Morningstar Rating	Last Price		
***	78.73 US		
02 Dec 2014	01 Dec 2014		

Fair Value Estimate 99.00 USD Price/Fair Value Dividend Yield % 0.74 1.14 01 Dec 2014

Market Cap (Bil) 39.87 01 Dec 2014

Oil & Gas E&P

Stewardship Standard

Morningstar Pillars Analyst Quantitative Economic Moat Narrow Narrow Valuation ★★★ Undervalued Uncertainty High High Financial Health BBB Moderate

Source: Morningstar Equity Research Quantitative Valuation

APC

Undervalued	Fairly Valu	ed	Overvalued		
	Current	5-Yr Avg	Sector	Country	
Price/Quant Fair Valu	ie 0.77	0.91	0.64	0.79	
Price/Earnings	-18.7	-24.2	12.0	20.5	
Forward P/E	19.0	_	10.1	16.0	
Price/Cash Flow	4.6	7.8	5.0	12.7	
Price/Free Cash Flow	-37.5	28.9	14.6	22.1	
Dividend Yield %	1.14	0.54	3.72	2.04	
Source: Morningstar					

Bulls Say

- ► Anadarko's domestic inventory encompasses some of the most economically attractive regions in the lower 48, including the Niobrara (where the firm controls mineral rights), Permian, Eagle Ford, and Marcellus.
- Anadarko's portfolio includes a mix of oil and gas and near-term and longer-dated assets, which should help mitigate project risk and swings in commodity prices.
- ► Anadarko appears to be a strong operator, especially as it relates to complex deep-water drilling.

Bears Say

- ► Deep-water drilling, which we expect to account for 20%-25% of the company's production going forward, encompasses a unique set of challenges.
- As with most firms in its peer group, size could ultimately become an enemy, with production growth potentially harder to come by as the firm passes the 1 MMboe/d mark in early 2018.
- ► With approximately 46% of its production coming from domestic natural gas throughout our forecast period, Anadarko will remain leveraged to this market for the next several years.

Pullback in Oil Prices Creates Opportunities to Buy High-Quality E&P Franchises at a Discount

Mark Hanson, CFA, 02 December 2014

Investment Thesis

Anadarko's portfolio includes interests in nearly 60 million net acres in the U.S. and abroad. Domestic assets include gas and liquids-rich plays in the Rockies and significant positions in the Eagle Ford, Haynesville, and Marcellus shales, as well as the Permian Basin. The firm also has sizable interests in deep-water leaseholds in the Gulf of Mexico. Internationally, Anadarko holds megaprojects in Ghana and Algeria, complemented by a handful of producing assets and several recently announced discoveries off the western and eastern coasts of Africa.

Anadarko's base of established assets includes positions in a number of plays in the Rockies, Mid-Continent, and Gulf Coast. With the majority of production from these assets being natural gas, we project only modest investment over the next several years. Cash flow from these assets should help fund exploratory and development opportunities elsewhere in Anadarko's portfolio, however.

The company's domestic shale and other unconventional assets represent another attractive element of its portfolio. The firm controls more than 1.2 million net acres across the Eagle Ford, Haynesville, Marcellus, Delaware Basin, and horizontal Wattenberg areas, and intends to devote increasing amounts of capital to these assets. By 2018, we estimate that the company's unconventional U.S. assets will account for close to 60% of production, up from 40% in 2013.

Longer-term, Anadarko's ongoing success with its deep-water program should provide additional opportunities to increase reserves and production. We expect the firm to continue its high level of spending throughout our forecast period, accounting for about 30% of Anadarko's capital outlays over the next five years. The firm's offshore Mozambique assets should help Anadarko establish a viable, oil-linked LNG operation in that country later this decade.

Given its vast opportunity set, Anadarko has considerable flexibility to modify development activity in response to changing market conditions. Ongoing non-core asset sales (which generated over \$2 billion in the third quarter

alone) should provide a cushion to help the company weather an environment of lower commodity prices.

Mark Hanson, CFA, 02 December 2014 Analyst Note

E&P stocks took a battering across the board in the aftermath of OPEC's Thanksgiving Day meeting. We doubt consensus among member countries was achieved but the 30 mbbl/d target output was maintained anyway, dashing any lingering hope that the cartel would defend a higher price level by removing supply.

