

Rating: Buy  
S&P 500: 1235

## **PetroChina Company Ltd.**

### **Diversify Political Risk**

<i>Symbol</i>	PTR	<i>Ebitda Next Twelve Months ending 9/30/06 (US\$mm)</i>	34,000
<i>Rating</i>	Buy	<i>North American Natural Gas/Ebitda (%)</i>	0
<i>Price (US\$/sh)</i>	75.48	<i>Natural Gas and Oil Production/Ebitda (%)</i>	92
<i>Pricing Date</i>	11/11/05	<i>Adjusted Reserves/Production NTM</i>	13.9
<i>Shares (mm)</i>	1758	<i>EV/Ebitda</i>	4.0
<i>Market Capitalization (US\$mm)</i>	133,000	<i>PV/Ebitda</i>	6.3
<i>Debt (US\$mm)</i>	2,000	<i>Undeveloped Reserves (%)</i>	27
<i>Enterprise Value (EV) (US\$mm)</i>	135,000	<i>Natural Gas and Oil Ebitda (US\$/boe)</i>	31.27
<i>Present Value (PV) (US\$mm)</i>	213,000	<i>Present Value Proven Reserves(US\$/boe)</i>	12.41
<i>Net Present Value (US\$/share)</i>	120	<i>Present Value Proven Reserves(US\$/mcfe)</i>	2.07
<i>Debt/Present Value</i>	0.01	<i>Earnings Next Twelve Months (US\$/sh)</i>	9.17
<i>McDep Ratio - EV/PV</i>	0.63	<i>Price/Earnings Next Twelve Months</i>	8
<i>Dividend Yield (%/year)</i>	5.0	<i>Indicated Annual Dividend (US\$/sh)</i>	3.77

Note: Estimated cash flow and earnings tied to one-year futures prices for oil and natural gas.

Reported results may vary widely from estimates. Estimated present value per share revised only infrequently.

The Peoples Republic of China holds 90% of the outstanding shares.

### **Summary and Recommendation**

Buy-recommended **PetroChina Company Ltd. (PTR)** offers diversification of political risk that balances the largely unwarranted bashing of U.S. oil companies in Washington last week. There are risks in China, too, where government policy to smooth the impact of world prices artificially delays cash flow for natural gas and refined products. Yet, the government also wants to encourage companies to acquire international resources and to furnish more energy to fuel a growing economy. PTR stock offers 59% appreciation potential to estimated net present value of \$120 a share. Taking account of latest quarterly results, our correlation of 30 companies indicates net present value about \$19 a share higher than estimated. A growing 5% per year dividend is lightly taxed at a maximum 15% in the U.S. and there is no dividend tax withheld by China.

### **Cash Flow and Reserve Life Point to Present Value**

McDep analysis presumes that fundamental value is measured by the projection of cash flows far into the future and discounting them to the present at a rate of return, currently 7% a year before inflation. Next Twelve Months (NTM) cash flow represents the volumes and costs that form the base for future projections. Reserve life index tells how long cash flow will last. NTM cash flow and reserve life are the two main variables in our correlation by function for about 30 companies. Net present value indicated by the current combined correlation is about \$19 a share higher than our ongoing standard estimate for the company (see table Functional Cash Flow and Present Value).

**Please see disclosures on the final page.**

**PetroChina**  
**Functional Cash Flow and Present Value**

	<i>NTM Ebitda</i> <i>(US\$mm)</i>	<i>Adjusted</i> <i>R/P</i>	<i>PV/</i> <i>Ebitda</i>	<i>Present</i> <i>Value</i> <i>(US\$mm)</i>	
Natural Gas	1,900	19.4	10.5	20,000	9%
Oil	27,100	12.5	5.6	151,000	71%
Downstream	4,600		9.1	42,000	20%
	33,600	13.9	6.3	213,000	100%
Debt (US\$mm)					2,000
Net Present Value (US\$mm)					211,000
Shares (mm)					1,758
Net Present Value (US\$/sh)					120
Over (-)/ Under (+) Correlation (US\$/sh)					19

**International Expansion Proceeding**

A \$2.5 billion acquisition of international oil and gas resources approved by PTR shareholders on August 16 has not yet been reflected in our projections. Meanwhile, PetroChina's parent, China National Petroleum Company, works to conclude a \$4 billion deal for independent producer, PetroKazakhstan (PKZ). Apparently to get host government approval, the buyer will sell a third of the acquired company to the government of Kazakhstan.

