## **World Energy Perspective**

#### **Summary and Recommendation**

Liquefied natural gas and the oil sands of Canada offer rapid volume growth without much dampening impact on the international pricing of energy. The highest quality, most promising new supply of clean fuel, liquefied natural gas, after tripling in the next ten years would then supply less than 3% of the world's daily energy appetite. The most promising, politically safe, new supply of liquid fuel, the oil sands of Canada, after tripling in the next fifteen years would then supply about 1% of the world's daily energy appetite. If such important new sources are so small in the world context, they are likely to be more valuable than commonly perceived. The implications are favorable for oil and gas producers including the income stocks in our weekly analysis. Our current projection is a median distribution yield in 2006 of 9.4% for U.S. royalty trusts. The distribution would likely be more than a median 9.2% for Canadian trusts, a group including buy-recommended Canadian Oil Sands Trust (COSWF) and buy-recommended Penn West Energy Trust (PWTFF). Of the four main commodity price trends, three are positive while one-year natural gas is under pressure as a result of warm weather.

#### **Cleaner Energy for the Future**

11% of demand includes

Daily global energy	World Energy Demand								
consumption of 238	(	(million barrels daily)							
million barrels equivalent is enormous (see table World Energy Demand).		<u>2005</u>		<u>2015</u>					
Moreover there is virtually no spare capacity	Natural Gas	50	21%	67	24%				
in the operating system.	Oil	84	35%	94	34%				
New supply is costly and	Coal	57	24%	64	23%				
time consuming to develop. Inevitably it	Nuclear/Hydro	20	9%	23	8%				
	Biomass and waste	27	11%	30	11%				
takes years to respond to the price signals that have		238	100%	278	100%				
only recently attracted	Liquefied Natural Gas (included above)								
attention.	Asia	1.7	65%	2.8	35%				
Unavoidably we are	Europe	0.7	26%	3.4	42%				
relying too much on	U.S.	0.3	9%	1.9	23%				
dirty fuel with coal our second largest source after oil. Biomass and waste at		2.7	100%	8.1	100%				
	Source: International Energy Agency, Oil and Gog Journal, McDan Associates								

Source: International Energy Agency, Oil and Gas Journal, McDep Associates

apparent widespread burning of manure in Asia. Ideally we would replace all of the dirty fuel with natural gas. Though that can't be done physically and economically, it further points to the undervaluation of clean fuel. As the world becomes more prosperous, clean fuel becomes more

## Natural Gas and Oil Royalty Trusts

A Weekly Analysis February 10, 2006

desirable and commands a higher price. The resulting demand for natural gas would give it an increasing share of world energy in our forecast.

Plans appear to be underway for a rough tripling of global capacity to liquefy natural gas by about 2015. That is a highly uncertain forecast as most of the plans are still subject to cancellation at the whim of the participating companies. In the geographical breakdown the U.S. would have about 23% of LNG demand in 2015 about in line with its current 20% share of world natural gas demand. LNG would rise to about 12% of Global and U.S. natural gas demand.

#### **LNG Price War**

Relative pricing is likely to determine the destination of LNG. Moreover as a global commodity, LNG is likely to provide a link that brings local pricing to global norms. Yet, because of its relatively small volume, LNG is not likely to drive natural gas pricing. In other words, the risk that too much LNG would depress natural gas price may be realized occasionally, but not likely on any normal, sustained basis.

Instead, we have been seeing the opposite with a mini price war last year. Western Europe especially likes clean. Rich, mature citizens living in close quarters have little indigenous energy that meets acceptable environmental standards. No wonder that Europeans are buying all the liquefied natural gas they can get. Europeans are outbidding the Asians by so much that we have projected a flip flop in share from most LNG going to Asia to most LNG going to Europe. Despite the discussion about importing more LNG in the U.S., there was an absolute decline in deliveries to America in the first nine months of last year. We are not paying enough to compete with Europe.

#### **Short Term Price Reprieve**

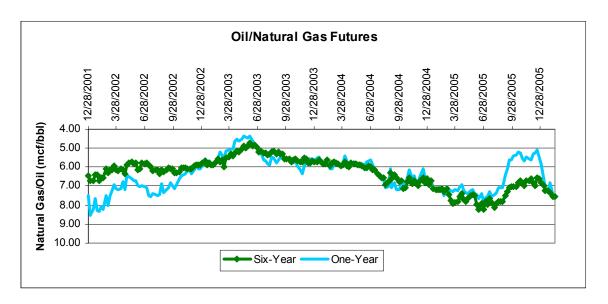
A month of warm weather in 2006 has contributed to a price reprieve for natural gas that may be beneficial in a long-term context for both consumers and producers. As a result, today the U.S. does not need more LNG as domestic supplies of natural gas appear ample for the remaining winter. Indeed the widely watched near-month futures quote is half what it was a few months ago.

