A Weekly Analysis of Energy Stocks Using the McDep Ratio November 8, 2005

# **World Energy Outlook**

#### **Summary and Recommendation**

The latest annual study by the International Energy Agency (IEA) warns that without accelerated investment in new supply, crude oil price in 2030 would be \$52 a barrel in 2004 dollars. In that case world fuel demand would grow 1.3% a year. Alternatively, more aggressive investment could bring real price down to \$39 a barrel for oil so that energy growth could be 1.6% a year. Price in the first case is not far from our assumed long-term real oil price of about \$50 a barrel underlying McDep Ratios currently. Yet, we sense that the consumer-oriented intergovernmental agency's price parameters are too optimistic. The market measure of oil price for the next six years at \$58 a barrel continues in an upward trend above the 40-week average. We believe new commitments to low McDep Ratio buy-recommendations are likely to be rewarding over the next few years and beyond.

#### **Commodity Price and Present Value Support Investment**

Crude oil quotes are well	Oil and Gas Commodity and Stock Price						
above the \$50 a barrel used in	Monday, November 07, 2005						
estimating present value, the							
denominator of the McDep			Future	s Price	McDep Ratio		
Ratio (see table Oil and Gas		<u>Units</u>	<u>Six-Year</u>	<u>One-Year</u>	<u>Denominator</u>		
Commodity and Stock Price).							
One-year natural gas is above	Crude Oil	\$/barrel	58.31	61.23	50		
our long-term estimate while	<b>Natural Gas</b>	\$/million btu	8.35	10.81	10		
six-year natural gas	Oil Refining	\$/barrel		11.51	10		
commodity price has extra							
appreciation potential.					Median		
mpp		<u>Stocks</u>			McDep Ratio		
The McDep Ratio compares		Mega Cap			0.78		
present value calculated from		Producer/Refi	ner		0.85		
commodity price with		Independent -	Large		0.76		
enterprise value as		Independent -	Small		0.73		
determined in the stock		Income			1.01		
market. A stock with a					- 1		

McDep Ratio of 1.0

McDep Ratio of 1.0

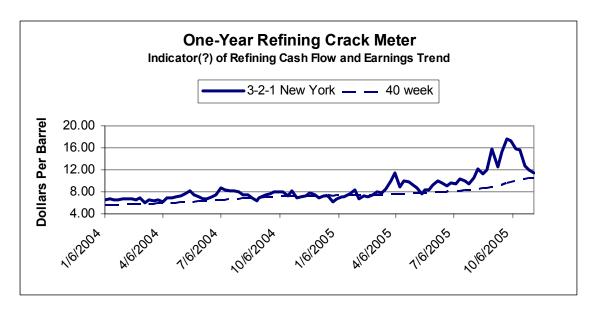
Source: McDep Associates, Bloomberg, New York Mercantile Exchange, Yahoo and company disclosures

year unlevered real return on constant real prices for oil of \$50 a barrel, natural gas of \$10 a million btu and refining crack of \$10 a barrel. Four of the five groups have median McDep Ratios below 1.0.

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#### Refining Crack above 40-Week Average

The IEA may urge producers and refiners to expand, but the investment has to be profitable. It is a challenge to visualize refining profit that is the difference between multiple uncertain prices for products and crude oil. As a result, we do not have six-year futures for refining margin. Nonetheless, we think that strategically placed new investments in refining have promising profit potential. The futures for the next twelve months continue to describe a rising trend (see chart One-Year Refining Crack Meter).



#### **Select Stocks on Valuation and Strategic Considerations**

Stocks are ranked in descending order of McDep Ratio to suggest "buy low and sell high" (see table Rank by McDep Ratio). We recommend representation in each of the five groups from Mega Cap to Income with emphasis on low McDep Ratio stocks.

Next Twelve Months Cash Flow, Ebitda, changes continuously with futures prices for natural gas and oil (see table <u>Rank by EV/Ebitda</u>). We regularly check the correlation of present value with cash flow multiple by business and expected life of production.

