

1 IDBI Amortized cost has increased from 231,655 to 252,504
So it must be held-to-maturity

Accumulated other comprehensive income (19,200)
This matches unrealized losses of HPCL
So it must be available-for-sale security.

ONGC must be trading security.

1	ONGC	Trading
5	HPCL	Available-for-sale
	IDBI	Held-to-maturity

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2 **Income reported in the income statement for the year ending** 31-Dec-07

		<i>dr</i>	<i>cr</i>
ONGC	ONGC	14,000	
	Unrealized gain to Income Statement		14,000 j
HPCL	HPCL		19,200
	Unrealized Losses to Accumulated Comp Income		(19,200)
IDBI	IDBI	20,849	
	Interest revenue	252,504 - 231,655 =	20,849 k
Investment income - marketable securities		j+k	34,849

2	ONGC	14,000
8	HPCL	0
	IDBI	20,849

3 **Income reported in the income statement for the year ending** 31-Dec-07

			<i>dr</i>	<i>cr</i>
ONGC	Cash	\$ 198,000 / 2	99,000	
Sold	ONGC	\$ 189,000 / 2		94,500
	Realized gain to Income Statement			4,500 d
ONGC holding	Fair value	31-Dec-08	102,000	
	Book value	31-Dec-07	94,500	
	ONGC		7,500	
	Unrealized gain to Income Statement			7,500 e
ONGC	Total income			12,000
HPCL	Cash	\$ 192,000 / 2	96,000	
Sold	HPCL	\$ 185,600 / 2		92,800
	Unrealized Losses	\$ 19,200 / 2		9,600
	Realized loss to Income Statement		6,400	c
HPCL	Total income			(6,400)

IDBI	Cash received	\$ 254,500 / 2	127,250	
Sold	Amortized cost*	\$ 252,504 / 2		126,252
	Gain (includes interest revenue)			998

IDBI holding This held-to-maturity marketable securities has an implicit rate of interest. We can obtain it by looking at last year's income.

$$\$20,849 / \$ 231,655 = 9.00\%$$

IDBI	Interest revenue	9.00% x 126,252	11,363	11,363
IDBI	Total income			12,361

Investment income - marketable securities	a + b + c + d + e	17,961
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3	ONGC	12,000
14	HPCL	(6,400)
	IDBI	12,361

HPCL holding	Fair value	31-Dec-08	98,600	
	Fair value	31-Dec-07	92,800	
	HPCL			5,800
	Unrealized gain to Accumulated Comp Income			5,800

4 Table A

Firm	Amortized cost	Unrealized Gains	Unrealized Losses	Fair Value	Carrying Value
ONGC	87,500	7,000			
	87,500	7,500			
		14,500		102,000	102,000
HPCL	102,400		9,600		
	102,400	5,800			
			3,800	98,600	98,600
IDBI	11,363				
	126,252				
	137,615			139,000	137,615

- 1 The article says: "Exxon spent 5.3% of revenue on exploration and capital outlays, down from 6.5% in 2003. the actual dollar amounts did increase, to \$20.9 billion from \$15.3 billion." Show how the article calculated those percentages.

(millions of dollars	2007	2006	2005	2004	2003
Total capital and exploration expenditures	20,853	19,855	17,699	14,885	15,525
<u>A</u> Sales and other operating revenue	390,328	365,467	358,955	291,252	237,054
	5.34%	5.43%	4.93%	5.11%	6.55%

- 2 Typically you could get capital expenditures figures from the "Additions to property, plant and equipment" in "Cash Flows from Investing Activities" section of the statement of cash flows. How does that figure compare with the figure that you used in question 1? There are two main reasons for the difference. Do you agree with ExxonMobil's inclusion of those amounts?

In the statements:

Cash Flows from Investing Activities

B Additions to property, plant and equipment 15,387

In Distribution of Capital and Exploration Expenditures

Consolidated Companies' Expenditures	
<u>C</u> Capital expenditures	15,242
Exploration costs charged to expense	
United States	280
Non-U.S.	1,177
Depreciation on support equipment	<u>12</u>
<u>D</u> Total exploration expenses	1,469
Total consolidated companies' capital and exploration expenditures excluding Depreciation on support equipment	
	16,699
ExxonMobil's Share of Non-Consolidated Companies' Expenditures	
Capital expenditures	4,122
Exploration costs charged to expense	<u>32</u>
<u>E</u> Total non-consolidated companies' capital and exploration expenditures	4,154
Total capital and exploration expenditures	20,853

C is close to B
D is amount expensed in the period and so alright.
E is from non-consolidated companies and is problematic.
 Those companies may also claim exploration credit.

- 3 The figures from "Capital and Exploration Expenditures" page includes non-consolidated companies' capital and exploration expenditures. If those amounts are used in the numerator of the percentage calculation in the article and question 1, how should the denominator be adjusted?

