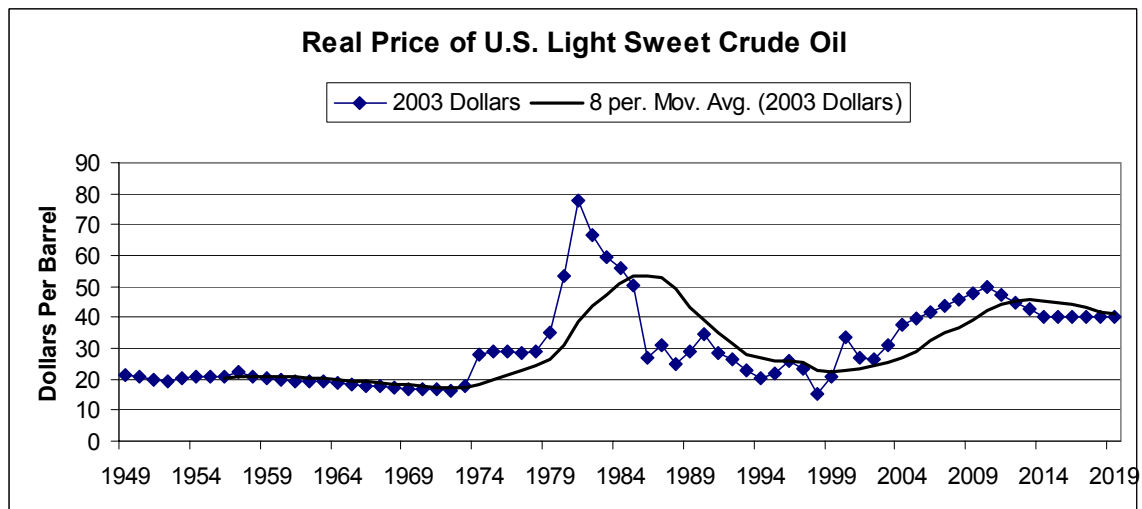


Oil Price Scenario for the Decade

Summary and Recommendation

During the 2010s the price of Light Sweet Crude Oil quoted on the New York Mercantile Exchange might settle near \$40 a barrel, in 2003 dollars, following a transition period in the 2000s. That compares to about \$30 a barrel for the 1990s and 1980s where the price seems to have lingered after the transition 1970s. Previously, the U.S. price was stable near \$20 a barrel during the 1960s and 1950s (see chart). Oil and gas investments are likely to perform well as the current transition period unfolds. We recommend representation among income stocks, small cap producers, large cap producers, large cap producer/refiners and mega cap energy stocks (see Tables 1-1, 2-1 and companion weekly analysis *McDep Energy Income Producers*).



Historical Parallels Point to the Future

Like most economic phenomena, oil price is cyclical. It is also such a long cycle that sometimes it feels like stability. Yet when we look at the source of stability, it may be artificial. During the stable period of the 1950s and 1960s oil price was essentially set by the Texas Railroad Commission as it “prorated” spare capacity in Texas. At times the Commission was accused of keeping price artificially high. Import quotas in turn kept the international price artificially low.

The international producers could look to the price of oil in the U.S. and see that their product was worth more intrinsically. When Texas ultimately ran out of spare capacity,

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the international producers gradually were able to gain pricing power. We have referred to the price gains in 1973-74 as a quadrupling. The U.S. price did quadruple, but it does not show completely on our chart because the U.S. price we plot was reduced artificially by Federal price controls.

The price of oil had to overshoot on the upside to give consumers and producers a serious signal. Consumers needed to use energy more wisely and producers needed to invest more in long-term supply. Indeed the price for 1981 averaged almost \$80 a barrel in 2003 dollars.

During the early 1980s crude oil price remained high. By the late 1980s the price stabilized around the new base of about \$30 a barrel. By the late 1990s oil price was too low again.

Saudi Arabia Kept Oil Price Artificially Low

As with the Texas Railroad Commission, there were times when Saudi Arabia propped up the price of crude oil. Now Saudi Arabia has run out of meaningful spare capacity. At the same time international producers can look to consumers for evidence that oil is worth more. The Organization of Petroleum Exporting Countries on its website points to taxes on oil of a dollar a liter in Europe and Japan. At \$30 a barrel the price of crude oil would be less than one-fifth the taxes collected on refined products outside North America. As a result, the conditions are rapidly falling in place again for a sharp upward adjustment in oil price.

