

**PetroChina Company Ltd.**  
**Continue Buy on Emerging Market Value**

Symbol	Price	Floating Shares (mm)	Market Cap (\$mm)	Net		McDep Ratio	EV/	EV/	P/E	Div'd	PV/
	(\$/sh) 15-May 2002			Present Value (\$/sh)	Debt/ Present Value		Sales NTM	Ebitda NTM		NTM	NTM
PTR	20.00	176	3,520	30.00	0.17	0.72	1.6	3.7	7.1	6.4	5.0

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

EV = Enterprise Value = Market Cap and Debt:

\$mm 4,600

Ebitda = Earnings before interest, tax, depreciation and amortization:

\$mm 1,250

NTM = Next Twelve Months Ended June 30, 2003; P/E = Stock Price to Earnings

PV = Present Value of energy businesses:

\$mm 6,300

Shares, Market Cap, EV, Ebitda and PV for 10% of company publicly traded. 90% government owned.

**Summary and Recommendation**

We continue our Buy recommendation of the common shares of PetroChina (PTR) for participation in the energy growth of Asia at a low price for existing resources and at a high dividend. The company will have about 55% participation in a natural gas pipeline perhaps with Royal Dutch/Shell (RD) that will transform the energy infrastructure of a country that is rapidly becoming one of the world's largest economic powers. China's most profitable listed company generates nearly all of its current cash flow from oil and gas production at a reserve life index of 12 years on developed oil, or 16 years counting natural gas and half of undeveloped reserves. A 21% share in a rapidly growing gasoline market ought to add to profits over the next few years as price controls are eased following China's entry into the World Trade Organization. The stock looks especially attractive on our cautious valuation of \$6.3 billion for the 10% that is publicly traded. On developed country pricing and profitability the full company would be worth more than \$100 billion. That is important because one of the risks is attracting the capital for natural gas development. A dividend yield near 7% per year is still rewarding even after the declaration was scaled back some with oil price that declined for awhile and is now rising again.

**Mega Class Reserves**

Reported reserves of natural gas and oil approaching 17 billion barrels exceed that of all but two stocks in our coverage, ExxonMobil (XOM) and RD. The estimates are credible

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reflecting the reputation of DeGolyer and MacNaughton, the independent engineers retained.

Most of the natural gas reserves are undeveloped awaiting pipeline construction. That implies future volume growth. Most of the oil reserves, in contrast, are producing, but still at a relatively long life. That implies lower risk of volume decline than that facing most companies.

To account for the fact that undeveloped reserves require additional investment we weight them at half that for developed reserves in calculating a life index (see table). On that basis, PTR reserves have 50% more longevity left than the typical Mega Cap energy company. That could mean up to 50% higher value as a multiple of cash flow.

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**Natural Gas and Oil Reserves**

	<i>Natural Gas</i>	<i>Oil</i>	<i>Total</i>	
	<i>(bcf)</i>	<i>(mmb)</i>	<i>(bcf)</i>	<i>(mmb)</i>
<i>Reserves (bcf or mmb)</i>				
Proven (P)	36,103	10,959	101,857	16,976
Proven Developed (PD)	12,946	9,309	68,800	11,467
Proven Undeveloped (PUD)	23,157	1,650	33,057	5,510
<i>Production, Next Twelve Months</i>				
	663	775	5,316	886
<i>Reserve Life Index (years)</i>				
R/P P	54.4	14.1	19.2	19.2
R/P PD	19.5	12.0	12.9	12.9
R/P PUD	34.9	2.1	6.2	6.2
R/P PD+.5PUD	37.0	13.1	16.1	16.1

**Natural Gas Development Being Defined**

Construction has apparently started on a 2000-mile pipeline to bring natural gas to eastern population and industrial centers. In our initial recommendation we likened the project to the modernization of the energy infrastructure of the U.S. and Europe (see *Stock Idea*, PetroChina, June 8, 2001). Negotiations with partners have not yet been finalized to our knowledge. The larger the pipeline, the better the potential economics and the more difficulty in placing high volume initially. In the end the project has important strategic value to China. Moreover the gas sellers need to be paid something to reflect the environmental advantages compared to coal.

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**Natural Gas Growth Underway in Quarterly Volumes**

While management does not yet disclose earnings more than semiannually, it does disclose volumes and some prices quarterly (see table). A new pipeline was completed in September 2001 and may have helped the company achieve higher production of natural gas in the fourth quarter. Another was completed in March 2002.

