Rating: Buy
S&P 500: 1095

Norsk Hydro ASA
Growing Norwegian Oil and Gas

Symbol	NHY	*Ebitda Next Twelve Months ending 3/31/05 ($mm)*	5,700
Rating	Buy	*North American Natural Gas/Ebitda (%)*	0
Price ($/sh)	57.73	*Natural Gas and Oil Production/Ebitda (%)*	71
Pricing Date	5/11/04	*Adjusted Reserves/Production NTM*	9.1
Shares (mm)	256	*EV/Ebitda*	3.4
Market Capitalization ($mm)	14,800	*PV/Ebitda*	6.2
Debt ($mm)	4,300	*Undeveloped Reserves (%)*	36
Enterprise Value (EV) ($mm)	19,100	*Natural Gas and Oil Ebitda ($/boe)*	19.00
Present Value (PV) ($mm)	35,000	*Present Value Proven Reserves($/boe)*	10.50
Net Present Value ($/share)	120	*Present Value Proven Reserves($/mcfe)*	1.80
Debt/Present Value	0.12	*Price/Earnings Next Twelve Months*	7
McDep Ratio - EV/PV	0.55	*Dividend Yield (%)*	2.8

The Norwegian government owns 44% of the shares in Norsk Hydro.

Summary and Recommendation

We continue to recommend current purchase of the American Depositary Shares of **Norsk Hydro ASA (NHY)** for representation in growing volume and rising value of politically safe Norwegian oil and gas production. Oil dominates the near future at 76% of next twelve months production, while natural gas offers the longer term potential at 56% of proven reserves. The company is more than two thirds in oil and gas with most of the remainder in aluminum as the third largest global producer. Fertilizer, the reason for founding the company 99 years ago, was spun off as Yara International (YARIY) in the first quarter. By our present value measure the stock has more than 100% appreciation potential to $120 a share, the point at which it would then offer a normal return of perhaps 5% a year above inflation. While the main risk may be commodity price, the company has hardly any debt implying that it would be a likely survivor in any conceivable financial storm.

Six-Year Futures Point to Growing Oil and Gas Value

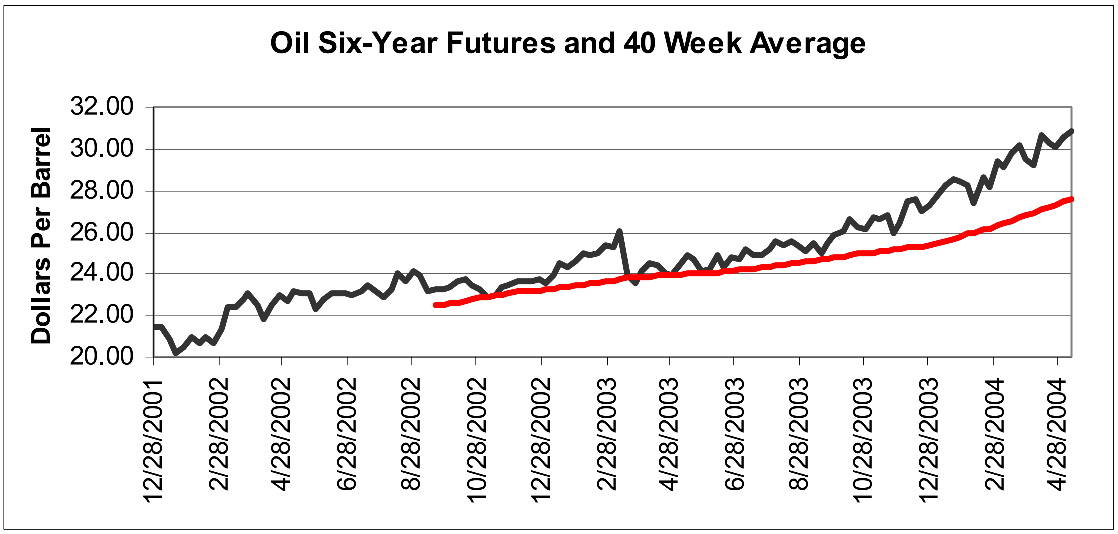
Both oil production and natural gas production are sensitive to crude oil price as natural gas is priced in relation to crude oil. We look to the futures market for expectations of the trend in price of the global crude oil benchmark. Thirty years ago when we last had a decade-long major move in oil there was no meaningful futures market. Today futures contracts for oil to be delivered over the next six years are quoted every trading day. We track the average for the next 72 months.

