

Peak Oil is Here

Summary and Recommendation

A peak in world oil production under 85 million barrels daily (mbd) now looks like fact and supports our buy recommendations of oil and gas producers. Each new monthly compilation of U.S. government statistics confirms that the rising trend of global oil production ended in 2004 contrary to market expectations. At the same time, forecasts by government analysts, generally in line with investor expectations, keep climbing with targets of 85, 86, 87 and 88 mbd released in September 2004, 2005, 2006 and 2007 respectively (see chart [World Oil Supply Forecasts](#)). If oil supply expectations are too optimistic as we believe, then it is likely that oil price expectations, currently \$72 a barrel for the next six years, are too pessimistic as we also believe to be the case. The reconciliation is likely higher oil price that in turn implies higher stock price for producers. A stock like buy-recommended **Occidental Petroleum (OXY)** has had strong momentum lately, but remains priced low at the oil equivalent of \$57 a barrel (McDep Ratio of 0.87 time \$66 basis for present value). As the supply of oil becomes tighter, the ready substitute, natural gas, could see its price discount disappear quickly. A stock like buy-recommended **Devon Energy (DVN)** offers both oil and natural gas at the equivalent of \$46 a barrel (McDep Ratio of 0.70 times \$66 basis for present value).

Mismatched Expectations Imply Higher Oil Price and Higher Stock Price

Investor expectations of continued growth in global oil supply are probably too optimistic because the statistics are bearing out the notion that growth ended three years ago. Widespread expectations of continued growth in demand cannot be met if supply is flat. Higher price would normally be the balancing force encouraging some users to forgo additional volume because it would be too expensive.

