

Meter Reader

A Weekly Analysis of Energy Stocks Using the McDep Ratio

July 13, 2004

Forward Oil Price Scenario

Summary and Recommendation

The “moderate” oil price scenario we outlined two weeks ago implies further gains in six-year oil futures that are already up some 30% in the past year to \$33 a barrel from \$25 a barrel. As an indicator, we adjust scenario prices for inflation and average the next six-years to calculate a “forward price” of \$49, almost 50% higher than current six-year futures. Operating leverage implies that stock prices for independent producers before the impact of financial leverage would increase proportionately more than six-year futures. We believe the scenario is likely enough to make owning our recommended oil and gas stocks rewarding.

Six-Year Futures and Forward Oil Price

It takes awhile to think naturally in terms of futures prices and the terminology can be confusing. We have woven six-year futures into our research since they first became transparently quoted publicly after the collapse of proprietary trader, Enron. Until early this year our present value estimates took six-year futures as the forecast of price. Seeing continuing positive momentum in the price trend, we made the leap to anticipate higher six-year futures for making new present value estimates.

Believing that the positive direction of the trend in oil price had more staying power, we developed a scenario that would take the 2003 price of oil to \$50 in 2010 and stabilize thereafter at \$40 for awhile (see *Meter Reader*, June 29, 2004). We further stated that “our scenario would take six-year futures gradually past \$40 a barrel in 2003 dollars.” That could be the way the futures market unfolds, but the scenario implies a six-year forward oil price that is already higher.

Consider that the actual oil price for 2004 may end up as \$37 a barrel in 2003 dollars. If that price were to remain constant for six-years, it would imply that six-year futures quoted today should be \$37 a barrel in 2003 dollars, \$38 a barrel in 2004 dollars compared to the current quote of about \$33. Further considering that even the U.S. government now forecasts \$37 a barrel through 2005 (<http://www.eia.doe.gov/emeu/steo/pub/gifs/img002.gif>), the likelihood seems low that actual price for the next six years would average \$33.

If it is likely that there is any further increase in oil price beyond 2004, it would be magnified in a six-year forward price. To illustrate, we convert our 2003 dollar scenario to a current dollar scenario by adjusting for 3% per year inflation. The Consumer Price