The denominator used in A should also include the Sales and other operating revenue of the non-consolidated companies

- 4 A better way of keeping track of use of cash is to see what happened to the "Net cash provided by operating activities"? in 2007 and how much of net cash provided by operating activities used for various activities? (Use only broad material categories)

Net cash provided by operating activities	52,002
Additions to property, plant and equipment	15,387
Cash dividends to ExxonMobil shareholders	7,621
Common stock acquired	<u>31,822</u>
	39,443

A large farcation of CFO was given to stockholders

- 5 The tenor of the article is that the ExxonMobil is giving too much money back to its shareholders. The article has missed another shareholder dealing. Check the net cash used in financing activities. If you include that how does the argument of the article change?

The article misses dividends. If it is included, the argument that the ExxonMobil is giving too much money back to its shareholders can be strngthened.

- 6 From 2003 through 2007, what was the ratio of Exxon Mobil's spending on capital projects compared to its spending on stock repurchases?

	2007	2006	2005	2004
<u>F</u> Total capital and exploration expenditures	19,855	17699	14885	15525
<u>G</u> Common stock acquired	31,822	29,558	18,221	9,951
Cash dividends to ExxonMobil shareholders	7,621	7,628	7,185	6,896
<u>F</u> / <u>G</u>	62.39%	59.88%	81.69%	156.01%

- 9 The article states that "By some calculations, if Exxon sticks to its current buyback rate, its last share of publicly traded stock will disappear in 15 years". How did it come withthat number? If the calculation was done in 2003, how many years will be the answer?

Common stock acquired	Dollars	31,822	29,558	18,221	9,951	
Number of common shares outstanding	millions					
<u>H</u> Year end		5,382	5,729	6,133	6,401	6,568
<u>I</u> Number of common shares purchased		347	404	268	167	
<u>H</u> / <u>I</u>	=	15.51	14.18	22.88	38.33	

- 10 Is it possible for a firm to buy back all of its stock? Why or why not?

No.

The share price of the last stock will be too high.

In fact if the company uses all its CFO (of free Cash Flow) to buy it can only buy less and less.

1	01/31/01	01/31/98	Coefficient
			80523
Total Current Assets	7,724	7,830	
Total Current Liabilities	3,799	3,691	
Working capital	3,925	4,139	
Total Assets	14,630	14,166	
Working capital / Total assets	0.2683	0.2922	1.2
Retained Earnings	3,918	3,819	
Total Assets	14,630	14,166	
Retained Earnings / Total assets	0.2678	0.2696	1.4
Pretax Income	(378)	748	
Interest Expense	333	343	
EBIT	(45)	1,091	
EBIT / Total assets	(0.0031)	0.0770	3.3
Fiscal year closing stock price	\$ 8.65	\$ 17.56	
Common Shares Outstanding	486.51	493.36	
Market value of equity	4,208	8,664	
Debt - Due In One Year	68	77	
Long-Term Debt - Total	3,914	3,613	
Total debt	3,982	3,690	
Market value of equity / Book value of debt	1.057	2.348	0.6
Sales / Total assets	2.531	2.377	1.0
Working capital / Total assets	0.322	0.351	
Retained Earnings / Total assets	0.375	0.377	
EBIT / Total assets	(0.010)	0.254	
Market value of equity / Book value of debt	0.634	1.409	
Sales / Total assets	2.531	2.377	
Z score	3.852	4.768	

As the Z-score is over 2.90, the probability of bankruptcy is low. But the Z-score is going down and the company should be under watch.

2

The Z-score has changed mainly due to the market value of equity. The stock price has been going down and the market which seems to efficient has downgraded the stock.

3

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Kmart went bankrupt in 2002. The z-score model seems to apply the same coefficients to ratios for firms from industries. The Z-score of Kmart is high due to the high sales / total assets ratio. This ratio will be expected to be higher for retail firms. Their profit margins will usually be less. We can expect all the other ratios to be similar for all industries. So the general Z-score model may underpredict the probability of bankruptcy for retail firms.

4

Cash And Short-Term Investments	501	from Compustat
Cash and cash equivalents	401	from Kmart 10K

But PP&E is less by the same amount in Compustat.
This will decrease perceived risk if we use Compustat figures.
Also some retained earnings has been moved to capital stock by Compustat
This will increase perceived risk if we use Compustat figures.

In the S&P Compustat

Income Taxes Payable	73	
Accrued Expense	265	
Other Current Liabilities	1,105	1,443

In the compnay 10-K

Accrued payroll and other liabilities	1,256	
Taxes other than income taxes	187	1,443

These reclassifications do not seem major and will not affect any risk evaluation. Further

In the S&P Compustat

Long-Term Debt - Total	3,914
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In the compnay 10-K

Long-term debt and notes payable	2,084	
Capital lease obligations	943	
Convertible preferred stock	887	3,914

Capital lease obligations have to be considered as debt. Further as the stock of Kmart is tanking, the only value of the preferred stock will be due to the debt component as the convertibility option is worthless. So the Compustat classification of all of these as debt is appropriate.

5

EBIT	(45)	1,091
Interest Expense	333	343
EBIT interest coverage	(0.135)	3.181
Predicted rating	CCC	BB

Operating income	1,460	1,555
Sales	37,028	32,183
Operating income / Sales	3.94%	4.83%
Predicted rating	CCC	CCC

Long term debt	3,914	3,613
Total debt	3,982	3,690
Total Stockholders' Equity	6,083	5,979
Capital	10,065	9,669
Operating income / Sales	38.89%	37.37%
Predicted rating	BBB+	BBB+

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a Current ratio as of December 31, 2007.

