# B8110

# PRACTICE EXERCISE SET 2

## Exercise 1. Conversion of Stock Warrants: Warren Buffett and Goldman Sachs

In September 2008, in the midst of the credit crisis, Goldman Sachs invited Warren Buffett to contribute much needed equity capital to the firm. Buffett seemingly got a very good deal. For a $5 billion cash infusion, he received perpetual preferred equity shares carrying a 10 percent dividend (redeemable by Goldman Sachs) plus warrants to buy 43.5 million common shares at $115 per share. The $115 conversion price was set at the then current share price, a 3-year low for Goldman.

a. If Buffet exercised the warrants at the share price of $170 on October 31, 2009, what would be the loss to Goldman's shareholders?

b. What would GAAP accounting report as the cost of the warrant arrangement to shareholders?

**Exercise 2. Working with Accounting Relations**

Below are some numbers from a firm's financial reports for fiscal year, 2009.

| | |
|---|---|
| Common shareholders' equity, beginning of 2009 | $250 |
| Common shareholders' equity, end of 2009 | 307 |
| Net operating assets, beginning of 2009 | 450 |
| Net financial obligations, end of 2009 | 170 |
| Net financial expense, 2009 (after tax) | 10 |
| Comprehensive income, 2009 (after tax) | 40 |
| Share issues | 25 |

Calculate the following for the year. For measures with balance sheet numbers in the denominator, use beginning-of-period balance sheet numbers.

a. Return on common equity (ROCE)
b. Return on Net Operating assets (RNOA)
c. Net borrowing cost, after tax (NBC)
d. Net payout to shareholders
e. There were no share repurchases. What were the cash dividends paid?
f. Free cash flow
g. Cash flow to net debtholders
h. Apply the financing leverage equation to explain the difference between ROCE and RNOA.

## Exercise 3. An Analysis of Procter & Gamble

Proctor & Gamble (PG) is a consumer products company whose product range covers laundry detergents, toothpaste, diapers, paper towels, beauty and health products, shampoos, snacks, coffee and pet food. Among its brands are Charmin, Pampers, Bounty, Tide, Downy, Cascade, Olay, Tampax, Head and Shoulders, Pringles, and Folgers. In 2006, the firm acquired Gillette, adding shaving and grooming products to its range, along with Duracell Batteries.

You looked at Procter & Gamble's cash flow statement in Exercise Set 1. The balance sheet, income statement, and statement of shareholders equity for fiscal year 2008 are at the end of this Exercise, along with some notes to the statements.

I. Prepare a reformulated statement of common shareholders' equity for 2008, reformulated income statements for 2006-2008, and reformulated balance sheets for 2005-2008 that separate operating activities from financing activities. Advertising and research and development are important to this brand company, so make sure you include these in your reformulated statements.

II. Answer the questions that follow the financial statements. For measures with balance sheet numbers in the denominator, use average balance sheet amounts over the relevant year.

A. Calculate the return on common equity (ROCE) for each year, 2006-2008.
B. Calculate the return on net operating assets (RNOA) for each year, 2006-2008.
C. Calculate the operating profit margin for each year, 2006-2008.
D. Calculate the asset turnover for each year, 2006-2008. Show how the operating profit margin and asset turnover explain the RNOA in each year.
E. What was the operating profit margin from sales for each year?
F. Calculate expense ratios (as a percentage of sales) for advertising and R&D for each year. Do you see trends?
G. Calculate sales growth rates for 2007 and 2008 and also growth rates for operating income from sales.
H. Calculate growth rates for net operating assets for 2006-2008. Do you see a trend? Is there any one balance sheet item that particularly affects the growth?
I. Using the financing leverage equation, show how financial leverage affected the return to shareholders (ROCE) in 2008.
J. Carry out an analysis of the firm's operating liability leverage for 2008. Footnotes to the firm's financial statements indicate that its short-term borrowing rate was 4.2% (before tax).
K. Why were translation gains so large in 2008?
L. Where in the financial statements do you see how much P&G paid for the Gillette acquisition?
M. Why did goodwill increase so much in 2006?