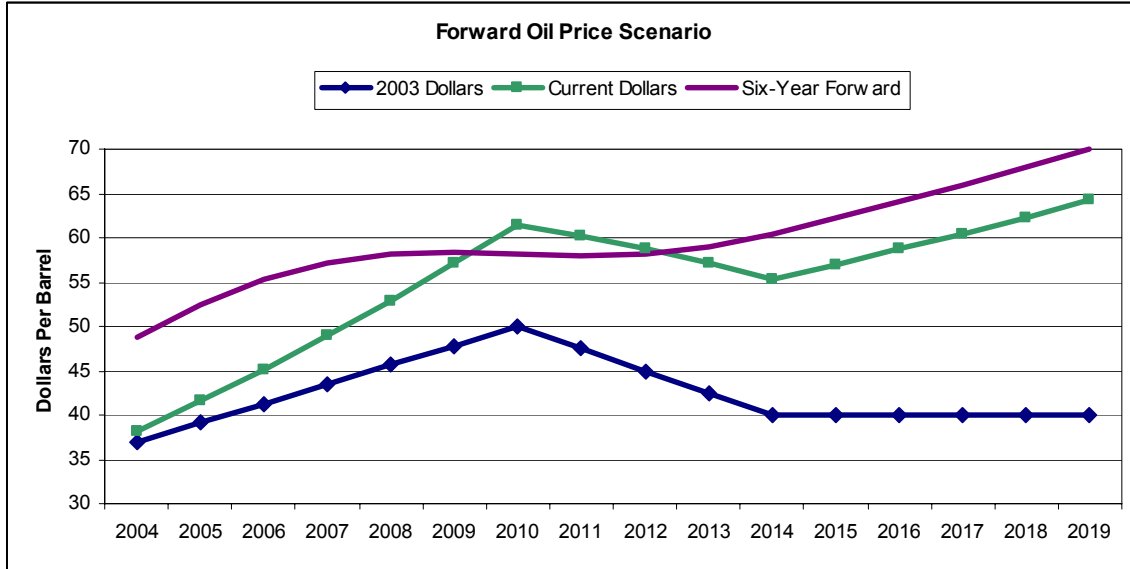
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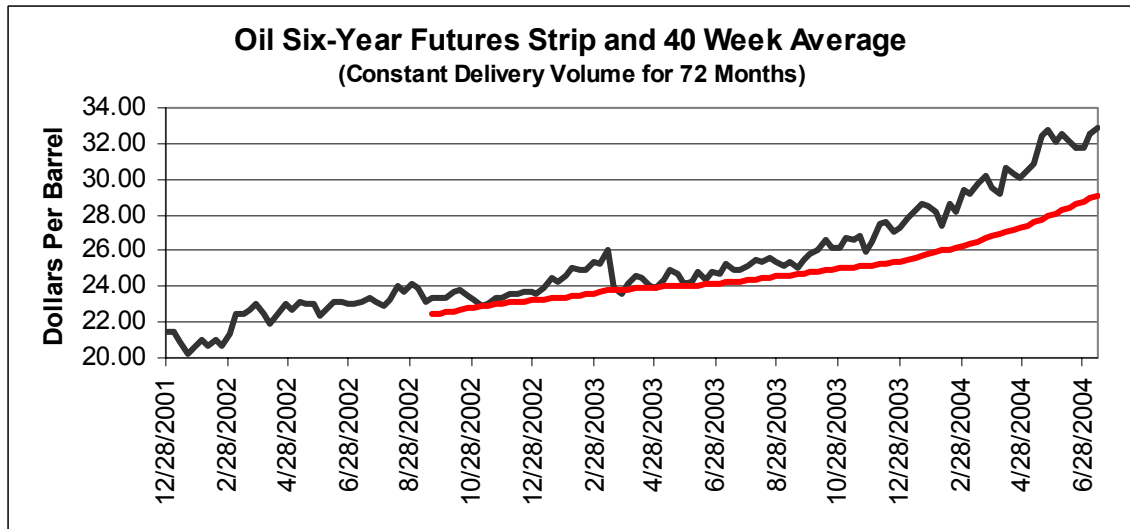
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Index was up about that much in May 2004 over May 2003 and the long-term rate for the past ninety years is also about that much. Then we calculate a six-year forward price as the average of current dollar price for the next six-years (see chart).



Contrast the six-year forward price for 2004 with six-year futures (see chart). If the forward oil price scenario has the validity we think it may have, there could be more upside in six-year oil futures.



Kurt H. Wulff, CFA

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Table 1-1
Energy Producers
Rank by McDep Ratio: Market Cap and Debt to Present Value

	Symbol/ Rating	Price (\$/sh) 12-Jul 2004	Shares (mm)	Market Cap (\$mm)	Net Present Value (\$/sh)	Debt/ Present Value	McDep Ratio
Mega Cap							
Exxon Mobil Corporation	XOM B3	45.44	6,582	299,000	43.00	0.09	1.05
BP plc	BP B3	54.70	3,681	201,000	60.00	0.13	0.92
Shell Transport and Trading Co. plc	SC B3	45.20	1,587	72,000	51.30	0.18	0.90
Total S.A.	TOT B3	98.96	1,246	123,300	113.00	0.16	0.90
Royal Dutch Petroleum	RD B1	52.32	2,033	106,000	60.00	0.18	0.89
ChevronTexaco Corporation	CVX B1	93.83	1,066	100,000	125.00	0.14	0.79
	<i>Total or Median</i>			<i>901,000</i>		<i>0.15</i>	<i>0.90</i>
Producer/Refiners - Large Cap and Mid Cap							
Kinder Morgan, Inc.	KMI S2	60.03	125	7,500	20.00	0.73	1.54
Valero Energy Corporation	VLO	75.77	121	9,140	55.00	0.43	1.21
Murphy Oil Corporation	MUR	77.16	93	7,160	62.00	0.20	1.19
Marathon Oil Corporation	MRO B3	36.74	352	12,920	41.00	0.29	0.93
Imperial Oil Limited (30%)	IMO B3	47.71	109	5,180	52.00	0.10	0.93
ConocoPhillips	COP B1	76.85	688	52,800	110.00	0.27	0.78
Suncor Energy	SU B3	26.12	465	12,150	38.00	0.14	0.73
ENI S.p.A.	E	103.79	755	78,400	150.00	0.12	0.73
Petro-Canada	PCZ B3	44.51	266	11,840	68.00	0.11	0.69
Petroleo Brasileiro S. A.	PBR	27.37	1,096	30,000	50.00	0.28	0.67
Norsk Hydro ASA	NHY B1	65.75	256	16,810	120.00	0.12	0.60
PetroChina Company Ltd (10%)	PTR B2	46.99	176	8,260	88.00	0.07	0.56
Lukoil Oil Company	LUKOY B2	106.75	210	22,000	208.00	0.05	0.54
	<i>Total or Median</i>			<i>274,000</i>		<i>0.14</i>	<i>0.73</i>
Independent Natural Gas and Oil							
XTO Energy Inc.	XTO B1	30.31	260	7,880	38.00	0.22	0.84
Canadian Natural Resources Limited	CNQ	31.24	271	8,470	44.00	0.29	0.79
Unocal Corporation	UCL B3	37.73	276	10,400	54.00	0.26	0.78
Encana Corporation	ECA B1	44.06	472	20,800	63.00	0.20	0.76
CNOOC Limited (19%)	CEO B2	41.75	78	3,260	55.00	-	0.76
Apache Corporation	APA	45.29	324	14,700	64.00	0.15	0.75
Devon Energy	DVN B3	69.02	247	17,000	110.00	0.24	0.71
Anadarko Petroleum Corp.	APC B1	59.78	254	15,200	94.00	0.21	0.71
Occidental Petroleum Corp.	OXY B3	48.42	397	19,200	75.00	0.19	0.71
Pioneer Natural Resources Company	PXD	35.24	119	4,190	57.00	0.22	0.70
Burlington Resources	BR B1	37.04	396	14,700	58.00	0.15	0.69
Pogo Producing Company	PPP	46.60	64	2,980	70.00	0.07	0.69
	<i>Total or Median</i>			<i>139,000</i>		<i>0.20</i>	<i>0.73</i>