By our estimates, oil markets are oversupplied by roughly 1 million barrels a day, which may increase into early 2015 absent a production response. But the supply surge from U.S. shale oil has been well-anticipated by markets, leaving us to wonder what has changed fundamentally in the market's awareness that has dropped the energy sector by 20% since Sept. 1. Over the medium term we continue to believe that lower crude prices will stimulate demand, supporting our expectation of higher prices in the future. However we caution that further near-term demand weakness could spark another leg down in oil markets before any recovery takes hold.

We are updating our fair value estimates to incorporate recent price movements. Morningstar's price deck is composed of three years of current crude oil strip pricing followed by our midcycle price estimate of \$90/bbl, which we still believe reflects the marginal cost of North American shale production. If prices become entrenched near the current level producers will curtail activity and high base declines will truncate North American production fairly quickly, restoring the global supply-demand equilibrium and boosting prices. Under these circumstances the market reaction among E&P stocks appears overdone.

The current pullback in stock prices, therefore, creates a good opportunity to buy quality franchises at a discount. In particular, among oily stocks we like Apache, Concho, Devon, and Pioneer, given their generally low-cost models, strong balance sheets, and meaningful discounts compared with our estimates of intrinsic value.

Economic Moat

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Morningstar Rating	Last Price	Fair Value Estimate	Price/Fair Value	Dividend Yield %	Market Cap (Bil)	Industry	Stewardship
****	78.73 USD	99.00 USD	0.74	1.14	39.87	Oil & Gas E&P	Standard
02 Dec 2014	01 Dec 2014			01 Dec 2014	01 Dec 2014		

Close Competitors	Currency (Mil)	Market Cap	TTM Sales	Operating Margin	TTM/PE
EOG Resources Inc EOG	USD	47,808	17,139	29.15	15.67
Devon Energy Corp DVN	USD	24,521	16,195	30.15	11.04
Apache Corporation APA	USD	24,023	14,839	18.09	0.00
Chesapeake Energy Corp CHK	USD	13,349	20,442	13.53	24.75

Mark Hanson 02 December 2014

When considering an E&P's competitive positioning, asset quality--measured by resource potential as well as per-unit costs--is a key part of the equation. We believe Anadarko's portfolio, comprising an established base of low-cost domestic assets, oil-rich deep-water and international properties, emerging unconventional plays, and exploratory prospects, offers compelling full-cycle economics across a variety of oil and gas price scenarios. Accordingly, we assign Anadarko anarrow economic moat rating.

The firm's base of established domestic assets includes natural gas properties in the Rockies, Mid-Continent, and eastern Texas. While we don't expect much in the way of growth from these assets going forward, they'll likely to continue to generate a significant amount of free cash flow (\$1.5 billion or so annually) the firm can deploy elsewhere in its portfolio. Moreover, Anadarko retains significant option value to ramp up activity across these gas-prone assets, with 10,000 or so estimated drilling locations that are economic at \$5 per mcf natural gas.

The firm's domestic unconventional assets include more than 1.2 million net acres across the Eagle Ford, Haynesville, Marcellus, Niobrara, and Permian Basin regions. As Anadarko ramps up development activity across the various liquids-rich areas in its unconventional portfolio--especially the Niobrara and Eagle Ford--we expect oil and natural gas liquids to become a greater contributor to companywide volumes, which should lead to increasing returns. By the end of our forecast period, we estimate Anadarko will have worked through approximately 50% of its liquids-rich onshore inventory, with additional locations possible through tighter spacing.

Anadarko's deep-water and international assets, while requiring longer lead times and significantly more upfront capital than the firm's unconventional opportunities, generally offer superior economics, with estimated after-tax returns on capital of 25% or more.

We project Anadarko will generate average returns on

capital that will steadily grow to about 15% in 2018, which compares to an average of 8% from 2009-2013. This improvement will be led by increased activity across the firm's U.S. onshore properties, improving natural gas prices, and steady growth in Anadarko's oil-rich deep-water and international assets.

We estimate a firm-wide break-even price for Anadarko of \$66 per barrel of oil at \$4 natural gas.

