

# **Financial Reporting and Analysis**

**Graduate School of Credit and Financial Management  
National Association of Credit Management**

**Course Notebook  
2019**

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**Charles W. Mulford**  
**BioSketch**

Charles W. Mulford is Invesco Chair and professor of accounting in the College of Management at Georgia Tech. Since joining the faculty in 1983, he has been recognized ten times as the Core Professor of the Year and four times as the Professor of the Year by the Graduate Students in Business Administration. In 1999 the graduate students voted to rename the Core Professor of the Year Award the “Charles W. Mulford Core Professor of the Year Award”. An additional teaching award received in 2000 was the university-wide W. Roane Beard Outstanding Teacher Award.

Dr. Mulford’s scholarly pursuits include the publication of numerous papers in scholarly as well as professional accounting and finance journals. His research interests center on the effects of accounting standards on investment and credit decision-making, earnings forecasts, the relationship between accounting-based and market-based measures of risk and international accounting and reporting practices. More recently, his research interests have turned to the use of published financial reports in cash flow analysis. He has co-authored four books, *Financial Warnings*, published in 1996, *Guide to Financial Reporting and Analysis*, published in 2000, *The Financial Numbers Game: Identifying Creative Accounting Practices*, published in 2002 and *Creative Cash Flow Reporting: Uncovering Sustainable Financial Performance*, published in 2005. In 2002, Dr. Mulford founded the Georgia Tech Financial Analysis Lab, which is dedicated to conducting independent stock market research.

Dr. Mulford has appeared on numerous broadcast networks, including CNBC, ABC News, and Bloomberg TV. In addition, he has been quoted in several business publications, including *The Wall Street Journal*, *The Financial Times*, *Business Week*, *Forbes*, and *Fortune*.

In addition to his work at Georgia Tech, Professor Mulford regularly consults with major domestic and international commercial banks and money-management firms on issues related to credit and investment decision-making. He also serves as Director of Research to Cash Flow Analytics, LLC.

Professor Mulford has a doctorate in accounting from the Florida State University and is professionally qualified as a Certified Public Accountant (CPA). Prior to joining the Georgia Tech faculty, he practiced public accounting with the firm of Coopers & Lybrand. He was an audit senior in the firm's Miami office.

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## Course Description:

*Financial Reporting and Analysis* is an intensive course that deals with topics on financial reporting and analysis that extend beyond the foundational level. The course has one primary objective: To make participants informed users of financial statements for the purpose of making more successful credit decisions. This overriding objective is achieved by a) gaining a working knowledge of key concepts and assumptions underlying the preparation of financial statements, b) developing an analytical mind set that enables the decision maker to identify financial strengths and weaknesses, and c) achieving an understanding of the key drivers supporting core operating cash flow and the ability to determine when it will be sustained.

The target audience for *Financial Reporting and Analysis* consists of individuals who have recently studied foundational topics of financial accounting and analysis but who want exposure to more advanced topics that are especially important to credit decision making.

## Class Format:

The typical class session will blend lecture, discussion and the review of solutions to selected assignments. A considerable amount of class time will be spent in the evaluation of corporate financial statement disclosures.

## Course Materials and Assignments:

Class discussions will focus on the materials found in the course notebook, background reading could be made in any basic, university-level text in financial accounting.

The discussion topics, reading assignments and written exercises are found on the course outline starting on the next page. Written exercise materials are found in the course notebook.

## Course Pre-Work:

Complete the case assignment, Moore's Pool Supplies, Inc. found at the end of the course outline.

## **Financial Reporting and Analysis Course Outline**

### Day 1

Pre-class assignment:

Complete Moore's Pool Supplies, Course Outline, pp. 7-10

Review Income Statement Structure, pp. 1 – 10.

### Income Statement Structure

- Income statement structure
  - BG Technologies - Income statement, pp. 1-2.
  - ABEC Telecom., Inc. - Nonrecurring item included in operating profit, pp.3-4
  - Computer Dynamics - Nonrecurring item excluded from operating profit, pp 5-6.
    - In-class exercise, pp. 7-8
  - Basic Industries – Change in accounting principle, pp. 9-11
    - In-class exercise, where on the income statement? p. 12

### The Statement of Cash Flows

- Partitioning cash flows
  - Star Therapeutics.
    - Change in cash, p. 5.
    - Balance Sheet changes, p. 7.
    - Indirect method, p. 9.
    - Direct method, p. 10.
      - Storefront Furniture, Inc., p. 12-13.
        - Indirect and direct methods contrasted
- Classifying cash flows
- Cash flow classification exercise, p. 16-18
- Calculating operating cash flow, investing and financing cash flow
  - Barton Industries , pp. 19-30.
  - Exercise, Forders, Inc., pp. 31-33.
  - Exercise, DHTK, Inc., pp. 34-35.
  - Worksheet for indirect method cash flow statement., pp. 37-38.
  - Exercise, Jewel's Jewelers, pp. 39-42.
  