B1 = Buy full unlevered position, B2 = Buy half unlevered position, B3 = Alternative buy

S2 = Short half unlevered position

McDep Ratio = Market cap and Debt to present value of oil and gas and other businesses

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July 13, 2004

Table 1-2
Energy Producers
Rank by EV/Ebitda: Enterprise Value to Earnings Before Interest, Tax, Deprec.

	Symbol/ Rating	Price (\$/sh) 12-Jul 2004	EV/ Sales NTM	EV/ Ebitda NTM	P/E NTM	Divd or Distrib NTM (%)	PV/ Ebitda NTM
Mega Cap							
Exxon Mobil Corporation	XOM B3	45.44	1.2	7.1	13	2.2	6.7
Total S.A.	TOT B3	98.96	1.1	6.0	10	2.8	6.7
BP plc	BP B3	54.70	0.8	5.6	11	3.0	6.1
Shell Transport and Trading Co. plc	SC B3	45.20	1.0	5.3	10	4.1	5.9
Royal Dutch Petroleum	RD B1	52.32	0.9	5.3	10	4.2	5.9
ChevronTexaco Corporation	CVX B1	93.83	0.9	5.1	8	3.1	6.4
	<i>Median</i>		<i>1.0</i>	<i>5.5</i>	<i>10</i>	<i>3.0</i>	<i>6.3</i>
Producer/Refiners - Large Cap and Mid Cap							
Kinder Morgan, Inc.	KMI S2	60.03	3.0	12.4	15	3.7	8.0
Suncor Energy	SU B3	26.12	2.7	8.5	17	0.7	11.6
Murphy Oil Corporation	MUR	77.16	1.5	7.5	16	1.0	6.3
Imperial Oil Limited (30%)	IMO B3	47.71	1.3	6.0	10	1.4	6.5
Valero Energy Corporation	VLO	75.77	0.4	5.5	7	0.6	4.5
Marathon Oil Corporation	MRO B3	36.74	0.4	5.3	10	2.7	5.8
ConocoPhillips	COP B1	76.85	0.7	4.7	7	2.2	6.1
ENI S.p.A.	E	103.79	1.6	4.5	8	4.4	6.1
Petroleo Brasileiro S. A.	PBR	27.37	1.6	4.2	5	2.7	6.3
Norsk Hydro ASA	NHY B1	65.75	1.0	3.7	8	2.4	6.1
PetroChina Company Ltd (10%)	PTR B2	46.99	2.0	3.7	7	4.6	6.5
Petro-Canada	PCZ B3	44.51	1.3	3.4	7	1.0	4.9
Lukoil Oil Company	LUKOY B2	106.75	0.9	2.6	4	2.4	4.8
	<i>Median</i>		<i>1.3</i>	<i>4.7</i>	<i>8</i>	<i>2.4</i>	<i>6.1</i>
Independent Natural Gas and Oil							
XTO Energy Inc.	XTO B1	30.31	4.5	5.9	12	0.1	7.0
CNOOC Limited (19%)	CEO B2	41.75	4.4	5.6	11	3.8	7.4
Pioneer Natural Resources Company	PXD	35.24	3.6	5.2	17	-	7.4
Occidental Petroleum Corp.	OXY B3	48.42	2.4	5.0	9	2.3	7.1
Anadarko Petroleum Corp.	APC B1	59.78	3.5	5.0	9	0.9	7.0
Unocal Corporation	UCL B3	37.73	2.0	4.9	9	2.1	6.3
Apache Corporation	APA	45.29	3.3	4.6	8	0.5	6.1
Burlington Resources	BR B1	37.04	3.3	4.5	9	1.6	6.5
Encana Corporation	ECA B1	44.06	2.2	4.3	8	0.9	5.7
Canadian Natural Resources Limited	CNQ	31.24	2.8	4.2	7	1.0	5.3
Devon Energy	DVN B3	69.02	3.1	3.8	6	0.6	5.3
Pogo Producing Company	PPP	46.60	2.4	3.4	7	0.4	4.9
	<i>Median</i>		<i>3.2</i>	<i>4.7</i>	<i>9</i>	<i>0.9</i>	<i>6.4</i>

