those in the U.S. Securities of some foreign companies may be less liquid and their prices more volatile than securities of comparable U.S. companies. In addition, exchange rate movements may have an adverse effect on the value of an investment in a foreign stock and its corresponding dividend payment for U.S. investors. Net dividends to ADR investors are estimated, using withholding tax rates conventions, deemed accurate, but investors are urged to consult their tax advisor for exact dividend computations. Investors who have received the Product from the Firm may be prohibited in certain states or other jurisdictions from purchasing securities mentioned in the Product from the Firm. Please ask your Financial Consultant for additional details. Citigroup Global Markets Inc. takes responsibility for the Product in the United States. Any orders by US investors resulting from the information contained in the Product may be placed only through Citigroup Global Markets Inc.

**Important Disclosures for Morgan Stanley Smith Barney LLC Customers:** Morgan Stanley & Co. LLC (Morgan Stanley) research reports may be available about the companies that are the subject of this Citi Research research report. Ask your Financial Advisor or use [smithbarney.com](http://smithbarney.com) to view any available Morgan Stanley research reports in addition to Citi Research research reports.

Important disclosure regarding the relationship between the companies that are the subject of this Citi Research research report and Morgan Stanley Smith Barney LLC and its affiliates are available at the Morgan Stanley Wealth Management disclosure website at [www.morganstanley.com/online/researchdisclosures](http://www.morganstanley.com/online/researchdisclosures).

For Morgan Stanley and Citigroup Global Markets, Inc. specific disclosures, you may refer to [www.morganstanley.com/researchdisclosures](http://www.morganstanley.com/researchdisclosures) and [https://www.citivelocity.com/cvr/eppublic/citi\\_research\\_disclosures](https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures).

This Citi Research research report has been reviewed and approved on behalf of Morgan Stanley Smith Barney LLC. This review and approval was conducted by the same person who reviewed this research report on behalf of Citi Research. This could create a conflict of interest.

**The Citigroup legal entity that takes responsibility for the production of the Product is the legal entity which the first named author is employed by.** The Product is made available in **Australia** through Citi Global Markets Australia Pty Ltd. (ABN 64 003 114 832 and AFSL No. 240992), participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in Australia to Private Banking wholesale clients through Citigroup Pty Limited (ABN 88 004 325 080 and AFSL 238098). Citigroup Pty Limited provides all financial product advice to Australian Private Banking wholesale clients through bankers and relationship managers. If there is any doubt about the suitability of investments held in Citigroup Private Bank accounts, investors should contact the Citigroup Private Bank in Australia. Citigroup companies may compensate affiliates and their representatives for providing products and services to clients. The Product is made available in **Brazil** by Citigroup Global Markets Brasil - CCTVM SA, which is regulated by CVM - Comissão de Valores Mobiliários, BACEN - Brazilian Central Bank, APIMEC - Associação dos Analistas e Profissionais de Investimento do Mercado de Capitais and ANBID - Associação Nacional dos Bancos de Investimento. Av. Paulista, 1111 - 11º andar - CEP. 01311920 - São Paulo - SP. If the Product is being made available in certain provinces of **Canada** by Citigroup Global Markets (Canada) Inc. ("CGM Canada"), CGM Canada has approved the Product. Citigroup Place, 123 Front Street West, Suite 1100, Toronto, Ontario M5J 2M3. This product is available in **Chile** through Banchile Corredores de Bolsa S.A., an indirect subsidiary of Citigroup Inc., which is regulated by the Superintendencia de Valores y Seguros. Agustinas 975, piso 2, Santiago, Chile. The Product is made available in **France** by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. 1-5 Rue Paul Cézanne, 8ème, Paris, France. The Product is distributed in **Germany** by Citigroup Global Markets Deutschland AG ("CGMD"), which is regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin). CGMD, Reuterweg 16, 60323 Frankfurt am Main. Research which relates to "securities" (as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong)) is issued in **Hong Kong** by, or on behalf of, Citigroup Global Markets Asia Limited which takes full responsibility for its content. Citigroup Global Markets Asia Ltd. is regulated by Hong Kong Securities and Futures Commission. If the Research is made available through Citibank, N.A., Hong Kong Branch, for its clients in Citi Private Bank, it is made available by Citibank N.A., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong. Citibank N.A. is regulated by the Hong Kong Monetary Authority. Please contact your Private Banker in Citibank N.A., Hong Kong, Branch if you have any queries on or any matters arising from or in connection with this document. The Product is made available in **India** by Citigroup Global Markets India Private Limited, which is regulated by Securities and Exchange Board of India. Bakhtawar, Nariman Point, Mumbai 400-021. The Product is made available in **Indonesia** through PT Citigroup Securities Indonesia. 5/F, Citibank Tower, Bapindo Plaza, Jl. Jend. Sudirman Kav. 54-55, Jakarta 12190. Neither this Product nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens wherever they are domiciled or to Indonesian residents except in compliance with applicable capital market laws and regulations. This Product is not an offer of securities in Indonesia. The securities referred to in this Product have not been registered with the Capital Market and Financial Institutions Supervisory Agency (BAPEPAM-LK) pursuant to relevant capital market laws and regulations, and may not be offered or sold within the territory of the Republic of Indonesia or to Indonesian citizens through a public offering or in circumstances which constitute an offer within the meaning of the Indonesian capital market laws and regulations. The Product is made available in **Israel** through Citibank NA, regulated by the Bank of Israel and the Israeli Securities Authority. Citibank, N.A., Platinum Building, 21 Ha'arba'ah St, Tel Aviv, Israel. The Product is made available in **Italy** by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. Via dei Mercanti, 12, Milan, 20121, Italy. The Product is made available in **Japan** by Citigroup Global Markets Japan Inc. ("CGMJ"), which is regulated by Financial Services Agency, Securities and Exchange Surveillance Commission, Japan Securities Dealers Association, Tokyo Stock Exchange and Osaka Securities Exchange. Shin-Marunouchi Building, 1-5-1 Marunouchi, Chiyoda-ku, Tokyo 100-6520 Japan. If the Product was distributed by SMBC Nikko Securities Inc. it is being so distributed under

