Appendix C
Comprehensive Case

Learning Objectives

LO1 Explain and illustrate a review of financial statements and their components. (p. C-3)

LO2 Assess company profitability and creditworthiness. (p. C-24)

LO3 Forecast financial statements. (p. C-28)

LO4 Describe and illustrate the valuation of firm equity. (p. C-31)

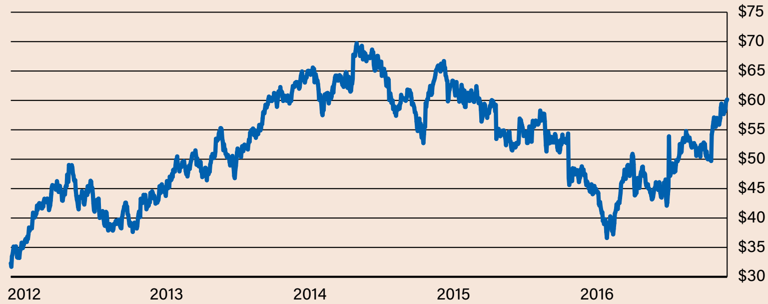
HOG
Market cap: $8,385 mil
Total assets: $9,991 mil
Revenues: $5,995 mil
Net income: $752 mil

Harley-Davidson Inc. designs, manufactures and sells Harley-Davidson motorcycles as well as a line of motorcycle parts, accessories, general merchandise and related services. The Company's products are sold to retail customers through a network of independent dealers, and the Company conducts business on a global basis, with sales in the Americas, Europe, the Middle East, Africa, and the Asia-Pacific region. The U.S. and European markets account for approximately 78% of the total annual independent dealer retail sales of new Harley-Davidson motorcycles.

Harley-Davidson manufactures cruiser and touring motorcycles that feature classic styling, innovative design, distinctive sound, and superior quality with the ability to customize. The Company primarily produces on-road motorcycles with engine displacements of 601cc and its engines range in displacement from 494cc to 1802cc. Harley also provides lease and other financing for its dealers and customers through its wholly-owned financial services subsidiary, Harley-Davidson Financial Services, and this leasing activity accounts for a sizable proportion of its assets and related liabilities as well as leasing revenues and related costs. Its financial statements are, therefore, a blend of those for the manufacturing company and those for the financial services subsidiary that operates like a bank.

In 2015, Harley reported a net profit margin of 12.5% on sales of almost $6 billion and the company generated over $1.1 billion of operating cash flow. Over the past five years, Harley's stock price has fluctuated, staying mostly in the range of $40 to $70 per share. Its 2015 year-end closing price of $45.39 yields a market capitalization of $8.4 billion based on 184.7 million shares outstanding at year-end.

This module presents a financial accounting analysis and interpretation of Harley-Davidson. It is intended to illustrate the key financial reporting topics in the book. We begin with a detailed review of Harley's financial statements and notes, followed by the forecasting of key accounts that we use to value its common stock. [Source: *Harley-Davidson, Inc.,* 2015 10-K]



Road Map

LO	Learning Objective I Topics	Page	eLecture
C-1	**Explain and illustrate a review of financial statements and their components.** Income Statement :: Balance Sheet :: Statement of Cash Flows :: Audit Opinion	C-3	eC–1
C-2	**Assess company profitability and creditworthiness.** ROE Disaggregation :: RNOA Disaggregation :: Credit Analysis	C-24	eC–2
C-3	**Forecast financial statements.** Income Statement :: Balance Sheet :: Statement of Cash Flows	C-28	eC–3
C-4	**Describe and illustrate the valuation of firm equity.** Discounted Cash Flow Valuation :: Residual Operating Income Valuation :: Assessment	C-31	eC–4

Appendix Organization

Comprehensive Case

Reviewing the Financial Statements	Assessing Profitability and Creditworthiness	Forecasting Accounting Numbers	Valuing Equity Securities
■ Income Statement ■ Balance Sheet ■ Off-Balance-Sheet Items ■ Statement of Cash Flows ■ Audit Opinion	■ ROE Disaggregation ■ RNOA Disaggregation Analysis ■ Disaggregation of Margin and Turnover ■ Credit Analysis	■ Forecasting Assumptions ■ Forecasting Financial Statements	■ Discounted Cash Flow Valuation ■ Residual Operating Income Valuation

Reviewing Financial Statements

eLectures MBC **LO1** Explain and illustrate a review of financial statements and their components.

This section reviews and analyzes the financial statements of Harley-Davidson.

Business Environment for Financial Reporting

Harley-Davidson is a Fortune 500 company and has been the historical market share leader in the U.S. 601+cc motorcycle market. The Company's products are sold through a network of independent dealers, of which the majority sell Harley-Davidson motorcycles exclusively. These dealerships stock and sell the Company's motorcycles, parts and accessories, general merchandise and licensed products, and perform service on Harley-Davidson motorcycles. In 2015, Harley reported 1,435 dealerships, 696 of which are located in the U.S.

Harley reports two business segments: the manufacturing company and the financial services subsidiary. Harley-Davidson Financial Services is engaged in the business of financing and servicing wholesale inventory receivables and retail consumer loans, primarily for the purchase of Harley-Davidson motorcycles. Its wholesale activities include financing for its dealers for the purchase of motorcycles for display, and its financing activities provide loan and lease financing to customers. This financial services subsidiary operates like a bank, borrowing money at a give rate to fund the lease receivables and setting a higher rate on its loans and leases. As is common for all lenders, managing credit losses is a core activity for Harley-Davidson Financial Services.

In the MD&A section of its 10-K, Harley-Davidson describes its competitive environment as follows.

> Competition in the motorcycle markets in which the Company competes is based upon a number of factors, including product capabilities and features, styling, price, quality, reliability, warranty, availability of financing, and quality of dealer network. The Company believes its motorcycles continue to generally command a premium price at retail relative to competitors' motorcycles. The Company emphasizes remarkable styling, customization, innovation, sound, quality, and reliability in its products and generally offers a two-year warranty for its motorcycles. The Company considers the availability of a line of motorcycle parts and accessories and general merchandise, the availability of financing through HDFS and its global network of premium dealers to be competitive advantages.

Harley faces both stiff competition from other manufacturers and is significantly affected by fluctuations in the macro economy that impact the level of disposable income. Its strategy is described as follows.

> Harley-Davidson's purpose of fulfilling dreams of personal freedom is the foundation for the Company's core strategies, which include:
>
> - delivering high-demand, profitable products and premium retail experiences;

continued

- strengthening Harley-Davidson through agility and responsiveness to be a leader in the global marketplace;
- extending the Harley-Davidson brand's reach beyond core customers and markets; and
- cultivating great talent, leadership and culture to enable a sustainable future.

Given this background, we begin the accounting analysis of Harley-Davidson with a discussion of its financial statements.

Income Statement Reporting and Analysis

Harley-Davidson's income statement is reproduced in Exhibit C.1.

Exhibit C.1 ■ Harley-Davidson Income Statement

HARLEY-DAVIDSON INC.
Consolidated Statements of Income
Year Ended December 31

$ thousands	2015	2014	2013
Revenue			
Motorcycles and Related Products	$5,308,744	$5,567,681	$5,258,290
Financial Services	686,658	660,827	641,582
Total revenue	5,995,402	6,228,508	5,899,872
Costs and expenses			
Motorcycles and Related Products cost of goods sold	3,356,284	3,542,601	3,395,918
Financial Services interest expense	161,983	164,476	165,491
Financial Services provision for credit losses	101,345	80,946	60,008
Selling, administrative and engineering expense	1,220,095	1,159,502	1,124,753
Total costs and expenses	4,839,707	4,947,525	4,746,170
Operating income	1,155,695	1,280,983	1,153,702
Investment income	6,585	6,499	5,859
Interest expense	12,117	4,162	45,256
Income before provision for income taxes	1,150,163	1,283,320	1,114,305
Provision for income taxes	397,956	438,709	380,312
Net income	$ 752,207	$ 844,611	$ 733,993

Net Sales

Exhibit C.1 reveals that total revenue (product sales and financial services revenue) decreased by nearly 4% in 2015 to $5,995.4 million. In its MD&A report, management describes its results as follows.

Worldwide independent dealer retail sales of new Harley-Davidson motorcycles decreased 1.3% compared to 2014. Retail sales of new Harley-Davidson motorcycles decreased 1.7% in the U.S. and 0.5% in international markets. Retail sales were below the Company's expectations in 2015. In 2015, retail sales were adversely impacted by a significant increase in competitiveness behind currency-driven discounting and the introduction of new products by a number of our competitors as well as a challenging macro-economic environment.

Despite the volatility in global retail sales, the Company believes it can continue to realize strong international growth opportunities by expanding its distribution network and increasing its brand relevance by delivering exceptional products that inspire riders. In 2015, the Company added 40 international dealerships, and it plans to add an additional 150 to 200 through 2020.

As required under GAAP, Harley-Davidson recognizes revenue when the ownership of its motorcycles is transferred to its customers. The following footnote provides additional detail on the company's revenue recognition for motorcycles as well as for its financial services revenue.

> *Motorcycles and Related Products Revenue Recognition*—Sales are recorded when title and ownership is transferred, which is generally when products are shipped to wholesale customers (independent dealers). The Company may offer sales incentive programs to both wholesale and retail customers designed to promote the sale of motorcycles and related products. The total costs of these programs are generally recognized as revenue reductions and are accrued at the later of the date the related sales are recorded or the date the incentive program is both approved and communicated.
>
> *Financial Services Revenue Recognition*—Interest income on finance receivables is recorded as earned and is based on the average outstanding daily balance for wholesale and retail receivables. Accrued and uncollected interest is classified with finance receivables. Certain loan origination costs related to finance receivables, including payments made to dealers for certain retail loans, are deferred and recorded within finance receivables, and amortized over the estimated life of the contract.

As is customary, product-related revenues are recognized when Harley has performed its obligations to its customers, that is, when the motorcycles are shipped to its dealers. The amount recognized as revenue is equal to the sales price of the motorcycles less any allowances, such as sales discounts and other incentives. For financial services income, interest is accrued when earned over time and is recognized net of any origination costs paid to dealers to generate the finance receivables.

Cost of Products Sold and Gross Profit

Harley's 2015 gross profit margin is calculated using only the Motorcycles and Related Products revenue and cost of goods sold. For 2015, it is 36.8% ([$5,308,744 − $3,356,284]/$5,308,744), slightly higher than the 36.4% gross profit margin reported for 2014. The company describes the factors that affected the change in gross margins as follows.

> The following factors affected the comparability of net revenue, cost of goods sold and gross profit from 2014 to 2015:
>
> - On average, wholesale prices on the Company's 2015 and 2016 model-year motorcycles were higher than the prior model-years resulting in the favorable impact on revenue during the period. The impact of revenue favorability resulting from model-year price increases on gross profit was partially offset by increases in cost related to the additional content added to the 2015 and 2016 model-year motorcycles.
> - Gross profit was negatively impacted by changes in foreign currency exchange rates during 2015 compared to 2014. Revenue was negatively impacted by a weighted-average devaluation in the Euro, Japanese yen, Brazilian real and Australian dollar of 17% compared to 2014. The negative impact to revenue was partially offset by a positive impact to cost of goods sold as a result of natural hedges, benefits of foreign exchange contracts and a decrease in losses from the revaluation of foreign-denominated assets on the balance sheet.
> - Shipment mix changes negatively impacted gross profit primarily due to changes in motorcycle family mix, driven by higher shipments of Sportster®/Street motorcycles. The negative motorcycle family mix was partially offset by positive mix changes within parts and accessories and general merchandise.
> - Raw material prices were lower in 2015 compared to 2014.
> - Manufacturing costs for 2015 benefited from increased manufacturing efficiencies and the absence of Street motorcycles start-up costs that were incurred in 2014.