New Transition Period Begins

An unnerving question in recent weeks was whether oil price would increase too much too soon. A respite in price is welcome coinciding with the announcement the U.S. has transferred sovereignty back to the citizens of Iraq. We are optimistic that the transition period need not have such sharp oil price gains that economic activity is adversely affected. Our scenario of \$50 a barrel in about 2010 would be only a mild overshoot on the way to a stable \$40 a barrel for awhile.

Moreover the trend in six-year futures remains up (see Chart). Our scenario would take six-year futures gradually past \$40 a barrel in 2003 dollars. Inflation would add an undetermined amount.

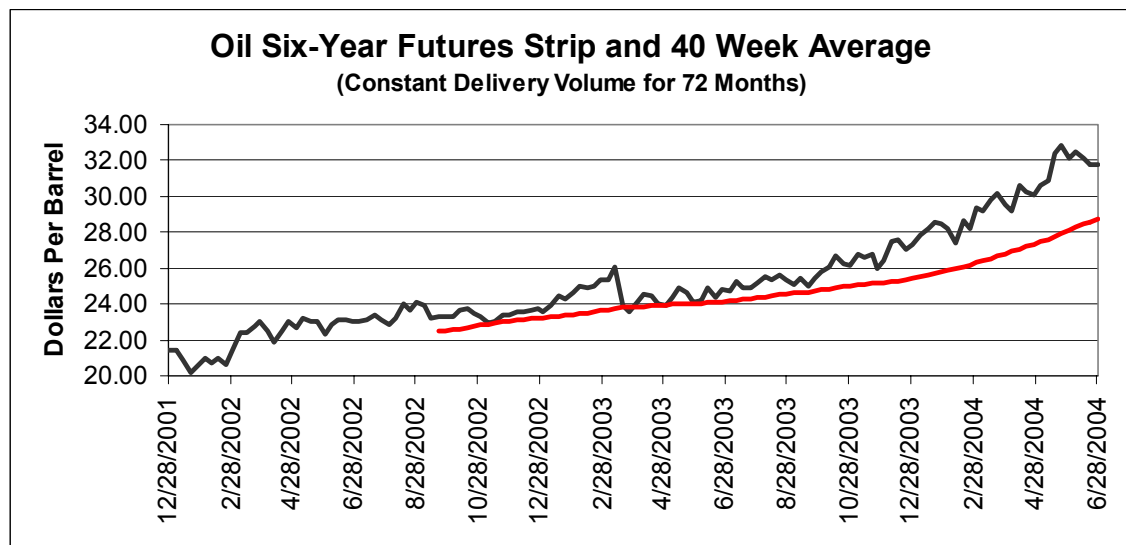
Recent declines in short-term oil price give encouragement to some that if inventories can be replenished; oil price could return to below the \$30 a barrel base for the past twenty years. In our experience inventory analysis can be misleading in a transition period as we are in now. Moreover historical prices may need to be adjusted for inflation for the conclusion to be applicable in the future.

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Five Fundamental Factors

Economics support the price trends. Oil demand is strong with world economic growth paced by developing countries, especially China. Supply is tight as the Middle East is showing maturity with the workhorse giant fields on the verge of peaking.

Monetary factors favor oil investment as interest rates below inflation drive investors to real assets for protection against currency debasement. Oil price is likely to rise more than the official government determined inflation measure.

Environmental factors favor higher oil and gas price. Coal is still a quarter of world primary energy supply. As long as large quantities of coal are burned, oil and gas must be undervalued because otherwise they would displace environmentally disadvantageous coal.

Political factors favor higher oil price as conditions in leading producing countries evolve in different directions. Now Saudi Arabia appears vulnerable to a change in control.

Nor can the U.S. military create full security. During the Arab oil embargo in 1973 some consumers advocated sending the troops. Thirty years later we have sent the troops only to see security deteriorate further, it seems.

Not to end on a pessimistic note, we are optimistic that oil price increases will be less than at the rate that threatens economic growth. Yet, the likelihood of returning to the low prices of the past for more than a brief time seems remote.