Valuation

Mark Hanson 02 December 2014

We are lowering our fair value estimate to \$99 per share from \$107 after updating our oil and gas futures prices and reassessing the company's outlook given near-term weakness in commodity prices. Our valuation reflects the resolution of Anadarko's longstanding Tronox liability (which we expect to be settled by year-end), announced and completed divestitures (China, Jonah/Pinedale, and Mozambique), and a mark to market of the firm's publicly traded midstream entities. Our fair value estimate implies a forward enterprise value/EBITDAX multiple of 6.0 times in 2014 and 8.8 times in 2015 and is based on our five-year discounted cash flow model and an assessment of longer-term resource potential.

We forecast net production of 848 mboe/d in 2014, 893 mboe/d in 2015, 947 mboe/d in 2016, 991 mboe/d in 2017, and 1,055 mboe/d in 2018, representing a 6% compound annual growth rate over 2013. We expect Anadarko's domestic unconventional plays to drive 90% of its cumulative production growth throughout our forecast period, largely from its liquid rich properties (Wattenberg, Eagle Ford, Permian) and the Marcellus. We forecast natural gas production to stay largely flat over our five-year forecast period, decreasing from 57% of production in 2013 to 43% in 2018. We project modest growth across the firm's oil-rich deep-water and international assets, increasing from 199 mboe/d to 214 mboe/d over the next five years. Net declines in the Gulf of Mexico and Alaska should be offset by meaningful growth in Ghana and Mozambique LNG cargoes coming online in 2018.

Driven by volume growth and a gradually improving pricing environment, we forecast EBITDAX of \$12 billion in 2014, \$8.0 billion in 2015, and \$9.4 billion in 2016.

Risk

Mark Hanson 02 December 2014



Morningstar Rating

**** 02 Dec 2014

Last Price 78.73 USD 01 Dec 2014

99.00 USD

Price/Fair Value 0.74

Dividend Yield % 1.14 01 Dec 2014

Market Cap (Bil) 39.87 01 Dec 2014

Oil & Gas E&P

Stewardship Standard

One of Anadarko's biggest risks is a substantial and prolonged drop in oil and gas prices, which would depress profits, slow development plans, and reduce the value of its properties. Additional risks include delays and cost overruns on Anadarko's long-dated deep-water projects, execution risk, potential midstream bottlenecks in the firm's emerging unconventional plays, political instability in certain of the company's operating regions, and regulatory headwinds that could ultimately eat into profitability.

Management

Mark Hanson 14 April 2014

Al Walker took over as CEO in 2012 from Jim Hackett, who had been with the company since 2003. Hackett remained with Anadarko as executive chairman until last year, when Walker became chairman as well. Walker joined Anadarko in 2005 and the over past several years has served the company in a number of roles, including CFO. We give Hackett, Walker, and the rest of their team credit for their push to acquire Kerr-McGee and Western Resources in 2006, which diversified Anadarko's operations and provided an attractive base of long-tail assets from which to expand production and reserves. Management has proved to be a good steward of shareholder capital over time, with a minimum of debt and equity issuance and a focus on delivering above-average returns on capital. Its insistence on maintaining a strong balance sheet helped the company weather the Deepwater Horizon disaster and Tronox legal liability relatively unscathed from a financial standpoint.

Morningstar Rating

Dec 2014

78.73 USD 01 Dec 2014

Fair Value Estimate 99.00 USD Price/Fair Value 0.74 Dividend Yield % 1.14 01 Dec 2014 Market Cap (Bil) 39.87 01 Dec 2014

Oil & Gas E&P

Stewardship Standard

Analyst Notes Archive

Pullback in Oil Prices Creates Opportunities to Buy High-Quality E&P Franchises at a Discount

Mark Hanson 02 December 2014

E&P stocks took a battering across the board in the aftermath of OPEC's Thanksgiving Day meeting. We doubt consensus among member countries was achieved but the 30 mbbl/d target output was maintained anyway, dashing any lingering hope that the cartel would defend a higher price level by removing supply.

By our estimates, oil markets are oversupplied by roughly 1 million barrels a day, which may increase into early 2015 absent a production response. But the supply surge from U.S. shale oil has been well-anticipated by markets, leaving us to wonder what has changed fundamentally in the market's awareness that has dropped the energy sector by 20% since Sept. 1. Over the medium term we continue to believe that lower crude prices will stimulate demand, supporting our expectation of higher prices in the future. However we caution that further near-term demand weakness could spark another leg down in oil markets before any recovery takes hold.