Investors can diversify political risk by owning stocks of companies headquartered in other countries (see table <u>Home Country and Business Segments</u>). Russian stocks offer potential resource value beyond that reflected in the McDep Ratio.

Finally, we recommend balance among business segments. Investors should be sure to be represented in the stocks of companies with strong natural gas concentration. Nor should that be at the expense of reasonable downstream exposure in other stocks.

Timely analyses are available on all recommended stocks (see table <u>Index of Recent Research</u>).

#### Kurt H. Wulff, CFA

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### Oil and Gas Producers Rank by McDep Ratio: Market Cap and Debt to Present Value

			Price (\$/sh)		Market	Net Present	Debt/	
	Symbol/		7-Nov	Shares	Сар	Value	Present	МсДер
	F	Rating	2005	(mm)	(\$mm)	(\$/sh)	Value	Ratio
Mega Cap								
BP plc	BP	В	66.49	3,501	233,000	77.00	0.11	0.88
Total S.A.	TOT	В	127.16	1,176	150,000	160.00	0.12	0.82
Exxon Mobil Corporation	XOM	В	57.10	6,303	360,000	74.00	0.04	0.78
Royal Dutch Shell plc	RDS-A	В	61.03	3,352	205,000	84.00	0.10	0.75
Chevron Corporation	CVX	В	57.40	2,256	130,000	85.00	0.13	0.72
Total or Median					1,078,000		0.11	0.78
Producer/Refiners - Large Cap and	-							
Kinder Morgan, Inc.	KMI	S2	89.34	123	10,990	20.00	0.76	1.84
Imperial Oil Limited (30%)	IMO	В	89.87	102	9,180	84.00	0.10	1.06
Marathon Oil Corporation	MRO	В	58.98	368	21,720	65.00	0.27	0.93
Petro-Canada	PCZ	В	36.39	525	19,120	42.00	0.18	0.89
Lukoil Oil Company	LUKOY	В	56.80	830	47,000	65.00	0.03	0.88
Suncor Energy	SU	В	54.40	461	25,080	68.00	0.11	0.82
Norsk Hydro ASA	NHY	В	100.32	251	25,170	130.00	0.12	0.80
ConocoPhillips	COP	В	65.75	1,418	93,200	100.00	0.15	0.71
Gazprom (50%)	OGZPF	В	60.80	1,022	62,100	90.00	0.03	0.69
PetroChina Company Ltd (10%)	PTR	В	75.99	176	13,360	120.00	0.01	0.64
Total or Median					327,000		0.11	0.85
Independent Natural Gas and Oil -				0=6	• • • • • •		0.00	
Encana Corporation	ECA	В	45.24	876	39,600	51.00	0.20	0.91
XTO Energy Inc.	XTO	В	40.88	370	15,130	48.00	0.20	0.88
Burlington Resources	BR	В	69.57	381	26,500	86.00	0.09	0.83
CNOOC Limited (29%)	CEO	В	63.74	119	7,600	84.00	0.01	0.76
Devon Energy Corporation	DVN	В	57.12	454	25,900	86.00	0.15	0.71
Occidental Petroleum Corp.	OXY	В	76.91	404	31,100	120.00	0.11	0.68
Anadarko Petroleum Corp.	APC	В	87.91	238	20,900	140.00	0.12	0.67
Total or Median 167,000							0.12	0.76
Independent Natural Gas and Oil -		-	50.10	22	1 210	(5.00	0.11	0.01
Berry Petroleum Company	BRY	В	58.19	23	1,310	65.00	0.11	0.91
Encore Acquisition Company	EAC	B B	34.71	50 41	1,720	50.00	0.21	0.76 0.71
Energy Partners Ltd.	EPL		24.58		1,000	38.00	0.17	
Cimarex Energy Company  Total or Median	XEC	В	38.59	85	3,280	64.00	0.11	0.65 0.73
Income					7,300		0.14	0.73
Kinder Morgan Energy Partners, L.P.	VMD	S3	50.05	159	7,960	15.00	0.55	2.04
Kinder Morgan Management, LLC	KMR	S3	46.82	57	,		0.55	1.95
	PGH	33	21.28	157	2,650	15.00 20.00	0.33	1.95
Pengrowth Energy Trust San Juan Basin Royalty Trust	SJT		40.57	47	3,330 1,890	40.00	0.16	1.03
Enerplus Resources Fund	ERF		40.37	105	4,400	42.00	0.13	1.01
Penn West Energy Trust	PWTFF	В	26.80	103	4,400	28.00	0.13	0.96
Canadian Oil Sands Trust (US\$)	COSWF	В	26.80 95.66	93	4,660 8,880	136.00	0.16	0.96
	COSWF	ט	23.00	93	,	130.00		
Total or Median					33,800		0.16	1.01