- The Earnings Quality Indicator, EQI, pp. 43-57
- Using EQI
- Understanding EQI
  - Stable EQI – Apple, Inc., p. 47.
  - Increasing EQI – Microsoft Corp., p. 48.
  - Declining EQI and a closer look – Target Corp., p. 49-50.
  - EQI surfaces problems – Krispy Kreme Doughnuts, p. 51.
  - EQI surfaces problems – Enron Corp., p. 52.
  - EQI surfaces problems – Beazer Homes, Inc. p. 53-54.
  - EQI surfaces problems – Decker's Inc., p. 55.

Review solution to Moore's Pool Supplies.

## Day 2

### Pre-class assignment:

Complete DHTK Corp., Statement of Cash Flows, pp. 34-35.

### The Statement of Cash Flows (cont'd)

Review solution to DHTK Corp., Statement of Cash Flows, pp. 34-35.

### Financial Statement Analysis

- Financial ratios, p. 1.
- Financial statements for analysis, BGS Tech., pp. 2-4.
- Four key ratios for analysis
- #2: Net margin ratio and sustainable net income, pp. 8 – 11
  - Exercise: Trey Systems, Inc., Sustainable Net income, pp. 10-11.
- #1: Return on equity, p. 12
  - Exercise: Using Return on Equity, p. 13
- #4: Financial Leverage, pp. 18-19.
- #3: Total asset turnover, pp. 26
- Combining profitability and activity ratios: DuPont Analysis, pp. 28-36
  - Exercise: Using DuPont Analysis, pp. 35-36

#### Using other ratios in analysis

- A closer look at the income statement, pp. 5-7
  - Exercise: Pharmaceuticals, Inc., Operating profit calculations, p. 7.
- Return on assets, pp. 12-13.
- EVA: Economic Value Added, p. 14-15

#### A closer look at the balance sheet, pp. 16-17

- Exercise: CSV Corp. p. 17
- Other leverage measures, p. 20-23
- Altman's Z bankruptcy predictor, p. 21
- Combined income statement and balance sheet measures: Activity ratios, pp. 24-27.
  - Exercise: United Instruments, Inc., p. 27
- Analyzing the Cash Flow Statement, pp. 37-41
  - Exercise: Analyzing cash flows, pp. 40-41
- Selected Valuation ratios, p. 42.

### Cash Flow Construction – Modified Uniform Credit Analysis Format

- Review of Indirect and Direct formats, pp. 1-11
- Modified UCA Format – Star Therapeutics, p. 12
- Calculating core operating cash flow and operating cash flow – Barton Industries, pp. 14-16

Day 3

Pre-class assignment:

Complete Forders, Inc. Cash Flow Construction, Modified UCA Format, pp.17-19

Cash Flow Construction – Modified Uniform Credit Analysis Format (cont'd)

Review solution to Forders, Inc.

- Modified UCA Format, a closer look, Column Casts, pp. 20-32
- Exercise: Preparing the UCA Format cash flow statement – Hamilton Farms, pp. 33-35.

Cash Flow Analysis – Modified Uniform Credit Analysis Format

- Five cash flow analysis examples:
  - Case 1: Sufficient operating cash flow to service interest and current portion, capital expenditures financed in-part with new long-term debt, p. 3.
  - Case 2: Insufficient operating cash flow to service interest and current portion financed with short-term debt, p. 4.
  - Case 3: Insufficient operating cash flow to service interest and current portion unusually high level of income taxes paid, p. 5.
  - Case 4: Sufficient operating cash flow to service interest and current portion unusually high level of other cash income, p. 6.
  - Case 5: Loss company. Sufficient operating cash flow to service interest and current portion. Company appears to be liquidating itself, p. 10.

Day 4

Pre-class assignment:

Complete Jewel's Jewelers, Cash Flow Construction, Modified UCA Format, pp.36-40

Cash Flow Analysis – Modified Uniform Credit Analysis Format (cont'd)

Review solution to Jewel's Jewelers

- Using ratios to identify borrowing causes, p. 12
  - Growth
  - Profitability measures:
    - Gross margin ratio
    - SG&A expense ratio
  - Operating efficiency measures:
    - Days receivables
    - Days inventory
    - Days payables

- Cash flow variance analysis, p. 13
  - Industrial Services, Inc. extended computational illustration of growth, profitability and operating efficiency calculations, pp. 14-27.  
Use of the cash flow drivers report.
- The core operating growth profile and free cash growth profile, pp. 28-34.
- Using the cash impact worksheet for operating accounts
  - Problem: Environmental Services: Identifying Borrowing Causes - focus on operating accounts, pp. 35-41.
- Calculating cash flow profiles, Brown-Forman, Inc. and Apple, Inc. pp. 43-49.