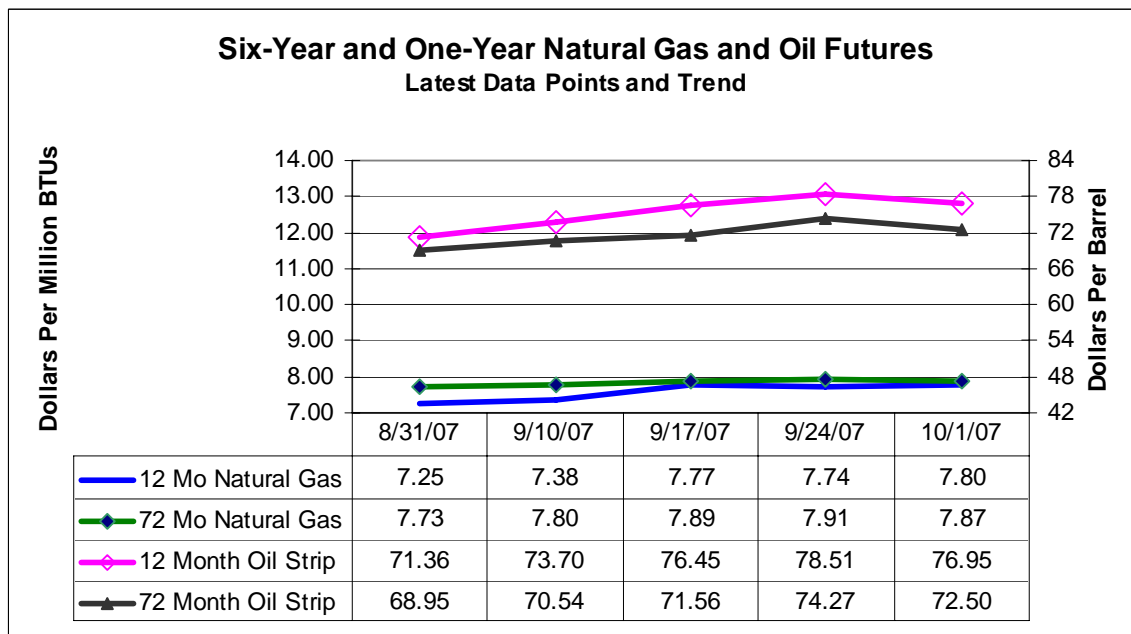
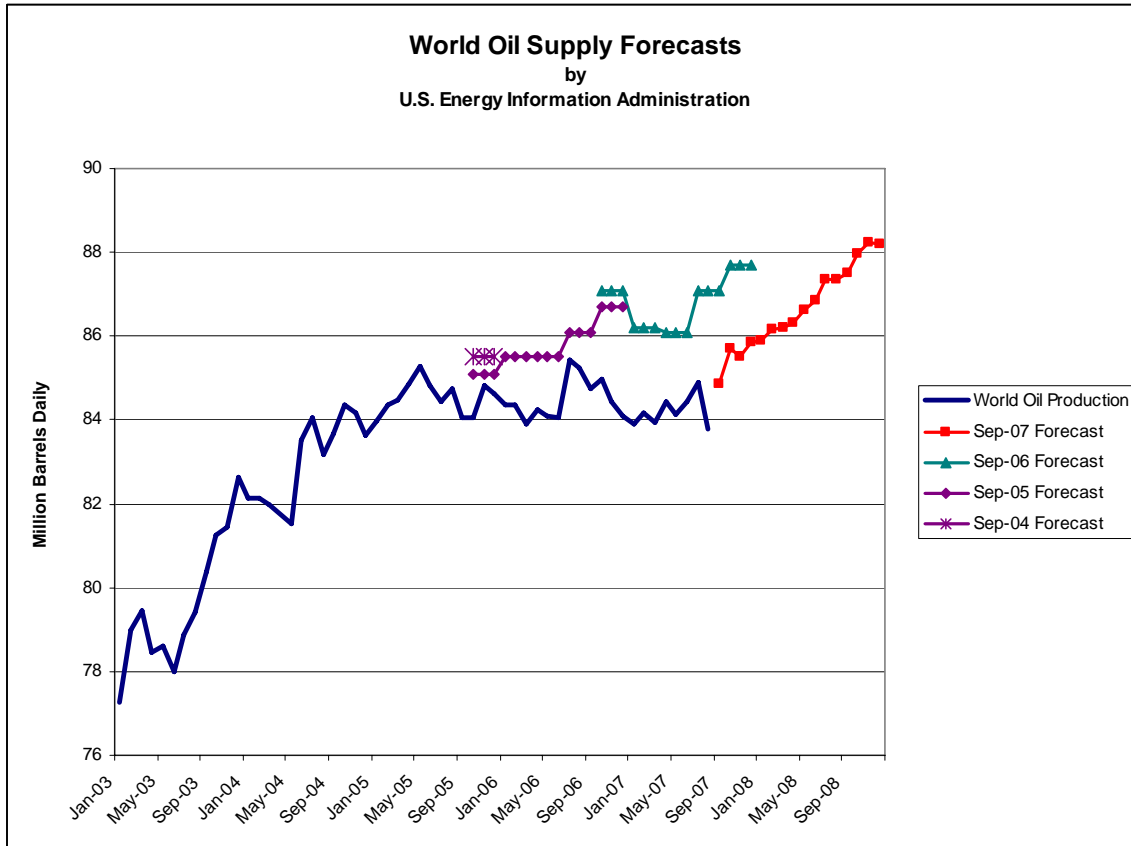
Investor perceptions of supply growth may parallel the government forecasts. A widening gap compared to actual results tells a classic story of expecting the trend of the past to carry into the future. Most of us can readily project trends while anticipating a change in trend is more difficult. The forecast made in 2004 anticipated growth that did not materialize as was the case for the forecasts made in 2005 and 2006. We can't say that yet for the forecast made in 2007 until time passes, but we have to be skeptical.

Consensus price expectations are roughly constant at \$72 a barrel for the next six years as indicated in the futures market (see table [Six-Year and One-Year Natural Gas and Oil Futures](#)). We think the reaching of peak oil production implies higher oil price than in the markets today. Controversial increases in taxes would accentuate weakness in supply and interest rate cuts stimulate demand thus adding more pressure to drive price higher.

We think a gap between peak oil supply constraints and demand growth will be closed by oil price increasing. We think a widening gap between stock price and oil price will be narrowed by stock price moving up faster than oil price.