We are updating our fair value estimates to incorporate recent price movements. Morningstar's price deck is composed of three years of current crude oil strip pricing followed by our midcycle price estimate of \$90/bbl, which we still believe reflects the marginal cost of North American shale production. If prices become entrenched near the current level producers will curtail activity and high base declines will truncate North American production fairly quickly, restoring the global supply-demand equilibrium and boosting prices. Under these circumstances the market reaction among E&P stocks appears overdone.

The current pullback in stock prices, therefore, creates a good opportunity to buy quality franchises at a discount. In particular, among oily stocks we like Apache, Concho, Devon, and Pioneer, given their generally low-cost models, strong balance sheets, and meaningful discounts compared with our estimates of intrinsic value.

Prolific Wattenberg Tops Expectations; 2014 Full-Year Guidance Raised for Third Consecutive Quarter Mark Hanson 29 October 2014

Anadarko Petroleum reported third-quarter results on Oct. 28 that were generally in line with our expectations. Adjusted for divestitures, production grew 14% year over year to 78 MMboe or 849 Mboe/d, just ahead of management's quarterly guidance range of 826-848 Mboe/d as well as our forecast of 848 Mboe/d, due primarily to the continued outperformance of the company's onshore liquids-rich assets. Firmwide, liquids production grew 35% year over year to 433 Mbbl/d during the period, shifting the company's production mix to 51% liquids from 43% a year ago. In addition to strong production growth, additional highlights from the quarter included the closure of the sale of Anadarko's China subsidiary for \$1.075 billion, which, in conjunction with additional asset monetizations (including a joint venture in the emerging Eaglebine), generated \$2.2 billion in divestiture proceeds in the third quarter.

Production from Anadarko's U.S. onshore properties are credited for much of the uptick in total volumes, again led by the Wattenberg, which alone accounted for 85% of the company's year-over-year adjusted production growth. Net sales volumes from the field averaged 189 Mboe/d—an 88% increase over the third quarter of 2013—with the horizontal program yielding 76% of field volumes, up from 56% in the prior year. In the Eagle Ford—where Anadarko continues to achieve improved drilling efficiencies and reduced cycle times—production grew 52% from the prior year to 76 Mboe/d, with liquids composition increasing to 71% compared to 66% in the same quarter last year.

Given drilling results that again exceeded expectations during the quarter, Anadarko increased its 2014 production guidance for the third time this year, this time by 1.5% to a new midpoint of 305 MMboe or 836 Mboe/d, with no change to its capital budget. Our narrow moat rating and \$107 fair value estimate remain unchanged.

Correcting Anadarko Fair Value Estimate

Mark Hanson 31 July 2014

We have corrected an error in our Anadarko Petroleum model that inadvertently led to us publishing a higher fair value estimate than we had intended. We regret the error. Our corrected fair value estimate is \$107 per share. We continue to maintain a narrow moat rating on the stock.

Wattenberg Second-quarter Performance Surprises



Morningstar Rating

Dec 2014

78.73 USD 01 Dec 2014

Fair Value Estimate 99.00 USD

Price/Fair Value

Dividend Yield % 1.14 01 Dec 2014

Market Cap (Bil) 39.87 01 Dec 2014

Industry
Oil & Gas E&P

Stewardship Standard

to the Upside, Drives APC's Volumes to Record Levels

Mark Hanson 30 July 2014

On July 29, Anadarko Petroleum reported second-quarter results that were largely in line with our expectations. Production came in at 848 Mboe/d, modestly ahead of guidance and our projection of 836 Mboe/d, with our forecast miss attributable to outperformance in the company's horizontal Wattenberg play. Quarterly production--excluding volumes from the Pinedale/Jonah and China divestitures--was up 6% sequentially and 17% year over year, led by oil (up 12% and 33%, respectively) and NGLs (up 24% and 50%, respectively). Combined, liquids accounted for 48% of Anadarko's quarterly volumes, up from 41% one year earlier.