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended June 30, 2005; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

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Table 2-1
Independent Natural Gas and Oil Producers - Small Cap
Rank by McDep Ratio: Market Cap and Debt to Present Value

	Symbol/ Rating	Price (\$/sh) 12-Jul 2004	Shares (mm)	Market Cap (\$mm)	Net Present Value (\$/sh)	Debt/ Present Value	McDep Ratio
Short Life							
Spinnaker Exploration Company	SKE	39.30	34.2	1,340	28.00	0.11	1.36
Western Gas Resources	WGR	32.63	74.0	2,420	25.00	0.17	1.25
Southwestern Energy Company	SWN	30.58	36.0	1,100	29.00	0.22	1.04
The Houston Exploraton Company	THX	51.09	31.0	1,580	55.00	0.20	0.94
Penn West Petroleum Ltd. (US\$)	PWT.TO	49.88	54.7	2,730	57.00	0.21	0.90
Denbury Resources Inc.	DNR	20.92	55.7	1,170	25.00	0.21	0.87
Cimarex Energy Company	XEC B2	31.53	42.6	1,340	38.00	0.00	0.83
Newfield Exploration Company	NFX	57.44	56.6	3,250	73.00	0.17	0.82
Energy Partners Ltd.	EPL B3	15.71	37.7	592	22.00	0.14	0.75
St. Mary Land and Exploration Company	SM	35.73	29.0	1,040	50.00	0.10	0.74
Chesapeake Energy Corporation	CHK	15.36	220	3,380	24.00	0.29	0.74
Range Resources Corporation	RRC	15.40	57.0	880	24.00	0.26	0.74
Stone Energy Company	SGY	46.55	26.6	1,240	72.00	0.20	0.72
PetroKazakhstan Inc.	PKZ	28.39	80.7	2,290	42.00	0.01	0.68
Forest Oil Corporation	FST	27.26	53.5	1,460	53.00	0.25	0.63
		<i>Total or Median</i>		25,800		0.20	0.82
Long Life							
Ultra Petroleum Corp.	UPL	39.59	78.0	3,090	25.00	0.06	1.55
Quicksilver Resources Inc.	KWK	33.98	50.4	1,710	25.00	0.19	1.29
Unit Corporation	UNT	31.50	44.1	1,390	25.00	0.01	1.26
Penn Virginia Corporation	PVA	37.75	18.2	690	36.00	0.14	1.04
Swift Energy Company	SFY	22.87	27.4	630	32.00	0.29	0.80
Whiting Petroleum Corporation	WLL	25.08	18.8	470	40.00	0.21	0.71
Berry Petroleum Company	BRY B2	29.01	22.3	647	43.00	0.07	0.70
Encore Acquisition Company	EAC B2	28.91	30.6	884	47.00	0.18	0.68
Magnum Hunter Resources, Inc.	MHR	10.41	68.0	710	20.00	0.32	0.67
Vintage Petroleum, Inc.	VPI	17.09	63.0	1,080	33.00	0.28	0.65
		<i>Total or Median</i>		11,300		0.19	0.75
Micro Cap							
Abraxas Petroleum Corporation	ABP	1.36	35.8	49	1.50	0.77	0.98
Purcell Energy, Ltd. (US\$)	PEL.TO	2.00	62.0	124	2.80	0.26	0.79