Kurt H. Wulff, CFA

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Oil and Gas Producers - Rank by McDep Ratio

	Symbol/ Rating		Price (US\$/sh) 1-Oct 2007	Shares (mm)	Market Cap (US\$m)	Net Present Value (US\$/sh)	Debt/ Present Value	McDep Ratio
Mega Cap								
Exxon Mobil Corporation	XOM	B	93.95	5,620	528,000	92.00	0.05	1.02
Total S.A.	TOT	B	81.05	2,278	185,000	89.00	0.13	0.92
Chevron Corporation	CVX	B	94.44	2,206	208,000	105.00	0.08	0.91
Royal Dutch Shell plc	RDS-A	B	83.35	3,152	263,000	94.00	0.10	0.90
BP plc	BP	B	69.61	3,198	223,000	87.00	0.16	0.83
ConocoPhillips	COP	B	87.39	1,658	145,000	112.00	0.19	0.82
Gazprom (50%)	OGZPY	B	44.40	2,855	126,800	62.00	0.07	0.74
<i>Total or Median</i>					<i>1,679,000</i>		<i>0.10</i>	<i>0.90</i>
Producer/Refiners - Large Cap								
Imperial Oil Limited (30%)	IMO	B	49.66	282	14,000	42.00	0.08	1.17
PetroChina Company Ltd (10%)	PTR	B	189.83	178	33,770	166.00	0.06	1.14
Norsk Hydro ASA (post Oct 1)	NHY	H	14.59	1,241	18,110	13.00	0.12	1.11
StatoilHydro ASA (29%)	STO	B	34.18	928	31,720	35.00	0.14	0.98
Marathon Oil Corporation	MRO	H	57.54	722	41,540	62.00	0.18	0.94
Suncor Energy	SU	B	94.08	472	44,410	105.00	0.08	0.90
Petro-Canada	PCZ	B	57.06	498	28,420	65.00	0.16	0.90
Lukoil Oil Company	LUKOY	B	83.00	832	69,000	121.00	0.03	0.69
<i>Total or Median</i>					<i>281,000</i>		<i>0.10</i>	<i>0.96</i>
Independent Natural Gas and Oil - Large Cap								
CNOOC Limited (34%)	CEO	H	170.79	149	25,490	108.00	-	1.58
XTO Energy Inc.	XTO	B	62.80	390	24,490	70.00	0.15	0.91
Canadian Natural Resources	CNQ		76.23	539	41,100	87.00	0.22	0.90
Encana Corporation	ECA	B	62.76	765	48,000	72.00	0.18	0.90
Occidental Petroleum Corp.	OXY	B	66.15	842	55,700	77.00	0.07	0.87
Anadarko Petroleum Corp.	APC	B	54.66	467	25,500	74.00	0.35	0.83
EOG Resources	EOG	B	73.27	247	18,100	102.00	0.05	0.73
Devon Energy Corporation	DVN	B	84.50	450	38,000	129.00	0.14	0.70
<i>Total or Median</i>					<i>276,000</i>		<i>0.15</i>	<i>0.88</i>
Independent Natural Gas and Oil - Small Cap								
Berry Petroleum Company	BRY	B	40.23	45	1,810	44.00	0.23	0.94
Encore Acquisition Company	EAC	B	32.32	54	1,750	54.00	0.32	0.73
Energy Partners Ltd.	EPL	B	14.88	35	510	38.00	0.31	0.58
Cimarex Energy Company	XEC	B	37.24	85	3,160	76.00	0.09	0.54
<i>Total or Median</i>					<i>7,200</i>		<i>0.27</i>	<i>0.65</i>
Income								
Kinder Morgan Energy Partners, L.P.	KMP	S	49.10	179	8,770	17.00	0.53	1.89
Kinder Morgan Management, LLC	KMR	S	46.67	62	2,880	17.00	0.53	1.83
Pengrowth Energy Trust	PGH		18.43	246	4,530	17.00	0.27	1.06
Enerplus Resources Fund	ERF		47.45	128	6,070	52.00	0.13	0.92
Penn West Energy Trust	PWE	B	31.38	242	7,580	36.00	0.20	0.90
Canadian Oil Sands Trust	COSWF	B	32.88	479	15,750	39.00	0.08	0.86
San Juan Basin Royalty Trust	SJT	B	33.98	47	1,580	40.00	-	0.85
Hugoton Royalty Trust	HGT	B	23.40	40	940	34.00	-	0.69
<i>Total or Median</i>					<i>48,100</i>		<i>0.17</i>	<i>0.91</i>

B = Buy, S = Sell, H = Hold

Present Value = Shares times Net Present Value divided by (1-Debt/Present Value).

