

07-01,07,12

1

1. Chevron Adjustments for Capitalization of Interest

Amounts in \$ millions

Year	1995	1996	1997	1998	1999	1999/95
As reported						
Interest expense	\$ 401	\$ 364	\$ 312	\$ 405	\$ 472	1.18
Pretax income	1,789	4,740	5,502	1,834	3,648	2.04
Net income	930	2,607	3,256	1,339	2,070	2.23

Capitalized interest	141	108	82	39	59	
Amortization of capitalized interest	47	24	28	35	9	

a. Calculations

EBIT	\$2,190	\$5,104	\$5,814	\$2,239	\$4,120	
Times interest earned	5.46	14.02	18.63	5.53	8.73	1.60

b. Adjusted

Net capitalized interest	\$ 94	\$ 84	\$ 54	\$ 4	\$ 50	
After 35% income tax	61	55	35	3	33	

Interest expense	495	448	366	409	522	1.05
EBIT	2,190	5,104	5,814	2,239	4,120	
(i) Times interest earned	4.42	11.39	15.89	5.47	7.89	1.78
(ii) % reduction from reported ratio	-19.0%	-18.8%	-14.8%	-1.0%	-9.6%	

Pretax income	\$1,695	\$4,656	\$5,448	\$1,830	\$3,598	2.12
(iii) Net income	869	2,552	3,221	1,336	2,038	2.34
% reduction from reported	-6.6%	-2.1%	-1.1%	-0.2%	-1.6%	

b. (iv) Expensing all interest reduces net income for each year. However the effect diminishes over time.

c. (i) Because the amount of interest capitalized declined over time, restatement reduces the rate of increase in interest expense.

(ii) While the interest coverage ratio is lower after restatement, its trend improves due to the lower growth rate of interest expense.

(iii) Both pretax and net income are lower after restatement but their growth rate improves due to the lower growth rate of interest expense.

d. The restated data are more useful for financial analysis because they are based on actual interest expense. They provide better comparability with firms that do not capitalize interest.

7. Norsk Hydro 998 Reconciliation from Norwegian GAAP to US GAAP;

Amounts in NOK millions

Pretax income:		Shareholders' equity:	
Norwegian GAAP	6,292	Norwegian GAAP	43,532
Capitalized exploration costs	(107)	Property, plant, equipment	7,999
Depreciation	(729)	Other differences (net)	(3,290)
Capitalized interest	614	US GAAP	48,241
Other differences (net)	(239)		
US GAAP	5,831	Total debt	30,842

Parts a and b:

(i) Pretax ROE:		(ii) Debt-to-equity ratio:	
Norwegian GAAP	14.5%	Norwegian GAAP	0.71
US GAAP	12.1%	US GAAP	0.64

Part c:

Capitalized exploration costs	(107)	Property, plant, equipment	7,999
Depreciation	(729)	Deferred tax @ 35%	(2,800)
Capitalized interest	614	Net effect on equity	5,199
Net effect	(222)		

Norwegian GAAP adjusted:

Pretax income	6,070	Shareholders' equity:	48,731
(i) ROE	12.5%	(ii) Debt-to-equity ratio:	0.63

d. Capitalization policy can significantly affect both pretax income and shareholders' equity. Capitalization rather than expensing always increases equity and, therefore, reduces the debt-to-equity ratio. The effect on ROE varies as capitalization increases both return and equity.

In the case of Norsk Hydro, Norwegian GAAP adjusted to exclude non-capitalization produces the lowest debt-to-equity ratio as the expensing of exploration, environmental, and interest costs increases reported equity. ROE is highest under Norwegian GAAP (unadjusted) as income is highest and equity lowest. US GAAP produces the lowest ROE as income is lowest and equity highest.

e. The negative adjustment means that exploration costs were higher under US GAAP than under Norwegian GAAP. This suggests that exploration costs that Norwegian GAAP expenses (but US GAAP capitalizes) were below normal. As a result the amortization of past expenditures capitalized under US GAAP exceeded the current year's capitalized expenditures.

12. The exhibit below contains the calculations required by parts a through e.

a. ROE: SUA = 14.2% May = 15.6% Difference = 1.4%

b. MAY's reported data is adjusted by increasing R&D expense by the 2002 increase in R&D assets and reducing assets by the amount of capitalized R&D.

c. After adjustment, MAY's ROA is higher at 16.2 %, widening the gap between the two companies.

ROE: SUA = 14.2% May = 16.2% Difference = 2.0%

d. Capitalizing R&D requires that R&D expense for 2002 be replaced by one-third of total R&D expenditures over the 2000 to 2002 period. R&D assets at the end of 2002 equals one-third of the 2001 expenditures plus two-thirds of the 2002 expenditures.

e. Capitalizing R&D for SUA reduces ROA to 13.8%, widening the gap between the two companies relative to the reported numbers.

ROE: SUA = 13.8% May = 15.8% Difference = 1.8%

The effect of the differing accounting methods is to make ROA for the two companies seem closer than it really is. Adjustment of either company to the method used by the other makes the disparity clearer.

Note: As can be seen when part b is done, calculation of Sua's 2001 assets would require R&D expenditures for 1999 – 2001

SUA	2000	2001	2002
R&D expense	\$ 15,200	\$ 16,500	\$ 18,100
Net income	27,000	29,000	32,000
R&D assets	-	-	-
Total assets	200,000	210,000	225,000
a. Return on assets			14.2%

MAY	2000	2001	2002
R&D expense	\$ 29,500	\$ 32,400	\$ 35,600
Net income	48,600	52,200	57,600
R&D assets	28,800	31,500	34,600
Total assets	330,000	346,000	370,000
a. Return on assets			15.6%

b. MAY: Adjustment to expense R&D

Change in R&D expense	\$ 3,100
Adjusted net income	54,500
Change in R&D assets	(34,600)
Adjusted total assets	335,400
c. Adjusted ROA	16.2%

d. SUA: Adjustment to capitalize R&D

Change in R&D expense	\$(1,500)
Adjusted net income	33,500
Change in R&D assets	17,567
Adjusted total assets	242,567
e. Adjusted ROA	13.8%