The plot of weekly results shows a strong uptrend with the 40-week moving average rising at the rate of 12% a year (see Chart). At that rate the price in 2010 would be three times the price in 2000. The comparable rate of gain from 1970 to 1980 was about ten times.

Fundamental factors support the price trends. Oil demand is strong with world economic growth paced by developing countries, especially China. Supply is tight as the Middle East is showing maturity with the workhorse giant fields on the verge of peaking.

Interest rates below inflation encourage investment in assets like oil that can increase in price more than inflation. Nor is the increase in oil price at the rate that would induce a recession in economic activity and energy demand. We believe an oil price gain of three times from 2000 to 2010 can be accommodated in continued economic progress while we know a gain of ten times was accompanied by economic pain.

There may be security concerns affecting the near-term oil price. We are optimistic that there will be no catastrophic interruption. At the same time it should be clear that the ability of even the U.S. military to enforce an artificially low oil price is limited.



Volume, Price and Costs Translate to Attractive Cash Flow

Our process of estimating company-specific present value begins with an estimate of next twelve months cash flow. Current projections lead to some $5.7 billion (Norwegian kroner 39 billion) of unlevered cash flow, also known as Ebitda, short for earnings before interest, tax, depreciation and amortization (see table). We choose the next twelve months ending March 31, 2005 as the relevant time period. The rationale is that if one is buying a stock today, previously reported cash flow is relevant only for the information it may give about future cash flow.

For the next twelve months we project constant oil volume at the first quarter 2004 level. We project natural gas volume at the same level and seasonal pattern of the latest twelve months. That is sufficient for our valuation calculation. Management projects slightly less volume for 2004 and gradual rises to about 650 thousand barrels equivalent daily in 2007 tracing a trend of 8% per year from 2002 to 2007. That is a remarkably strong trend for an unusually undervalued producer.

We take the futures market at face value in projecting price for the next twelve months. Light Sweet Crude quotes guide our projections of oil revenue. Because futures are constantly changing, our projection is adjusted accordingly. As a result, the specific amounts we project today may not be the amounts realized when the company next reports.

Norsk Hydro
Next Twelve Months Operating and Financial Estimates

	Q1 3/31/04	*Q2E 6/30/03*	*Q3E 9/30/04*	*Q4E 12/31/04*	***Year 2004E***	*Q1E 3/31/05*	***Next Twelve Months 3/31/05***
Volume							
Natural Gas (mmcfd)	1,038	672	696	996	**849**	1,038	**849**
Oil (mbd)	442	442	442	442	**442**	442	**442**
Total gas & oil (mbd)	615	554	558	608	**584**	615	**584**
Price							
Natural gas (NOK/mcf)	31	31	31	31	**31**	31	**31**
Natural gas (NOK/Sm3)	1.10	1.10	1.10	1.10	**0.88**	1.10	**0.88**
Oil							
WTI Cushing US$/bbl)	35.23	38.46	38.17	36.55	**37.10**	35.16	**37.08**
Kroner/$	6.91	6.91	6.91	6.91	**6.91**	6.91	**6.91**
WTI Cushing (NOK/bbl)	243	266	264	253	**256**	243	**256**
NHY (NOK/bbl)	218	238	237	226	**230**	218	**230**
Total gas & oil (NOK/bb	209	228	226	216	**220**	209	**219**
Revenue (NOKmm)							
Natural Gas	2,911	1,927	1,995	2,855	**9,688**	2,911	**9,688**
Oil	8,684	9,691	9,619	9,210	**37,204**	8,668	**37,188**
Other	30,914	25,914	25,914	25,914	**108,656**	25,914	**103,656**
Total	39,598	37,531	37,529	37,979	**152,637**	37,493	**150,533**
Expense							
Production	4,747	4,751	4,751	4,843	**19,091**	4,745	**19,089**
Other	28,092	23,092	23,092	23,092	**97,368**	23,092	**92,368**
Total	32,838	27,843	27,843	27,935	**116,459**	27,837	**111,457**
Ebitda ($mm)							
Exploration and Production	6,849	6,866	6,864	7,222	**27,801**	6,834	**27,787**
Other	2,822	2,822	2,822	2,822	**11,288**	2,822	**11,288**
Total Ebitda	9,671	9,688	9,686	10,044	**39,090**	9,656	**39,075**
Exploration	249	249	249	249	**996**	249	**996**
Deprec., Deplet., & Amort.	3,696	3,696	3,696	3,696	**14,784**	3,696	**14,784**
Ebit	5,726	5,743	5,741	6,099	**23,310**	5,711	**23,295**
Interest	433	433	433	433	**1,732**	433	**1,732**
Foreign Exchange	454						
Ebt	4,839	5,310	5,308	5,666	**21,124**	5,278	**21,563**
Income Tax	1,694	1,859	1,858	1,983	**7,393**	1,847	**7,547**
Net Income ($mm)							
Exploration and Production	7,082						
Other Operations	1,629						
Non operating deductions	(5,566)						
Total	3,145	3,452	3,450	3,683	**13,730**	3,431	**14,016**
Shares (millions)	256	256	256	256	**256**	256	**256**
Per share ($)	12.30	13.50	13.49	14.40	**53.70**	13.42	**54.81**
Ebitda Margin (E&P)	59%	59%	59%	60%	**59%**	59%	**59%**
Tax Rate	35%	35%	35%	35%	**35%**	35%	**35%**

