

A Thousand Barrels a Second

Summary and Recommendation

Rising demand amid constrained supply builds pressure to an oil price “breakpoint” between now and 2010 in a carefully reasoned analysis by Peter Tertzakian in his book *A Thousand Barrels a Second* written about a year ago. Confirming the suggestion of the author’s title, the International Energy Agency (IEA), the consuming country counterpart to the Organization of Petroleum Exporting Countries (OPEC), in its most recent study forecasts global oil demand to exceed 86 million barrels daily (mmbd), a thousand barrels a second, in the current calendar quarter. A future price of \$100 a barrel may sound ominous according to Tertzakian, but the \$3.50 to \$4.00 a gallon gasoline it implies for the U.S. is “still a far cry from the price of gasoline in heavily taxed regions of the world like Britain, France, Japan and many others.” Never fear says the latest forecast from the U.S. Department of Energy’s Energy Information Administration (EIA, not to be confused with IEA) that expects light sweet crude oil price to reach \$95 in 2030. Of course, under that “business as usual” forecast, the Arctic, Antarctic and Greenland ice caps may all melt or slide into the sea. Just the EIA’s forecast increase in annual carbon dioxide emissions from disproportionate burning of coal in 2030 would exceed total carbon dioxide emissions from natural gas today. Investors in income stocks can ignore the latest EIA forecast for now and be confident that greater recognition of the value of natural gas and oil resources lies ahead, in our opinion.

Thirty-Year Energy Cycle

Thousand Barrels a Second describes a period of oil and economic growth and dependency for the U.S. and Western Europe in the 1950s and 1960s. Rising demand ran into constrained supply causing price pressures to build leading to breakpoints in 1973 and again in 1979. A period of rebalance followed through 1986 when dependency of economic growth on oil growth was cut by about a half with efficiency measures. The 1990s repeated the 1960s as another period of lock step growth in oil and economic activity. Asian countries, especially China, were growing like the U.S. and Western Europe thirty years earlier with simultaneously high growth rates in economic activity and energy. The price pressures built to another break point in 2004 that may carry to higher levels by 2010. From 2010 to 2017, the author outlines a rebalancing of economic growth and energy growth along similar principles as applied from 1980-1986. Thus, he sees a repeat of the phase of the cycle he lived first hand while working with Chevron.

Coincidentally, we share a career parallel with the author. We worked with Chevron in the 1960s, took our industry experience to the financial world, authored an energy book in the late 1980s and have a continuing interest in oil and gas including income stocks. Mr. Tertzakian, whom we have not met, worked with Chevron in the 1980s, took his industry experience to the financial world in Canada, authored an energy book in the 2000s and has had an apparent continuing link with a Canadian oil and gas income trust.

Canadian Political Surprise

Thousand Barrels a Second extols the political security of Canada compared to Russia, for example. It is a shock, then, that the Canadian government would renege on the tax treatment of Historical independent energy investment analysis by Kurt Wulff doing business as McDep Associates is posted at www.mcdep.com. Analyses are prepared from sources and data believed to be reliable, but no representation is made as to their accuracy or completeness. Mr. Wulff is not paid by covered companies. Neither he nor his spouse trade a subject stock within a week before or after a change in rating.

income trusts after promising not to do so (see Country Risk, November 3, 2006). Ironically, Russia has been a better place for investors in the past year than has Canada. Meanwhile, Canadian income stocks, including our recommendations have taken a sufficient hit to stock price to account for the negative political development. We hope the negative promises will not be fully implemented by the government, but there is no assurance of that. In the end, investors' main defense against the capriciousness of any government including our own is diversification among promising countries.

Global Warming Gaining Traction

About the same time Peter Tertzakian was finishing *Thousand Barrels a Second* Al Gore was finishing *An Inconvenient Truth*. The global warming concerns Mr. Gore highlights may be getting more attention from voters whether it is in the latest elections in the U.S. or Alberta.

Flying in the face of those concerns, the Department of Energy releases a forecast for energy that has carbon dioxide emissions increasing faster than energy overall because of the expected shift to coal. The forecasters must sense the unreality of that outcome when they qualify the forecast as a reference case. Apparently alternative cases are to be released in early 2007. In particular "possible policy changes---notably the adoption of policies to limit or reduce greenhouse gas emissions---could change the reference case projections significantly". Regardless of what the EIA forecasts, the long-term trend for oil to be more valuable should continue. On top of that, the long-term trend for natural gas to be more valuable relative to oil should continue as well.