Meanwhile six-year and one-year natural gas has traded between oil divided by 5 and oil divided by 8 for the past four years (see chart <u>Oil/Natural Gas Futures</u>). Now at the undervalued end of the range, natural gas is more likely to trade back toward the middle of the range purely on a statistical basis. Over time, the opposite extreme is likely to become the norm as we see it.

#### Oil Sands Grow with Minimal Global Impact

Oil sands currently account for about a million barrels daily of production. Perhaps that will be two million by 2013 and three million by 2020. COSWF owns 35.5% of Syncrude which is just completing an expansion of about 100,000 barrels daily for about US\$6 billion. New construction begun today would probably cost twice that and six years from now twice that again. Hundreds of billions of dollars are pouring into the oil sands to develop capacity of 3 million barrels daily. Yet, that massive business would account for just 1% of global energy supply.

Finally, if new capacity is becoming more expensive, then existing oil producing capacity, whether in oil sands or in conventional fields, also increases in value.



#### Oil and Gas Share of U.S. Economy Modest

Nor are oil and gas, our most valuable fuels, such a large share of the economy that we can afford no more. The raw energy of crude oil and natural gas and the cost of refining oil products is less than 6% of the U.S. economy using the long-term prices embedded in our current estimates of present value of oil and gas businesses (see table Oil, Natural Gas and the U.S. Economy).

#### Oil, Natural Gas and the U.S. Economy

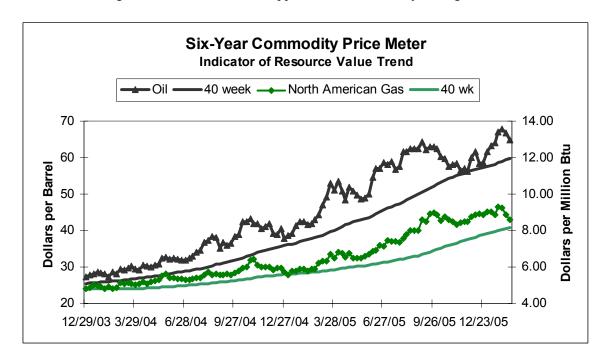
	Annual <u>Volume</u>	Long-Term <u>Price</u>	Annual Value <u>(\$billion)</u>	Share of \$12 Trillion <u>Economy</u>
Crude Oil	21 million barrels daily	\$50 a barrel	380	3.2%
<b>Natural Gas</b>	21 trillion cubic feet	\$10 a million btu	210	1.8%
Oil Refining	21 million barrels daily	\$10 a barrel	<u>80</u>	0.7%
Total			670	5.6%

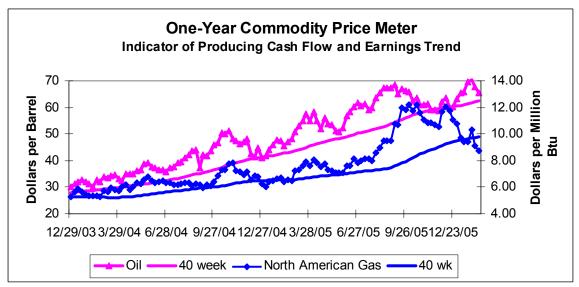
Source: Energy Information Administration, McDep Associates

The oil and gas share of the economy is about equal to one year's growth before adjusting for inflation. As energy price adjusts to stimulate new investment the money is recycled and the economy grows further.

#### **Commodity Price Trends 3:1 Positive to Negative**

Six-year crude oil and natural gas price trends remain strong with current quotes above the 40-week average (see chart <u>Six-Year Commodity Price Meter</u>). One-year oil is positive while one-year natural gas broke the 40-week average in recent weeks (see chart <u>One-Year Commodity Price Meter</u>). Stock prices for eight of the trusts remain above the 200-day average. Stock prices for three natural gas oriented trusts have dropped below the 200-day average.





At the same time we acknowledge momentum measures, we tend to get more interested in stocks at the lower McDep Ratios that lower price implies. That does not mean that we make light of any apparent potential losses on recent purchases.

Thus, we do not feel any particular alarm about lower short-term natural gas price. The first countervailing factor is that six-year natural gas continues to do well. The second countervailing factor is that oil price remains in a solid trend. The final fundamental factor is that if natural gas price is low, we should use more. Shut down a few dirty coal plants and enhance our quality of life by substituting natural gas for coal.