license. In the event that an error is found in a CGMJ research report, a revised version will be posted on the Firm's Citi Velocity website. If you have questions regarding Citi Velocity, please call (81 3) 6270-3019 for help. The Product is made available in **Korea** by Citigroup Global Markets Korea Securities Ltd., which is regulated by the Financial Services Commission, the Financial Supervisory Service and the Korea Financial Investment Association (KOFIA). Citibank Building, 39 Da-dong, Jung-gu, Seoul 100-180, Korea. KOFIA makes available registration information of research analysts on its website. Please visit the following website if you wish to find KOFIA registration information on research analysts of Citigroup Global Markets Korea Securities Ltd. <http://dis.kofia.or.kr/fs/dis2/fundMgr/DISFundMgrAnalystPop.jsp?companyCd2=A03030&pageDiv=02>. The Product is made available in Korea by Citibank Korea Inc., which is regulated by the Financial Services Commission and the Financial Supervisory Service. Address is Citibank Building, 39 Da-dong, Jung-gu, Seoul 100-180, Korea. The Product is made available in **Malaysia** by Citigroup Global Markets Malaysia Sdn Bhd (Company No. 460819-D) ("CGMM") to its clients and CGMM takes responsibility for its contents. CGMM is regulated by the Securities Commission of Malaysia. Please contact CGMM at Level 43 Menara Citibank, 165 Jalan Ampang, 50450 Kuala Lumpur, Malaysia in respect of any matters arising from, or in connection with, the Product. The Product is made available in **Mexico** by Acciones y Valores Banamex, S.A. De C. V., Casa de Bolsa, Integrante del Grupo Financiero Banamex ("Accival") which is a wholly owned subsidiary of Citigroup Inc. and is regulated by Comision Nacional Bancaria y de Valores. Reforma 398, Col. Juarez, 06600 Mexico, D.F. In **New Zealand** the Product is made available to 'wholesale clients' only as defined by s5C(1) of the Financial Advisers Act 2008 ('FAA') through Citigroup Global Markets Australia Pty Ltd (ABN 64 003 114 832 and AFSL No. 240992), an overseas financial adviser as defined by the FAA, participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in **Pakistan** by Citibank N.A. Pakistan branch, which is regulated by the State Bank of Pakistan and Securities Exchange Commission, Pakistan. AWT Plaza, 1.1. Chundrigar Road, P.O. Box 4889, Karachi-74200. The Product is made available in the **Philippines** through Citicorp Financial Services and Insurance Brokerage Philippines, Inc., which is regulated by the Philippines Securities and Exchange Commission. 20th Floor Citibank Square Bldg. The Product is made available in the Philippines through Citibank NA Philippines branch, Citibank Tower, 8741 Paseo De Roxas, Makati City, Manila. Citibank NA Philippines NA is regulated by The Bangko Sentral ng Pilipinas. The Product is made available in **Poland** by Dom Maklerski Banku Handlowego SA an indirect subsidiary of Citigroup Inc., which is regulated by Komisja Nadzoru Finansowego. Dom Maklerski Banku Handlowego S.A. ul.Senatorska 16, 00-923 Warszawa. The Product is made available in the **Russian Federation** through ZAO Citibank, which is licensed to carry out banking activities in the Russian Federation in accordance with the general banking license issued by the Central Bank of the Russian Federation and brokerage activities in accordance with the license issued by the Federal Service for Financial Markets. Neither the Product nor any information contained in the Product shall be considered as advertising the securities mentioned in this report within the territory of the Russian Federation or outside the Russian Federation. The Product does not constitute an appraisal within the meaning of the Federal Law of the Russian Federation of 29 July 1998 No. 135-FZ (as amended) On Appraisal Activities in the Russian Federation. 8-10 Gasheka Street, 125047 Moscow. The Product is made available in **Singapore** through Citigroup Global Markets Singapore Pte. Ltd. ("CGMSPL"), a capital markets services license holder, and regulated by Monetary Authority of Singapore. Please contact CGMSPL at 8 Marina View, 21st Floor Asia Square Tower 1, Singapore 018960, in respect of any matters arising from, or in connection with, the analysis of this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). The Product is made available by The Citigroup Private Bank in Singapore through Citibank, N.A., Singapore Branch, a licensed bank in Singapore that is regulated by Monetary Authority of Singapore. Please contact your Private Banker in