In reporting earnings and cash flow on the basis of U.S. accounting standards, the company provides an especially helpful breakdown of Ebitda that we adjust for our purposes. The main adjustment we make is to assume a tax rate of 35% rather than the rate above 60% actually incurred. While that makes our Ebitda lower, it also makes the number more comparable with that for most companies that pay the lower rate. Making our projections with the latest exchange rate for the Norwegian kroner, we do not attempt to project reported accounting gains or losses from changes in exchange rate.

Short Reserve Life for Oil and Long Reserve Life for Natural Gas

The important variables in the valuation of future production are captured in base year cash flow and a multiple of that cash flow that depends on reserve life. Indeed investors do differentiate on that basis as reflected in a high correlation of unlevered cash flow multiple with adjusted reserve life. We convert the market relationship to a formula that produces an anticipatory value with somewhat more sensitivity to reserve life.

Reported reserves at year end 2003 imply an adjusted life index of 9.1 years, 5.6 for oil and 19.9 for natural gas. The index is the sum of developed and half undeveloped reserves divided by next twelve months production. That could justify a multiple of 7.0 in the framework we applied on March 23 when we estimated present value assuming constant commodity price near the one-year quotes at that time, about $35 a barrel for crude oil. Our present value remains unchanged while higher commodity prices since then imply higher cash flow and a lower multiple of 6.2 times. We are saying that we think the multiple of cash flow should be 6.2 times while the actual multiple implied by current stock price is only 3.4 times.

Value Aluminum at Oil Cash Flow Multiple

We make no effort at this time to apply a different cash flow multiple to Hydro's remaining businesses, primarily aluminum. Nor have we attempted to estimate any pattern to cash flow development for the next twelve months. Having a commodity orientation in our oil and gas understanding, we figure it is probably not a bad time to be in the metals business as well.

Yara Demerger Opens a New Era for Hydro

Investors in American Depositary Shares received on April 1 for each share of Hydro one share of newly created Yara International that holds fertilizer operations. On the first trading day NHY stock adjusted by about $4.28 while the new Yara shares traded at $7.40. Voila! The pieces are worth more than the whole.

The spinoff followed the implementation of a stock repurchase plan last year. Both steps signify to us that a government-dominated company is becoming more serious about achieving a stock market value that more realistically reflects the value of Hydro's assets. Eventually, lower government ownership and lower taxation would help further.

Of course, investment in Hydro stock is subject to the normal range of economic, political, financial and business risks. Information disclosures are particularly thorough and helpful in assessing the company's prospects.

Kurt H. Wulff, CFA

Research Methodology: McDep Associates ("the Firm") applies the thirty plus 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 becomes the denominator of the McDep Ratio while market capitalization and debt are the numerator. Stocks with low McDep Ratios tend to outperform stocks with high McDep Ratios on an unlevered basis. The firm emphasizes quantitative tools in deriving estimates while applying a final qualitative refinement.

Ratings Description: Stocks are rated by expected risk-adjusted return over one to three years compared to Treasury Inflation Protected Securities. Buy, Hold and Sell ratings imply expectations better than, equal to and inferior to those of TIPS. The McDep Ratio for a Buy may range up to 1.2; for a Hold, 1.0 to 1.4; and for a Sell, above 1.2.