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) 28-Jun 2004	Shares (mm)	Market Cap (\$mm)	Net Present Value (\$/sh)	Debt/ Present Value	McDep Ratio
Mega Cap								
Exxon Mobil Corporation	XOM	B3	44.38	6,582	292,000	43.00	0.09	1.03
Shell Transport and Trading Co. plc	SC	B3	45.82	1,587	73,000	51.30	0.18	0.91
BP plc	BP	B3	53.70	3,681	198,000	60.00	0.13	0.91
Royal Dutch Petroleum	RD	B1	52.26	2,033	106,000	60.00	0.18	0.89
Total S.A.	TOT	B3	96.43	1,246	120,100	113.00	0.16	0.88
ChevronTexaco Corporation	CVX	B1	92.82	1,066	98,900	125.00	0.14	0.78
					<i>888,000</i>		<i>0.15</i>	<i>0.90</i>
Producer/Refiners - Large Cap and Mid Cap								
Kinder Morgan, Inc.	KMI	S2	59.69	125	7,460	20.00	0.73	1.53
Valero Energy Corporation	VLO		71.80	121	8,660	55.00	0.43	1.17
Murphy Oil Corporation	MUR		70.22	93	6,520	62.00	0.20	1.11
Marathon Oil Corporation	MRO	B3	36.99	345	12,770	41.00	0.30	0.93
Imperial Oil Limited (30%)	IMO	B3	46.04	109	5,000	52.00	0.10	0.90
ConocoPhillips	COP	B1	76.06	691	52,600	110.00	0.27	0.77
ENI S.p.A.	E		101.81	755	76,900	150.00	0.12	0.72
Suncor Energy	SU	B3	25.42	465	11,820	38.00	0.14	0.72
Petro-Canada	PCZ	B3	43.10	266	11,460	68.00	0.11	0.67
Norsk Hydro ASA	NHY	B1	65.02	256	16,630	120.00	0.12	0.60
PetroChina Company Ltd (10%)	PTR	B2	45.94	176	8,080	88.00	0.07	0.55
Lukoil Oil Company	LUKOY	B2	107.50	210	23,000	208.00	0.05	0.54
Petroleo Brasileiro S. A.	PBR		27.15	1,096	29,800	65.00	0.20	0.53
					<i>271,000</i>		<i>0.14</i>	<i>0.72</i>
Independent Natural Gas and Oil								
XTO Energy Inc.	XTO	B1	28.74	256	7,350	38.00	0.22	0.81
CNOOC Limited (19%)	CEO	B2	42.60	78	3,330	55.00	-	0.77
Unocal Corporation	UCL	B3	37.48	276	10,300	54.00	0.26	0.77
Canadian Natural Resources Limited	CNQ		29.28	274	8,020	44.00	0.29	0.76
Encana Corporation	ECA	B1	42.00	472	19,800	63.00	0.20	0.73
Apache Corporation	APA		42.67	324	13,800	64.00	0.15	0.71
Pogo Producing Company	PPP		48.22	64	3,090	70.00	0.07	0.71
Occidental Petroleum Corp.	OXY	B3	47.41	397	18,800	75.00	0.19	0.70
Anadarko Petroleum Corp.	APC	B1	57.00	254	14,500	94.00	0.21	0.69
Pioneer Natural Resources Company	PXD		34.19	119	4,070	57.00	0.22	0.69
Devon Energy	DVN	B3	64.60	247	16,000	110.00	0.24	0.69
Burlington Resources	BR	B1	35.33	396	14,000	58.00	0.15	0.67
					<i>133,000</i>		<i>0.20</i>	<i>0.71</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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A Weekly Analysis of Energy Stocks Using the McDep Ratio