Production from Anadarko's core U.S. onshore properties was up across the board in the second guarter, with especially strong performance in the Wattenberg (up 59% year over year, to 169 Mboe/d, thanks in part to improved midstream performance); the Marcellus (up 17%, to 100 Mboe/d); the Eagle Ford (up 39%, to 67 Mboe/d); the East Texas/North Louisiana region (up 13%, to 64 Mboe/d); and the Delaware Basin (up 72%, to 26 Mboe/d). Combined, these properties accounted for 50% of Anadarko's quarterly volumes, up from 42% one year earlier. The firm's mature base of U.S. onshore properties--encompassing Greater Natural Buttes, Wamsutter, Powder River Basin, Bossier, and Hugoton, among others--was flat on a year-over-year basis, at 241 Mboe/d, and accounted for 28% of quarterly production, down from 33% one year earlier. Anadarko's international and deepwater assets, which include the Gulf of Mexico, Alaska, and Africa, were up 3% year over year, to 178 Mboe/d, with declines in the Gulf of Mexico offset by record production in Algeria.

On the strength of second-quarter results, Anadarko once again increased its 2014 production guidance, this time by approximately 2%, to a midpoint of 823 Mboe/d. Our narrow moat rating and \$107 fair value estimate remain unchanged.



Anadarko Petroleum Corp APC

Quantitative Fair Value Estimate Market Cap (Mil) Sector Industry Country of Domicile 78.73 102.08 39,872.8 Energy Oil & Gas E&P United States Anadarko Petroleum Corp is engaged in the exploration and Price Versus Quantitative Fair Value production of oil and natural gas. The Company's three 2010 2011 2012 2013 2014 2015 operating segments are: Oil and gas exploration and Sales/Share production, Midstream and Marketing Forecast Range 130 ··· Forcasted Price Dividend 104 △ Split **Quantitative Scores** Scores All Rel Sector Momentum Rel Country Standard Deviation: Quantitative Moat Narrow 98 97 95 Valuation Undervalued 62 26 53 Quantitative Fair Value Estimate Quantitative Uncertainty High 90 97 87 52 73.60 52-Wk 113.51 Total Return Financial Health 56 60 56 Moderate 26 34.54 5-Yr 113.51 0 22.6 0.7 -2.2 7.5 0.2 Total Return % Undervalued Fairly Valued Overvaluer 5.8 -0.9-18.4 -25.7 -11.9 +/- Market (Morningstar US Index) 0.47 0.47 0.48 0.68 1.14 Dividend Yield % 50.0 -14.3 15.6 50.0 -18.7 Price/Earnings 3.4 2.7 2.8 2.7 2.1 Price/Revenue Valuation Sector Country Median Current 5-Yr Avg Median Price/Quant Fair Value 0.77 0.91 0.64 0.79 Fairly Valued Overvalued Price/Earnings -18.7 -24.2 12.0 20.5 Forward P/E 19.0 10.1 16.0 Monthly Volume (Million Shares) Price/Cash Flow 4.6 7.8 5.0 12.7 untiditinitidilininamaadidlaladd Liquidity: High Price/Free Cash Flow -37.5 28 9 146 22 1 Dividend Yield % 1.14 0.54 3.72 2.04 Financials (Fiscal Year in Mil) 2010 2011 TTM Price/Book 1.9 1.8 1.0 24 9,000 10,984 13,967 13,411 14,581 18,631 Revenue Price/Sales 1.8 2.1 3.0 1.2 -42.8 22.0 27.2 -4.0 8.7 27.8 % Change 377 1 769 -1 870 3 333 6.097 Operating Income Profitability 3 727 Sector Median Country Median Current 5-Yr Avg -93.9 369.2 -205.7 -10.6 % Change 82.9 Return on Equity % -9.9 1.1 11.1 12.6 -135 761 -2.649 2.391 801 -2.125Net Income Return on Assets % -3.70.4 5.1 5.1 3,926 5,247 2,505 8,339 8,888 8,618 Operating Cash Flow Revenue/Employee (Mil) 3.3 2.5 1.5 0.3 -4.352-5.008-5.650-7.242 -7.721 -9.683 Capital Spending -426 239 -3,145 1,097 1,167 -1,065 Free Cash Flow Quantitative Moat Score -47 22 -22.582 80 -5.7 % Sales 100 -0.28 1.52 -5.32 4.74 1.58 -4.21 **EPS** % Change -104 0 -450.0 -66.7 -366.780 -0.89 0.48 -6.32 2.19 2.31 -2.11 Free Cash Flow/Share 0.36 0.36 0.36 0.36 0.54 0.90 Dividends/Share 60 40.45 41.68 36.33 41.22 43.39 40.83 Book Value/Share 496,200 498,400 500,500 503,700 506,450 506,450 Shares Outstanding (K) Profitability 20 -0.73.8 -13.7 12.4 3.8 -9.9 Return on Equity % -0.3 -5.1 -3.7 1.5 4.6 1.5 Return on Assets % 0 -1.5 6.9 -19.0 17.8 5.5 -11.4 Net Margin % 2007 2008 2009 2010 2011 2012 2013 2014 0.18 0.22 0.27 0.26 0.27 0.32 Asset Turnover Financial Leverage 2.5 2.5 2.9 2.5 2.6 2.9 Financial Health Secto Country Median 76.2 79.4 73.1 79.9 80.7 79.5 Gross Margin % Current 5-Yr Ava Median 4.2 16.1 -13.4 27.8 22.9 32.7 Operating Margin % Distance to Default 0.6 0.5 0.5 0.6 12.748 12.722 15.060 13.269 13.065 14,728 Long-Term Debt Solvency Score 737.1 552.2 546.8 19,928 20,684 18,105 20,629 21.857 20,677 Total Equity Assets/Equity 2.6 2.6 1.6 1.6 02 0.3 0.4 04 04 0.5 Fixed Asset Turns Long-Term Debt/Equity 0.6 0.7 0.3 0.3 **Growth Per Share** Quarterly Revenue & EPS Revenue Growth Year On Year % 3-Year 5-Year 10-Year 1-Year Revenue (Mil) Sen Dec Total Mar Revenue % 8.7 9.9 -1.5 11.0 4.439.0 5,010.0 2014 5.844.0 Operating Income % -10.6 23.5 -11.6 4.2 2013 3 893 0 3,497.0 3.853.0 3.338.0 14 581 0 Earnings % -66.7 1.2 -25.4 -4.3 2012 3,447.0 3.222.0 3.332.0 3,410.0 13,411.0 30.0 2011 3,253.0 3,676.0 3,199.0 3,839.0 13,967.0 Dividends % 50.0 14.5 8.5 9.4 Earnings Per Share Book Value % 5.3 1.4 1.2 9.9 2014 -530 0.45 2.12 Stock Total Return % -10.30.0 5.7 9.3 -1.53 2013 0.91 1.83 0.36 1.58 2012 4.28 -0.18 0.24 0.40 4.74 2012 2013 2014 -0.72-5.32 2011 0.43 1.08 -6.12

