Rating: Buy S&P 500: 1188

BP p.l.c. More Cash Flow to Owners

Symbol	BP	Ebitda Next Twelve Months ending 3/31/06 (US\$mm)	45,800
Rating	Buy	North American Natural Gas/Ebitda (%)	7
Price (US\$/sh)	64.37	Natural Gas and Oil Production/Ebitda (%)	71
Pricing Date	3/16/05	Adjusted Reserves/Production NTM	9.4
Shares (mm)	3601	EV/Ebitda	5.8
Market Capitalization (US\$mm)	231,800	PV/Ebitda	5.7
Debt (US\$mm)	32,800	Undeveloped Reserves (%)	45
Enterprise Value (EV) (US\$mm)	264,600	Natural Gas and Oil Ebitda (US\$/boe)	22.10
Present Value (PV) (US\$mm)	263,200	Present Value Proven Reserves(US\$/boe)	10.40
Net Present Value (US\$/share)	64	Present Value Proven Reserves(US\$/mcfe)	1.73
Debt/Present Value	0.12	Earnings Next Twelve Months (US\$/sh)	5.86
McDep Ratio - EV/PV	1.01	Price/Earnings Next Twelve Months	11
Dividend Yield (%/year)	3.2	Indicated Annual Dividend (US\$/sh)	2.04

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.

Summary and Recommendation

We continue a Buy rating on the common shares of **BP** (**BP**) for improving profitability of oil and gas upstream and downstream businesses accompanied by low financial risk. We raised our estimate of net present value to \$64 a share from \$60 on January 26, 2005 when we revised our estimate of long-term oil price to \$40 a barrel constant real from \$35. Though BP stock price now exceeds present value even after the revision, our buy recommendation can be justified up to a McDep Ratio of 1.2, or a stock price of about \$78. Moreover, net present value can be a moving target as six-year oil price marches steadily upward surpassing \$49 a barrel. Meanwhile the continued improvement in fundamental outlook may support dividends and stock buybacks as much as 10% of current stock price in 2005.

More Free Cash Flow for Stockholders

Our current estimate for BP's cash flow is some \$46 billion for the next twelve months (see table Next Twelve Months Operating and Financial Estimates)s. Only late last year that estimate was \$36 billion (see *Stock Idea*: BP, December 20, 2004).

Crude oil price drives the gains in cash flow from production. The steeper discount for harder-to-refine oil drives higher margins for downstream. We project refining/marketing margins at a constant level equivalent to the average of the last half of 2004.

Management contends that capital spending plans assume \$20 oil (perhaps \$22 a barrel on a light, sweet basis). The Lord Browne of Madingly, Group Chief Executive, known as John Browne before the Queen honored him, anticipates that \$30 is an operating floor for the next several years. While that seems like a typically understated forecast the more interesting implication is that the additional cash flow from higher price is promised to shareholders.

March 17, 2005

Expect almost 10% of stock price to be returned to shareholders in 2005 by current projections. Inflation adjusted spending for 2005 is budgeted at about \$10 billion. Depreciation of \$12 billion exceeds capital expenditures by \$2 billion. Add that to net income of \$20 billion and \$22 billion might be considered free cash flow available for dividends or stock repurchase.