N. From the income statement and balance sheet numbers, calculate free cash flow for the years 2006-2008.

(As you work this exercise, you might experiment with using the BYOAP feature on the Applications page of the course web site (but it is not necessary))

**Consolidated Statements of Earnings**

(amounts in millions except per share amounts; Years ended June 30)

| | 2008 | 2007 | 2006 |
|---|---|---|---|
| **Net sales** | $83,503 | $76,476 | $68,222 |
| Cost of products sold | 40,695 | 36,686 | 33,125 |
| Selling, general and administrative expense | 25,725 | 24,340 | 21,848 |
| **Operating income** | 17,083 | 15,450 | 13,249 |
| Interest expense | 1,467 | 1,304 | 1,119 |
| Other nonoperating income, net | 462 | 564 | 283 |
| **Earnings before income taxes** | 16,078 | 14,710 | 12,413 |
| Income taxes | 4,003 | 4,370 | 3,729 |
| **Net earnings** | $12,075 | $10,340 | $ 8,684 |
| **Basic net earnings per common share** | $ 3.86 | $ 3.22 | $ 2.79 |
| **Diluted net earnings per common share** | $ 3.64 | $ 3.04 | $ 2.64 |
| **Dividends per common share** | $ 1.45 | $ 1.28 | $ 1.15 |

**Consolidated Balance Sheets**
(amounts in millions; June 30)

| | 2008 | 2007 | 2006 | 2005 |
|---|---|---|---|---|
| **Current assets** | | | | |
| Cash and cash equivalents | $ 3,313 | $ 5,354 | $6,693 | $ 6,389 |
| Investment securities | 228 | 202 | 1,133 | 1,764 |
| Accounts receivable | 6,761 | 6,629 | 5,725 | 4,185 |
| Inventories | | | | |
| Materials and supplies | 2,262 | 1,590 | 1,537 | 1,424 |
| Work in process | 765 | 444 | 623 | 350 |
| Finished goods | 5,389 | 4,785 | 4,131 | 3,232 |
| Total inventories | 8,416 | 6,819 | 6,291 | 5,006 |
| Deferred income taxes | 2,012 | 1,727 | 1,611 | 1,081 |
| Prepaid expenses and other current assets | 3,785 | 3,300 | 2,876 | 1,924 |
| **Total current assets** | 24,515 | 24,031 | 24,329 | 20,329 |
| **Property, plant, and equipment** | | | | |
| Buildings | 7,052 | 6,380 | 5,871 | 5,292 |
| Machinery and equipment | 30,145 | 27,492 | 25,140 | 20,397 |
| Land | 889 | 849 | 870 | 636 |
| Total property, plant, and equipment | 38,086 | 34,721 | 31,881 | 26,325 |
| Accumulated depreciation | (17,446) | (15,181) | (13,111) | (11,993) |
| **Net property, plant, and equipment** | 20,640 | 19,540 | 18,770 | 14,332 |
| **Goodwill and other intangible assets** | | | | |
| Goodwill | 59,767 | 56,552 | 55,306 | 19,816 |
| Trademarks and other intangible assets, net | 34,233 | 33,626 | 33,721 | 4,347 |
| **Net goodwill and other intangible assets** | 94,000 | 90,178 | 89,027 | 24,163 |
| **Other noncurrent assets** | 4,837 | 4,265 | 3,564 | 2,703 |
| **Total assets** | $143,992 | $138,014 | 135,695 | 61,527 |
| **Current liabilities** | | | | |
| Accounts payable | $6,775 | 5,710 | 4,910 | 3,802 |
| Accrued and other liabilities | 10,154 | 9,586 | 9,587 | 7,531 |
| Taxes payable | 945 | 3,382 | 3,360 | 2,265 |
| Debt due within one year | 13,084 | 12,039 | 2,128 | 11,441 |
| **Total current liabilities** | 30,958 | 30,717 | 19,985 | 25,039 |
| **Long-term debt** | 23,581 | 23,375 | 35,976 | 12,887 |
| **Deferred income taxes** | 11,805 | 12,015 | 12,354 | 1,896 |
| **Other noncurrent liabilities** | 8,154 | 5,147 | 4,472 | 3,230 |
| **Total liabilities** | 74,498 | 71,254 | 72,787 | 43,052 |
| **Shareholders' equity** | | | | |
| Convertible Class A preferred stock, stated value $1 per share (600 shares authorized) | 1,366 | 1,406 | 1,451 | 1,483 |
| Nonvoting Class B preferred stock, stated value $1 per share (200 shares authorized) | — | — | | 2,977 |
| Common stock, stated value $1 per share (10,000 shares authorized; shares issued: 2008—4,001.8, 2007—3,989.7) | 4,002 | 3,990 | 3,976 | 2,977 |
| Additional paid-in capital | 60,307 | 59,030 | 57,856 | 3,030 |
| Reserve for ESOP debt retirement | (1,325) | (1,308) | (1,288) | (1,259) |
| Accumulated other comprehensive income | 3,746 | 617 | (518) | (1,566) |
| Treasury stock, at cost (shares held: 2008—969.1, 2007—857.8) | (47,588) | (38,772) | (34,235) | (17,194) |
| Retained earnings | 48,986 | 41,797 | 35,666 | 31,004 |
| **Total shareholders' equity** | 69,494 | 66,760 | 62,908 | 18,475 |
| **Total liabilities and shareholders' equity** | $143,992 | 138,014 | 135,695 | 61,527 |