<b>PetroChina Company Limited</b>									
<b>Next Twelve Months Production</b>									
	<i>Q1</i>	<i>Q2</i>	<i>Q3</i>	<i>Q4</i>	<i>Year</i>	<i>Q1</i>	<i>Q2E</i>	<i>Year</i>	<i>Next Twelve Months</i>
	<i>3/31/01</i>	<i>6/30/01</i>	<i>9/30/01</i>	<i>12/31/01</i>	<i>2001</i>	<i>3/31/02</i>	<i>6/30/02</i>	<i>2002E</i>	<i>6/30/03</i>
<b>Volume</b>									
Natural gas (bcf)	144	135	91	193	<b>564</b>	164	165	<b>663</b>	<b>663</b>
Natural Gas (mmcf/d)	1,604	1,478	991	2,102	<b>1,544</b>	1,817	1,817	<b>1,817</b>	<b>1,817</b>
Days	90	91	92	92	<b>365</b>	90	91	<b>365</b>	<b>365</b>
Oil (mmb)	189	191	194	188	<b>764</b>	191	193	<b>775</b>	<b>775</b>
Oil (mbd)	2,103	2,103	2,113	2,048	<b>2,092</b>	2,124	2,124	<b>2,124</b>	<b>2,124</b>
Total gas & oil (mmb)	213	214	210	221	<b>857</b>	218	221	<b>886</b>	<b>886</b>
Total gas & oil (mbd))	2,371	2,350	2,278	2,398	<b>2,349</b>	2,427	2,427	<b>2,427</b>	<b>2,427</b>
<b>Price</b>									
Natural gas (\$/mcf)									
Henry Hub (\$/mmbtu)	2.53	4.36	2.75	2.41	<b>3.01</b>	2.53	3.63	<b>2.90</b>	<b>3.44</b>
Company	1.92	1.92	1.92	1.92	<b>1.92</b>	1.95	1.95	<b>1.95</b>	<b>1.95</b>
Oil (\$/bbl)									
WTI Cushing	21.60	27.88	26.69	20.40	<b>24.15</b>	21.60	24.07	<b>23.31</b>	<b>24.04</b>
Company	24.65	24.65	24.62	20.47	<b>23.61</b>	17.54	19.54	<b>18.99</b>	<b>19.52</b>
Total gas & oil (\$/bbl)	23.17	23.27	23.67	19.16	<b>22.29</b>	16.81	18.56	<b>18.08</b>	<b>18.54</b>
<b>Revenue (\$mm)</b>									
Natural Gas	277	258	175	371	<b>1,082</b>	319	322	<b>1,293</b>	<b>1,293</b>
Oil	4,666	4,718	4,786	3,856	<b>18,026</b>	3,354	3,777	<b>14,724</b>	<b>15,136</b>
Total	4,943	4,976	4,961	4,227	<b>19,108</b>	3,672	4,100	<b>16,017</b>	<b>16,429</b>
Total(RMB)	40,855	41,126	41,003	34,935	<b>157,919</b>	30,351	33,882	<b>132,370</b>	<b>135,778</b>

Oil volumes are holding in a relatively flat trend. Crude oil accounts for most, if not all, of the company's current cash flow. Our projections assume a continuation of recent volumes and a trend in future price for oil reflected in the futures market for the world commodity. We carry the indicated revenues from the quarterly table to the projection of financial results.

**First Half 2002 Results Potentially Weak**

A strong element of regulation of petroleum product prices and import volumes may influence profitability at PetroChina. The "allowed" profit probably tracks world trends. We can see the influence of world price in the price of crude oil that the company discloses quarterly.

Considering that refined products markets were weak worldwide in the first quarter, we might expect some reflection of that in PetroChina's first half results (see table). Our

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projections capture world price trends to a degree, but there could be greater than anticipated losses in the products business if the experience of other integrated companies is any indication. Yet such a development may not be a surprise and by the time it is obvious, investors will be looking at evolving conditions affecting future results. The future looks bright worldwide for oil producers and not so bright for refiners. Often reality confounds expectations. Should crude oil price disappoint, oil product price may surprise positively as the two businesses offer a natural hedge to each other.