The choice of inventory costing method affects cost of goods sold. Harley uses the LIFO method to cost its inventory. In 2015, the company's LIFO reserve decreased slightly by $634,000, possibly reflecting the decrease in raw materials prices cited above. The drop in the LIFO reserve decreased cost of goods sold and improved gross profit by the same amount (see inventory discussion later in this Appendix).

Selling, Administrative and Engineering Expenses

Harley reports selling, administrative and engineering expenses of $1,220 million, 20.4% of total revenue, in 2015, higher than the 18.6% it reported in the prior year and slightly more than the 19.1% of total revenue it reported in 2013. Included in that account are research and development expenses of $161.2 million, higher than the $138.3 million in the prior year. The remaining components of that category include wages for retail and corporate employees, occupancy costs, and other administrative costs not reported separately.

Pension Expenses

Harley-Davidson's SG&A expenses include $48.5 million of pension expense (for its regular pension plan as well as for its supplemental employee retirement plan agreements [SERPA]) and $12.3 million of other post-retirement benefit expense. This is reported in the following table in the pension footnote.

	Pension and SERPA Benefits			Postretirement Healthcare Benefits		
$ thousands	**2015**	**2014**	**2013**	**2015**	**2014**	**2013**
Service cost	$ 40,039	$ 31,498	$ 35,987	$ 8,259	$ 7,015	$ 7,858
Interest cost	87,345	86,923	79,248	14,166	16,878	15,599
Special early retirement benefits	10,563	—	—	622	—	—
Expected return on plan assets[a]	(144,929)	(136,734)	(127,327)	(11,506)	(10,429)	(9,537)
Amortization of unrecognized:						
Prior service cost (credit)	435	1,119	1,746	(3,217)	(3,853)	(3,853)
Net loss	54,709	36,563	58,608	3,971	4,729	8,549
Settlement loss	368	—	—	—	—	—
Net periodic benefit cost	$ 48,530	$ 19,369	$ 48,262	$12,295	$14,340	$18,616

[a] The expected return on plan assets is determined by multiplying the fair value of plan assets at the remeasurement date, typically the prior year-end (adjusted for estimated current year cash benefit payments and contributions), by the expected long-term rate of return.

For 2015, the expected return on pension investments ($144.9 million) provides an offset to the company's pension service and interest costs ($40.0 million and $87.3 million, respectively). The pension footnote in Harley-Davidson's 10-K reveals that pension investments realized an actual *loss* of $78.0 million in 2015. So, for 2015, use of the expected return results in an unrecognized gain that is deferred, along with other unrecognized gains and losses, in the computation of reported profit.

Harley describes how it determines the expected return in its footnotes. It is instructive to review the company's rationale, which is as follows.

Pension Plan Assets—The Company's investment objective is to ensure assets are sufficient to pay benefits while mitigating the volatility of retirement plan assets or liabilities recorded in the balance sheet. The Company mitigates volatility through asset diversification and partial asset/liability matching. The investment portfolio for the Company's pension plan assets contains a diversified blend of equity and fixed-income investments. The Company's current overall targeted asset allocation as a percentage of total market value was approximately 63% equities and 37% fixed-income and cash. Assets are rebalanced regularly to keep the actual allocation in line with targets. Equity holdings primarily include investments in small-, medium- and large-cap companies in the U.S. (including Company stock), investments in developed and emerging foreign markets and other investments such as private equity and real estate. Fixed-income holdings consist of U.S. government and agency securities, state and municipal bonds, corporate bonds from diversified industries and foreign obligations. In addition, cash equivalent balances are maintained at levels adequate to meet near-term plan expenses and benefit payments. Investment risk is measured and monitored on an ongoing basis through quarterly investment portfolio reviews.

The expected return on pension assets offsets service and interest costs, and serves to reduce pension expense. In general, increasing (decreasing) the expected return on pension assets, increases (decreases) profit. In 2015, Harley left the expected return on plan assets of 7.75%, unchanged from the prior year. The discount rate (used to compute the interest cost component of pension expense) declined by 87 basis points (5.08% to 4.21%).

Earnings per Share

Harley provides the following footnote relating to its computation of earnings per share.

$ thousands, except per share amounts	2015	2014	2013
Numerator:			
Income used in computing basic and diluted earnings per share	$752,207	$844,611	$733,993
Denominator:			
Denominator for basic earnings per share-weighted-average common shares	202,681	216,305	222,475
Effect of dilutive securities – employee stock compensation plan	1,005	1,401	1,596
Denominator for diluted earnings per share- adjusted weighted-average shares outstanding	203,686	217,706	224,071
Earnings per common share:			
Basic	$3.71	$3.90	$3.30
Diluted	$3.69	$3.88	$3.28

Most of the difference between basic and diluted earnings per share usually arises from the dilutive effects of employee stock options. As Harley discusses in the footnote presented below, however, if stock options are "under water", meaning that Harley's stock price is lower than the exercise price of the options, they are considered *anti-dilutive*, meaning that including them would *increase* EPS. Accordingly, they are excluded in the diluted EPS computation, but remain potentially dilutive if Harley's stock price subsequently rises above the exercise price of the options. Harley describes the EPS effects of anti-dilutive stock options in 2015 as follows.

Options to purchase 1.0 million, 0.5 million and 0.9 million weighted-average shares of common stock outstanding during 2015, 2014 and 2013, respectively, were not included in the Company's computation of dilutive securities because the exercise price was greater than the market price and therefore the effect would have been anti-dilutive.

Finally, although not present for Harley-Davidson, convertible debt and preferred shares are also potentially dilutive for many companies.

Income Taxes

Harley-Davidson's effective tax rate increased slightly in 2015 to 34.6% from 34.2% in 2014 and 34.1% in 2013 as disclosed in the following footnote.

	2015	2014	2013
Provision at statutory rate	35.0%	35.0%	35.0%
State taxes, net of federal benefit	1.8	1.7	1.6
Domestic manufacturing deduction	(2.1)	(2.1)	(1.7)
Research and development credit	(0.4)	(0.4)	(0.9)
Unrecognized tax benefits including interest and penalties	1.1	0.2	0.9
Valuation allowance adjustments	(0.1)	(0.1)	(0.3)
Tax audit settlements	—	—	0.1
Adjustments for previously accrued taxes	(0.1)	(0.3)	(0.2)
Other	(0.6)	0.2	(0.4)
Provision for income taxes	34.6%	34.2%	34.1%

There are no large transitory items affecting the tax rate and we can reasonably use 34.6% in our forecasts.

Common-Size Income Statement

It is useful for analysis purposes to prepare common-size statements. Exhibit C.2 shows Harley-Davidson's common-size income statement covering the two most recent years.

Exhibit C.2 ■ Harley-Davidson Common-Size Income Statement

Year Ended December 31	2015	2014
Revenue		
Motorcycles and Related Products	88.5%	89.4%
Financial Services	11.5%	10.6%
Total revenue	100.0%	100.0%
Costs and expenses		
Motorcycles and Related Products cost of goods sold*	63.2% :: 56.0%	63.6% :: 56.9%
Financial Services interest expense	2.7%	2.6%
Financial Services provision for credit losses	1.7%	1.3%
Selling, administrative and engineering expense	20.4%	18.6%
Total costs and expenses	80.7%	79.4%
Operating income	19.3%	20.6%
Investment income	0.1%	0.1%
Interest expense	0.2%	0.1%
Income before provision for income taxes	19.2%	20.6%
Provision for income taxes	6.6%	7.0%
Net income	12.5%	13.6%

* Two percentage metrics: Product COGS / Product revenue :: Product COGS / Total revenue.

Product costs decreased from 63.6% of motorcycle sales in 2014 to 63.2% in 2015, thus increasing the gross profit margin on product sales by 40 basis points. As Harley describes above, the increase in gross margin on product sales is due to increases in product prices, lower raw materials costs and increased manufacturing efficiency (partially offset by the cost of increased product content, unfavorable foreign exchange rates, and changes in product mix). Harley also increased its selling, administrative and engineering expense from 18.6% of total revenue in 2014 to 20.4% in 2015. Finally, net income as a percentage of total revenue decreased by 1.1 percentage points from 13.6% of total revenue in 2014 to 12.5% in 2015.

Management Discussion and Analysis

The Management Discussion and Analysis section of a 10-K is informative for interpreting company financial statements and for additional insights into company operations. To illustrate, Harley-Davidson provides the following analysis of its operating results in the MD&A section of its 2015 10-K.

> The Company's net income for 2015 was $752.2 million, or $3.69 per diluted share, compared to $844.6 million, or $3.88 per diluted share, in 2014. Operating income from the Motorcycles segment was down $127.7 million compared to 2014. Motorcycles segment operating income was negatively impacted by unfavorable currency exchange rates, lower wholesale shipment volume, unfavorable product mix and higher selling, administrative and engineering expenses. These unfavorable impacts were partially offset by model-year price increases and lower raw material and manufacturing costs. Operating income from the Financial Services segment was up modestly from the prior year, increasing $2.4 million, or 0.9%, on higher net interest income partially offset by a higher provision for credit losses.
>
> Worldwide independent dealer retail sales of new Harley-Davidson motorcycles decreased 1.3% compared to 2014. Retail sales of new Harley-Davidson motorcycles decreased 1.7% in the U.S. and 0.5% in international markets. Retail sales were below the Company's expectations in 2015. In 2015, retail sales were adversely impacted by a significant increase in competitiveness behind currency-driven discounting and the introduction of new products by a number of our competitors as well as a challenging macro-economic environment.

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Consolidated operating income was down 9.8% in 2015 driven by a decrease in operating income from the Motorcycles segment which decreased by $127.7 million compared to 2014. Operating income for the Financial Services segment increased by $2.4 million during 2015 as compared to 2014. Please refer to the "Motorcycles and Related Products Segment" and "Financial Services Segment" discussions following for a more detailed discussion of the factors affecting operating income.

Corporate interest expense was higher in 2015 compared to 2014 due to the issuance of corporate debt. The Company issued $750.0 million of senior unsecured notes in the third quarter of 2015 and utilized the proceeds to fund the repurchase of common stock in the third and fourth quarters of 2015.

The effective income tax rate for 2015 was 34.6% compared to 34.2% for 2014.

Diluted earnings per share were $3.69 in 2015, down 4.9% compared to 2014. Diluted earnings per share were adversely impacted by the 10.9% decrease in net income, but benefited from lower diluted weighted average shares outstanding. Diluted weighted average shares outstanding decreased from 217.7 million in 2014 to 203.7 million in 2015 driven by the Company's repurchases of common stock.

Balance Sheet Reporting and Analysis

Harley-Davidson's balance sheet is reproduced in Exhibit C.3. Harley-Davidson reports total assets of $9,991 million in 2015, and a current ratio for 2015 of 1.45. Although the company's current ratio is greater than 1.0, the company is relatively illiquid because a large proportion of current assets consists of accounts and finance receivables and inventories. Cash and marketable securities comprise 7.7% of total assets ([$722.2 + $45.2] million/$9,991.2 million) at year-end 2015, down from 10.1% in 2014. The lack of balance sheet liquidity is potentially worrisome given Harley's level of financial leverage, but its strong operating cash flow mitigates that concern (see later discussion in this section).

The remainder of this section includes a brief review and analysis for each of Harley-Davidson's balance sheet line items and its related footnote disclosures.