## Consolidated Statements of Shareholders' Equity

(dollars in millions/shares in thousands)

| | Common Shares Outstanding | Common Stock | Preferred Stock | Additional Paid-In Capital | Reserve for ESOP Debt Retirement | Accumulated Other Comprehensive Income | Treasury Stock | Retained Earnings | Total |
|---|---|---|---|---|---|---|---|---|---|
| **Balance, June 30, 2005** | 2,472,934 | $2,977 | $1,483 | $3,030 | $(1,259) | $(1,566) | $(17,194) | $31,004 | $18,475 |
| Net earnings | | | | | | | | 8,684 | 8,684 |
| Other comprehensive income: | | | | | | | | | |
| Financial statement translation | | | | | | 1,316 | | | 1,316 |
| Net investment hedges, net of $472 tax | | | | | | (786) | | | (786) |
| Other, net of tax benefits | | | | | | 518 | | | 518 |
| Total comprehensive income | | | | | | | | | $ 9,732 |
| Dividends to shareholders: | | | | | | | | | |
| Common | | | | | | | | (3,555) | (3,555) |
| Preferred, net of tax benefits | | | | | | | | (148) | (148) |
| Treasury stock purchases | (297,132) | | | (9) | | | (16,821) | | (16,830) |
| Employee plan issuances | 36,763 | 16 | | 1,308 | | | 887 | (319) | 1,892 |
| Preferred stock conversions | 3,788 | | (32) | 5 | | | 27 | | |
| Gillette acquisition | 962,488 | 983 | | 53,522 | | | (1,134) | | 53,371 |
| ESOP debt impacts | | | | | (29) | | | | (29) |
| **Balance, June 30, 2006** | 3,178,841 | 3,976 | 1,451 | 57,856 | (1,288) | (518) | (34,235) | 35,666 | 62,908 |
| Net earnings | | | | | | | | 10,340 | 10,340 |
| Other comprehensive income: | | | | | | | | | |
| Financial statement translation | | | | | | 2,419 | | | 2,419 |
| Net investment hedges, net of $488 tax | | | | | | (835) | | | (835) |
| Other, net of tax benefits | | | | | | (116) | | | (116) |
| Total comprehensive income | | | | | | | | | $11,808 |
| Adjustment to initially apply SFAS 158, net of tax | | | | | | (333) | | | (333) |
| Dividends to shareholders: | | | | | | | | | |
| Common | | | | | | | | (4,048) | (4,048) |
| Preferred, net of tax benefits | | | | | | | | (161) | (161) |
| Treasury stock purchases | (89,829) | | | | | | (5,578) | | (5,578) |
| Employee plan issuances | 37,824 | 14 | | 1,167 | | | 1,003 | | 2,184 |
| Preferred stock conversions | 5,110 | | (45) | 7 | | | 38 | | |
| ESOP debt impacts | | | | | (20) | | | | (20) |
| **Balance, June 30, 2007** | 3,131,946 | 3,990 | 1,406 | 59,030 | (1,308) | 617 | (38,772) | 41,797 | 66,760 |
| Net earnings | | | | | | | | **12,075** | **12,075** |
| Other comprehensive income: | | | | | | | | | |
| Financial statement translation | | | | | | **6,543** | | | **6,543** |
| Net investment hedges, net of $1,719 tax | | | | | | **(2,951)** | | | **(2,951)** |
