B8110

PRACTICE EXERCISE SET 1

Exercise 1. Cash Flow Analysis for Apple Inc.

Below are the operating and investment sections of the cash flow statement for Apple Inc. for fiscal-year 2010 and prior years. In reading the statement, you should note that transactions in "marketable securities" are transactions in interest bearing securities. Also, "other long-term investments" are investments in operations. The company's statutory tax rate (including both federal and state taxes) is 38 percent. Apple has no debt obligations on its balance sheet.

a. It appears from these numbers that Apple had negative free cash flow in 2009. This is surprising for a firm that is deemed to be a "cash cow." Can you explain why this cash cow is reporting a cash flow deficit?

b. Calculate the free cash flow generated by Apple in 2009 and 2010. Note that there were $326 million in interest receipts from "marketable securities" in 2009 and $155 million in 2010.

c. Apple is indeed a cash cow. It has no debt to pay down and it does not pay dividends, nor does it pay out cash via stock repurchases. What is it doing with its free cash flow?

CONSOLIDATED STATEMENTS OF CASH FLOWS
(In millions)

Three years ended September 25, 2010	2010	2009	2008
Cash and cash equivalents, beginning of the year	$ 5,263	$ 11,875	$ 9,352
Operating activities:			
Net income	14,013	8,235	6,119
Adjustments to reconcile net income to cash generated by operating activities:			
Depreciation, amortization and accretion	1,027	734	496
Stock-based compensation expense	879	710	516
Deferred income tax expense	1,440	1,040	398
Loss on disposition of property, plant and equipment	24	26	22
Changes in operating assets and liabilities:			
Accounts receivable, net	(2,142)	(939)	(785)
Inventories	(596)	54	(163)
Vendor non-trade receivables	(2,718)	586	110
Other current assets	(1,514)	163	(384)
Other assets	(120)	(902)	289
Accounts payable	6,307	92	596
Deferred revenue	1,217	521	718
Other liabilities	778	(161)	1,664
Cash generated by operating activities	18,595	10,159	9,596
Investing activities:			
Purchases of marketable securities	(57,793)	(46,724)	(22,965)
Proceeds from maturities of marketable securities	24,930	19,790	11,804
Proceeds from sales of marketable securities	21,788	10,888	4,439
Purchases of other long-term investments	(18)	(101)	(38)
Payments made in connection with business acquisitions, net of cash acquired	(638)	0	(220)
Payments for acquisition of property, plant and equipment	(2,005)	(1,144)	(1,091)
Payments for acquisition of intangible assets	(116)	(69)	(108)
Other	(2)	(74)	(10)
Cash used in investing activities	(13,854)	(17,434)	(8,189)

Exercise 2. Testing the Price of Prudential Financial, Inc. (PRU)

Prudential's shares traded at $44.01 at close of trading on September 22, 2011. Your required return for investing in these shares is 8 percent. Analysts were forecasting EPS of $6.80 for its December 31, 2011 fiscal year and $7.75 for 2012, and a dividend of $1.15 was indicated for 2011. The following information comes from its most recent balance sheet:

Book value	$35,043 million
Issued shares	662.1 million
Shares in treasury	174.0 million

a. Calculate the price-to-book ratio at which PRU trades.
b. Do the numbers given in the question indicate that the price-to-book ratio is appropriate?
c. What further information would convince you that the market price is an appropriate value for PRU?

Exercise 3. Valuation of Microsoft Corporation (MSFT)

Microsoft's 8,376 million outstanding shares traded at $25.05 each on September 22, 2011 on a book value of $57,083 million at the end on its June, 2011 fiscal year. Analysts' consensus EPS estimate for fiscal-year 2012 was $2.86 and $3.13 for 2013. Analysts were also indicating a dividend of $0.64 per share for both 2012 and 2013. In this uncertain environment, you require a 9 percent return for Microsoft even though interest rates are low.

a. Calculate Microsoft's traded price-to-book ratio and forward P/E ratio.
b. What is your no-growth valuation for Microsoft? That is, what is the value if you expect residual earnings to continue after 2013 as the same level as in 2013?
c. What is the forecast of EPS for 2014 that is implied by the no-growth valuation?
d. What is the value if you expect residual earnings to grow a 2 percent per year after 2013?
e. What is the forecast of residual earnings growth after 2013 that is implicit in the market price?
f. What is the forecast of EPS in 2014 that is implicit in the market price?

Exercise 4. Valuation of Hewlett-Packard Company (HPQ)

On September 23, 2011, Hewlett-Packard's share price dropped to $21.71, a six-year low, on the announcement of Meg Whitman as the new CEO. Here are some numbers for Hewlett-Packard as of that date:

EPS for 2010 $3.78
Dividend per share (DPS) for 2010 $0.40
Analysts' consensus EPS estimate for 2011 $4.84
Analysts' consensus EPS for 2012 $4.78
Dividend-per-share forecast for 2011 $0.48
Required return 9%

a. Calculate the forward and trailing P/E and the normal forward and trailing P/E for HP.

b. Calculate expected abnormal earnings growth (AEG) for 2012 (in dollars) based on the EPS and dividend forecasts.

c. Does your calculation indicate that the P/E should be more or less than the normal P/E?

d. Suppose you forecast that the trailing P/E will be equal to the normal P/E at the end on 2012. What level of subsequent abnormal earnings growth (AEG) does this imply? What is you valuation of a share under this scenario?

Exercise 5. Burlington Northern and Buffett's Expectations

Warren Buffett paid $100 per share or 2.66 times book value for Burlington Northern Sante Fe railroad (BNI) early in 2010. At the time, analysts were forecasting per-share earnings of $5.50 for 2010 for BNI.

a. If you expect that BNI can grow residual earnings at the GDP growth rate of 4 percent, what rate of return do you estimate Buffett will earn on his investment?

b. Buffett justified his investment on an expectation of long-term growth. He views transportation shifting more to "greener" railroads as airports and roads become congested and as fuel costs rise. If Buffett expects a 10 percent return on his investment, what growth rate in residual income must BNI deliver after 2010 to meet his expectation?

c. If BNI were to maintain the return on common equity (ROCE) implicit in the forward earnings forecast indefinitely, what would the firm have to do to meet the expected growth rate you calculated in part b of the exercise?

Exercise 6. Challenging the S&P 500

The S&P 500 index stood at 1527 on September 30, 2007. Standard and Poor's was forecasting 73 in forward annual earnings for the index on a book value of 530.

The index now stands at 1136 (on September 23, 2011) with 94 in forward earnings. The book value is now 593.

a. You require a 9 percent return to invest in stocks. What are the residual earnings growth rates implied by the level of the index at these two points in time?

b. If you forecast that the long-run residual earnings growth rate for the S&P 500 will be at the GDP growth rate of 4 percent, what is your expected return to buying the index at each date?

What do these numbers tell you about the wisdom of buying an S&P 500 index fund at each date?