Accounts Receivable

Harley-Davidson reports $247.4 million in net accounts receivable and $6,868.2 million of short-term and long-term finance receivables at year-end 2015. This represents 71.2% of total assets ($7,115.6 million/$9,991.2 million), up from 70.1% in the previous year. Receivables, especially finance receivables, are, therefore, a significant asset for Harley, and it describes these receivables as follows.

Accounts Receivable, Net—The Company's motorcycles and related products are sold to independent dealers outside the U.S. and Canada generally on open account and the resulting receivables are included in accounts receivable in the Company's consolidated balance sheets. The allowance for doubtful accounts deducted from total accounts receivable was $2.9 million and $3.5 million as of December 31, 2015 and 2014, respectively. Accounts receivable are written down once management determines that the specific customer does not have the ability to repay the balance in full. The Company's sales of motorcycles and related products in the U.S. and Canada are financed by the purchasing dealers through HDFS and the related receivables are included in finance receivables in the consolidated balance sheets.

Finance Receivables, Net—Finance receivables are recorded in the financial statements at amortized cost net of an allowance for credit losses. The provision for credit losses on finance receivables is charged to earnings in amounts sufficient to maintain the allowance for credit losses at a level that is adequate to cover estimated losses of principal inherent in the existing portfolio… Finance receivables are considered impaired when management determines it is probable that the Company will be unable to collect all amounts due according to the terms of the loan agreement.

Exhibit C.3 ■ Harley-Davidson Balance Sheet

HARLEY-DAVIDSON INC.
Consolidated Balance Sheets
December 31

$ thousands, except share amounts	2015	2014
Assets		
Current assets		
Cash and cash equivalents	$ 722,209	$ 906,680
Marketable securities	45,192	57,325
Accounts receivable, net	247,405	247,621
Finance receivables, net	2,053,582	1,916,635
Inventories	585,907	448,871
Restricted cash	88,267	98,627
Deferred income taxes	102,769	89,916
Other current assets	137,823	182,420
Total current assets	3,983,154	3,948,095
Finance receivables, net	4,814,571	4,516,246
Property, plant and equipment, net	942,418	883,077
Goodwill	54,182	27,752
Deferred income taxes	99,614	77,835
Other long-term assets	97,228	75,092
	$9,991,167	$9,528,097
Liabilities and shareholders' equity		
Current liabilities		
Accounts payable	$ 235,614	$ 196,868
Accrued liabilities	471,964	449,317
Short-term debt	1,201,380	731,786
Current portion of long-term debt	843,620	1,011,315
Total current liabilities	2,752,578	2,389,286
Long-term debt	4,845,388	3,761,528
Pension liability	164,888	76,186
Postretirement healthcare liability	193,659	203,006
Other long-term liabilities	195,000	188,805
Shareholders' equity		
Preferred stock, none issued	—	—
Common stock, 344,855,704 and 344,174,653 shares issued, respectively	3,449	3,442
Additional paid-in-capital	1,328,561	1,265,257
Retained earnings	8,961,985	8,459,040
Accumulated other comprehensive loss	(615,205)	(514,943)
Treasury stock (160,121,966 and 132,297,840 shares, respectively), at cost	(7,839,136)	(6,303,510)
Total shareholders' equity	1,839,654	2,909,286
	$9,991,167	$9,528,097

Harley's receivables are a large asset for the company and our analysis of those receivables considers two dimensions.

1. **Magnitude** Receivables representing sales on open account, the smaller of the two balances for Harley, are generally non-interest-bearing and, therefore, do not earn a return. Further, the company incurs costs to finance them. Accordingly, a company wants to optimize its level of investment in receivables—that is, keep them as low as possible while still meeting industry specific credit policies to meet customer demands. Finance receivables, such as those arising from lending or leasing activities, include interest. They are financed with borrowed money, however, and the company must earn sufficient interest income to both cover the cost of borrowed funds and to cover the cost of uncollectible amounts.

2. **Collectibility** Receivables made on open account represent unsecured loans to customers. It is critical therefore, to understand the creditworthiness of these borrowers. Receivables are reported at net realizable value, that is, net of the allowance for doubtful accounts. Finance receivables are generally secured by the motorcycles financed with the loan or lease. This provides additional protection to Harley-Davidson, but the creditworthiness of the borrowers must be monitored nonetheless as repossessed motorcycles may not maintain sufficient resale value to cover the outstanding loan or lease balance.

Footnotes reveal an allowance for uncollectible accounts of $2.9 million for its accounts receivable, about 1.2% of gross accounts receivable. Credit losses on sales on open accounts does not, therefore, appear to be high. For its finance receivables, Harley's allowance for uncollectible accounts is $147.2 million, about 2.1% of gross lease and notes receivable. Due to the greater exposure to credit losses on finance receivables, Harley reports additional data on the allowance for credit losses.

	2015		
$ thousands	**Retail**	**Wholesale**	**Total**
Balance, beginning of period	$122,025	$5,339	$127,364
Provision for credit losses	98,826	2,519	101,345
Charge-offs	(123,911)	—	(123,911)
Recoveries	42,380	—	42,380
Balance, end of period	$139,320	$7,858	$147,178

The company reported a balance in the allowance for credit losses of $127.4 million at the beginning of 2015. During 2015, it increased this allowance account by $101.3 million. This is the amount of bad debt expense that is reported in the income statement. Write-offs of uncollectible accounts amounted to $123.9 million during the year, and recoveries of amounts written off (usually from the sale of the repossessed motorcycles) amounted to $42.4 million, yielding a $147.2 million balance at year-end. Because the provision is approximately equal to the net credit losses for the year, it appears that the company is adequately reserved for uncollectible accounts.

The allowance for credit losses should always reflect the company's best estimate of the potential loss in its finance receivables. This amount should not be overly conservative (which would understate profit), and it should not be inadequate (which would overstate profit). Harley's estimate of its potential losses results from its own (unaudited) review of the age of its receivables (older receivables are at greater risk of uncollectibility). And the company provides detail relating to the age of its finance receivables in the footnotes.

	2015					
$ thousands	**Current**	**31-60 Days Past Due**	**61-90 Days Past Due**	**Greater than 90 Days Past Due**	**Total Past Due**	**Total Finance Receivables**
Retail	$5,796,003	$118,996	$43,680	$32,792	$195,468	$5,991,471
Wholesale	1,022,365	888	530	77	1,495	1,023,860
Total	$6,818,368	$119,884	$44,210	$32,869	$196,963	$7,015,331

Nearly 99% of its finance receivables are either current or no more than 30 days overdue. Current receivables are less likely to become uncollectible and that is the reason why Harley does not need a significant balance in the allowance for uncollectible accounts.

Inventories

Harley-Davidson reports $585.9 million in inventories as of 2015. Footnote disclosures reveal the following inventory costing policy.

Inventories—Inventories are valued at the lower of cost or market. Substantially all inventories located in the United States are valued using the last-in, first-out (LIFO) method. Other inventories totaling $266.6 million at December 31, 2015 and $232.8 million at December 31, 2014 are valued at the lower of cost or market using the first-in, first-out (FIFO) method.

Most of its U.S. inventories are reported on a LIFO basis. Some of its U.S. inventories are valued at FIFO or weighted-average. The use of multiple inventory costing methods for different pools of inventories is common and acceptable under GAAP.

Harley-Davidson provides the following footnote disclosure relating to the composition of its inventories.

$ thousands	2015	2014
Components at the lower of FIFO cost or market		
Raw materials and work in process	$161,704	$151,254
Motorcycle finished goods	327,952	230,309
Parts and accessories and general merchandise	145,519	117,210
Inventory at lower of FIFO cost or market	635,175	498,773
Excess of FIFO over LIFO cost	(49,268)	(49,902)
Total inventories, net	$585,907	$448,871

Companies aim to optimize their investment in inventories because inventory is a non-income producing asset until sold. Inventories must also be financed, stored, moved, and insured at some cost. Harley-Davidson reports $161.7 million of raw materials and work-in-process inventories, which is 25% of the total of $635.2 million FIFO inventories (see table above). Finished goods inventories (motorcycles awaiting sale to dealers) amount to another $328.0 million, and parts and accessories and general merchandise inventories amount to $145.5 million.

Harley-Davidson reports its total inventory cost at FIFO at $635.2 million then subtracts $49.3 million from this amount (the LIFO reserve) to yield the inventories balance of $585.9 million at LIFO as reported on the balance sheet. This means that, over time, Harley-Davidson has reduced gross profit and pretax operating profit by a cumulative amount of $49.3 million. This has also reduced pretax income and saved federal income tax, and generated cash flow, of approximately $18.2 million (assuming a 37% marginal tax rate and computed as $49.3 million × 37%). During 2015, however, its LIFO reserve *decreased* by $634,000, resulting in a $634,000 *increase* in gross profit and pretax operating profit, and a $234.6 thousand ($634,000 × 37%) *decrease* in cash flow from increased federal income taxes.

Property, Plant, and Equipment

Harley-Davidson reports Property, Plant, and Equipment (PPE), net, of $942.4 million at year-end 2015.

$ thousands	2015	2014
Land and related improvements	$ 56,554	$ 55,238
Buildings and related improvements	453,433	475,268
Machinery and equipment	1,859,443	1,823,790
Software	524,076	440,703
Construction in progress	280,147	200,708
	3,173,653	2,995,707
Accumulated depreciation	(2,231,235)	(2,112,630)
Total property, plant and equipment, net	$ 942,418	$ 883,077

PPE makes up 9.4% of total assets in 2015. Given the cost of depreciable assets of $2,836.9 million (calculated as $453.4 million in buildings, $1,859.4 million in machinery and equipment and $524.1 million in capitalized software) and accumulated depreciation of $2,231.2 million, PPE is 78.6% depreciated assuming straight-line depreciation ($2,231.2 million/$2,836.9 million) as of 2015. This suggests that these assets are older than the average age that we would expect assuming a regular replacement policy. Footnotes reveal the following useful lives for depreciable assets.

Property, Plant and Equipment—Property, plant and equipment is recorded at cost. Depreciation is determined on the straight-line basis over the estimated useful lives of the assets. The following useful lives are used to depreciate the various classes of property, plant and equipment: buildings—30 years; building equipment and land improvements—7 years; machinery and equipment—3 to 10 years; furniture and fixtures—5 years; and software—3 to 7 years. Accelerated methods of depreciation are used for income tax purposes.

Assuming straight-line depreciation, Harley-Davidson's 2015 depreciation and amortization expense of $195.3 million (calculated as $198.1 million depreciation and amortization expense reported in the statement of cash flows less $2.8 million amortization expense reported in the footnotes) reveals that its long-term depreciable assets, as a whole, are being depreciated over an average useful life of about 14.5 years, computed as depreciable assets of $2,836.9 million divided by $195.3 million depreciation expense.

Goodwill and Other Intangible Assets

Harley-Davidson reports $54.2 million of goodwill at year-end 2015. This amount represents the excess of the purchase price for acquired companies over the fair market value of the acquired tangible and identifiable intangible assets (net of liabilities assumed). Under GAAP, goodwill is not systematically amortized, but is annually tested for impairment. It describes its accounting for goodwill as follows.

Goodwill—Goodwill represents the excess of acquisition cost over the fair value of the net assets purchased. Goodwill is tested for impairment, based on financial data related to the reporting unit to which it has been assigned, at least annually or whenever events or changes in circumstances indicate that the carrying value may not be recoverable. The impairment test involves comparing the estimated fair value of the reporting unit associated with the goodwill to its carrying amount, including goodwill. If the carrying amount of the reporting unit exceeds its fair value, goodwill must be adjusted to its implied fair value. During 2015 and 2014, the Company performed a quantitative test on its goodwill balances for impairment and no adjustments were recorded to goodwill as a result of those reviews.