BP plc
Next Twelve Months Operating and Financial Estimates

	There I work is opening and I maneral assumes							Next		
										Twelve
	Q3 9/30/04	Q4 12/31/04	Year 2004	Q1E 3/31/05	Q2E 6/30/05	Q3E 9/30/05	Q4E 12/31/05	Year 2005E	Q1E 3/31/06	Months 3/31/06
Volume	2720707	12/01/01	2007	5,51,05	0,50,05	2750705	12/01/00	20002	5/51/00	0,01,00
Natural Gas (mmcfd)										
U.S. (or North America)	2,685	2,651	2,756	2,651	2,651	2,651	2,651	2,651	2,651	2,651
Overseas (or Int'l)	5,590	6,063	5,771	6,063	6,063	6,063	6,063	6,063	6,063	6,063
Total	8,275	8,714	8,527	8,714	8,714	8,714	8,714	8,714	8,714	8,714
Oil (mbd)	2,479	2,593	2,531	2,593	2,593	2,593	2,593	2,593	2,593	2,593
Total gas & oil (mmb)	355	372	1,445	364	368	372	372	1,477	364	1,477
Price										
Natural gas (\$/mcf)										
Henry Hub (\$/mmbtu)	5.75	7.10	6.15	6.27	7.22	7.35	7.68	7.13	8.13	7.59
U.S. (or North America)	4.94	5.72	5.11	5.05	5.82	5.93	6.19	5.75	6.55	6.12
Overseas (or Int'l)	3.05	3.65	3.26	3.72	4.20	4.21	4.14	4.07	4.06	4.15
Total	3.66	4.28	3.86	4.13	4.69	4.73	4.76	4.58	4.82	4.75
Oil (\$/bbl)										
WTI Cushing	43.89	48.30	41.44	49.27	55.52	55.70	54.78	53.82	53.68	54.92
Worldwide	38.29	39.88	35.51	40.69	45.84	45.99	45.24	44.46	44.32	45.35
Total gas & oil (\$/bbl)	32.45	34.78	31.07	34.97	39.48	39.67	39.26	38.36	38.79	39.30
NY Harbor 3-2-1 (\$/bbl)	7.83	5.62	8.41	5.97	8.53	8.08	7.00	7.40	5.31	7.23
BP Refining Indicator	6.20	5.60								
Revenue (\$mm)										
Natural Gas										
U.S. (or North America)	1,220	1,395	5,145	1,205	1,403	1,446	1,509	5,563	1,563	5,921
Overseas (or Int'l)	1,566	2,036	6,860	2,032	2,315	2,348	2,310	9,005	2,214	9,187
Total	2,786	3,431	12,005	3,237	3,718	3,794	3,819	14,568	3,777	15,108
Oil	8,733	9,514	32,895	9,495	10,817	10,971	10,791	42,075	10,344	42,924
Other	62,333	67,719	250,250	67,719	67,719	67,719	67,719	270,877	67,719	270,877
Total	73,852	80,664	295,150	80,452	82,254	82,484	82,329	327,519	81,840	328,908
Expense	5,419	6,045	20.154	6,002	()()	C 400	6,378	25 152	6,280	25 420
Production Other	59,134	,	20,154 237,942	64,410	6,363	6,409	,	25,152	,	25,430
	39,134	64,301	237,942	64,410	64,410	64,410	64,410	257,641	64,410	257,641
Ebitda (\$mm) Exploration and Production	6,100	6.900	24,747	6,730	8,172	8,356	8,232	21 401	7,841	22 (02
Other	3,199	3,418	12,307	3,309	3,309	3,309	3,309	31,491 13,236	3,309	32,602 13,236
Total Ebitda	9,299	10,318	37,054	10,039	11,481	11,665	11,541	44,726	11,150	45,837
Exploration	34	151	274	151	151	151	151	604	151	604
Deprec., Deplet., & Amort.	2,648	4,383	12,583	3,000	3,000	3,000	3,000	12,000	3,000	12,000
Other non cash	401	4,363	(518)	3,000	3,000	3,000	3,000	12,000	3,000	12,000
Ebit	6,216	5,784	24,715	6,888	8,330	8,514	8,390	32,122	7,999	33,233
Interest	156	189	642	189	189	189	189	756	189	756
Ebt	6,060	5,595	24,073	6,699	8,141	8,325	8,201	31,366	7,810	32,477
Income Tax	2,121	1,958	8,426	2,345	2,849	2,914	2,870	10,978	2,733	11,367
Net Income (\$mm)	2,121	1,750	0,120	2,5 15	2,017	2,711	2,070	10,770	2,755	11,507
Exploration and Production	5,144	5,489	19,759							
Other	1,619	2,198	6,917							
Unallocated	(2,824)	(4,050)	(11,029)							
Total	3,939	3,637	15,647	4,354	5,292	5,411	5,331	20,388	5,076	21,110
Shares (millions)	3,614	3,601	3,638	3,601	3,601	3,601	3,601	3,601	3,601	3,601
Per share (\$)	1.09	1.01	4.30	1.21	1.47	1.50	1.48	5.66	1.41	5.86
Ebitda Margin (E&P)	53%	53%	55%	53%	56%	57%	56%	56%	56%	56%
Tax Rate	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%