Kurt H. Wulff, CFA

Natural Gas and Oil Royalty Trusts Rank by McDep Ratio: Market Cap and Debt to Present Value

	Symbol/ Rating	Price (\$/sh) 7-Dec 2006	Shares (mm)	Market Cap (\$mm)	Net Present Value (\$/un)	Debt/ Present Value	McDep Ratio
U.S. Royalty Trusts							
Cross Timbers Royalty Trust	CRT	52.61	6.0	320	46.00	-	1.14
Sabine Royalty Trust	SBR	45.97	14.6	670	45.00	-	1.02
Permian Basin RT	PBT	16.45	46.6	770	16.50	-	1.00
San Juan Basin Royalty Trust	SJT	B	38.50	46.6	1,790	40.00	0.96
Dorchester Minerals, L.P.	DMLP	24.10	28.2	680	27.00	-	0.89
Hugoton RoyaltyTrust	HGT	27.14	40.0	1,090	34.00	-	0.80
Mesa RoyaltyTrust	MTR	52.10	1.9	100	70.00	-	0.74
	<i>Total or Median</i>			5,400			0.96
Canadian Income Trusts (US\$)							
Enerplus Resources Fund	ERF	45.70	123.1	5,630	47.00	0.11	0.98
Pengrowth Energy Trust	PGH	16.71	241.0	4,030	20.00	0.27	0.88
Penn West Energy Trust	PWE	B	32.23	239.0	7,700	0.13	0.85
Canadian Oil Sands Trust	COSWF	B	26.98	468.1	12,630	0.08	0.79
	<i>Total or Median</i>			30,000		0.12	0.86

B = Buy

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

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

	<i>Symbol/ Rating</i>	<i>Price (\$/sh) 7-Dec 2006</i>	<i>Adjstd Resrvs/ Prod NTM</i>	<i>PV/ Ebitda NTM</i>	<i>EV/ Ebitda NTM</i>	<i>P/E NTM</i>	<i>Divd or Distrib NTM (%)</i>
U.S. Royalty Trusts							
Cross Timbers Royalty Trust	CRT	52.61		11.5	13.1	13.4	7.5
Sabine Royalty Trust	SBR	45.97		11.7	11.9	11.9	8.4
Permian Basin RT	PBT	16.45		10.3	10.3	11.4	8.8
San Juan Basin Royalty Trust	SJT	B 38.50		10.4	10.0	12.3	8.2
Dorchester Minerals, L.P.	DMLP	24.10		11.2	10.0	15.5	9.4
Mesa RoyaltyTrust	MTR	52.10		11.5	8.6	10.5	9.5
Hugoton RoyaltyTrust	HGT	27.14		9.8	7.8	11.9	8.4
	<i>Median</i>			<i>11.2</i>	<i>10.0</i>	<i>11.9</i>	<i>8.4</i>
Canadian Income Trusts (US\$)							
Canadian Oil Sands Trust	COSWF	B 26.98	23.2	11.5	9.1	11.7	6.8
Enerplus Resources Fund	ERF	45.70	9.5	7.3	7.1	14.7	9.6
Penn West Energy Trust	PWE	B 32.23	8.1	8.0	6.8	11.2	11.0
Pengrowth Energy Trust	PGH	16.71	7.1	6.8	5.9	9.3	15.6
	<i>Median</i>		<i>8.8</i>	<i>7.6</i>	<i>6.9</i>	<i>11.5</i>	<i>10.3</i>

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended December 31, 2007; P/E = Stock Price to Earnings; PV = Present Value of oil and gas and other businesses

Natural Gas and Oil Royalty Trusts
Rank by NTM Distribution Yield

	<i>Symbol</i>	<i>Revenue Royalty (%)</i>	<i>Natural Gas/ Ebitda (%)</i>	<i>Dist/ Ebitda</i>	<i>Dist/ Equity Ebitda</i>	<i>NTM Distribution (\$mm)</i>	<i>Dist. Yield (\$/un) (%)</i>
U.S. Royalty Trusts							
Cross Timbers Royalty Trust	CRT	81	69	0.98	0.98	24	3.94
San Juan Basin Royalty Trust	SJT	-	98	0.82	0.82	146	3.14
Sabine Royalty Trust	SBR	100	56	1.00	1.00	56	3.85
Hugoton RoyaltyTrust	HGT	-	91	0.66	0.66	91	2.28
Permian Basin RT	PBT	29	36	0.90	0.90	67	1.44
Dorchester Minerals, L.P.	DMLP	56	74	0.94	0.94	64	2.26
Mesa RoyaltyTrust	MTR	-	76	0.82	0.82	9	4.97
	<i>Total or Median</i>		<i>74</i>	<i>0.90</i>	<i>0.90</i>	<i>500</i>	<i>8.4</i>
Canadian Income Trusts (US\$)							
Canadian Oil Sands Trust	COSWF	-	(9)	0.55	0.60	855	1.83
Enerplus Resources Fund	ERF	-	44	0.60	0.68	540	4.39
Penn West Energy Trust	PWE	-	39	0.63	0.73	848	3.55
Pengrowth Energy Trust	PGH	-	42	0.64	0.88	629	2.61
	<i>Total or Median</i>		<i>40</i>	<i>0.62</i>	<i>0.70</i>	<i>2,900</i>	<i>10.3</i>
Kinder Morgan Energy Partners	KMP			0.75	1.70		7.2

NTM = Next Twelve Months Ended December 31, 2007

Ebitda = Earnings before interest, tax, depreciation and amortization

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