B = Buy, S2 = Short half unlevered position, S3 = Short quarter unlevered position McDep Ratio = Market cap and Debt to present value of oil and gas and other businesses

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

	Symbol/	uting	Price (\$/sh) 7-Nov 2005	Adjstd Resrvs/ Prod NTM	PV/ Ebitda NTM	EV/ Ebitda NTM	P/E NTM	Divd or Distrib NTM (%)
Mega Cap	Λt	uing	2003	1 1 1 1 1 1 1	1 V 1 1V1	1 1 1 11	1 V 1 1V1	(/0)
BP plc	BP	В	66.49	9.4	6.3	5.5	9	3.2
		В		9. <del>4</del> 11.7	6.8	5.3	9	2.0
Exxon Mobil Corporation	XOM		57.10					
Total S.A.	TOT	В	127.16	9.2	6.3	5.2	9	2.8
Chevron Corporation	CVX	В	57.40	9.6	5.9	4.2	7	3.1
Royal Dutch Shell plc	RDS-A	В	61.03	7.5	5.6	4.2	7	3.6
Media				9.4	6.3	5.2	9	3.1
Producer/Refiners - Large Cap and M		G2	00.24		7.5	12.0	10	2.4
Kinder Morgan, Inc.	KMI	S2	89.34	22.0	7.5	13.8	19	3.4
Gazprom (50%)	OGZPF	В	60.80	22.0	12.9	8.9	18	0.6
Suncor Energy	SU	В	54.40	17.9	9.4	7.7	16	0.4
Imperial Oil Limited (30%)	IMO	В	89.87	11.5	7.0	7.4	12	0.9
Marathon Oil Corporation	MRO	В	58.98	7.4	5.1	4.7	7	2.2
Petro-Canada	PCZ	В	36.39	5.7	5.1	4.6	8	0.7
Lukoil Oil Company	LUKOY		56.80	19.8	4.7	4.1	7	1.7
Norsk Hydro ASA	NHY	В	100.32	8.1	5.2	4.1	8	3.1
ConocoPhillips	COP	В	65.75	11.2	5.7	4.0	6	1.9
PetroChina Company Ltd (10%)	PTR	В	75.99	13.9	6.2	3.9	8	5.0
Media	n			11.5	5.9	4.6	8	1.8
Independent Natural Gas and Oil - L	arge Cap a	nd M	id Cap					
XTO Energy Inc.	XTO	В	40.88	10.8	6.0	5.3	9	0.5
Encana Corporation	ECA	В	45.24	7.1	5.1	4.7	9	0.7
Occidental Petroleum Corp.	OXY	В	76.91	11.0	6.2	4.3	7	1.9
Anadarko Petroleum Corp.	APC	В	87.91	12.5	6.1	4.1	8	0.8
CNOOC Limited (29%)	CEO	В	63.74	9.4	5.3	4.0	7	3.6
Burlington Resources	BR	В	69.57	10.0	4.8	4.0	8	0.6
Devon Energy Corporation	DVN	В	57.12	7.8	4.6	3.3	6	0.5
Media	n			10.0	5.3	4.1	8	0.7
Independent Natural Gas and Oil - S	mall Cap							
Berry Petroleum Company	BRY	В	58.19	10.2	5.5	5.0	10	1.1
Encore Acquisition Company	EAC	В	34.71	14.3	6.3	4.8	10	_
Cimarex Energy Company	XEC	В	38.59	7.6	4.5	2.9	6	_
Energy Partners Ltd.	EPL	В	24.58	5.1	3.4	2.4	5	_
Media				8.9	5.0	3.8	8	_
Income								
Kinder Morgan Energy Partners, L.P.	KMP	S3	50.05		7.9	16.1	23	6.3
Kinder Morgan Management, LLC	KMR	S3	46.82		7.9	15.4	21	6.7
San Juan Basin Royalty Trust	SJT		40.57	12.2	8.8	8.9	10	10.4
Canadian Oil Sands Trust (US\$)	COSWF	В	95.66	20.0	11.4	8.4	9	3.5
Pengrowth Energy Trust	PGH	_	21.28	7.6	5.6	5.9	8	11.0
Enerplus Resources Fund	ERF		41.95	9.8	5.6	5.6	8	10.1
Penn West Energy Trust	PWTFF	В	26.80	8.0	4.5	4.4	7	11.7
Media		~	_0.00	9.8	7.9	8.4	9	10.1