June 29, 2004

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

	Symbol/ Rating		Price (\$/sh) 28-Jun 2004	EV/ Sales NTM	EV/ Ebitda NTM	P/E NTM	Divd or Distrib NTM (%)	PV/ Ebitda NTM
Mega Cap								
Exxon Mobil Corporation	XOM	B3	44.38	1.2	7.0	12	2.3	6.8
Total S.A.	TOT	B3	96.43	1.1	5.6	9	2.9	6.3
BP plc	BP	B3	53.70	0.8	5.3	10	3.0	5.9
Shell Transport and Trading Co. plc	SC	B3	45.82	1.0	5.2	15	3.9	5.7
Royal Dutch Petroleum	RD	B1	52.26	0.9	5.1	15	4.0	5.7
ChevronTexaco Corporation	CVX	B1	92.82	0.9	5.0	8	3.1	6.4
	<i>Median</i>			<i>0.9</i>	<i>5.3</i>	<i>11</i>	<i>3.1</i>	<i>6.1</i>
Producer/Refiners - Large Cap and Mid Cap								
Kinder Morgan, Inc.	KMI	S2	59.69	3.0	12.3	15	3.8	8.0
Suncor Energy	SU	B3	25.42	2.6	8.1	16	0.7	11.4
Murphy Oil Corporation	MUR		70.22	1.5	6.9	14	1.1	6.2
Valero Energy Corporation	VLO		71.80	0.4	6.0	8	0.7	5.1
Imperial Oil Limited (30%)	IMO	B3	46.04	1.2	5.8	10	1.4	6.5
Marathon Oil Corporation	MRO	B3	36.99	0.4	5.2	10	2.7	5.6
ENI S.p.A.	E		101.81	1.5	4.6	8	4.5	6.4
ConocoPhillips	COP	B1	76.06	0.7	4.6	6	2.3	5.9
PetroChina Company Ltd (10%)	PTR	B2	45.94	2.2	4.0	8	4.7	7.2
Norsk Hydro ASA	NHY	B1	65.02	1.0	3.6	8	2.5	6.1
Petro-Canada	PCZ	B3	43.10	1.3	3.3	6	1.0	4.9
Petroleo Brasileiro S. A.	PBR		27.15	1.3	3.0	3	3.8	5.6
Lukoil Oil Company	LUKOY	B2	107.50	0.9	2.8	5	2.4	5.3
	<i>Median</i>			<i>1.3</i>	<i>4.6</i>	<i>8</i>	<i>2.4</i>	<i>6.1</i>
Independent Natural Gas and Oil								
CNOOC Limited (19%)	CEO	B2	42.60	4.5	5.8	12	3.7	7.5
XTO Energy Inc.	XTO	B1	28.74	4.3	5.5	11	0.1	6.8
Pioneer Natural Resources Company	PXD		34.19	3.4	4.9	14	-	7.1
Occidental Petroleum Corp.	OXY	B3	47.41	2.3	4.9	8	2.3	6.9
Unocal Corporation	UCL	B3	37.48	1.9	4.7	9	2.1	6.1
Anadarko Petroleum Corp.	APC	B1	57.00	3.3	4.5	8	1.0	6.6
Apache Corporation	APA		42.67	3.1	4.3	8	0.6	6.0
Encana Corporation	ECA	B1	42.00	2.1	4.1	8	1.0	5.6
Burlington Resources	BR	B1	35.33	3.0	4.1	8	1.7	6.1
Canadian Natural Resources Limited	CNQ		29.28	2.8	4.0	7	1.6	5.2
Devon Energy	DVN	B3	64.60	2.9	3.6	6	0.6	5.2
Pogo Producing Company	PPP		48.22	2.5	3.4	7	0.4	4.8
	<i>Median</i>			<i>3.0</i>	<i>4.4</i>	<i>8</i>	<i>1.0</i>	<i>6.1</i>

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended March 31, 2005; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

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A Weekly Analysis of Energy Stocks Using the McDep Ratio

June 29, 2004

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) 28-Jun 2004	Shares (mm)	Market Cap (\$mm)	Net Present Value (\$/sh)	Debt/ Present Value	McDep Ratio
Short Life							
Spinnaker Exploration Company	SKE	38.91	34.2	1,330	28.00	0.11	1.35
Western Gas Resources	WGR	31.29	74.0	2,320	25.00	0.17	1.21
Southwestern Energy Company	SWN	28.35	36.0	1,020	29.00	0.22	0.98
The Houston Exploraton Company	THX	50.35	31.0	1,560	55.00	0.20	0.93
Denbury Resources Inc.	DNR	20.20	55.7	1,130	25.00	0.21	0.85
Penn West Petroleum Ltd. (US\$)	PWT.TO	45.68	54.7	2,500	57.00	0.21	0.84
Newfield Exploration Company	NFX	54.49	56.6	3,080	73.00	0.17	0.79
Cimarex Energy Company	XEC B2	29.16	42.6	1,240	38.00	0.00	0.77
St. Mary Land and Exploration Company	SM	35.49	29.0	1,030	50.00	0.10	0.74
Energy Partners Ltd.	EPL B3	15.03	37.7	567	22.00	0.14	0.73
Westport Resources Corporation	WRC	38.30	68.0	2,600	57.00	0.17	0.73
Chesapeake Energy Corporation	CHK	14.50	220	3,190	24.00	0.29	0.72
Stone Energy Company	SGY	44.56	26.6	1,190	72.00	0.20	0.69
Range Resources Corporation	RRC	14.06	57.0	800	24.00	0.26	0.69
PetroKazakhstan Inc.	PKZ	26.56	80.7	2,140	42.00	0.01	0.64
Forest Oil Corporation	FST	26.31	53.5	1,410	53.00	0.25	0.62
		<i>Total or Median</i>		27,100		0.19	0.75
Long Life							
Ultra Petroleum Corp.	UPL	36.85	78.0	2,870	25.00	0.06	1.44
Quicksilver Resources Inc.	KWK	65.47	25.2	1,650	50.00	0.19	1.25
Unit Corporation	UNT	29.73	44.1	1,310	25.00	0.01	1.19
Penn Virginia Corporation	PVA	36.13	18.2	660	36.00	0.14	1.00
Swift Energy Company	SFY	21.49	27.4	590	32.00	0.29	0.77
Whiting Petroleum Corporation	WLL	25.04	18.8	470	40.00	0.21	0.71
Evergreen Resources, Inc.	EVG	39.60	44.0	1,740	59.00	0.10	0.70
Berry Petroleum Company	BRY B2	29.30	22.3	653	43.00	0.07	0.70
Magnum Hunter Resources, Inc.	MHR	10.54	68.0	720	20.00	0.32	0.68
Encore Acquisition Company	EAC B2	27.40	30.6	838	47.00	0.18	0.66
Vintage Petroleum, Inc.	VPI	16.68	63.0	1,050	33.00	0.28	0.64
		<i>Total or Median</i>		12,600		0.18	0.71
Micro Cap							
Abraxas Petroleum Corporation	ABP	1.68	35.8	60	1.50	0.77	1.03
Purcell Energy, Ltd. (US\$)	PEL.TO	2.04	62.0	126	2.80	0.26	0.80