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**Next Twelve Months Operating and Financial Results**

	<i>H1</i>	<i>H2</i>	<i>Year</i>	<i>H1E</i>	<i>H2E</i>	<i>Year</i>	<i>H1E</i>	<i>Next Twelve Months</i>
	<i>6/30/01</i>	<i>12/31/01</i>	<i>2001</i>	<i>6/30/02</i>	<i>12/31/02</i>	<i>2002E</i>	<i>6/30/03</i>	<i>6/30/03</i>
<b>Price</b>								
NY Harbor 3-2-1 (\$/bbl)	8.59	3.88	6.23	3.92	4.32	4.12	4.87	4.54
<b>Revenue (RMB)</b>								
Upstream (from Q table)	81,981	75,937	<b>157,919</b>	64,233	68,137	<b>132,370</b>	67,642	<b>135,778</b>
Downstream Value Added	40,188	40,787	<b>80,974</b>	41,226	45,405	<b>86,631</b>	51,209	<b>96,614</b>
Total	122,169	116,724	<b>238,893</b>	105,459	113,542	<b>219,000</b>	118,851	<b>232,392</b>
<b>Expense</b>	56,645	66,425	<b>123,070</b>	63,219	65,642	<b>128,861</b>	67,177	<b>132,819</b>
<b>Ebitda (RMB)</b>	65,524	50,299	<b>115,823</b>	42,240	47,900	<b>90,139</b>	51,674	<b>99,574</b>
Exploration	3,729	3,615	<b>7,344</b>	3,615	3,615	<b>7,230</b>	3,615	<b>7,230</b>
Deprec., Deplet., & Amort.	18,195	15,172	<b>33,367</b>	15,172	15,172	<b>30,344</b>	15,172	<b>30,344</b>
Other non cash								
<b>Ebit</b>	43,600	31,512	<b>75,112</b>	23,453	29,113	<b>52,565</b>	32,887	<b>62,000</b>
Interest	1,803	1,297	<b>3,100</b>	1,297	1,297	<b>2,594</b>	1,297	<b>2,594</b>
<b>Ebt</b>	41,797	30,215	<b>72,012</b>	22,156	27,816	<b>49,971</b>	31,590	<b>59,406</b>
Income Tax	14,629	10,575	<b>25,204</b>	7,754	9,735	<b>17,490</b>	11,056	<b>20,792</b>
<b>Net Income (RMB)</b>								
Exploration and Production	41,898	35,034	<b>76,932</b>					
Other	(500)	(4,215)	<b>(4,715)</b>					
Unallocated	(14,230)	(11,179)	<b>(25,409)</b>					
Total	27,168	19,640	<b>46,808</b>	14,401	18,080	<b>32,481</b>	20,533	<b>38,614</b>
<b>Shares (millions)</b>	1,758	1,758	<b>1,758</b>	1,758	1,758	<b>1,758</b>	1,758	<b>1,758</b>
Earnings per share (RMB)	15.45	11.17	<b>26.63</b>	8.19	10.28	<b>18.48</b>	11.68	<b>21.96</b>

On current industry conditions, downstream businesses add 10% to 20% to cash flow from upstream production for other companies. When crude oil price is low, downstream may account for half of cash flow. For PetroChina downstream including refining/marketing and chemicals subtracts a little cash flow. Eventually downstream should be more profitable. Government policy is to have a competitive industry and PetroChina objectives are to build value. Apparently China's new commitments to world trading partners imply a domestic refined products market that functions more like it does in other countries.

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**World Valuation Points to Appreciation**

PetroChina's Ebitda from oil production at \$14 per barrel is at the world level being the same as that for ExxonMobil, for example. PTR's oil reserve life at an adjusted 13 years is longer than ExxonMobil's 10 years. PTR is not as diversified as XOM, but investors can add their own diversification. Thus on oil reserve life and reported cash flow, PTR might justify a higher cash flow multiple than XOM. The leading mega cap is currently valued at 11 times while the median mega cap is at 8 times.

Cautiously we value PTR's cash flow arbitrarily at just 5 times because anything more might not seem credible considering current stock price. That implies a discounted value for oil production and no value for natural gas growth or downstream position.

**Dividend Appears to Track Earnings**

An unusually high dividend yield is not quite as high as it was. The "final" dividend for 2001 has been proposed to be, in the currency of China, the renminbi, or yuan, RMB 0.050272 per share compared to the year earlier amount of RMB 0.082315. Multiplying by 100 to convert to a share count corresponding to American Depositary Shares and comparing to reported earnings, we see that since the first half of last year dividends have equaled 45% of earnings. As a result we project dividends for the Twelve Months ended June 30, 2003 at RMB 10.50 equivalent to \$1.27. That is down a little from RMB 11.98 for the year 2001. The record date has apparently passed for the second of two payments for 2001 that shareholders should receive at the end of next month.

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