Debt = Present Value times Debt/Present Value

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

	Symbol/ Rating		Price (US\$/sh) 1-Oct 2007	Adjustd Resrvs/ Prod NTM	PV/ Ebitda NTM	EV/ Ebitda NTM	P/E NTM	Divd or Distrib NTM (%)
Mega Cap								
Gazprom (50%)	OGZPY	B	44.40	24.6	9.1	6.7	10	0.9
Exxon Mobil Corporation	XOM	B	93.95	11.7	6.4	6.5	11	1.5
Total S.A.	TOT	B	81.05	9.7	6.2	5.7	10	3.5
BP plc	BP	B	69.61	9.6	6.7	5.6	9	3.7
Chevron Corporation	CVX	B	94.44	10.1	5.9	5.3	9	2.5
ConocoPhillips	COP	B	87.39	10.3	6.2	5.1	8	1.9
Royal Dutch Shell plc	RDS-A	B	83.35	8.1	5.5	4.9	9	3.5
	<i>Median</i>			<i>10.1</i>	<i>6.2</i>	<i>5.6</i>	<i>9</i>	<i>2.5</i>
Producer/Refiners - Large Cap								
Suncor Energy	SU	B	94.08	23.8	9.9	9.0	16	0.4
Imperial Oil Limited (30%)	IMO	B	49.66	13.2	7.4	8.6	14	0.7
PetroChina Company Ltd (10%)	PTR	B	189.83	15.0	7.1	8.1	16	2.5
Norsk Hydro ASA (post Oct 1)	NHY	H	14.59	-	6.2	6.8	11	1.3
StatoilHydro ASA (29%)	STO	B	34.18	7.7	5.7	5.6	12	5.0
Marathon Oil Corporation	MRO	H	57.54	8.6	5.3	5.0	8	1.7
Petro-Canada	PCZ	B	57.06	6.5	5.4	4.8	10	0.9
Lukoil Oil Company	LUKOY	B	83.00	17.8	7.0	4.8	8	1.8
	<i>Median</i>			<i>10.9</i>	<i>6.6</i>	<i>6.2</i>	<i>12</i>	<i>1.5</i>
Independent Natural Gas and Oil - Large Cap								
CNOOC Limited (34%)	CEO	H	170.79	10.7	6.3	10.0	18	2.0
Canadian Natural Resources	CNQ		76.23	8.1	8.6	7.7	16	0.4
XTO Energy Inc.	XTO	B	62.80	11.3	8.1	7.4	14	0.8
Encana Corporation	ECA	B	62.76	9.2	7.3	6.5	12	1.3
Anadarko Petroleum Corp.	APC	B	54.66	11.2	7.8	6.5	12	1.3
EOG Resources	EOG	B	73.27	9.3	8.2	6.0	15	0.5
Occidental Petroleum Corp.	OXY	B	66.15	11.5	6.6	5.7	11	1.5
Devon Energy Corporation	DVN	B	84.50	9.0	7.9	5.6	11	0.7
	<i>Median</i>			<i>10.0</i>	<i>7.9</i>	<i>6.5</i>	<i>13</i>	<i>1.0</i>
Independent Natural Gas and Oil - Small Cap								
Berry Petroleum Company	BRY	B	40.23	10.2	8.2	7.7	15	0.7
Encore Acquisition Company	EAC	B	32.32	15.5	8.1	5.9	14	-
Cimarex Energy Company	XEC	B	37.24	8.0	7.0	3.8	9	0.4
Energy Partners Ltd.	EPL	B	14.88	5.9	5.8	3.4	-	-
	<i>Median</i>			<i>9.1</i>	<i>7.6</i>	<i>4.8</i>	<i>14</i>	<i>0.2</i>
Income								
Kinder Morgan Energy Partners, L.P.	KMP	S	49.10		8.0	15.1	34	6.9
Kinder Morgan Management, LLC	KMR	S	46.67		8.0	14.6	32	7.3
San Juan Basin Royalty Trust	SJT	B	33.98	10.0	13.2	11.2	14	7.2
Hugoton Royalty Trust	HGT	B	23.40	13.9	11.9	8.3	12	8.4
Canadian Oil Sands Trust	COSWF	B	32.88	20.9	9.7	8.3	10	9.8
Pengrowth Energy Trust	PGH		18.43	7.1	7.6	8.0	51	15.6
Enerplus Resources Fund	ERF		47.45	9.4	8.7	8.0	17	10.7
Penn West Energy Trust	PWE	B	31.38	7.7	7.6	6.8	14	13.1
	<i>Median</i>			<i>9.7</i>	<i>8.3</i>	<i>8.3</i>	<i>16</i>	<i>9.1</i>