Value in Line with Mega Cap Peers

It what seems to be an industry trend, BP apparently applied the Securities and Exchange Commission rules more strictly and came up with a more conservative estimate of resources at year end. Ironically at the same time the volume estimates are overly cautious for equity analysis, the implied market value of resources is rising. For all of its natural gas and oil, BP's adjusted reserve life index at 9.4 years is the median for the five company Mega Cap Energy group. As a result, it is more than coincidence that BP's Present Value to Cash Flow multiple (PV/Ebitda) is also the median of peers. The market seems to conclude similarly as BP's McDep Ratio, too, is in line with peers.

Long Reserve Life in North American Natural Gas

North American Natural Gas may be the highest quality business of BP. Reserve life is the longest of any of the producers of the clean fuel in our coverage (see table North American Natural Gas Cash Flow and Present Value). The acquisition of Amoco brought most of that valuable resource to BP. The company's single largest producing gas field in the world is the San Juan Basin of New Mexico and Colorado where BP and Burlington Resources (BR) each have about 750 million cubic feet daily of net production.

North American Natural Gas Cash Flow and Present Value

		Adjstd		
	Ebitda	Resrvs/	PV/	Present
	NTM	Prod	Ebitda	Value
	(\$mm)	NTM	NTM	(\$mm)
Energy Partners Ltd.	201	4.7	3.9	780
Royal Dutch/Shell	2,260	4.9	4.0	9,000
Imperial Oil Limited (30%)	713	5.2	4.5	3,200
ChevronTexaco Corporation	2,470	5.3	4.5	11,000
Marathon Oil Corporation	780	5.9	4.7	3,700
Cimarex Energy Company	740	6.7	4.6	3,400
Encana Corporation	6,690	7.1	5.2	35,000
Suncor Energy	220	7.6	5.5	1,200
Devon Energy Corporation	4,450	7.7	5.3	23,500
Unocal Corporation	1,026	8.0	5.8	6,000
Petro-Canada	800	8.9	6.3	5,000
Occidental Petroleum Corp.	907	9.5	6.3	5,700
Burlington Resources	3,000	10.2	6.7	20,000
XTO Energy Inc.	1,790	11.7	6.7	12,000
Encore Acquisition Company	91	11.9	7.1	650
Exxon Mobil Corporation	4,870	11.9	8.2	40,000
Anadarko Petroleum Corp.	2,810	11.9	6.4	18,000
San Juan Basin Royalty Trust	166	12.5	8.4	1,400
ConocoPhillips	2,300	12.6	7.0	16,000
BP plc	3,330	12.9	8.1	27,000

Political Risk Diversified with Dispersion of Resource Value

Summarizing year-end disclosures and filling in with some estimates we make a rough allocation of present value by geographical area (see table <u>Exploration and Production by Geographic Segments</u>). The analysis starts with reserves as recently reported.

Percentage undeveloped is a key value indicator as it points to both opportunity and the need to make more investment. To reflect the investment requirement we count undeveloped reserves as half the weight of developed reserves when we calculate adjusted reserve life.

Taking BP's reported price for U.S., U.K. and total production we fill in some prices for other areas. That allows us to calculate separate revenue for natural gas and oil by region.

While we can get an idea of the relative importance of natural gas compared to oil by revenue, few companies disclose separate operating costs for natural gas compared to oil. Yet, once a year companies conforming to SEC requirements report some breakdown of costs and "results" by geographic region. From results, production and reserves we can make a rough allocation of present value by function and by area. For the company that once had most of its asset value in the Middle East, it is a sign of the times that after having absorbed Standard of Ohio, Amoco and Arco, BP has some 37% of its resource present value in the U.S. The remainder is well-diversified.