B2 = Buy half unlevered position, B3 = Alternative buy

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Independent Natural Gas and Oil Producers - Small Cap

Rank by EV/Ebitda: Enterprise Value to Earnings Before Interest, Tax, Deprec.

		<i>Price</i>			<i>Divd or</i>			
		<i>(\$/sh)</i>	<i>EV/</i>	<i>EV/</i>	<i>Distrib</i>	<i>PV/</i>		
<i>Symbol/</i>		<i>12-Jul</i>	<i>Sales</i>	<i>Ebitda</i>	<i>P/E</i>	<i>NTM</i>	<i>Ebitda</i>	
<i>Rating</i>		<i>2004</i>	<i>NTM</i>	<i>NTM</i>	<i>NTM</i>	<i>(%)</i>	<i>NTM</i>	
Short Life								
Western Gas Resources	WGR	32.63	1.0	11.1	23	-	8.9	
Southwestern Energy Company	SWN	30.58	3.8	6.6	12	-	6.3	
Spinnaker Exploration Company	SKE	39.30	5.2	5.9	15	-	4.3	
Denbury Resources Inc.	DNR	20.92	3.6	5.4	10	-	6.2	
Penn West Petroleum Ltd. (US\$)	PWT.TO	49.88	3.9	5.3	12	0.7	5.9	
Range Resources Corporation	RRC	15.40	4.1	5.3	10	0.3	7.2	
Chesapeake Energy Corporation	CHK	15.36	3.3	4.6	9	0.8	6.1	
St. Mary Land and Exploration Company	SM	35.73	2.8	4.1	10	0.3	5.5	
Cimarex Energy Company	XEC	B2	31.53	3.2	4.1	9	-	4.9
Stone Energy Company	SGY	46.55	2.9	4.0	8	-	5.6	
The Houston Exploraton Company	THX	51.09	3.1	3.9	9	-	4.2	
Forest Oil Corporation	FST	27.26	2.9	3.9	18	-	6.2	
Newfield Exploration Company	NFX	57.44	3.0	3.9	8	-	4.7	
Energy Partners Ltd.	EPL	B3	15.71	2.6	3.6	13	-	4.8
PetroKazakhstan Inc.	PKZ	28.39	1.8	3.4	6	-	5.0	
	<i>Median</i>		<i>3.1</i>	<i>4.1</i>	<i>10</i>	<i>-</i>	<i>5.6</i>	
Long Life								
Ultra Petroleum Corp.	UPL	39.59	12.9	16.5	27	-	10.7	
Quicksilver Resources Inc.	KWK	33.98	9.4	14.1	28	-	10.9	
Unit Corporation	UNT	31.50	3.9	9.1	22	-	7.3	
Penn Virginia Corporation	PVA	37.75	4.1	7.1	15	1.2	6.8	
Swift Energy Company	SFY	22.87	4.1	6.1	14	-	7.6	
Berry Petroleum Company	BRY	B2	29.01	3.5	6.0	12	1.5	8.6
Encore Acquisition Company	EAC	B2	28.91	4.1	5.7	13	-	8.4
Whiting Petroleum Corporation	WLL	25.08	3.4	5.3	11	-	7.4	
Magnum Hunter Resources, Inc.	MHR	10.41	3.0	4.6	8	-	6.8	
Vintage Petroleum, Inc.	VPI	17.09	2.4	4.1	8	1.1	6.3	
	<i>Median</i>		<i>4.0</i>	<i>6.0</i>	<i>13</i>	<i>-</i>	<i>7.5</i>	
Micro Cap								
Abraxas Petroleum Corporation	ABP	1.36	6.3	9.4		-	9.6	
Purcell Energy, Ltd. (US\$)	PEL.TO	2.00	4.2	5.7	13	-	7.2	

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended June 30, 2005; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

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