

## RATIOS TELL A STORY—2013

Financial results and conditions vary among companies for a number of reasons. One reason for the variation can be traced to the characteristics of the industries in which companies operate. For example, some industries require large investments in property, plant, and equipment (PP&E), while others require very little. In some industries, the competitive product-pricing structure permits companies to earn significant profits per sales dollar, while in other industries the product-pricing structure imposes a much lower profit margin. In most low-margin industries, however, companies often experience a relatively high rate of product throughput (i.e., turnover).

A second reason for some of the variation in financial results and conditions among companies is the result of management philosophy and policy. Some companies reduce their manufacturing capacity to match more closely their immediate sales prospects, while others carry excess capacity to be prepared for future sales growth. Also, some companies finance their assets with borrowed funds, while others avoid that leverage and choose instead to finance their assets with owners' equity. Some corporate management teams choose to not pay dividends to their owners, preferring to reinvest those funds in the company. And some companies choose to grow organically (i.e., increasing sales of internally developed products and/or services) while others focus on mergers and acquisitions as their dominant means for growing.

Of course, another reason for some of the variation in reported financial results among companies is the differing competencies of management. Given the same industry characteristics and the same management policies, different companies might report different financial results simply because their managements perform differently.

And one last reason is that some industries are more susceptible to macroeconomic conditions than others. This can be true when macroeconomic conditions (e.g., foreign exchange rates, interest rates, and taxes) are weak and deteriorating as well as when they are strong and improving. This can also be true when such conditions are stable versus volatile.

Those differences in industry characteristics, in company policies, in management performance, and in responsiveness to the macroeconomic environment are reflected in the

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This case was prepared by Professor Mark E. Haskins, Darden School of Business, and has benefited from collaborations with various colleagues over the years on earlier versions. It was written as a basis for discussion rather than to illustrate effective or ineffective handling of an administrative situation. Copyright © 2014 by the University of Virginia Darden School Foundation, Charlottesville, VA. All rights reserved. *To order copies, send an e-mail to [sales@dardenbusinesspublishing.com](mailto:sales@dardenbusinesspublishing.com). No part of this publication may be reproduced, stored in a retrieval system, used in a spreadsheet, or transmitted in any form or by any means—electronic, mechanical, photocopying, recording, or otherwise—without the permission of the Darden School Foundation.*

financial statements published by publicly held companies. Furthermore, they can be highlighted through the use of financial ratios. **Exhibit 1** presents balance sheets in percentage form and selected financial ratios computed from FY13 balance sheets and income statements for 13 companies from the following industries:

- airline
- railroad
- pharmaceutical
- commercial banking
- wireless communications hardware, software, and services
- discount general merchandise retail
- electric utility
- fast-food restaurant chain
- wholesale food distribution
- supermarket (grocery) chain
- Internet retailing
- advertising agency services
- computer software development

Study the balance sheet profiles and the financial ratios listed for each of the 13 companies presented in **Exhibit 1**.<sup>1</sup> Your assignment is to use your intuition, common sense, and basic understanding of the unique attributes of each industry listed above to match each column in the exhibit with one of the industries. Be prepared to give the reasons for your pairings, citing the data that seem to be consistent with the characteristics of the industry you selected. Ours is not a perfect world, however, and for the class discussion, it will be helpful if you also identify those pieces of data that seem to contradict the pairings you have proposed. Please note that when using the data available here, you will find it difficult to identify those companies whose financial results differ because of management policy and competence.

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<sup>1</sup> Please note in **Exhibit 1**: OCI = other comprehensive income, CFFO = cash flow from operations, ST = short term, and LT = long term.

The ratios in **Exhibit 1** are based on the following formulas:

1. ROS (return on sales)	=	$\frac{\text{Net income}}{\text{Net sales}}$
2. Asset turnover	=	$\frac{\text{Net sales}}{\text{Total assets}}$
3. ROA (return on assets)	=	$\frac{\text{Net income}}{\text{Total assets}}$
	<i>or</i>	= ROS × Asset turnover
4. Financial leverage	=	$\frac{\text{Total assets}}{\text{Total owners' equity}}$
5. ROE (return on equity)	=	$\frac{\text{Net income}}{\text{Total owners' equity}}$
	<i>or</i>	= ROA × Financial leverage
6. Current ratio	=	$\frac{\text{Total current assets}}{\text{Total current liabilities}}$
7. Inventory turnover	=	$\frac{\text{Cost of goods sold}}{\text{Ending inventory}}$
8. Receivables collection	=	$\frac{\text{Accounts receivable}}{\text{Net sales/365 days}}$
9. Revenue growth	=	$\frac{\text{This year's net sales} - \text{Last year's net sales}}{\text{Last year's net sales}}$
10. Gross margin	=	$\frac{\text{Net sales} - \text{Cost of goods sold}}{\text{Net sales}}$
11. Dividend payout	=	$\frac{\text{Cash dividends}}{\text{Net income}}$
12. R&D ratio	=	$\frac{\text{Research and development expense}}{\text{Net sales}}$

Exhibit 1

**RATIOS TELL A STORY—2013**

Selected Financial Data for 13 Companies  
(balance sheet amounts are percentage of total assets)