| Other, net of tax benefits | | | | | | **(463)** | | | **(463)** |
| Total comprehensive income | | | | | | | | | **$15,204** |
| Cumulative impact for adoption of FIN 48 | | | | | | | | **(232)** | **(232)** |
| Dividends to shareholders: | | | | | | | | | |
| Common | | | | | | | | **(4,479)** | **(4,479)** |
| Preferred, net of tax benefits | | | | | | | | **(176)** | **(176)** |
| Treasury stock purchases | **(148,121)** | | | | | | **(10,047)** | | **(10,047)** |
| Employee plan issuances | **43,910** | **12** | | **1,272** | | | **1,196** | | **2,480** |
| Preferred stock conversions | **4,982** | | **(40)** | **5** | | | **35** | | |
| ESOP debt impacts | | | | | **(17)** | | | **1** | **(16)** |
| **Balance, June 30, 2008** | **3,032,717** | **$4,002** | **$1,366** | **$60,307** | **$(1,325)** | **$3,746** | **$(47,588)** | **$48,986** | **$69,494** |

Notes:

Notes:

1. Advertising expense and research and development expenses for 2006-2008 are as follows (in millions):

| | **2008** | **2007** | **2006** |
|---|---|---|---|
| Advertising | $8,667 | $7,937 | $7,122 |
| Research and development | 2,226 | 2,112 | 2,075 |

2. "Other non-operating income" in the income statement consists of the following:

| | | | |
|---|---|---|---|
| Interest income | 204 | 287 | 367 |
| Gains (losses) from asset sales | 258 | 277 | ( 84) |
| | 462 | 564 | 283 |

3. "Accrued and other liabilities" and "other noncurrent liabilities" consist largely of pension obligations and other postretirement benefit liabilities.

4. The Statement of Shareholders' Equity has a "Reserve for ESOP Debt Retirement." An ESOP is an Employee Stock Ownership Plan. In the reformulation, take out the ESOP from the equity statement and net it against the loan to the ESOP (included in long-term debt on the balance sheet). P&G is guaranteeing the loan to the ESOP, and accounting rules (SOP 76-3) require the firm to record the loan guarantee as a liability and to set up a reserve in equity for this contingency. However, it is highly unlikely that P&G will have to honor the guarantee (and, in any case, the reserve is not a reduction of equity to the full face amount).

5. Preferred dividends are tax deductible because they are paid by the ESOP (and the tax laws allow a deduction in this case).

6. The conversion of preferred stock to common is done by the ESOP. P&G pays employees by isssing common shares in conversion of preferred shares held by ESOP. The loss on conversion to common for each year was:

| | | |
|---|---|---|
| 2008 | $289 | million |
| 2007 | 261 | million |
| 2006 | 173 | million |

7. The combined federal, state and local statutory tax rate is 38 percent.