Deferred Tax Assets and Liabilities

Harley-Davidson provides the following disclosure relating to deferred tax assets and liabilities.

$ thousands	2015	2014
Deferred tax assets:		
Accruals not yet tax deductible	$129,449	$120,817
Pension and postretirement benefit plan obligations	126,952	104,723
Stock compensation	20,111	21,089
Net operating loss carryforward	38,250	41,927
Valuation allowance	(20,659)	(25,462)
Other, net	47,039	38,465
	341,142	301,559
Deferred tax liabilities:		
Depreciation, tax in excess of book	(136,340)	(128,117)
Other	(2,419)	(5,691)
	(138,759)	(133,808)
Total	$202,383	$167,751

Most of Harley's deferred tax assets (benefit) results from expenses that are recognized currently in Harley's income statement that are not deductible until paid. They, therefore, represent future tax deductions and future benefits. Examples include accrued expenses and pension expenses as well as stock compensation expenses. All of these expenses are recognized in Harley's income statement, but will not be recognized in Harley's tax returns until a later date when the items are settled in cash.

Harley also reports a deferred tax asset relating to a net operating loss carryforward. The IRS allows companies to carry forward taxable losses to offset future taxable income, thereby reducing future tax expense. This benefit can only be recorded as an asset on the balance sheet if the company expects to generate taxable income before the carryforwards expire. If the company deems it more likely than not that the carryforwards will not be realized, a valuation allowance for the unrealizable portion is required (this is similar to establishing an allowance for uncollectible accounts receivable). As of 2015, Harley-Davidson has such a valuation allowance (of $20.7 million). Following is its discussion relating to this allowance.

> The Company reviews its deferred tax asset valuation allowances on a quarterly basis, or whenever events or changes in circumstances indicate that a review is required. In determining the requirement for a valuation allowance, the historical and projected financial results of the legal entity or consolidated group recording the net deferred tax asset is considered, along with any positive or negative evidence such as tax law changes. Since future financial results and tax law may differ from previous estimates, periodic adjustments to the Company's valuation allowances may be necessary.
>
> At December 31, 2015, the Company had approximately $339.4 million state net operating loss carry-forwards expiring in 2031. At December 31, 2015 the Company also had Wisconsin research and development credit carryforwards of $13.1 million expiring in 2028. The Company had a deferred tax asset of $26.0 million as of December 31, 2015 for the benefit of these losses and credits.
>
> The Company has foreign net operating losses (NOL) totaling $12.2 million as of December 31, 2015. It has a valuation allowance of $20.7 million against the NOLs as well as other associated deferred tax assets of $8.5 million.

Tax loss carryforwards reduce income tax expense in the year they are recognized, similar to tax loss carry-backs. However, companies commonly establish both the loss carryforward and the valuation allowance concurrently. The net effect is to leave tax expense (and net income) unchanged. In future years, however, a reduction of the valuation account, in anticipation of utilization of the tax carryforwards (and not as a result of their expiration), reduces tax expense and increases net income. This is a transitory increase in profit and should not be factored into projections.

Current Liabilities

Harley-Davidson reports current liabilities of $2,752.6 million on its year-end balance sheet for 2015, which consists of the following.

$ thousands	2015	2014
Current liabilities		
Accounts payable	$ 235,614	$ 196,868
Accrued liabilities	471,964	449,317
Short-term debt	1,201,380	731,786
Current portion of long-term debt	843,620	1,011,315
Total current liabilities	$2,752,578	$2,389,286

Of Harley's current liabilities, $2,045 million relates to financial items such as short-term debt and maturing long-term debt. The remaining items in current liabilities arise from common external transactions, such as trade accounts payable and accrued expenses. These transactions are less prone to management reporting bias. We must, however, determine the presence of excessive "leaning on the trade" as a means to boost operating cash flow. Harley's trade accounts payable have not increased significantly and the increase is not of concern. The possibility of management reporting bias is typically greater for accrued liabilities, which are often estimated (and difficult to audit), involve no external transaction, and can markedly impact reported balance sheet and income statement amounts.

All accruals have similar effects on the financial statements: when the accrual is established the company recognizes both an expense in the income statement and a liability on the balance sheet. The company subsequently reduces the liability as payments are made. Companies can (and do) use accruals to shift income from one period to another, say by over-accruing in one period to intentionally depress current period profits, and later reducing the liability account, rather than recording an expense, to increase future period profits. Accruals are sometimes referred to as "pads." They represent a cost that has previously been charged to the income statement. They also represent an account that can absorb future costs. We need to monitor accrual accounts carefully for evidence of earnings management.

Long-Term Debt

Harley-Davidson reports $5,689 million of long-term debt as of 2015. Footnotes reveal the following.

$ thousands	2015	2014
Secured debt		
Asset-backed Canadian commercial paper conduit facility	$ 153,839	$ 166,912
Term asset-backed securitization debt	1,463,154	1,271,533
Unsecured notes		
1.15% Medium-term notes due in 2015 ($600.0 million par value)	—	599,817
3.88% Medium-term notes due in 2016 ($450.0 million par value)	449,991	449,937
2.70% Medium-term notes due in 2017 ($400.0 million par value)	399,980	399,963
1.55% Medium-term notes due in 2017 ($400.0 million par value)	399,650	399,464
6.80% Medium-term notes due in 2018 ($879.0 million par value)	878,308	887,381
2.40% Medium-term notes due in 2019 ($600.0 million par value)	598,296	597,836
2.15% Medium-term notes due in 2020 ($600.0 million par value)	598,856	—
3.50% Senior unsecured notes due in 2025 ($450.0 million par value)	447,608	—
4.625% Senior unsecured notes due in 2045 ($300.0 million par value)	299,326	—
Gross long-term debt	5,689,008	4,772,843
Less: current portion of long-term debt	(843,620)	(1,011,315)
Long-term debt	$4,845,388	$3,761,528

Most of its long-term financing is in the form of unsecured notes that mature over the next 30 years. GAAP requires disclosure of scheduled maturities for each of the five years subsequent to the balance sheet date. Harley-Davidson's five-year maturity schedule follows.

$ thousands	2016	2017	2018	2019	2020	Thereafter	Total
Principal payments on debt	$2,045,000	$1,177,493	$1,303,698	$934,386	$682,877	$746,934	$6,890,388

Our concern with debt maturity dates is whether or not a company is able to repay debt as it comes due. Alternatively, a company can refinance the debt. If a company is unable or unwilling to repay or refinance its debt, it must approach creditors for a modification of debt terms for those issuances coming due. Creditors are often willing to oblige but will likely increase interest rates or impose additional debt covenants and restrictions. However, if creditors are unwilling to modify debt terms, the company might face the prospect of bankruptcy. This highlights the importance of long-term debt maturity disclosures.

We have little concern about Harley's debt maturity schedule as the company has strong cash flows. It is worth noting that **Moody's** and **Standard & Poor's** debt ratings for Harley are A3 and A- with a stable outlook. These ratings are solid (described as "upper-medium grade" debt).

Noncurrent Employee Benefits and Other Obligations

Harley-Davidson reports a (negative) funded status for its pension plan of $(167.0) million at year-end 2015 as well as for its post-retirement healthcare benefit plan of $(198.0) million. This means that the company's pension and post-retirement healthcare plans are underfunded by those amounts. This underfunding is computed as the difference between the benefit obligations of $2,009.0 million and $354.7 million, respectively, and the fair value of the plan assets of $1,842.0 million and $156.8 million, respectively. The reconciliation of the benefit obligations and plan assets is provided in the following table in Harley's footnotes.

	Pension and SERPA Benefits		Postretirement Healthcare Benefits	
$ thousands	**2015**	**2014**	**2015**	**2014**
Change in benefit obligation:				
Benefit obligation, beginning of period	$2,069,980	$1,714,650	$ 361,006	$ 366,524
Service cost	40,039	31,498	8,259	7,015
Interest cost	87,345	86,923	14,166	16,878
Actuarial (gains) losses	(128,082)	309,542	(6,757)	(2,870)
Plan participant contributions	—	—	2,587	2,368
Plan amendments	6,407	—	—	—
Special early retirement benefits	10,563	—	622	—
Benefits paid, net of Medicare Part D subsidy	(77,252)	(72,633)	(25,144)	(28,909)
Benefit obligation, end of period	2,009,000	2,069,980	354,739	361,006
Change in plan assets:				
Fair value of plan assets, beginning of period	1,992,646	1,920,601	156,840	147,875
Actual return on plan assets	(77,980)	143,040	(75)	8,965
Company contributions	4,553	1,638	23,937	28,048
Plan participant contributions	—	—	2,587	2,368
Benefits paid	(77,252)	(72,633)	(26,524)	(30,416)
Fair value of plan assets, end of period	1,841,967	1,992,646	156,765	156,840
Funded status of the plans, December 31	$ (167,033)	$ (77,334)	$(197,974)	$(204,166)

Benefit obligations increase by the passage of time as employees earn additional benefits and as the company accrues interest on the obligations (these obligations are initially discounted to their present values and accrete (grow) over time to the expected pay-off amount at maturity). The obligations also increase or decrease as a result of actuarial gains and losses (changes to the assumptions used to compute the current balance of the obligations). And, when benefits are paid, both the plan assets and the obligations are reduced accordingly.

Benefit payments must be funded from a combination of investment income on plan investments and company contributions. Company contributions to other post-employment benefit obligations (future health care payments, called OPEB) are generally made as required to fund healthcare payments to retirees. Because federal law does not require minimum funding of these plans, and companies do not receive a tax deduction for such contributions, companies rarely fund OPEB plans in advance. In Harley's case, the company contribution portion is small and is not likely to be of concern in the foreseeable future. However, pension and post-retirement healthcare funding requirements have been a burden for many companies, most notably General Motors prior to its bankruptcy.

The central issue with respect to pensions and other post-employment obligations, which Harley calls post-retirement obligations, is the potential demand they present on operating cash flows. Companies can tap cash from two sources to pay pension and other post-employment obligations:

from the returns on plan assets (i.e., the cumulative contributions and investment returns that have not yet been paid out to beneficiaries) and/or from operating cash flow. To the extent that plan assets are insufficient to meet retirement obligations, companies must divert operating cash flows from other investment activities, potentially reducing the dollar amount of capital projects that can be funded.

We can gain insight into potential cash flow issues by comparing expected future benefit payments to the funds available to make those payments. Companies must provide these disclosures in a schedule to the pension footnotes. Harley provides the following schedule of expected payments in the footnotes to its 10-K.

The expected benefit payments for the next five years and thereafter were as follows:

$ thousands	Pension Benefits	SERPA Benefits	Postretirement Healthcare Benefits
2016	$ 77,310	$ 2,145	$ 33,848
2017	78,884	2,215	33,160
2018	80,877	2,234	31,571
2019	83,377	2,683	29,975
2020	86,533	2,976	28,139
2021-2025	497,276	21,253	129,295

The schedule shows that Harley expects to pay out $79.4 million ($77.3 million + $2.1 million) in benefits to pension beneficiaries and $33.8 million in health care and other post-employment benefits (OPEB) to its former employees in 2016. The schedule also reveals that the company expects these amounts to increase slightly over the next five years.

Stockholders' Equity

Harley-Davidson reports the following statement of stockholders' equity for 2015.