Citibank N.A., Singapore Branch if you have any queries on or any matters arising from or in connection with this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). This report is distributed in Singapore by Citibank Singapore Ltd ("CSL") to selected Citigold/Citigold Private Clients. CSL provides no independent research or analysis of the substance or in preparation of this report. Please contact your Citigold/Citigold Private Client Relationship Manager in CSL if you have any queries on or any matters arising from or in connection with this report. This report is intended for recipients who are accredited investors as defined under the Securities and Futures Act (Cap. 289). Citigroup Global Markets (Pty) Ltd. is incorporated in the **Republic of South Africa** (company registration number 2000/025866/07) and its registered office is at 145 West Street, Sandton, 2196, Saxonwold. Citigroup Global Markets (Pty) Ltd. is regulated by JSE Securities Exchange South Africa, South African Reserve Bank and the Financial Services Board. The investments and services contained herein are not available to private customers in South Africa. The Product is made available in **Spain** by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. 29 Jose Ortega Y Gasset, 4th Floor, Madrid, 28006, Spain. The Product is made available in the **Republic of China** through Citigroup Global Markets Taiwan Securities Company Ltd. ("CGMTS"), 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan and/or through Citibank Securities (Taiwan) Company Limited ("CSTL"), 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan, subject to the respective license scope of each entity and the applicable laws and regulations in the Republic of China. CGMTS and CSTL are both regulated by the Securities and Futures Bureau of the Financial Supervisory Commission of Taiwan, the Republic of China. No portion of the Product may be reproduced or quoted in the Republic of China by the press or any third parties [without the written authorization of CGMTS and CSTL]. If the Product covers securities which are not allowed to be offered or traded in the Republic of China, neither the Product nor any information contained in the Product shall be considered as advertising the securities or making recommendation of the securities in the Republic of China. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security or financial products. Any decision to purchase securities or financial products mentioned in the Product must take into account existing public information on such security or the financial products or any registered prospectus. The Product is made available in **Thailand** through Citicorp Securities (Thailand) Ltd., which is regulated by the Securities and Exchange Commission of Thailand. 18/F, 22/F and 29/F, 82 North Sathorn Road, Silom, Bangrak, Bangkok 10500, Thailand. The Product is made available in **Turkey** through Citibank AS which is regulated by Capital Markets Board. Tekfen Tower, Eski Buyukdere Caddesi # 209 Kat 2B, 23294 Levent, Istanbul, Turkey. In the **U.A.E.**, these materials (the "Materials") are communicated by Citigroup Global Markets Limited, DIFC branch ("CGML"), an entity registered in the Dubai International Financial Center ("DIFC") and licensed and regulated by the Dubai Financial Services Authority ("DFSA") to Professional Clients and Market Counterparties only and should not be relied upon or distributed to Retail Clients. A distribution of the different Citi Research ratings distribution, in percentage terms for Investments in each sector covered is made available on request. Financial products and/or services to which the Materials relate will only be made available to Professional Clients and Market Counterparties. The Product is made available in **United Kingdom** by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. This material may relate to investments or services of a person outside of the UK or to other matters which are not regulated by the FSA and further details as to where this may be the case are available upon request in respect of this material. Citigroup Centre, Canada Square, Canary Wharf, London, E14 5LB. The Product is made available in **United States** by Citigroup Global Markets Inc, which is a member of FINRA and registered with the US Securities and Exchange Commission. 388 Greenwich Street, New York, NY 10013. Unless specified to the contrary, within EU Member States, the Product is made available by Citigroup Global Markets Limited, which is regulated by Financial Services Authority.