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended September 30, 2006; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

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#### Oil and Gas Producers Home Country and Business Segments

				North	Rest of World			Total
			Non-	Amer. Natural	oj woria Natural	Oil	Down-	Total Present
	Cumb al/		U.S.	Gas	Gas	Prod'n	stream	Value
	Symbol/ Rating		Domicile	(%)	(%)	(%)	stream (%)	(US\$mm)
Mega Cap	Ku	ung	Domicie	(70)	(70)	(70)	(70)	(OS\$mm)
Exxon Mobil Corporation	XOM	В		10	19	38	33	487,000
BP plc	BP	В	UK	10	12	42	36	302,000
Royal Dutch Shell plc	RDS-A	В	UK	4	19	33	45	313,000
Chevron Corporation	CVX	В	011	9	9	52	29	221,000
Total S.A.	TOT	В	France	_	28	37	35	214,000
Total or Media				9	19	38	35	1,537,000
Producer/Refiners - Large Cap and M	Aid Cap							
PetroChina Company Ltd.	PTR	В	China	_	9	71	20	213,000
Gazprom	<b>OGZPF</b>	В	Russia		100			190,000
ConocoPhillips	COP	В		13	7	45	35	166,800
Lukoil Oil Company	LUKOY	В	Russia	-	-	62	38	55,700
Norsk Hydro ASA	NHY	В	Norway	-	27	38	35	36,900
Suncor Energy	SU	В	Canada	5	-	89	7	35,100
Marathon Oil Corporation	MRO	В		14	8	33	46	32,900
Imperial Oil Limited	IMO	В	Canada	13	-	62	25	31,800
Petro-Canada	PCZ	В	Canada	23	4	53	20	27,100
Media	ı			9	7	58	30	789,000
Independent Natural Gas and Oil - L	arge Cap a	nd M	Iid Cap					
Occidental Petroleum Corp.	OXY	В		15	1	73	11	54,700
Encana Corporation	ECA	В	Canada	83	-	17	-	55,600
Devon Energy Corporation	DVN	В		64	-	36	-	46,000
Anadarko Petroleum Corp.	APC	В		60	-	40	-	37,700
Burlington Resources	BR	В		69	5	26	-	36,000
CNOOC Limited	CEO	В	China	-	12	88	-	34,800
XTO Energy Inc.	XTO	В		83	-	17	-	22,100
Media				64	-	36	-	287,000
Independent Natural Gas and Oil - S	mall Cap							
Cimarex Energy Company	XEC	В		71	-	29	-	6,080
Encore Acquisition Company	EAC	В		25	-	75	-	3,150
Berry Petroleum Company	BRY	В		15	-	85	-	1,950
Energy Partners Ltd.	EPL	В		56	-	44	-	1,860
Media	ı			41	-	59	-	13,040
Income								
Canadian Oil Sands Trust (US\$)	COSWF	В	Canada	-	-	100	-	14,200
Penn West Energy Trust	PWTFF	В	Canada	43	-	57	-	5,800
Enerplus Resources Fund	ERF		Canada	61	-	39	-	5,070
Pengrowth Energy Trust	PGH		Canada	43	-	57	-	3,720
San Juan Basin Royalty Trust	SJT			100	-	-	-	1,860
Media	$\eta$			43	-	57	-	30,700