Refining/Marketing another Strategic Hedge

Though producing governments are taking most of the profit on production for the largest exporters, crude oil still has to be refined before it is useful. At the same time the declining quality of incremental oil supply requires even more intensive refining. As a result, refining/marketing continues to be a vital role for mega cap companies.

Refining/marketing emphasis at BP is close to that of mega cap peers. BP's downstream system appears well-positioned to exploit the long-term trend to heavy, sour crude oil as light, sweet becomes less available. We estimate present value for downstream businesses near six times next twelve months cash flow (see table <u>Functional Cash Flow and Present Value</u>). Uncertainty around that estimate could account for some of the difference in McDep Ratios for mega cap integrated companies compared to independent producers.

BP Under-Represented in Index Funds

Having shifted long ago to the unlevered value measure, the McDep Ratio, we are sensitive to the impact of leverage on valuation. By itself the amount of debt should not influence the total value of an enterprise. Debt need be neither good nor bad. It can be added or subtracted by companies or by investors. True value is created in the enterprise itself, not in the financing of the enterprise usually.

At the same time we see investors turn increasingly to index funds for selecting equity investments. Exchange traded funds may be further accentuating the trend. Index funds have advantages of low fees and performance likely to be close to the index rather than varying more widely positively or negatively.

BP plc
Exploration and Production by Geographic Segments

	UK	Rest of	USA	Rest of Americas	Asia Pacific	Africa	Duggia	Other	Total
Natural Gas	UK	<u>Europe</u>	USA	Americus	<u>Facijic</u>	<u>Ajrīca</u>	<u>Russia</u>	<u>Oiner</u>	<u>10141</u>
Reserves (bcf), 12/31/04	3,681	1,502	14,081	17,138	7,219	2,901	224	1,761	48,507
Undeveloped	32%	83%	23%	68%	76%	65%	4%	81%	51%
Production, 2004 (bcf)	461	47	1,111	1,019	319	102	177	79	3,315
Adjusted R/P	6.7	18.6	11.2	11.1	14.0	19.1	1.2	13.3	10.9
Price (\$/mcf)	4.32	4.00	5.11	3.52	2.00	2.00	2.00	2.00	3.86
Oil									
Reserves (mmb), 12/31/04	769	340	3,252	939	151	847	2,157	1,479	9,934
Undeveloped	27%	32%	37%	45%	56%	76%	14%	56%	38%
Production, 2004 (mmb)	121	28	217	88	17	48	304	76	899
Adjusted R/P	5.5	10.2	12.2	8.3	6.4	10.9	6.6	14.0	8.9
Price (\$/bbl)	35.87	38.00	35.41	38.00	35.41	40.00	32.00	41.23	35.39
Results, 2004 (\$mm)									
Natural Gas	1,992	188	5,677	3,585	638	204	354	158	12,796
Oil	4,340	1,064	7,684	3,344	602	1,920	9,728	3,133	31,816
	(451)	(17)	(23)	(2,597)	268	(193)	(10,077)	23	(13,068)
Total Revenue	5,881	1,235	13,338	4,332	1,508	1,931	5	3,314	31,544
Expense	935	185	3,789	1,232	283	445	(3)	2,534	9,400
Ebitda	4,946	1,050	9,549	3,100	1,225	1,486	8	780	22,144
Exploration	26	25	361	141	14	45	17	8	637
Depreciation	1,524	172	2,673	797	174	347		121	5,808
Ebit	3,396	853	6,515	2,162	1,037	1,094	(9)	651	15,699
Tax	1,288	534	2,290	870	104	441	2	151	5,680
Results	2,108	319	4,225	1,292	933	653	(11)	500	10,019
Present Value (\$mm)									
North American Natural Gas			27,000						27,000
Overseas Natural Gas	9,000	1,000		14,000	5,000	2,000		1,000	32,000
Oil	18,000	5,000	40,000	14,000	3,000	10,000	14,000	16,000	120,000
Total Present Value	27,000	6,000	67,000	28,000	8,000	12,000	14,000	17,000	179,000
	15%	3%	37%	16%	4%	7%	8%	9%	100%