$ thousands, except share amounts	Common Stock: Issued Shares	Common Stock: Balance	Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Treasury Balance	Total
Balance December 31, 2014	344,174,653	$3,442	$1,265,257	$8,459,040	$(514,943)	$(6,303,510)	$2,909,286
Net income	—	—	—	752,207	—	—	752,207
Total other comprehensive loss, net of tax	—	—	—	—	(100,262)	—	(100,262)
Dividends	—	—	—	(249,262)	—	—	(249,262)
Repurchase of common stock	—	—	—	—	—	(1,537,020)	(1,537,020)
Share-based compensation and 401(k) match made with Treasury shares	—	—	39,457	—	—	1,394	40,851
Issuance of nonvested stock	162,193	2	(2)	—	—	—	—
Exercise of stock options	518,858	5	20,174	—	—	—	20,179
Tax benefit of stock options and nonvested stock	—	—	3,675	—	—	—	3,675
Balance December 31, 2015	344,855,704	$3,449	$1,328,561	$8,961,985	$(615,205)	$(7,839,136)	$1,839,654

Since its inception, Harley has issued 344,855,704 shares of its $0.01 par value common stock. The common stock account is, therefore, equal to $3,449 thousand, computed as 344,855,704 shares × $0.01. The additional paid-in capital (APIC) represents the excess of proceeds from stock issuance over par value. It includes adjustments relating to the recognition of stock-based compensation and the exercise of stock-based awards and other minor adjustments.

Harley-Davidson's stockholders' equity is reduced by $7,839.1 million relating to cumulative repurchases of common stock. These treasury shares are the result of a stock purchase plan approved by Harley's board of directors, and evidences Harley's conviction that its stock is undervalued by the marketplace. The repurchased shares are held in treasury until such time as they are reissued, perhaps to fund an acquisition or to compensate employees under a stock purchase or stock option plan (treasury shares can also be retired). By comparing the amounts reported in the balance sheet for treasury stock, we can determine that during 2015, the company repurchased an additional 27,824,126 shares (160,121,966 shares in 2015 less 132,297,840 in 2014) for $1,537 million for an average purchase price of $55.24. During the year, retained earnings increased by $752.2 million due to net income and decreased by $249.3 million due to the declaration of dividends.

Accumulated other comprehensive income (AOCI) began 2015 with a balance of $(514.9) million; this negative balance reduces stockholders' equity. During the period, AOCI decreased (became more negative) by $100.3 million, resulting in an ending balance of $(615.2) million. Footnotes reveal the following details relating to the change.

	2015				
$ thousands	**Foreign Currency Translation Adjustments**	**Marketable Securities**	**Derivative Financial Instruments**	**Pension and Postretirement Benefit Plans**	**Total**
Balance, beginning of period	$ (3,482)	$ (700)	$19,042	$(529,803)	$(514,943)
Other comprehensive (loss) income before reclassifications	(48,309)	(626)	38,008	(106,059)	(116,986)
Income tax	(7,053)	232	(14,079)	39,284	18,384
Net other comprehensive (loss) income before reclassifications	(55,362)	(394)	23,929	(66,775)	(98,602)
Reclassifications:					
Realized (gains) losses—foreign currency contracts	—	—	(59,730)	—	(59,730)
Realized (gains) losses—commodities contracts	—	—	677	—	677
Realized (gains) losses—treasury rate lock			151		151
Prior service credits	—	—	—	(2,782)	(2,782)
Actuarial losses	—	—	—	58,680	58,680
Curtailment and settlement losses	—	—	—	368	368
Total before tax	—	—	(58,902)	56,266	(2,636)
Income tax expense (benefit)	—	—	21,817	(20,841)	976
Net reclassifications	—	—	(37,085)	35,425	(1,660)
Other comprehensive loss	(55,362)	(394)	(13,156)	(31,350)	(100,262)
Balance, end of period	$(58,844)	$(1,094)	$ 5,886	$(561,153)	$(615,205)

AOCI decreased during 2015 (became more negative) for two reasons.

- Other comprehensive income showed a large loss of $98.6 million after tax. This loss derived from both foreign currency translation losses owing to a stronger $US and pension adjustments. Those losses were partially offset by unrealized fair value gains on cash flow hedges.
- Net reclassifications from AOCI to net income of $(1.7) million, after tax.

Common-Size Balance Sheet

Similar to our analysis of the income statement, it is useful to compute common-size balance sheets. Such statements can reveal changes or relations masked by other analyses. Harley-Davidson's common-size balance sheet covering its recent two years is shown in Exhibit C.4. Total current assets decreased from 41.4% of total assets in 2014 to 39.9% in 2015. This decrease was primarily due to a decrease cash offset, in part, by an increase in inventories.

On the liability side, current liabilities increased as a percent of total assets from 25.1% in 2014 to 27.6% in 2015. This was largely due to an increase in short-term debt payable in one year and was partially offset by a reduction in current maturities of long-term debt. On balance, Harley became more financially leveraged in 2015 as stockholders' equity decreased from 30.5% of the total in 2014 to 18.4% in 2015 due to the repurchase of common stock. This increase in financial leverage, coupled with a decrease in liquidity, is generally viewed negatively.

Exhibit C.4 ■ Harley-Davidson Common-Size Balance Sheet

December 31	2015	2014
Current assets		
Cash and cash equivalents	7.2%	9.5%
Marketable securities	0.5	0.6
Accounts receivable, net	2.5	2.6
Finance receivables, net	20.6	20.1
Inventories	5.9	4.7
Restricted cash	0.9	1.0
Deferred income taxes	1.0	0.9
Other current assets	1.4	1.9
Total current assets	39.9	41.4
Finance receivables, net	48.2	47.4
Property, plant and equipment, net	9.4	9.3
Goodwill	0.5	0.3
Deferred income taxes	1.0	0.8
Other long-term assets	1.0	0.8
Total assets	100.0%	100.0%
Current liabilities		
Accounts payable	2.4%	2.1%
Accrued liabilities	4.7	4.7
Short-term debt	12.0	7.7
Current portion of long-term debt	8.4	10.6
Total current liabilities	27.6	25.1
Long-term debt	48.5	39.5
Pension liability	1.7	0.8
Postretirement healthcare liability	1.9	2.1
Other long-term liabilities	2.0	2.0
Shareholders' equity		
Preferred stock, none issued	0.0	0.0
Common stock, 344,855,704 and 344,174,653 shares issued, respectively	0.0	0.0
Additional paid-in capital	13.3	13.3
Retained earnings	89.7	88.8
Accumulated other comprehensive loss	(6.2)	(5.4)
Treasury stock (160,121,966 and 132,297,840 shares, respectively), at cost	(78.5)	(66.2)
Total shareholders' equity	18.4	30.5
Total liabilities and shareholders' equity	100.0%	100.0%

Operating Leases

Harley-Davidson has leases classified as "operating" for financial reporting purposes. As a result, neither the lease asset nor the lease obligation are reported on its balance sheet. For example, Harley reports the following disclosure relating to its operating leases.

The Company operates certain administrative, manufacturing, warehouse and testing facilities and equipment under lease arrangements that are accounted for as operating leases. Total rental expense was $15.0 million, $12.0 million and $12.5 million for 2015, 2014 and 2013, respectively.

Future minimum operating lease payments at December 31, 2015 were as follows (in thousands):

2016	$13,727
2017	9,324
2018	7,725
2019	6,883
2020	4,772
Thereafter	13,098
Total operating lease payments	$55,529

These leases represent an unreported asset and an unreported liability; both amounting to $51.8 million. This amount is computed as follows and assumes a 2% discount rate ($ thousands).

Year	Operating Lease Payment	Discount Factor (i = 0.02)	Present Value
1	$13,727	0.98039	$13,458
2	9,324	0.96117	8,962
3	7,725	0.94232	7,279
4	6,883	0.92385	6,359
5	4,772	0.90573	4,322
>5	13,098 [$4,772 for 2.745 years]	2.64536* × 0.90573	11,434
Remaining life = $13,098/$4,772 = 2.745 years			$51,814

*The annuity factor for 2.745 years at 2% is 2.64536.

As an approximation, we use a 2% rate to discount the forecasted lease payments as Harley does not report capitalized leases that would allow us to impute a discount rate. (Harley's most recent financing was at the 2.15% rate.)

A large amount of assets and liabilities is excluded from many companies' balance sheets because leases are structured as operating leases. For Harley-Davidson, these excluded assets amount to $51,814 thousand. The new accounting standard relating to leases addresses this issue by requiring recognition of the leased assets and lease obligations on the balance sheet.

Pensions and Other Post-Retirement Plans (OPEB)

As we discuss above, Harley-Davidson's pension and other post-employment benefit (OPEB) plans are underfunded. Total pension and OPEB obligations are $2,363.7 million ($2,009.0 million + $354.7 million) and plan assets have a market value of $1,998.8 million at year-end 2015 ($1,842.0 million + $156.8 million). Neither of these amounts appears on the balance sheet, but are reported in the footnotes. Only the net amount of $(365) million ($167.0 million + $198.0 million) appears on the balance sheet as the funded status of the pension and OPEB plans ($6.4 million as a current accrued liability and $358.5 million as a long-term liability).

Variable Interest Entities

Footnotes reveal that Harley-Davidson owns investments in entities that are considered to be a variable interest entity (VIE) under GAAP. These entities are typically non-stock entities, such as joint ventures, partnerships and trusts, and the accounting for these entities depends upon whether the investor is deemed to be the primary beneficiary. If so, the investor must consolidate the VIE. If not, the investor accounts for its investment using the equity method. Harley's footnote disclosure relating to these investments reports that all such VIE investments are consolidated; and thus, no adjustment is required.

Principles of Consolidation and Basis of Presentation—The consolidated financial statements include the accounts of Harley-Davidson, Inc. and its wholly-owned subsidiaries (the Company), including the accounts of the groups of companies doing business as Harley-Davidson Motor Company (HDMC) and Harley-Davidson Financial Services (HDFS). In addition, certain variable interest entities (VIEs) related to secured financing are consolidated as the Company is the primary beneficiary. All intercompany accounts and transactions are eliminated.

The Company participates in asset-backed financing through both term asset-backed securitization transactions and through asset-backed commercial paper conduit facilities. The Company treats these transactions as secured borrowings because assets are either transferred to consolidated VIEs or the Company maintains effective control over the assets and does not meet the accounting sale requirements under ASC Topic 860.

Harley-Davidson sells lease receivables to a separate company that finances the purchase by issuing debt in the capital markets. This is a way for Harley to monetize those receivables and serves as an important financing source. Since the lease receivables are pledged as collateral to secure those borrowings, the cash received from lessees can only be used to repay the related borrowings and is, therefore, restricted as to use by Harley-Davidson. Harley discloses the amount of its lease receivables that have been so pledged in the following table in its 10-K.

$ thousands	2015	2014
Balances held by consolidated variable interest entities		
Current finance receivables, net	$ 322,768	$ 312,645
Other assets	4,706	3,409
Non-current finance receivables, net	1,250,919	1,113,801
Restricted cash—current and non-current	100,151	110,017
Current portion of long-term debt	353,363	366,889
Long-term debt	1,109,791	904,644

Of the total lease receivables of $6,868,153 ($2,053,582 current and $4,814,571 noncurrent, in $000s), $1,573,687 are restricted ($322,768 + $1,250,919, in $000s). We, therefore, classify these restricted lease receivables as nonoperating in our analysis below because the cash inflows are not available for general corporate use.

Derivatives

Harley-Davidson is exposed to a number of market risks as outlined in the following footnote to its 10-K.