Case Assignment  
Moore's Pool Supplies, Inc.

Moore's, a local, family-run company, cleans and services swimming pools for the residential and commercial markets. The company has operated profitably for many years. In recent years, however, the business has struggled as the "children" have taken over management. The company's sales are down about 15% in the year ended March, 2018 from 2017. Randy Moore, the founder's son is pleased that even with the decline in sales, net income has been maintained at about equal with 2017. He attributes the success to a concerted effort to reduce SG&A expenses.

As he hands you his latest compiled financial statements, he notes that overall, 2018 wasn't bad, considering.

Required:

What do you see in Moore's financial statements that bothers you?

Mary Martin  
Certified Public Accountant

To the Board of Directors  
Moore's Pool Supplies, Inc.

Compilation Report

We have compiled the accompanying balance sheet of Moore's Pool Supplies, Inc. as of March 31, 2018 and 2017 and the related statements of income for the years then ended in accordance with Statements on Standards for Accounting and Review Services issued by the American Institute of Certified Public Accountants.

A compilation is limited to presenting in the form of financial statements information that is the representation of management. We have not audited or reviewed the accompanying financial statements and, accordingly, do not express an opinion or any other form of assurance on them.

Management has elected to omit substantially all of the disclosures and the statement of cash flows required by generally accepted accounting principles. If the omitted disclosures and the statement of cash flows were included, they might influence the user's conclusions about the company's financial position, results of operations, and cash flows. Accordingly, these financial statements are not designed for those who are not informed about such matters.

Mary Martin

May 5, 2018

Moore's Pool Supplies, Inc.  
Income Statement  
Unaudited  
For the Year Ended  
March 31, 2018 and 2017

	<u>2018</u>	<u>2017</u>
Net sales	\$ 7,344	\$ 8,640
Cost of sales	<u>5,450</u>	<u>6,221</u>
Gross profit	1,894	2,419
S. G. & A. (expenses)	(1,274)	(1,821)
Interest (expense)	(344)	(323)
Other income	<u>51</u>	<u>42</u>
Income before income taxes	327	317
(Provision) for income taxes	<u>(16)</u>	<u>(38)</u>
Net income	\$ <u>311</u>	\$ <u>279</u>

Other selected financial statement excerpts:

Operating cash flow:	(\$60)	\$368
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Year ended March 31, 2016: Revenue \$8,800. Net income: \$340. Operating cash flow \$639.

Moore's Pool Supplies, Inc.			
Balance Sheet			
Unaudited			
As of March 31, 2018, 2017 and 2016			
	<u>2018</u>	<u>2017</u>	<u>2016</u>
<b>ASSETS</b>			
Current assets:			
Cash and equivalents	\$ 86	\$ 241	\$ 387
Accounts receivable	1,539	1,372	1,314
Inventory	1,740	1,568	1,611
Prepaid expenses	<u>672</u>	<u>428</u>	<u>104</u>
Total current assets	4,037	3,609	3,416
Property and equipment			
Warehouse and store equipment	8,661	8,288	7,400
Furniture and fixtures	<u>1,683</u>	<u>1,641</u>	<u>1,547</u>
	10,344	9,929	8,947
Accumulated depreciation	<u>(4,521)</u>	<u>(4,025)</u>	<u>(3,578)</u>
Net property and equipment	5,823	5,904	5,369
Deferred charges	<u>576</u>	<u>451</u>	<u>327</u>
Total assets	\$ <u>10,436</u>	\$ <u>9,964</u>	\$ <u>9,112</u>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>			
Current liabilities:			
Accounts payable	\$ 503	\$ 595	\$ 501
Accrued expenses payable	358	423	408
Revolving credit agreement	2,438	1,797	1,173
Current maturities of long-term debt	357	347	335
Income taxes payable	<u>18</u>	<u>20</u>	<u>24</u>
Total current liabilities	3,674	3,182	2,441
Long-term debt less current maturities	2,593	2,431	2,349
Stockholders' equity:			
Common stock	100	100	100
Additional paid-in capital	900	900	900
Retained earnings	<u>3,169</u>	<u>3,351</u>	<u>3,322</u>
Total stockholders' equity	4,169	4,351	4,322
Total liabilities and s/h equity	\$ <u>10,436</u>	\$ <u>9,964</u>	\$ <u>9,112</u>