Current assets	85,963	
÷ Current liabilities	58,312	= 1.474

b Debt to equity as of December 31, 2007.

Notes and loans payable	2,383	
Long-term debt	7,183	
Total Debt	9,566	
÷ Total shareholders equity	121,762	= 0.079

c Times Interest Earned for the year ending December 31, 2007.

Income before income taxes	70,474
Interest expense	400
EBIT	70,874

Interest expense reported	400
Interest expense capitalized	557
Interest expense	957

Times Interest Earned for the year ending December 31, 2007.

$$70,874 \div 957 = \mathbf{74.059}$$

Needed for later:

$$\text{Interest rate} \quad 957 / \quad 9,566 = \quad 10.00\% \quad \underline{A}$$

d Return on assets (after taxes) for year ending December 31, 2007.

$$\text{Tax rate} \quad 29,864 \div 70,474 = \quad 42.38\%$$

$$\text{EBIT} \quad \times (1-\text{tax}) \quad 70,874 \times 57.62\% = \quad 40,840$$

Net income	+ Int expense	x	1-tax	
40,610	+ 400	x	57.62%	40,840
Total assets				242,082

Return on assets (after taxes) for year ending December 31, 2007.

$$40,840 \div 242,082 = \mathbf{16.87\%}$$

e Return on equity for year ending December 31, 2007.

Net income + Total shareholders equity	
40,610 + 121,762	33.35%

2 Balance Sheet	ExxonMobil	Equity	Adjustments	Consolidated
Total current assets	85,963	29,268	(8,353)	106,878
Investments, advances and long-term receivables	28,194		(13,700)	14,494
Property, plant and equipment, net	120,869	70,591		191,460
Other assets, including intangibles, net	7,056	6,667		13,723
Total assets	242,082	106,526	(22,053)	326,555
Notes and loans payable	2,383	3,127		5,510
Other Current liabilities	55,929	20,861		76,790
Total current liabilities	58,312	23,988		82,300
Long-term debt	7,183	19,821		27,004
Equity of minority and preferred shareholders in affiliated companies	4,282		22,453	26,735
Other long-term liabilities	50,543	8,142		58,685
Total liabilities	120,320	51,951	22,453	194,724
Advances from shareholders		18,422	(8,353)	10,069
Total shareholders equity	121,762	36,153	(36,153)	121,762
Total liabilities and shareholders equity	242,082	106,526	(22,053)	326,555

Income Statement	ExxonMobil	Equity Companies	Adjustments	Consolidated
Sales and other operating revenue	390,328	109,149		499,477
Equity company revenues from sales to Exxonmobil consolidated				
23.00% x 109149			(25,104)	(25,104)
Income from equity affiliates	8,901		(8,901)	
Other income	5,323			5,323
Total revenues and other income	404,552	109,149	(34,005)	479,696
Expenses other than the listed items below	332,673 ^B	76,348 ^C	(25,104)	383,917
Income applicable to minority and preferred interests	1,005		14,047	15,052
EBIT	70,874	32,801	(22,948)	80,727
Implicit interest expense				
^A 10.00% x 22,948 =		2,296		
Interest expense	400			2,696
Income before income taxes	70,474	30,505	(22,948)	78,031
Income taxes	29,864	7,557		37,421
Net income	40,610	22,948	(22,948)	40,610

^B 404,552 - 70,474 - 400 - 1,005 = 332,673 From Income Statement
^C 109,149 - 30,505 - 2,296 = 76,348 From footnote 6

3	Fully Consolidated	Unconsolidated
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a Current ratio as of December 31, 2007.

Current assets	106,878		
÷ Current liabilities	82,300	=	1.299
			1.4742

b Debt to equity as of December 31, 2007.

Notes and loans payable	5,510		
Long-term debt	27,004		
Total Debt	32,514		
÷ Total shareholders' equity	121,762	=	0.267
			0.0786

c Times Interest Earned

Interest expense reported	2,696		
Interest expense capitalized	557		
Interest expense	3,253		
Times Interest Earned	80,727 ÷ 3,253	=	24.818
	EBIT ÷ Interest expense		74.06

d Return on assets (after taxes) for year ending December 31, 2007.

Tax rate	37,421	÷	78,031	=	47.96%
EBIT	x (1-tax)	=	80,727	x	52.04%
Net income	+ Int expense	x	1-tax		
40,610	+ 2,696	x	52.04%		42,013
Total assets			326,555		
Return on assets (after taxes) for year ending December 31, 2007.	42,013	÷	326,555	=	12.87%
					16.87%

e Return on equity for year ending December 31, 2007.

NO Change

4 Every ratio has worsened.

Debt to equity worsened the most as only one side of the ratio (debt) increased.

Return on assets also worsened as the affiliates pretax return on assets was much worse.

5 They should consolidate to show poorer results. Consolidated profit margins are worse.