> The Company is exposed to certain risks such as foreign currency exchange rate risk, interest rate risk and commodity price risk. To reduce its exposure to such risks, the Company selectively uses derivative financial instruments. All derivative transactions are authorized and executed pursuant to regularly reviewed policies and procedures, which prohibit the use of financial instruments for speculative trading purposes. . .
>
> The Company utilizes commodity contracts to hedge portions of the cost of certain commodities consumed in the Company's motorcycle production and distribution operations. The Company's foreign currency exchange contracts and commodity contracts generally have maturities of less than one year.
>
> During the second quarter of 2015, the Company entered into treasury rate locks to fix the interest rate on a portion of the principal related to its anticipated issuance of senior unsecured debt during the third quarter of 2015. The treasury rate lock contracts were settled in July 2015. The loss at settlement was recorded in accumulated other comprehensive loss and will be reclassified into earnings over the life of the debt.
>
> The Company utilized interest rate swaps to reduce the impact of fluctuations in interest rates on its unsecured commercial paper by converting a portion from a floating rate basis to a fixed rate basis. The interest rate swaps expired during the second quarter of 2013, and as of December 31, 2013, there were no interest rate swaps outstanding.

The company hedges these risks using derivatives, including forwards, options, and swap contracts. These hedging activities transfer risk from Harley to another entity (called the counterparty), which assumes that risk for a fee.

The accounting for derivatives is discussed earlier in the book. In brief, the derivative contracts and securities, along with the assets or liabilities to which they relate, are reported on the balance sheet at fair value. Any unrealized gains and losses are ultimately reflected in net income, although they can be accumulated in AOCI for a short time. To the extent that a company's hedging activities are effective, the market values of the derivatives and the assets or liabilities to which they relate are largely offsetting, as are the net gains or losses on the hedging activities. As a result, the effect of derivative activities is generally minimal on both income and equity. It is generally only when companies use derivatives for speculative purposes that these investments markedly affect income and equity. The GAAP derivative disclosures highlight these speculative activities and we need to read risk footnotes carefully to assess whether companies are hedging or speculating with derivatives.

Statement of Cash Flows Reporting and Analysis

The statement of cash flows for **Harley-Davidson** is shown in Exhibit C.5.

In 2015, Harley generated $1,100.1 million of operating cash flow, primarily from income (net income plus the depreciation add-back equals $950.3 million). This amount is well in excess of Harley's capital expenditures of $260.0 million. Harley used excess cash to pay $249.3 million in dividends to shareholders and to repurchase stock in the amount of $1,537.0 million. Overall, the cash flow picture for Harley-Davidson is healthy with strong and increasing operating cash flows used to expand PPE and to return cash to shareholders in the form of dividends and stock repurchases.

Exhibit C.5 ■ Harley-Davidson Statement of Cash Flows

HARLEY-DAVIDSON INC.
Consolidated Statements of Cash Flows

$ thousands	2015	2014	2013
Net income	$ 752,207	$ 844,611	$ 733,993
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	198,074	179,300	167,072
Amortization of deferred loan origination costs	93,546	94,429	86,181
Amortization of financing origination fees	9,975	8,442	9,376
Provision for long-term employee benefits	60,824	33,709	66,877
Contributions to pension and postretirement plans	(28,490)	(29,686)	(204,796)
Stock compensation expense	29,433	37,929	41,244
Net change in wholesale finance receivables related to sales	(113,970)	(75,210)	28,865
Provision for credit losses	101,345	80,946	60,008
Loss on debt extinguishment	1,099	3,942	4,947
Deferred income taxes	(16,484)	(7,621)	52,580
Foreign currency adjustments	20,067	21,964	16,269
Other, net	846	(1,491)	10,123
Changes in current assets and liabilities			
Accounts receivable, net	(13,665)	(9,809)	(36,653)
Finance receivables—accrued interest and other	(3,046)	(2,515)	(346)
Inventories	(155,222)	(50,886)	(46,474)
Accounts payable and accrued liabilities	138,823	21,309	(78,665)
Derivative instruments	(5,615)	703	(2,189)
Prepaid and other	30,371	(3,389)	68,681
Total adjustments	347,911	302,066	243,100
Net cash provided by operating activities	1,100,118	1,146,677	977,093
Cash flows from investing activities:			
Capital expenditures	(259,974)	(232,319)	(208,321)
Origination of finance receivables	(3,751,830)	(3,568,423)	(3,244,005)
Collections on finance receivables	3,136,885	3,013,245	2,831,994
Purchases of marketable securities	—	—	(4,998)
Sales and redemptions of marketable securities	11,507	41,010	40,108
Acquisition of business	(59,910)	—	—
Other	7,474	1,837	16,355
Net cash used by investing activities	(915,848)	(744,650)	(568,867)

continued

continued from previous page

$ thousands	2015	2014	2013
Cash flows from financing activities:			
Proceeds from issuance of medium-term notes	$ 595,386	$ 991,835	$ —
Repayments of medium-term notes	(610,331)	(526,431)	(27,858)
Proceeds from issuance of senior unsecured notes	740,385	—	—
Repayment of senior unsecured notes	—	(303,000)	—
Proceeds from securitization debt	1,195,668	847,126	647,516
Repayments of securitization debt	(1,008,135)	(834,856)	(840,387)
Borrowings of asset-backed commercial paper	87,442	84,907	88,456
Repayments of asset-backed commercial paper	(72,727)	(77,800)	(78,765)
Net increase in credit facilities and unsecured commercial paper	469,473	63,945	371,085
Net change in restricted cash	11,410	22,755	43,201
Dividends paid	(249,262)	(238,300)	(187,688)
Purchase of common stock for treasury	(1,537,020)	(615,602)	(479,231)
Excess tax benefits from share-based payments	3,468	11,540	19,895
Issuance of common stock under employee stock option plans	20,179	37,785	50,567
Net cash used by financing activities	(354,064)	(536,096)	(393,209)
Effect of exchange rate changes on cash and cash equivalents	(14,677)	(25,863)	(16,543)
Net decrease in cash and cash equivalents	$ (184,471)	$ (159,932)	$ (1,526)
Cash and cash equivalents:			
Cash and cash equivalents—beginning of period	$ 906,680	$1,066,612	$1,068,138
Net decrease in cash and cash equivalents	(184,471)	(159,932)	(1,526)
Cash and cash equivalents—end of period	$ 722,209	$ 906,680	$1,066,612

Independent Audit Opinion

Harley-Davidson is subject to various audit requirements. Its independent auditor, **Ernst & Young LLP**, issued the following clean opinion on Harley's 2015 financial statements.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Harley-Davidson, Inc.:

We have audited the accompanying consolidated balance sheets of Harley-Davidson, Inc. as of December 31, 2015 and 2014, and the related consolidated statements of income, comprehensive income, shareholders' equity and cash flows for each of the three years in the period ended December 31, 2015. Our audits also included the financial statement schedule listed in the index at item 15(a). These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Harley-Davidson, Inc. at December 31, 2015 and 2014, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2015, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

continued

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Harley-Davidson, Inc.'s internal control over financial reporting as of December 31, 2015, based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 18, 2016 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP
Milwaukee, Wisconsin
February 18, 2016

Although this report is a routine disclosure, it should not be taken for granted. Exceptions to a clean audit report must be scrutinized. Also, any disagreements between management and the independent auditor must be documented in an SEC filing. If this occurs, it is a "red flag" that must be investigated. Management activities and reports that cannot meet usual audit standards raise serious concerns about integrity and credibility. At a minimum, the riskiness of investments and relationships with such a company markedly increases.

Assessing Profitability and Creditworthiness

eLectures MBC **LO2** Assess company profitability and creditworthiness.

This section reports a profitability analysis of **Harley-Davidson**. We begin by computing several key measures that are used in the ROE disaggregation, which is the overriding focus of this section. The ROE disaggregation process is defined in Module 4, and we begin with the traditional DuPont analysis.

ROE Disaggregation—DuPont Analysis

We present the DuPont analysis over the 2011-2015 period for Harley-Davidson in Exhibit C.6. For 2015, Harley reports a return on equity (ROE) of 31.68%. Following are the computations for 2015.

DuPont Analysis	2015	Computations ($ thousands)
Profit margin (PM).	12.55%	$752,207 / $5,995,402
Asset turnover (AT)	0.61	$5,995,402 / ([$9,528,097 + $9,991,167]/2)
Return on assets (ROA) . .	7.71%	$752,207 / ([$9,528,097 + $9,991,167]/2) or 12.55% × 0.61 = 7.66% (difference due to rounding)
Financial leverage (FL) . . .	4.11	([$9,528,097 + $9,991,167]/2) / ([($2,909,286 + $1,839,654]/2)
Return on equity (ROE). . .	31.68%	$752,207 / ([$2,909,286 + $1,839,654]/2) or 7.71% × 4.11 = 31.69% (difference due to rounding)

Ratios for 2011-2014 are computed similarly (balance sheets and income statements for prior years are not included as exhibits in this appendix).

Exhibit C.6 ■ **Harley-Davidson DuPont Analysis 2011-2015**

DuPont Analysis	2011	2012	2013	2014	2015
Profit margin (PM).	11.28%	11.18%	12.44%	13.56%	12.55%
Asset turnover (AT	0.56	0.59	0.64	0.66	0.61
Return on assets (ROA)	6.27%	6.62%	7.90%	8.92%	7.71%
Financial leverage (FL)	4.13	3.79	3.34	3.20	4.11
Return on equity (ROE).	25.90%	25.07%	26.37%	28.54%	31.68%

Harley-Davidson's ROE is high, primarily because of its high return on assets (ROA) and financial leverage (FL). We make the following observations ($ in thousands).

- **Gross profit margin.** Harley's ability to maintain its gross profit margin on product sales of 36.8% ([$5,308,744 − 3,356,284]/$5,308,744) in an increasingly competitive market reflects the strength of its brand, and its gross margins have been increasing over the 5-year period (33.4% in 2011).
- **SG&A margin.** Its SG&A expense margin of 20.4% in 2015 ($1,220,095/$5,995,402) is up slightly over 2014, but over the 5 year period, the margin has remained constant, indicating control of overhead costs.
- **Asset turnover.** Harley's balance sheet includes a significant investment in PPE assets, as we would expect for a manufacturing company. And, because it offers lease financing for motorcycle purchases, its balance sheet also includes a significant amount of lease receivables in addition to the usual accounts receivable.
- **Cash conversion cycle.** Harley's cash conversion cycle is nearly 50 days in 2015, an increase of 11 days from the prior year, primarily due to an increase in days to sell inventory as the market for its products weakened ($ in thousands).

Days sales outstanding	17.0	(365 × ([$247,621 + $247,405]/2)/$5,308,744
Days inventory outstanding	56.3	(365 × ([$448,871 + $585,907]/2)/$3,356,284
Days payables outstanding	(23.5)	(365 × ([$196,868 + $235,614]/2)/$3,356,284
Cash conversion cycle	49.8	(17.0 + 56.3 − 23.5)

Using trade accounts receivable to compute the average collection period is a bit misleading, however, as a significant portion of Harley's motorcycle sales are financed in leases that extend the ultimate collection of cash. In order to maintain its operating cash flow, Harley uses VIEs to securitize its lease portfolio as we discuss above, thus adding financial leverage to its balance sheet. This is not unusual for companies that offer leasing alternatives to their customers.

- **Financial leverage.** Harley finances its leasing portfolio with Variable Interest Entities that issue bonds to finance the purchase of leases from Harley. Since Harley is the primary beneficiary of these VIEs, it must consolidate them with its own financial statements. Consequently, both the leases and the secured borrowings appear on Harley's consolidated balance sheet.