**Cash Flow Depends on Latest Results and Futures Prices**

Cash flow for the next year is projected from a base through the latest reported quarter (see tables [Next Twelve Months Operations](#) and [Financial Results](#)). Company disclosures provide the clues for future volumes and costs as well as geographic and quality differences in price. Futures prices from the New York Mercantile Exchange determine industry benchmarks for the next year.

**Industry Conditions Support Long-Term Price Expectation**

Present value estimates that form the denominator of the McDep Ratio and change only occasionally for all companies, most recently in early August, are tied to expected constant real long-term prices. Estimates for PTR reflect lower commodity price than we assume for the industry.

**Friday, November 11, 2005**

	<i>Units</i>	<i>Futures Price</i>		<i>McDep Ratio</i>
		<i>Six-Year</i>	<i>One-Year</i>	<i>Denominator</i>
<b>Crude Oil</b>	\$/barrel	56.76	59.29	50
<b>Natural Gas</b>	\$/million btu	8.15	10.68	10
<b>Oil Refining</b>	\$/barrel		11.31	10
	<i>Stocks</i>			<i>Median</i>
	<b>Producer/Refiner</b>			<b>0.83</b>
	<b>PTR</b>			<b>0.63</b>

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

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**PetroChina Company Limited**  
**Next Twelve Months Operations**

	<i>Q4</i>	<i>Year</i>	<i>Q1</i>	<i>Q2</i>	<i>Q3</i>	<i>Q4E</i>	<i>Year</i>	<i>Q1E</i>	<i>Q2E</i>	<i>Q3E</i>	<i>Next</i>
	<i>12/31/04</i>	<i>2004</i>	<i>3/31/05</i>	<i>6/30/05</i>	<i>9/30/05</i>	<i>12/31/05</i>	<i>2005E</i>	<i>3/31/06</i>	<i>6/30/06</i>	<i>9/30/06</i>	<i>Twelve</i>
											<i>Months</i>
											<i>9/30/06</i>
<b>Volume</b>											
Natural gas (bcf)	234	<b>839</b>	261	245	257	285	<b>1,049</b>	288	300	304	<b>1,177</b>
Natural Gas (mmcf)	2,545	<b>2,293</b>	2,899	2,697	2,793	3,100	<b>2,873</b>	3,200	3,300	3,300	<b>3,225</b>
Days	92	<b>366</b>	90	91	92	92	<b>365</b>	90	91	92	<b>365</b>
Oil (mmb)	193	<b>778</b>	200	197	199	199	<b>794</b>	194	197	199	<b>789</b>
Oil (mbd)	2,093	<b>2,126</b>	2,221	2,162	2,161	2,161	<b>2,176</b>	2,161	2,161	2,161	<b>2,161</b>
Total gas & oil (mmb)	232	<b>918</b>	243	238	242	246	<b>969</b>	242	247	249	<b>985</b>
Total gas & oil (mbd)	2,518	<b>2,508</b>	2,704	2,611	2,626	2,678	<b>2,655</b>	2,694	2,711	2,711	<b>2,698</b>
<b>Price</b>											
Natural gas (\$/mcf)											
Henry Hub (\$/mmbtu)	7.10	<b>6.15</b>	6.27	6.76	8.56	13.06	<b>8.66</b>	11.92	9.71	9.75	<b>11.11</b>
Company	1.96	<b>2.00</b>	1.98	1.92	2.34	2.34	<b>2.15</b>	2.34	2.34	2.34	<b>2.34</b>
Oil (\$/bbl)											
WTI Cushing	48.31	<b>41.44</b>	49.65	53.05	62.52	59.32	<b>56.14</b>	59.19	59.87	60.01	<b>59.60</b>
Company	40.97	<b>33.88</b>	37.63	49.30	55.19	52.37	<b>48.61</b>	52.25	52.85	52.97	<b>52.61</b>
Total gas & oil (\$/bbl)	36.05	<b>30.54</b>	33.03	42.80	47.89	44.97	<b>42.17</b>	44.68	44.97	45.07	<b>44.92</b>
<b>Revenue (\$mm)</b>											
Natural Gas	459	<b>1,675</b>	517	471	600	666	<b>2,254</b>	673	702	709	<b>2,750</b>
Oil	7,891	<b>26,362</b>	7,522	9,698	10,972	10,410	<b>38,602</b>	10,162	10,392	10,531	<b>41,496</b>
Total	8,350	<b>28,037</b>	8,039	10,169	11,572	11,076	<b>40,856</b>	10,835	11,094	11,241	<b>44,246</b>
Total(RMB)	69,011	<b>231,710</b>	66,437	84,040	94,155	89,560	<b>334,192</b>	87,607	89,698	90,887	<b>357,752</b>
RMB/SUS	8.26	<b>8.26</b>	8.26	8.26	8.14	8.09	<b>8.18</b>	8.09	8.09	8.09	<b>8.09</b>