For those who invest in index funds the results are "good enough" and there is little concern that they should be improved. Yet, because most index funds weight stocks by market cap, a leveraged measure, they could be introducing the distortion the McDep Ratio was designed to correct. A better weighting to eliminate the distortion of debt would be to weight positions by market cap and debt. A stock with 50% debt would have only half the equity weighting in the index as a stock with no debt.

As a result low-debt companies like BP seem systematically under-weighted in index funds. BP's stock price may be somewhat lower than it should be. As long as index funds do not change, BP stock price may continue to be at a discount. For a long term investor that is a plus for now because for the same outlay the dividends will be higher, the shares of stock repurchased greater and the unlevered percentage appreciation at least comparable. Finally, some day the indexes might change and the valuation gap might close.

BP plc Functional Cash Flow and Present Value

	NTM Ebitda	Adjusted	PV/	Present Value	
	<u>(US\$mm)</u>	<u>R/P</u>	<u>Ebitda</u>	<u>(US\$mm)</u>	
North American Natural Gas	3,330	12.9	8.1	27,000	10%
Overseas Natural Gas	5,160	10.4	6.2	32,000	12%
Oil	24,110	8.5	5.0	120,000	46%
Downstream	13,240		6.3	84,000	32%
	45,840	9.4	5.7	263,000	100%
Debt (US\$mm)					32,800
Net Present Value (US\$mm)					230,500
Shares (mm)					3,601
Net Present Value (US\$/sh)					64

Buy Oil and Gas Producers at Mid Decade

Three to five-fold gain potential for oil and gas price over the next 5 to 13 years justifies investment in recommended oil and gas producers including BP, in our opinion. Supporting improving prospects, the average futures prices of oil and gas for continuous delivery over the next six years are in a multi-year uptrend defined by the current quotes above the 40-week average. The current benchmark oil average futures price for the next six years is about \$49 a barrel. That is higher than our estimate that current stock price of BP reflects a constant real oil price of perhaps \$40 a barrel. The positive conclusions we draw on BP also extend to its competitors (see table Rank by McDep Ratio).

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

			Price	Price			Net		
			(\$/sh)		Market	Present	Debt/		
	Symbol	/	16-Mar	Shares	Cap	Value	Present	McDep	
		Rating	2005	(mm)	(\$mm)	(\$/sh)	Value	Ratio	
Mega Cap									
Shell Transport and Trading Co. plc	SC	В	56.43	1,587	90,000	55.90	0.16	1.01	
BP plc	BP	В	64.37	3,601	232,000	64.00	0.12	1.01	
Exxon Mobil Corporation	XOM	В	60.29	6,461	390,000	60.00	0.06	1.00	
Total S.A.	TOT	В	120.60	1,218	147,000	120.00	0.17	1.00	
Royal Dutch Petroleum	RD	В	62.42	2,016	126,000	66.00	0.16	0.95	
ChevronTexaco Corporation	CVX	В	58.61	2,123	124,000	76.00	0.10	0.79	
Total or Median	!				1,109,000		0.14	1.00	

Kurt H. Wulff, CFA

McDep Associates Independent Stock Idea March 17, 2005

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Research Methodology/Ratings Description: McDep Associates is an independent research originator focused on oil and gas stocks exclusively. The firm applies the thirty years of experience of its analyst to estimate a present value of the oil and gas resources and other businesses of covered companies. That value is compared with a company's stock market capitalization and debt. Stocks with low market cap and debt relative to present value tend to outperform stocks with high market cap and debt relative to present value. Buy recommendations are expected to deliver a total return better than 7% per year above inflation. Hold recommendations assume the attributes of the underlying business are reflected in the current price of the stock. Sell recommendations are expected to deliver a negative total return less than 7% per year including the effects of inflation.