ROE Disaggregation—Operating Focus

Our first step is to compute the ROE and, then, disaggregate it into its operating (return on net operating assets or RNOA) and nonoperating components. Harley's 2015 net operating profit after taxes, or NOPAT, is $857,741 (in $000s) and its net operating assets, or NOA, total $6,300,687 (in $000s).[1] In computing Harley's NOA, we assume that cash labeled as "restricted" is nonoperating as it is not available to support operating activities. Likewise, we classify the finance receivables held by the VIEs as nonoperating. Harley reports the following details about these finance (lease) receivables.

$ thousands	2015	2014
Balances held by consolidated variable interest entities		
Current finance receivables, net	$ 322,768	$ 312,645
Other assets	4,706	3,409
Non-current finance receivables, net	1,250,919	1,113,801
Restricted cash—current and non-current	100,151	110,017
Current portion of long-term debt	353,363	366,889
Long-term debt	1,109,791	904,644

[1] NOPAT $857,741 = ($5,995,402 − $3,356,284 − $101,345 − $1,220,095) − ($397,956 + [($12,117 + $161,983 − $6,585) × 37%]). NOA $6,300,687 = $9,991,167 − $722,209 − $45,192 − $88,267 − $322,768 − 1,250,919 − $235,614 − $471,964 − $164,888 − $193,659 − $195,000

Harley securitizes its finance lease receivables by transferring them to a variable interest entity which, subsequently, issues bonds to finance the purchase. These borrowings are secured by the lease receivables pledged as collateral and the receivables can only be used to pay off the secured borrowing. Consequently, classify the finance receivables held by VIEs as nonoperating because they are not available to support current operating activities.

Using the NOPAT and NOA computed above, Harley's RNOA is 14% ($857,741/([$5,924,837 + $6,300,687)/2) and the following is a disaggregation of its ROE.

ROE	=	RNOA	+	Nonoperating return
31.68%	=	14.0%	+	17.68%

RNOA accounts for 44% (14%/31.68%) of Harley's ROE. Harley successfully uses its nonoperating activities to increase its 14% RNOA to produce a 31.68% ROE.

Disaggregation of RNOA—Margin and Turnover

The next level analysis of ROE focuses on RNOA disaggregation. Harley-Davidson's net operating profit margin (NOPM) and net operating asset turnover (NOAT) are as follows.

RNOA = NOPAT/Average Net Operating Assets = NOPAT/Sales × Sales/Average Net Operating Assets

RNOA		NOPM		NOAT
14.0%	=	14.3%	×	0.98

where (in $000s): NOPM = $857,741/$5,995,402

NOAT = $5,995,402/[($5,924,837 + $6,300,687)/2]

Harley-Davidson's RNOA of 14.0% consists of a net operating profit margin of 14.3% and a net operating asset turnover of 0.98 times.

Harley's net operating assets (NOA), net operating profit (NOPAT) and return on net operating assets (RNOA) for 2011–2015 are as follows.

$ thousands	2011	2012	2013	2014	2015
NOA	$3,369,253	$4,166,924	$5,420,888	$5,924,837	$6,300,687
NOPAT	$716,159	$771,757	$863,072	$946,759	$857,741
RNOA	22.1%	20.5%	18.0%	16.7%	14.0%
NOPM	13.5%	13.8%	14.6%	15.2%	14.3%
NOAT	1.64	1.48	1.23	1.10	0.98

Because a large portion of Harley's assets are nonoperating, its RNOA is about twice the level of ROA (14.0% vs. 7.71%), but the level has declined in the past year as sales softened and operating asset turnover continued to slow. This pattern is similar to that which we observe in our analysis of ROA and its components.

Credit Analysis

Credit analysis is an important part of a complete company analysis. Following is a selected set of measures for 2015 that can help us gauge the relative credit worthiness of Harley-Davidson ($ thousands):

Current ratio ($3,983,154/$2,752,578)	1.45
Quick ratio ($722,209 + $45,192 + $247,405 + $1,730,814)/$2,752,578	1.00
Total liabilites-to-equity ($9,991,167 − $1,839,654)/$1,839,654	4.43
Long-term debt/Equity ($4,845,388 + $843,620)/$1,839,654	3.09
Times interest earned (Earnings before interest and taxes/Interest expense) ($5,995,402 − $3,356,284 − $101,345 − $1,220,095)/($12,117 + $161,983)	7.57
Net operating cash flows/Total liabilities $1,100,118/($9,991,167 − $1,839,654)	0.13

Harley's current and quick ratios are not particularly high, and both have decreased slightly over the past five years (not shown here). These ratios do not imply any excess liquidity, and probably do not suggest any room for a further decrease in liquidity.

Harley's financial leverage, as reflected in both total liabilities-to-equity and long-term-debt-to-equity ratios, are high and reflect the consolidation of Harley's variable interest entities that incur debt in order to finance lease receivables. Normally, this is cause for some concern. However, Harley-Davidson has strong operating and free cash flows that mitigate this concern.

Harley's times interest earned ratio of 7.57 is healthy, indicating a sufficient buffer to protect creditors if earnings decline. The company also has relatively little off-balance-sheet exposure. Thus, we do not have any serious concerns about Harley's ability to repay its maturing debt obligations.

Credit rating agencies use ratios such as these to determine credit ratings for Harley's short-term and long-term debt. Harley discloses the credit ratings on its debt in its MD&A.

To access the debt capital markets, the Company relies on credit rating agencies to assign short-term and long-term credit ratings. Generally, lower credit ratings result in higher borrowing costs and reduced access to debt capital markets. A credit rating agency may change or withdraw the Company's ratings based on its assessment of the Company's current and future ability to meet interest and principal repayment obligations. The Company's short-term debt ratings affect its ability to issue unsecured commercial paper. The Company's short- and long-term debt ratings as of December 31, 2015 were as follows:

	Short-Term	Long-Term	Outlook
Moody's	P2	A3	Stable
Standard & Poor's	A2	A−	Stable
Fitch	F1	A	Stable

Harley-Davidson's long-term debt is rated as "upper-medium grade" (see our discussion of credit ratings earlier in the text) and its outlook is stable. This rating allows Harley to continue to access credit markets at a reasonable cost of debt.

Summarizing Profitability and Creditworthiness

Although Harley is facing an increasingly competitive environment, it has been able to maintain its gross margins on product sales and to control its SG&A margin. Consequently, both its net profit margins and net operating profit margins have remained in a fairly narrow band over the past five years. Its asset turnover ratios (total asset turnover and net operating asset turnover) have declined, resulting in a decline in returns on assets and net operating assets.

Leasing activities result in an increase in assets that must be financed, and Harley's financial leverage, as measured by both total assets-to-equity and net operating assets-to-equity, has increased. Harley's operating cash flow has increased steadily and its liquidity, as measured by the current and quick ratios and the cash conversion cycle, is low but not of great concern because of the company's ability to generate cash from operations. Financial leverage is an expected consequence for companies offering leasing opportunities for the sale of their products when those leases remain on the consolidated balance sheet. We must be mindful of this leasing activity when analyzing companies like Harley as the consolidated income statement and balance sheets include both the manufacturing operating and the banking activities.

Harley's credit ratings for its debt and its stock price have remained stable. Harley's stock is trading near $60 at 2016 year-end, and has ranged from about $40-$70 over the past five years.

Forecasting Financial Statements

eLectures MBC **LO3** Forecast financial statements.

The valuation of Harley's common stock requires forecasts of free cash flows over a forecast horizon period and a forecast terminal period. Our approach is to project individual income statement and balance sheet items using the methodology we discuss earlier in the text. Harley presented its 4Q results and 2016 guidance to analysts on January 28, 2016, and provided the following slide relative to its expectations for 2016 (posted on the Harley-Davidson investor relations website).

2016 Expectations
as of Jan. 28, 2016

Motorcycles and related products segment	Motorcycle shipments	*269,000 – 274,000, up 1% to 3% vs. 2015* *[Q1 78,000 – 83,000]*
	Gross margin %	*Down year/year*
	SG&A	*Flat to up modestly year/year –* *Down as a percent of revenue*
	Operating margin %	*16% – 17%*
Financial services segment	HDFS operating income	*Down modestly year/year*
Harley-Davidson, Inc.	Capital expenditures	*$255 - $275 million*
	Effective tax rate	*Approximately 34.5%*

Harley's guidance is for about 2% sales growth and lower gross profit margins as explained in the following comments.

> The Company expects that the 2016 gross margin percent will benefit from motorcycle pricing and strong productivity gains offset by unfavorable foreign currency exchange and higher year-over-year start-up costs as it implements its enterprise resource planning (ERP) system at its Kansas City manufacturing facility. . . Under this scenario, the Company would also expect an unfavorable impact to 2016 gross margin of approximately $60 million, or 1 percentage point, driven by lower revenues and the comparison to the more favorable foreign currency contract gains it realized in 2015.

Based on the guidance in the table and footnote above, we have assumed a 2% sales growth for Motorcylces and Related Products along with a one percentage point increase in COGS as a percentage of Motorcycle and Related Product sales for 2016 (from 63.2% to 64.2%). We have assumed a 1% decrease in HDFS revenue and no change in related lease receivables.

Harley's guidance is for a modest reduction in the SG&A margin and the company provides the following discussion in the MD&A section.

> Although the Company will invest significantly more in marketing and product development in 2016, the Company expects its full-year selling, administrative and engineering expenses to be flat to up modestly from 2015. As a percent of revenue, the Company expects its selling, administrative and engineering expense will decrease.

We assume that SG&A as a proportion of total revenue margin will decrease by 0.4% to 20% for 2016. We assume that all other operating expenses will be the same percentage of total revenues as in 2015. We assume no change in the nonoperating expenses, in dollar terms. Finally, Harley estimates its effective tax rate at 34.5%, about the same as in 2015, and we have used that rate to forecast income tax expense.

For the balance sheet, we have assumed the following.

- Goodwill will not change.
- All operating assets and liabilities (other than PPE, as explained below) will remain the same percentage of total revenues as in 2015.
- All nonoperating assets and liabilities will not change, in dollar terms, except for long-term debt and current maturities as explained below.
- We assume CAPEX of $262,073 thousand, the same percentage of sales as in the prior year. This level of CAPEX is in line with Harley's guidance of $255-$275 million above. We assume depreciation expense of $208,274 thousand which is the same percentage of depreciation expense-to-prior year PPE, net.
- We forecast no new borrowings.
- Harley provides the following schedule of long-term debt maturities over the next five years that we have incorporated into our forecasts.

$ thousands	2016	2017	2018	2019	2020	Thereafter	Total
Principal payments on debt . . .	$2,045,000	$1,177,493	$1,303,698	$934,386	$682,877	$746,934	$6,890,388

- We assume no change in stockholders' equity other than the increase in retained earnings from forecasted net income and the decrease relating to dividend payments which we forecast to remain at the 2015 dividend payout level of 33.1% of net income. Harley has repurchased common stock in the past. In this forecast, we do not assume additional stock purchases.

These assumptions result in the forecasted income statement and balance sheet in Exhibit C.7.