**PetroChina Company Limited**  
**Next Twelve Months Financial Results**

	<i>H1</i>	<i>H2</i>	<i>Year</i>	<i>H1</i>	<i>H2E</i>	<i>Year</i>	<i>H1E</i>	<i>H2E</i>	<i>Next</i>
	<i>6/30/04</i>	<i>12/31/04</i>	<i>2004</i>	<i>6/30/05</i>	<i>12/31/05</i>	<i>2005E</i>	<i>6/30/06</i>	<i>12/31/06</i>	<i>Twelve</i>
									<i>Months</i>
									<i>12/31/06</i>
NY Harbor 3-2-1 (\$/bbl)	8.74	6.75	7.74	8.38	13.59	10.98	11.89	12.14	12.02
<b>Revenue (RMB)</b>									
Natural Gas									
Oil									
Upstream (from quarterly table)	102,266	129,444	<b>231,710</b>	150,477	187,179	<b>337,656</b>	181,227	181,227	<b>362,454</b>
Downstream Value Added	77,286	79,637	<b>156,923</b>	102,012	102,012	<b>204,025</b>	102,012	102,012	<b>204,025</b>
Total	179,552	209,081	<b>388,633</b>	252,489	289,192	<b>541,681</b>	283,240	283,240	<b>566,479</b>
<b>Expense</b>									
Production									
Other									
Total	85,013	97,693	<b>182,706</b>	132,115	150,466	<b>282,581</b>	147,490	147,490	<b>294,981</b>
<b>Ebitda (RMB)</b>									
Exploration and Production	73,124	92,060	<b>165,183</b>	109,165	127,517	<b>236,682</b>	124,541	124,541	<b>249,081</b>
Other	21,415	19,328	<b>40,744</b>	11,209	18,322	<b>29,531</b>	18,322	18,713	<b>37,036</b>
Total	94,539	111,388	<b>205,927</b>	120,374	138,725	<b>259,099</b>	135,749	135,749	<b>271,499</b>
Exploration	5,630	6,093	<b>11,723</b>	8,528	8,528	<b>17,056</b>	8,528	8,528	<b>17,056</b>
Deprec., Deplet., & Amort.	24,673	21,738	<b>46,411</b>	25,791	25,791	<b>51,582</b>	25,791	25,791	<b>51,582</b>
Other non cash									
<b>Ebit</b>	64,236	83,557	<b>147,793</b>	86,055	104,406	<b>190,461</b>	101,430	101,430	<b>202,861</b>
Interest	925	1,378	<b>2,303</b>	1,185	1,185	<b>2,370</b>	1,185	1,185	<b>2,370</b>
<b>Ebt</b>	63,311	82,179	<b>145,490</b>	84,870	103,221	<b>188,091</b>	100,245	100,245	<b>200,491</b>
Income Tax	18,019	24,544	<b>42,563</b>	23,246	36,127	<b>59,373</b>	35,086	35,086	<b>70,172</b>
<b>Net Income (RMB)</b>									
Exploration and Production	52,701	72,870	<b>125,571</b>	84,693					
Other	11,549	10,622	<b>22,171</b>	844					
Unallocated	(18,958)	(25,857)	<b>(44,815)</b>	(23,913)					
Total	45,292	57,635	<b>102,927</b>	61,624	67,094	<b>128,718</b>	65,159	65,159	<b>130,319</b>
<b>Shares (millions)</b>									
Earnings per share (RMB)	1,758	1,758	<b>1,758</b>	1,758	1,758	<b>1,758</b>	1,758	1,758	<b>1,758</b>
Ebitda Margin (E&P)	25.76	32.78	<b>58.55</b>	35.05	38.16	<b>73.22</b>	37.06	37.06	<b>74.13</b>
Ebitda Margin (E&P)	72%	71%	<b>71%</b>	73%	68%	<b>70%</b>	69%	69%	<b>69%</b>
Tax Rate	28%	30%	<b>29%</b>	27%	35%	<b>32%</b>	35%	35%	<b>35%</b>