Kurt H. Wulff, CFA

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

			Price			Net		
			(\$/sh)		Market	Present	Debt/	
	Symbol/		9-Feb	Shares	Cap	Value	Present	McDep
	Rat	ing	2006	(mm)	(\$mm)	(\$/un)	Value	Ratio
U.S. Royalty Trusts								
Hugoton RoyaltyTrust (46%)	HGT		36.14	18.4	670	34.00	-	1.06
Permian Basin RT	PBT		15.75	46.6	730	15.00	-	1.05
Sabine Royalty Trust	SBR		43.31	14.6	630	42.00	-	1.03
San Juan Basin Royalty Trust	SJT	Η	41.00	46.6	1,910	40.00	-	1.03
Dorchester Minerals, L.P.	<b>DMLP</b>		25.98	28.2	730	26.00	-	1.00
Cross Timbers Royalty Trust	CRT		43.88	6.0	260	45.00	-	0.97
Mesa RoyaltyTrust	MTR		67.70	1.9	130	75.00	-	0.90
Total or Median					5,100			1.03
Canadian Income Trusts								
Enerplus Resources Fund	ERF		52.52	110.0	5,780	42.00	0.14	1.22
Pengrowth Energy Trust	PGH		24.02	159.0	3,820	20.00	0.16	1.17
Penn West Energy Trust	<b>PWTFF</b>	В	35.70	179.3	6,400	33.00	0.13	1.07
Canadian Oil Sands Trust (US\$)	COSWF	В	129.09	93.1	12,020	136.00	0.12	0.95
Total or Median					28,000		0.14	1.12

B = Buy, H = Hold

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

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

			Price (\$/sh)	Adjstd Resrvs/	PV/	EV/		Divd or Distrib
	Symbol/		9-Feb	Prod	Ebitda	Ebitda	P/E	NTM
	Ra	Rating		NTM	NTM	NTM	NTM	(%)
U.S. Royalty Trusts								
Sabine Royalty Trust	SBR		43.31	11.6	10.2	10.5	10.5	9.5
Cross Timbers Royalty Trust	CRT		43.88	18.9	10.7	10.5	10.6	9.4
Mesa RoyaltyTrust	MTR		67.70	20.0	11.3	10.2	11.1	9.0
San Juan Basin Royalty Trust	SJT	Η	41.00	12.1	9.9	10.1	11.2	8.9
Dorchester Minerals, L.P.	DMLP		25.98	11.4	10.0	10.0	15.8	10.1
Hugoton RoyaltyTrust (46%)	HGT		36.14	13.5	8.6	9.2	11.5	8.7
Permian Basin RT	PBT		15.75	15.0	8.5	8.9	9.7	10.3
Median				13.5	10.0	10.1	11.1	9.4
Canadian Income Trusts								
Canadian Oil Sands Trust (US\$)	COSWF	В	129.09	20.0	11.6	11.1	14.7	2.7
Enerplus Resources Fund	ERF		52.52	8.6	6.0	7.2	11.5	8.4
Pengrowth Energy Trust	PGH		24.02	7.6	5.9	6.9	10.7	10.9
Penn West Energy Trust	PWTFF	В	35.70	8.0	5.9	6.3	9.8	10.0
Media	n			8.3	5.9	7.1	11.1	9.2

EV = Enterprise Value = Market Cap and Debt; Ebitda = Earnings before interest, tax, depreciation and amortization; NTM = Next Twelve Months Ended December 31, 2006; 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

			Natural					
		Revenue	Gas/		Dist/			Dist.
	Symbol	Royalty	Ebitda	Dist/	Equity	NTM Distr	ibution	Yield
	•	(%)	(%)	Ebitda	Ebitda	(\$mm)	(\$/un)	(%)
U.S. Royalty Trusts								
Hugoton RoyaltyTrust (46%)	HGT	-	92	0.80	0.80	58	3.15	8.7
San Juan Basin Royalty Trust	SJT	-	99	0.90	0.90	170	3.65	8.9
Mesa RoyaltyTrust	MTR	-	76	0.92	0.92	11	6.10	9.0
Cross Timbers Royalty Trust	CRT	85	73	0.98	0.98	25	4.13	9.4
Sabine Royalty Trust	SBR	100	62	1.00	1.00	60	4.13	9.5
Dorchester Minerals, L.P.	DMLP	54	75	1.01	1.01	74	2.62	10.1
Permian Basin RT	PBT	30	40	0.92	0.92	76	1.62	10.3
Total or Median	ı		75	0.92	0.92	500		9.4
Canadian Income Trusts								
Canadian Oil Sands Trust (US\$)	COSWF	-	(9)	0.26	0.30	325	3.49	2.7
Enerplus Resources Fund	ERF	-	46	0.54	0.62	483	4.39	8.4
Penn West Energy Trust	<b>PWTFF</b>	-	46	0.55	0.64	638	3.56	10.0
Pengrowth Energy Trust	PGH	-	40	0.65	0.77	416	2.62	10.9
Total or Median	ı		43	0.54	0.63	1,900		9.2
Kinder Morgan Energy Partners	KMP			0.76	1.69			6.7

NTM = Next Twelve Months Ended December 31, 2006

Ebitda = Earnings before interest, tax, depreciation and amortization