Exhibit C.7 ■ Harley-Davidson Forecasted Income Statement and Balance Sheet

Consolidated Income Statement ($ thousands)	2015	Forecast Computations	2016
Revenue			
Motorcycles and related products	$5,308,744	$5,308,744 × 1.02	$5,414,919
Financial services	686,658	$686,658 × 0.99	679,791
Total revenue	5,995,402	subtotal	6,094,710
Costs and expenses:			
Motorcycles and related products cost of goods sold	3,356,284	$5,414,919 × 64.2%	3,476,378
Financial services interest expense	161,983	no change	161,983
Financial services provision for credit losses	101,345	$6,094,710 × 1.7%	103,610
Selling, administrative and engineering expense	1,220,095	$6,094,710 × 20.0%	1,218,942
Total costs and expenses	4,839,707	subtotal	4,960,913
Operating income	1,155,695	subtotal	1,133,797
Investment income	6,585	no change	6,585
Interest expense	12,117	no change	12,117
Income before provision for income taxes	1,150,163	subtotal	1,128,265
Provision for income taxes	397,956	$1,128,265 × 34.5%	389,251
Net income	$ 752,207	subtotal	$ 739,014

continued

Exhibit C.7 ■ **Harley-Davidson Forecasted Income Statement and Balance Sheet (continued)**

Consolidated Balance Sheets ($ thousands)	2015	Forecast Computations	2016
Current assets			
Cash and cash equivalents	$ 722,209	plug	$ 235,554
Marketable securities	45,192	no change	45,192
Accounts receivable, net	247,405	$6,094,710 × 4.1%	249,883
Restricted cash	88,267	no change	88,267
Restricted finance receivables held by variable interest entities, net	322,768	no change	322,768
Finance receivables, net	1,730,814	$6,094,710 × 28.9%	1,761,371
Inventories	585,907	$6,094,710 × 9.8%	597,282
Deferred income taxes	102,769	$6,094,710 × 1.7%	103,610
Other current assets	137,823	$6,094,710 × 2.3%	140,178
Total current assets	3,983,154	subtotal	3,544,105
Restricted finance receivables held by variable interest entities, net	1,250,919	no change	1,250,919
Finance receivables, net	3,563,652	$6,094,710 × 59.4%	3,620,258
Property, plant and equipment, net	942,418	$262,073 − $208,274	996,217
Goodwill	54,182	no change	54,182
Deferred income taxes	99,614	$6,094,710 × 1.7%	103,610
Other long-term assets	97,228	$6,094,710 × 1.6%	97,515
Total assets	$9,991,167	subtotal	$9,666,806
Current liabilities			
Accounts payable	$ 235,614	$6,094,710 × 3.9%	$ 237,694
Accrued liabilities	471,964	$6,094,710 × 7.9%	481,482
Short-term debt	1,201,380	no change	1,201,380
Current portion of long-term debt	843,620	−$843,620 + $2,045,000	2,045,000
Total current liabilities	2,752,578	subtotal	3,965,556
Long-term debt	4,845,388	−$2,045,000	2,800,388
Pension liability	164,888	$6,094,710 × 2.8%	170,652
Postretirement healthcare liability	193,659	$6,094,710 × 3.2%	195,031
Other long-term liabilities	195,000	$6,094,710 × 3.3%	201,125
Commitments and contingencies			
Shareholders' equity			
Preferred stock, none issued	—	no change	—
Common stock	3,449	no change	3,449
Additional paid-in-capital	1,328,561	no change	1,328,561
Retained earnings	8,961,985	+ $739,014 − $244,614	9,456,385
Accumulated other comprehensive loss	(615,205)	no change	(615,205)
Treasury stock at cost	(7,839,136)	no change	(7,839,136)
Total shareholders' equity	1,839,654	subtotal	2,334,054
Total liabilities and shareholders' equity	$9,991,167	subtotal	$9,666,806

The forecasted statement of cash flows is in Exhibit C.8. This forecasted statement utilizes the forecasted income statement and comparative balance sheets as presented in Exhibit C.7 and is prepared as we illustrate earlier in the text. We forecast that Harley will generate $920,545 thousand in cash from operating activities in 2016. Given projected CAPEX of $262,073 thousand and dividends of $244,614 thousand, we forecast that Harley will reduce its cash by $486,655 thousand to $235,554 thousand at year-end, 3.86% of forecasted total revenue. This is below the 12% reported in the prior year and indicates that Harley will likely require external financing to maintain its cash position.

Exhibit C.8 ■ Harley-Davidson Forecasted Statement of Cash Flows

$ thousands	Forecast Assumptions	2016 Est.
Operating activities		
Net income	via forecasted income statement	$ 739,014
Add: Depreciation	$942,418 × 22.1%	208,274
Change in accounts receivable	$247,405 − $249,883	(2,478)
Change in short-term finance receivables	$1,730,814 − $1,761,371	(30,557)
Change in inventories	$585,907 − $597,282	(11,375)
Change in deferred income taxes	$202,383 − $207,220	(4,837)
Change in other current assets	$137,823 − $140,178	(2,355)
Change in accounts payable	$237,694 − $235,614	2,080
Change in accrued liabilities	$481,482 − $471,964	9,518
Change in pension liability	$170,652 − $164,888	5,764
Change in postretirement healthcare liability	$195,031 − $193,659	1,372
Change in other long-term liability	$201,125 − $195,000	6,125
Net cash from operating activities	subtotal	920,545
Investing activities		
Capital expenditures	given	(262,073)
Change in long-term finance receivables	$3,563,652 − $3,620,258	(56,606)
Change in other long-term assets	$97,228 − $97,515	(287)
Net cash from investing activities	subtotal	(318,966)
Financing activities		
Dividends	$739,014 × 33.1%	(244,614)
Decrease in long-term debt	footnotes	(843,620)
Repurchase of stock	assumed $0	0
Net cash from financing activities	subtotal	(1,088,234)
Net change in cash	subtotal	(486,655)
Beginning cash	from balance sheet	722,209
Ending cash	subtotal	$ 235,554

Valuing Equity Securities

eLectures MBC **LO4** Describe and illustrate the valuation of firm equity.

In this section, we estimate the per share value of Harley-Davidson's common stock as of its year-end. We use the forecasted income statement and balance sheet for 2016 from Exhibit C.7 to yield sales, NOPAT and NOA forecasts. We then forecast the remaining horizon period (2017 to 2019) and the terminal period using the parsimonious method as described in the forecasting module. We assume that total revenue will grow by 2% and that the Net operating profit margin (NOPM) and Net operating asset turnover (NOAT) will remain at their forecasted levels for 2016 of 13.9% and 0.947 times, respectively. We assume a 1% growth rate in the terminal year. These assumptions yield the table of forecasted sales, NOPAT and NOA in Exhibit C.9.

Exhibit C.9 ■ Harley-Davidson Multiyear Forecasts of Sales, NOPAT and NOA

Harley-Davidson ($ thousands)	Current 2015	Horizon Period 2016	2017	2018	2019	Terminal Period
Revenue growth		as forecasted	2.0%	2.0%	2.0%	1.0%
Total revenue (unrounded)	$5,995,402.00	$6,094,710.00 as forecasted	$6,216,604.20 ($6,094,710.00 × 1.02)	$6,340,936.28 ($6,216,604.20 × 1.02)	$6,467,755.01 ($6,340,936.28 × 1.02)	$6,532,432.56 ($6,467,755.01 × 1.01)
Total revenue (rounded)	$5,995,402	$6,094,710	$6,216,604	$6,340,936	$6,467,755	$6,532,433
NOPAT	857,741	844,548 13.9%	864,108 ($6,216,604 × 13.9%)	881,390 ($6,340,936 × 13.9%)	899,018 ($6,467,755 × 13.9%)	908,008 ($6,532,433 × 13.9%)
NOA	6,300,687	6,438,122 0.947	6,564,524 ($6,216,604/0.947)	6,695,814 ($6,340,936/0.947)	6,829,731 ($6,467,755/0.947)	6,898,029 ($6,532,433/0.947)

Discounted Cash Flow Valuation

Exhibit C.10 shows the discounted cash (DCF) model results. In addition to the forecasted NOPAT and NOA from Exhibit C.9, we assume a discount rate (WACC) of 6.0%. We use shares outstanding of 184,734 thousand (from the balance sheet), net nonoperating obligations (NNO) of $4,461,033 (in 000s − $(843,620 + 1,201,380 + 4,845,388 − 722,209 − 45,192 − 88,267 − 322,768 − 1,250,919).

Exhibit C.10 ■ Harley-Davidson Discounted Cash Flow (DCF) Valuation

Harley-Davidson, DCF ($ 000s except per share values and discount factors)	Reported 2015	Horizon Period 2016	2017	2018	2019	Terminal Period
Total revenue (rounded)	$5,995,402	$6,094,710	$6,216,604	$6,340,936	$6,467,755	$6,532,433
NOPAT	857,741	844,548	864,108	881,390	899,018	908,008
NOA	6,300,687	6,438,122	6,564,524	6,695,814	6,829,731	6,898,029
Increase in NOA		137,435	126,402	131,290	133,917	68,298
FCFF (NOPAT − Increase in NOA)		707,113	737,706	750,100	765,101	839,710
Discount factor $[1/(1 + r_w)^t]$		0.94340	0.89000	0.83962	0.79209	
Present value of horizon FCFF		667,090	656,558	629,799	606,029	
Cum. present value of horizon FCFF	$ 2,559,476					
Present value of terminal FCFF	13,302,518					
Total firm value	15,861,994					
Less NNO	4,461,033					
Firm equity value	$11,400,961					
Shares outstanding	184,734					
Stock value per share	$ 61.72					

The DCF valuation model yields a stock price estimate of $61.72 per share, above the $41.61 closing price for Harley's stock on February 18, 2016, the day the comany's Form 10-K was filed with the SEC making their annual financial data publicly available.

Residual Operating Income Valuation

Exhibit C.11 reports estimates of the values of Harley-Davidson's equity and common stock per share using the residual operating income (ROPI) model. All of the assumptions remain the same as for the DCF model.

Exhibit C.11 ■ Harley-Davidson Residual Operating Income (ROPI) Valuation

Harley-Davidson, ROPI ($ 000s except per share values and discount factors)	Reported 2015	Horizon Period 2016	2017	2018	2019	Terminal Period
Total revenue (rounded)	$5,995,402	$6,094,710	$6,216,604	$6,340,936	$6,467,755	$6,532,433
NOPAT	857,741	844,548	864,108	881,390	899,018	908,008
NOA	6,300,687	6,438,122	6,564,524	6,695,814	6,829,731	6,898,029
ROPI (NOPAT − $[NOA_{beg} \times r_w]$)		466,507	477,821	487,519	497,269	498,224
Discount factor $[1/(1 + r_w)^t]$		0.94340	0.89000	0.83962	0.79209	
Present value of horizon ROPI		440,103	425,261	409,331	393,882	
Cum. present value of horizon ROPI	$ 1,668,577					
Present value of terminal ROPI	7,892,765					
NOA	6,300,687					
Total firm value	15,862,029					
Less NNO	4,461,033					
Firm equity value	$11,400,996					
Shares outstanding	184,734					
Stock value per share	$ 61.72					

Assessment of the Valuation Estimate

The closing stock price on December 31, 2015, for Harley-Davidson (HOG) was $45.39 per share. The stock price dropped to $41.61 by February 18, 2016, the day the company filed its 10-K report with the SEC. Our model's estimates, therefore, suggest that Harley's stock is undervalued as of that date. As it turns out, its stock price increased to $60 subsequent to that date as shown in the following graph.

Summary Observations

Overall, this appendix presents a financial accounting analysis and interpretation of Harley-Davidson's performance and position. It illustrates many of the key financial reporting topics covered in the book. We review the company's financial statements and notes, forecast key accounts, and conclude with estimates of Harley's equity value.

The Harley-Davidson case provides an opportunity for us to apply many of the procedures conveyed in the book in a comprehensive manner. With analyses of additional companies, we become more comfortable with, and knowledgeable of, variations in financial reporting, which enhances our analysis and business decision-making skills. Our analysis of a company must go beyond the accounting numbers to include competitor and economic factors, and we must appreciate that estimation and judgment are key ingredients in financial accounting.