B2 = Buy half unlevered position, B3 = Alternative buy

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

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		Price (\$/sh)	EV/ Sales	EV/ Ebitda	P/E	Divd or Distrib NTM (%)	PV/ Ebitda NTM
Symbol/ Rating		28-Jun 2004	NTM	NTM	NTM		
Short Life							
Western Gas Resources	WGR	31.29	1.0	10.6	22	-	8.8
Southwestern Energy Company	SWN	28.35	3.6	6.1	11	-	6.2
Spinnaker Exploration Company	SKE	38.91	5.0	5.7	14	-	4.2
Denbury Resources Inc.	DNR	20.20	3.4	5.0	9	-	5.9
Range Resources Corporation	RRC	14.06	3.8	4.9	9	0.3	7.0
Penn West Petroleum Ltd. (US\$)	PWT.TO	45.68	3.5	4.8	10	0.8	5.7
Chesapeake Energy Corporation	CHK	14.50	3.1	4.3	8	0.8	6.1
Westport Resources Corporation	WRC	38.30	3.3	4.3	10	-	5.9
St. Mary Land and Exploration Company	SM	35.49	2.7	3.9	9	0.3	5.3
The Houston Exploraton Company	THX	50.35	3.0	3.8	8	-	4.1
Stone Energy Company	SGY	44.56	2.8	3.7	7	-	5.4
Forest Oil Corporation	FST	26.31	2.7	3.7	15	-	6.0
Cimarex Energy Company	XEC	B2 29.16	2.9	3.7	8	-	4.8
Newfield Exploration Company	NFX	54.49	2.9	3.6	8	-	4.6
Energy Partners Ltd.	EPL	B3 15.03	2.4	3.3	11	-	4.6
PetroKazakhstan Inc.	PKZ	26.56	1.6	3.1	6	-	4.9
	<i>Median</i>		2.9	4.1	9	-	5.6
Long Life							
Ultra Petroleum Corp.	UPL	36.85	12.2	15.7	26	-	10.9
Quicksilver Resources Inc.	KWK	65.47	9.0	13.3	26	-	10.7
Unit Corporation	UNT	29.73	3.7	8.5	21	-	7.1
Evergreen Resources, Inc.	EVG	39.60	5.5	7.6	12	-	10.9
Penn Virginia Corporation	PVA	36.13	3.9	6.7	14	1.2	6.7
Swift Energy Company	SFY	21.49	3.8	5.5	11	-	7.2
Berry Petroleum Company	BRY	B2 29.30	3.3	5.4	11	1.5	7.7
Encore Acquisition Company	EAC	B2 27.40	3.7	5.2	11	-	7.8
Whiting Petroleum Corporation	WLL	25.04	3.3	5.0	10	-	7.1
Magnum Hunter Resources, Inc.	MHR	10.54	3.0	4.4	7	-	6.5
Vintage Petroleum, Inc.	VPI	16.68	2.3	3.8	7	1.1	5.9
	<i>Median</i>		3.7	5.5	11	-	7.2
Micro Cap							
Abraxas Petroleum Corporation	ABP	1.68	6.5	9.5		-	9.3
Purcell Energy, Ltd. (US\$)	PEL.TO	2.04	4.1	5.6	12	-	7.0

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended March 31, 2005; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

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