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Morningstar Equity & Credit Research Methodology

Fundamental Analysis

At Morningstar, we believe buying shares of superior businesses at a discount and allowing them to compound over time is the surest way to create wealth in the stock market. The long-term fundamentals of businesses, such as cash flow, competition, economic cycles, and stewardship, are our primary focus. Occasionally, this approach causes our recommendations to appear out of step with the market, but willingness to be contrarian is an important source of outperformance and a benefit of Morningstar's independence. Our analysts conduct primary research to inform our views on each firm's moat, fair value and uncertainty.



Economic Moat

The economic moat concept is a cornerstone of Morningstar's investment philosophy and is used to distinguish high-quality companies with sustainable competitive advantages. An economic moat is a structural feature that allows a firm to sustain excess returns over a long period of time. Without a moat, a company's profits are more susceptible to competition. Companies with narrow moats are likely to achieve normalized excess returns beyond 10 years while wide-moat companies are likely to sustain excess returns beyond 20 years. The longer a firm generates economic profits, the higher its intrinsic value. We believe lower-quality no-moat companies will see their returns gravitate to-

ward the firm's cost of capital more quickly than companies with moats will. We have identified five sources of economic moats: intangible assets, switching costs, network effect, cost advantage, and efficient scale.

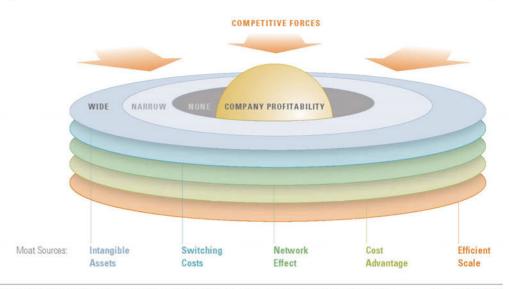
Fair Value Estimate

Our analyst-driven fair value estimate is based primarily on Morningstar's proprietary three-stage discounted cash flow model. We also use a variety of supplementary fundamental methods to triangulate a company's worth, such as sum-of-the-parts, multiples, and yields, among others. We're looking well beyond next quarter to determine the cash-generating ability of a company's assets because we believe the market price of a security will migrate toward the firm's intrinsic value over time. Economic moats are not only an important sorting mechanism for quality in our framework, but the designation also directly contributes to our estimate of a company's intrinsic value through sustained excess returns on invested capital.