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#### **Index of Recent Research**

Stock Id	005		
Date	eas Symbol	Stock	Theme
7-Nov	TOT	Total S.A.	Global Clean Fuel Supplier
7-Nov 4-Nov	BRY	Berry Petroleum	Expanding on Multiple Fronts
4-Nov 4-Nov	XEC	Cimarex Energy Company	Doubling Done
3-Nov	DVN		No Hedges in 2006
		Devon Energy Corporation	•
1-Nov	CEO OXY	CNOOC Ltd Occidental Petroleum Corporation	Low Price for Natural Gas
1-Nov	_	*	Vintage Pending  Lower Net Present Value to \$85 a Share
31-Oct	CVX	Chevron Corporation	
31-Oct	APC	Anadarko Petroleum Corporation	Long Life for Free
31-Oct	BR	Burlington Resources, Inc.	Natural Gas Beneficiary
28-Oct	XOM	Exxon Mobil Corporation	Momentum Challenge
28-Oct	RDSA	Royal Dutch Shell plc	Downstream Gains
28-Oct	SU	Suncor Energy Inc.	Up and Running Again
28-Oct	MRO	Marathon Oil Corporation	Downstream Gains
28-Oct	PCZ	Petro-Canada	Oil Sands Producer
27-Oct	COP	ConocoPhillips	Emerging Mega Cap
27-Oct	ECA	EnCana Corporation	Natural Gas Leader
27-Oct	EAC	Encore Acquisition Company	Long Life Oil Value
26-Oct	BP	BP p.l.c.	Lower Net Present Value to \$77 a Share
26-Oct	NHY	Norsk Hydro ASA	Record Results
26-Oct	COSWF	Canadian Oil Sands Trust	Distribution Doubled and Unit Split Proposed
21-Oct	IMO	Imperial Oil Limited	The Unpromoters
21-Oct	XTO	XTO Energy Inc.	Ready for Winter
20-Oct	KMx	Kinder Morgan	Wheel and Deal
14-Oct	* OXY	Occidental Petroleum Corporation	Buy Despite Momentum Signal
13-Oct	_	DVN OXY XTO	Edge of Panic
7-Oct	* ECA IM		Exaggerated Stock Price Change
26-Sep	* LUKOY	Lukoil Oil Company	Adapting to New Russia
15-Sep	* OGZPF		The Ultimate Natural Gas Stock
7-Sep	* EPL	Energy Partners, Ltd.	Katrina Survivor
28-Aug	* PTR	PetroChina Company Limited	Income Stock
21-Aug	* PTR	PetroChina Company Limited	Understated Natural Gas Resources
18-Aug	* SJT	San Juan Basin Royalty Trust	Sharp Stock Price Drop
11-Aug	* PWTFF	Penn West Energy Trust	Undiscovered by U.S. Investors
Meter R	eader - A W	eekly Analysis	
8-Nov		•	World Energy Outlook
1-Nov	*		Quarterly Results and the Correlation
25-Oct	*		Back Up the Truck
18-Oct	*		Winter Rally
			•

### Natural Gas and Oil Royalty Trusts - A Weekly Analysis

4-Nov		What to Do with the Money
28-Oct	*	Winter Payoff
21-Oct	*	Third Week in October
14-Oct	*	Fraud on the Street

<sup>\*</sup> Archived on www.mcdep.com