Pursuant to Comissão de Valores Mobiliários Rule 483, Citi is required to disclose whether a Citi related company or business has a commercial relationship with the subject company. Considering that Citi operates multiple businesses in more than 100 countries around the world, it is likely that Citi has a commercial relationship with the subject company.

Many European regulators require that a firm must establish, implement and make available a policy for managing conflicts of interest arising as a result of publication or distribution of investment research. The policy applicable to Citi Research's Products can be found at [https://www.citivelocity.com/cvr/eppublic/citi\\_research\\_disclosures](https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures).

Compensation of equity research analysts is determined by equity research management and Citigroup's senior management and is not linked to specific transactions or recommendations.

The Product may have been distributed simultaneously, in multiple formats, to the Firm's worldwide institutional and retail customers. The Product is not to be construed as providing investment services in any jurisdiction where the provision of such services would not be permitted.

Subject to the nature and contents of the Product, the investments described therein are subject to fluctuations in price and/or value and investors may get back less than originally invested. Certain high-volatility investments can be subject to sudden and large falls in value that could equal or exceed the amount invested. Certain investments contained in the Product may have tax implications for private customers whereby levels and basis of taxation may be subject to change. If in doubt, investors should seek advice from a tax adviser. The Product does not purport to identify the nature of the specific market or other risks associated with a particular transaction. Advice in the Product is general and should not be construed as personal advice given it has been prepared without taking account of the objectives, financial situation or needs of any particular investor. Accordingly, investors should, before acting on the advice, consider the appropriateness of the advice, having regard to their objectives, financial situation and needs. Prior to acquiring any financial product, it is the client's responsibility to obtain the relevant offer document for the product and consider it before making a decision as to whether to purchase the product. With the exception of our product that is made available only to Qualified Institutional Buyers (QIBs) and other product that is made available through other distribution channels only to certain categories of clients to satisfy legal or regulatory requirements, Citi Research concurrently disseminates its research via proprietary and non-proprietary electronic distribution platforms. Periodically, individual Citi Research analysts may also opt to circulate research posted on such platforms to one or more clients by email. Such email distribution is discretionary and is done only after the research has been disseminated via the aforementioned distribution channels. Citi Research simultaneously distributes product that is limited to QIBs only through email distribution.

The level and types of services provided by Citi Research analysts to clients may vary depending on various factors such as the client's individual preferences as to the frequency and manner of receiving communications from analysts, the client's risk profile and investment focus and perspective (e.g. market-wide, sector specific, long term, short-term etc.), the size and scope of the overall client relationship with Citi and legal and regulatory constraints. Citi Research product may source data from dataCentral. dataCentral is a Citi Research proprietary database, which includes Citi estimates, data from company reports and feeds from Reuters and Datastream.

---

© 2013 Citigroup Global Markets Inc. Citi Research is a division of Citigroup Global Markets Inc. Citi and Citi with Arc Design are trademarks and service marks of Citigroup Inc. and its affiliates and are used and registered throughout the world. All rights reserved. Any unauthorized use, duplication, redistribution or disclosure of this report (the "Product"), including, but not limited to, redistribution of the Product by electronic mail, posting of the Product on a website or page, and/or providing to a third party a link to the Product, is prohibited by law and will result in prosecution. The information contained in the Product is intended solely for the recipient and may not be further distributed by the recipient to any third party. Where included in this report, MSCI sourced information is the exclusive property of Morgan Stanley Capital International Inc. (MSCI). Without prior written permission of MSCI, this information and any other MSCI intellectual property may not be reproduced, disseminated or used to create any financial products, including any indices. This information is provided on an "as is" basis. The user assumes the entire risk of any use made of this information. MSCI, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in, or related to, computing or compiling the information have any liability for any damages of any kind. MSCI, Morgan Stanley Capital International and the MSCI indexes are services marks of MSCI and its affiliates. The Firm accepts no liability whatsoever for the actions of third parties. The Product may provide the addresses of, or contain hyperlinks to, websites. Except to the extent to which the Product refers to website material of the Firm, the Firm has not reviewed the linked site. Equally, except to the extent to which the Product refers to website material of the Firm, the Firm takes no responsibility for, and makes no representations or warranties whatsoever as to, the data and information contained therein. Such address or hyperlink (including addresses or hyperlinks to website material of the Firm) is provided solely for your convenience and information and the content of the linked site does not in anyway form part of this document. Accessing such website or following such link through the Product or the website of the Firm shall be at your own risk and the Firm shall have no liability arising out of, or in connection with, any such referenced website.

---

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST

---