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended September 30, 2008; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

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Index of Recent Research**Stock Ideas**

<u>Date</u>	<u>Symbol</u>	<u>Stock</u>	<u>Theme</u>
24-Sep	CEO	CNOOC Ltd	Revise to Hold from Buy on Price
12-Sep	LUKOY	Lukoil Oil Company	Emerging Oil Blue Chip
6-Sep	SJT	San Juan Basin Royalty Trust	Mountains and Valleys
5-Sep	COSWF	Canadian Oil Sands Trust	Record 375,000 Barrels Daily for August
29-Aug	* CEO	CNOOC Ltd	Making Money Offshore China
23-Aug	* PTR	PetroChina Company Limited	Price Controls Ease in 2007 Half
8-Aug	* EPL	Energy Partners, Ltd.	Oversold
3-Aug	* EOG	EOG Resources Inc.	Natural Gas with North Dakota Oil
3-Aug	* PME	Penn West Energy Trust	High Return from Distributions
3-Aug	* IMO	Imperial Oil Limited	High Return from Stock Repurchase
2-Aug	* TOT	Total S.A.	Constructive Russo-French Interdependence
2-Aug	* BRY	Berry Petroleum	Rocky Mountain Constraints
1-Aug	* XEC	Cimarex Energy Company	Stable Volume
1-Aug	* DVN	Devon Energy Corporation	Volume Advances
1-Aug	* EAC	Encore Acquisition	Nice to be Oily
31-Jul	* MRO	Marathon Oil Corporation	Oil Sands Acquirer
31-Jul	* APC	Anadarko Petroleum Corporation	Transition Maturing
30-Jul	* STO	Statoil ASA	Norwegian Oil and Gas Champion
27-Jul	* CVX	Chevron Corporation	Oil and Downstream Vigor
26-Jul	* SU	Suncor Energy	Oil Sands Growth Stock
26-Jul	* XOM	Exxon Mobil Corporation	Steady Strength
26-Jul	* PCZ	Petro-Canada	Raise NPV to US\$65 a Share
26-Jul	* RDSA	Royal Dutch Shell plc	Downstream Benefit
25-Jul	* ECA	EnCana Corporation	Downstream Blessing
25-Jul	* COP	ConocoPhillips	Downstream Blessing
25-Jul	* BP	BP p.l.c.	Controversy Diminishing
24-Jul	* XTO	XTO Energy Inc.	Volume Growth in Underpriced Natural Gas
24-Jul	* OXY	Occidental Petroleum Corporation	Ready for Peak Oil Test
24-Jul	* NHY	Norsk Hydro ASA	Confidence in Aluminium
23-Jul	* HGT	Hugoton Royalty Trust	Paying Unitholders to Wait
19-Jul	* KMx	Kinder Morgan	Suggestions for New General Partner Owners
29-Jun	* OGZPY	Gazprom	Raise NPV to \$62 a Share

Meter Reader - A Weekly Analysis

2-Oct		Peak Oil is Here
25-Sep		The Long-Term Energy Squeeze
18-Sep	*	Downstream on Moving Average
11-Sep	*	China Natural Gas Price Breakthrough

Oil and Gas Income Stocks (previously Natural Gas and Oil Royalty Trusts) - A Weekly Analysis

28-Sep		Takeover Bid for PrimeWest Energy Trust
21-Sep		A Royalty Out for Syncrude
14-Sep	*	Encore Energy Partners Completes IPO
7-Sep	*	Poised to Win

Industry Ideas

19-Sep	Flash	Alberta Royalty Panel Bomb
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* Archived on www.mcdep.com

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