Year end	1	2	3	4	5	6	7	8	9	10	11	12	13
	2.1.14	11.29.13	12.31.13	12.31.13	12.31.13	1.31.14	12.31.13	3.1.14	12.31.13	6.29.13	12.31.13	12.31.13	12.31.13
<b>Assets:</b> Cash	4.6%	30.6%	14.0%	12.3%	4.8%	3.6%	31.0%	33.5%	16.6%	3.3%	0.9%	7.6%	2.5%
Accts. Receivable	3.8%	5.8%	4.1%	30.0%	3.2%	3.3%	11.9%	12.9%	6.8%	25.1%	75.2%	3.6%	3.1%
Inventory	19.3%	0.0%	1.8%	5.8%	0.7%	21.9%	18.5%	3.2%	5.9%	18.9%	0.0%	0.3%	0.9%
Other CA	2.4%	2.6%	3.7%	4.5%	0.8%	1.2%	0.0%	17.4%	4.5%	1.7%	0.0%	2.2%	3.1%
Total Current Assets	30.2%	39.0%	23.6%	52.7%	9.5%	29.9%	61.3%	67.0%	33.8%	49.0%		13.8%	9.6%
Net PP&E	57.7%	6.4%	49.0%	3.3%	82.0%	57.6%	27.3%	12.5%	14.2%	31.4%	1.0%	70.3%	70.0%
Goodw ill	7.3%	46.0%	12.3%	40.3%	0.0%	9.5%	6.6%	0.0%	11.6%	14.9%	3.7%	7.8%	1.1%
Intangibles & oth	4.9%	8.7%	15.0%	3.6%	8.5%	3.0%	4.8%	20.6%	40.4%	4.7%	19.2%	8.1%	19.4%
<b>Total Assets</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Liabilities:</b> Accts. Pay.	16.7%	0.6%	5.7%	37.8%	3.9%	18.3%	37.7%	6.3%	2.2%	19.5%	75.8%	3.0%	2.5%
ST Debt	5.7%	0.1%	4.0%	0.0%	0.3%	5.7%	1.9%	0.0%	4.3%	2.0%	0.0%	0.0%	1.2%
Other	14.2%	14.0%	23.2%	17.7%	2.9%	9.8%	17.7%	23.8%	10.5%	8.2%	0.0%	5.7%	7.9%
Total Current Liabilities	36.6%	14.7%	32.9%	55.6%	7.1%	33.9%	57.2%	30.0%	16.9%	29.6%		8.7%	11.6%
LT Debt	33.0%	14.4%	29.7%	18.2%	27.4%	21.8%	7.9%	21.5%	19.4%	20.8%	11.7%	38.6%	25.8%
Other	12.0%	6.1%	29.3%	7.8%	30.7%	4.6%	10.6%	0.4%	14.1%	8.6%	0.0%	9.1%	32.4%
Total Liabilities	81.6%	35.2%	91.9%	81.6%	65.2%	60.3%	75.7%	52.0%	50.5%	59.0%	87.5%	56.3%	69.9%
<b>Equity:</b> Noncontrolling Int.	0.0%	0.0%	0.0%	2.2%	0.0%	2.5%	0.0%	0.0%	2.4%	0.0%	0.0%	0.0%	0.0%
Net Contr. Cap.	-17.5%	-2.4%	20.1%	-23.5%	7.2%	1.3%	19.3%	29.6%	12.0%	-22.7%	6.7%	-71.4%	9.8%
Ret. Inc. + OCI	35.9%	67.2%	-12.0%	39.7%	27.6%	35.9%	5.0%	18.4%	35.1%	63.7%	5.7%	115.2%	20.3%
Total Equity	18.4%	64.8%	8.1%	18.4%	34.8%	39.7%	24.3%	48.0%	49.5%	41.0%	12.5%	43.7%	30.1%
<b>Total Liab. &amp; Equity</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
ROS	1.6%	7.2%	1.5%	7.6%	17.0%	3.5%	0.4%	-86.2%	10.3%	2.2%	16.6%	19.9%	8.6%
Asset Turnover	3.36	0.39	1.04	0.66	0.35	2.33	1.85	0.90	0.42	3.51	0.06	0.77	0.30
ROA	5.2%	2.8%	1.6%	5.0%	5.9%	8.2%	0.7%	-77.8%	4.3%	7.8%	0.9%	15.3%	2.6%
Financial Leverage	5.43	1.54	12.34	5.43	2.88	2.52	4.12	2.08	2.02	2.44	8.02	2.29	3.32
ROE	28.4%	4.3%	19.1%	27.3%	16.9%	20.5%	2.8%	-162.0%	8.6%	19.1%	7.6%	34.9%	8.7%
Current ratio	0.82	2.65	0.72	0.95	1.33	0.88	1.07	2.23	2.00	1.66	N/A	1.59	0.82
Receivables collection	4	54	14	166	33	5	23	52	60	26	4836	17	37
Inventory Turnover	13.8	N/A	N/A	N/A	N/A	8.0	7.3	26.2	2.7	15.3	N/A	51.3	2.6
Gross margin	20.6%	94.4%	N/A	N/A	N/A	24.3%	11.0%	-64.5%	61.5%	17.7%	N/A	66.3%	64.0%
Dividend payout	20.8%	0.0%	0.0%	28.6%	33.4%	36.8%	0.0%	0.0%	114.2%	65.3%	52.7%	55.8%	67.9%
Revenue grow th	1.8%	-7.9%	3.0%	2.6%	10.4%	1.6%	21.9%	-38.5%	-6.8%	4.8%	-3.3%	2.0%	1.4%
R & D ratio	N/A	20.39%	N/A	N/A	N/A	N/A	8.82%	18.88%	17.04%	N/A	N/A	N/A	N/A
CFFO (millions)	3,380	1,152	1,444	1,809	3,078	23,257	5,475	-159	11,654	1,512	5,339	7,121	2,552