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**Buy Producer/Refiners**

Energy is necessary for world economic growth and clean energy provides a better quality of life. Producer/refiners are among the leading global suppliers of clean energy. Headquartered in Norway, Russia, China, Canada and the U.S., buy recommendations also offer political diversification. McDep Ratios that compare Enterprise Value with Present Value of energy and other businesses imply that the stock market undervalues the fundamental prospects. Stocks are ranked in descending order of McDep Ratio connoting “buy low, sell high” (see table Rank by McDep Ratio).

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

	<i>Symbol/</i>	<i>Rating</i>	<i>Price</i> <i>(\$/sh)</i>	<i>Shares</i>	<i>Market</i>	<i>Net</i>	<i>Debt/</i>	<i>McDep</i>
			<i>11-Nov</i>	<i>(mm)</i>	<i>Cap</i>	<i>Present</i>	<i>Present</i>	<i>Ratio</i>
			<i>2005</i>		<i>(\$mm)</i>	<i>Value</i>	<i>Value</i>	
<b>Mega Cap</b>								
BP plc	BP	B	64.72	3,501	227,000	77.00	0.11	0.86
Total S.A.	TOT	B	122.11	1,176	144,000	160.00	0.12	0.79
Exxon Mobil Corporation	XOM	B	56.52	6,303	356,000	74.00	0.04	0.77
Royal Dutch Shell plc	RDS-A	B	59.75	3,352	200,000	84.00	0.10	0.74
Chevron Corporation	CVX	B	56.63	2,256	128,000	85.00	0.13	0.71
<i>Total or Median</i>					<i>1,055,000</i>		<i>0.11</i>	<i>0.77</i>
<b>Producer/Refiners - Large Cap and Mid Cap</b>								
Kinder Morgan, Inc.	KMI	S2	88.94	123	10,940	20.00	0.76	1.83
Imperial Oil Limited (30%)	IMO	B	88.91	102	9,080	84.00	0.10	1.05
Marathon Oil Corporation	MRO	B	57.25	368	21,080	65.00	0.27	0.91
Lukoil Oil Company	LUKOY	B	54.92	830	46,000	65.00	0.03	0.85
Petro-Canada	PCZ	B	34.64	525	18,200	42.00	0.18	0.86
Suncor Energy	SU	B	52.88	461	24,380	68.00	0.11	0.80
Norsk Hydro ASA	NHY	B	97.61	251	24,490	130.00	0.11	0.78
ConocoPhillips	COP	B	63.50	1,418	90,000	100.00	0.15	0.69
Gazprom (50%)	OGZPF	B	58.10	1,022	59,300	90.00	0.03	0.66
PetroChina Company Ltd (10%)	PTR	B	75.48	176	13,270	120.00	0.01	0.63
<i>Total or Median</i>					<i>317,000</i>		<i>0.11</i>	<i>0.83</i>

Kurt H. Wulff, CFA

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