Uncertainty Rating

The Morningstar Uncertainty Rating demonstrates our assessment of a firm's cash flow predictability, or valuation risk. From this rating, we determine appropriate margins of safety: The higher the uncertainty, the wider the margin of safety around our fair value estimate before our recommendations are triggered. Our uncertainty ratings are low, medium, high, very high, and extreme. With each uncertainty rating is a corresponding set of price/fair value ratios that drive our recommendations: Lower price/fair value ratios (<1.0) lead to positive recommendations, while higher price/fair value

Economic Moat



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Morningstar Equity & Credit Research Methodology

ratios (>1.0) lead to negative recommendations. In very rare cases, the fair value estimate for a firm is so unpredictable that a margin of safety cannot be properly estimated. For these firms, we use a rating of extreme. Very high and extreme uncertainty companies tend to have higher risk and volatility.

Credit Rating

The Morningstar Corporate Credit Rating measures the ability of a firm to satisfy its debt and debtlike obligations. The higher the rating, the less likely we think the company is to default on these obligations.

Quantitatively Driven Valuations

To complement our analysts' work, we produce Quantitative Ratings for a much larger universe of companies. These ratings are generated by statistical models that are meant to divine the relationships between Morningstar's analyst-driven ratings and key financial data points. Consequently, our quantitative ratings are directly analogous to our analyst-driven ratings.

Quantitative Fair Value Estimate (QFVE): The QFVE is analogous to Morningstar's fair value estimate for stocks. It represents the per-share value of the equity of a company. The QFVE is displayed in the same currency as the company's last close price.

Valuation: The valuation is based on the ratio of a company's quantitative fair value estimate to its last close price.

Quantitative Uncertainty: This rating describes our level of uncertainty about the accuracy of our quantitative fair value estimate. In this way it is analogous to Morningstar's fair value uncertainty ratings.

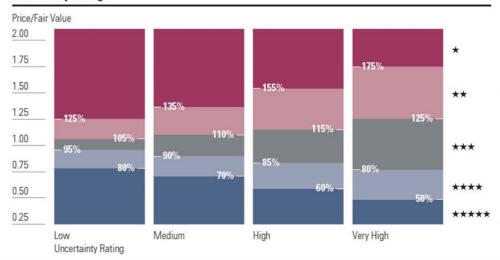
Quantitative Economic Moat: The quantitative moat rating is analogous to Morningstar's analyst-driven economic moat rating in that both are meant to describe the strength of a firm's competitive position.

Financial Health: Financial health is based on Morningstar's proprietary Distance to Default calculation.

Understanding Differences Between Analyst and Quantitative Valuations

If our analyst-driven ratings did not sometimes differ from our quantitative ratings, there would be little value in producing both. Differences occur because our quantitative ratings are essentially a highly sophisticated analysis of the analyst-driven ratings of comparable companies. If a company is unique and has few comparable companies, the quantitative model will have more trouble assigning correct ratings, while an analyst will have an easier time recognizing the true characteristics of the company. On the other hand, the quantitative models incorporate new data efficiently and consistently. Empirically, we find quantitative ratings and analyst-driven ratings to be equally powerful predictors of future performance. When the analystdriven rating and the quantitative rating agree, we find the ratings to be much more predictive than when they differ. In this way, they provide an excellent second opinion for each other. When the ratings differ, it may be wise to follow the analyst's rating for a truly unique company with its own special situation, and follow the quantitative rating when a company has several reasonable comparable companies and relevant information is flowing at a rapid pace.

Uncertainty Rating



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Morningstar Rating

D2 Dec 2014

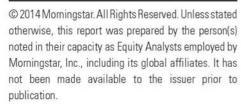
78.73 USD 01 Dec 2014

Fair Value Estimate 99.00 USD Price/Fair Value Dividend Yield % 0.74 1.14

01 Dec 2014

Market Cap (Bil) 39.87 01 Dec 2014 Oil & Gas E&P

Stewardship Standard



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