

Georgia Tech Scheller College of Business

Georgia Tech Financial Analysis Lab

800 West Peachtree Street NW
Atlanta, GA 30308-0520
404-894-4395

<http://www.scheller.gatech.edu/finlab>

Dr. Charles W. Mulford, Director
Invesco Chair and Professor of Accounting
charles.mulford@scheller.gatech.edu

Yash Lakhotia
Graduate Research Assistant
yashlakhotia@gatech.edu

Cash Flow Trends and Their Fundamental Drivers: Comprehensive Review (Quarter 2, 2019)

Free Cash Margin Index:

0.99%, 3.45%
Recession Lows
(Dec. 2000, Dec. 2008)

3.83%
Current
(June 2019)

6.88%
Recent High
(Dec. 2009)

Median free cash margin slightly decreased to 3.83% for the twelve months ending June 2019, compared to 3.90% for the twelve months ending March 2019 and 4.04% in June 2018. Median free cash margin dropped again from the previous quarter after increasing for the first time in December 2018 since June 2017. Median revenues have also decreased to \$1,194 million in June 2019 compared to \$1,234.73 million in March 2019.

Driving the fall in free cash margin was a marginal decrease in median operating cushion, which fell to 14.06% in the June 2019 reporting period compared to 14.09% in the March 2019 reporting period and 14.35% in the June 2018 reporting period. Gross margin marginally dropped from 37.26% in June 2019 from 37.27% in March 2019 but improved on a year over year basis from 37.08% in June 2018. SG&A spending as a percentage of revenue also decreased to 17.57% in June 2019 from 17.68% in March 2019 and but increased substantially compared to 16.99% in June 2018. An increase in the cash cycle favored this period's fall in free cash margin. The cash cycle rose to 51.38 days in the June 2019 reporting period compared to 50.81 days in March 2019 but decreased from 52.78 days in June 2018. This increase in the cash cycle was driven primarily by an increase in inventory days, which rose from 22.72 in March 2019 to 23.35 in June 2019. Receivables days and payables days slightly increased from the previous quarter.

Capital expenditures increased to 3.68% in the current quarter compared to 3.64% in March 2018. Tax payments moderately increased from 0.92% in March 2019 to 0.95% in June 2019. Dividends and stock buybacks as a percent of revenue also fell from 2.06% in March 2019 to 1.97% in June 2019 but were up year-over-year from 1.90% in June 2018.

Data for this research were provided by the Wharton Research Data Services database.

January 2020

Georgia Tech Financial Analysis Lab
Scheller College of Business
Georgia Institute of Technology
Atlanta, GA 30332-0520

Georgia Tech Financial Analysis Lab

The Georgia Tech Financial Analysis Lab conducts research on issues of financial reporting and analysis. Unbiased information is vital to effective investment decision-making. Accordingly, the Lab thinks that independent research organizations, such as this Lab, have an important role to play in providing information to market participants.

Because the Lab is housed within a university, all of its research reports have an educational quality, as they are designed to impart knowledge and understanding to those who read them. Its focus is on issues that it believes will be of interest to a large segment of stock market participants. Depending on the issue, it may focus its attention on individual companies, groups of companies, or on large segments of the market at large.

A recurring theme in the work is the identification of reporting practices that give investors a misleading signal, whether positive or negative, of corporate earning power. The Labs defines earning power as the ability to generate a sustainable stream of earnings that is backed by cash flow. Accordingly, its research may look into reporting practices that affect either earnings or cash flow, or both. At times, its research may look at stock prices generally, though from a fundamental and not technical point of view.

Contact Information

Charles Mulford Invesco Chair, Professor of Accounting and the Lab's Director
Email: charles.mulford@scheller.gatech.edu

Yash Lakhotia Graduate Research Assistant and MBA Student
Arpit Zelawat Graduate Research Assistant and MBA Student

Website: <http://www.scheller.gatech.edu/finlab>

©2019 by the Scheller College of Business, Georgia Institute of Technology, Atlanta, GA 30332-0520. ALL RIGHTS RESERVED. The information contained in this research report is solely the opinion of the authors and is based on sources believed to be reliable and accurate, consisting principally of required filings submitted by the companies represented to the Securities and Exchange Commission. HOWEVER, ALL CONTENT HEREIN IS PRESENTED "AS IS," WITHOUT WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED. No data or statement is or should be construed to be a recommendation for the purchase, retention, sale or short-sale of the securities of the companies mentioned.

Cash Flow Trends and Their Fundamental Drivers: Comprehensive Industry Review (Quarter 2, 2019)

Table of Contents

Introduction	3
Continuous Focus on Cash Flow	3
Cash Flow Definitions	5
Data and Methodology	5
Summary of Results for All Non-financial Companies.....	6
Individual Industry Results.....	15
The Standouts: A Closer Look	16
Industries with Declining Free Cash Margin.....	17
Industries with Improving Free Cash Margin.....	18
Conclusions	20

Cash Flow Trends and Their Fundamental Drivers: Comprehensive Industry Review (Quarter 1, 2019)

Free Cash Margin Index*:		
0.99%, 3.45%	3.83%	6.88%
Recession Lows (Dec. 2000, Dec. 2008)	Current (June 2019)	Recent High (Dec. 2009)

The ***Free Cash Margin Index** is free cash flow measured as a percentage of revenue for the trailing twelve-month period.

Introduction

This research report is part of a continuing series that examines cash flow trends and the underlying drivers that are causing changes in those trends. The current study contains a review of the cash flow performance of all non-financial companies for a series of rolling twelve-month periods from the first quarter of 2000 through the second quarter of 2019. Additionally, it looks at individual industry results and focuses its attention on the drivers that pushed free cash margin higher or lower in those industries. All companies with total assets of \$100 million or more are included, resulting in a total sample of 2,623 companies. Please see pages 5 and 6 for a list of industries included. That list is followed by a summary of the findings.

Measured as free cash flow divided by revenue, free cash margin is a cash flow profit margin. It indicates what percent of revenue is left for shareholders in the form of free and discretionary cash flow. If the company sells its products or services for a dollar, free cash margin tells how many cents the shareholders can take home without reducing the company's ability to generate more. Thus, as the report looks at cash flow trends and their underlying drivers, its particular interest is on how those factors impact free cash margin.

Continuous Focus on Cash Flow

Corporate financial success is dependent not only on a company's ability to generate revenues and earnings, but also cash flow, especially free cash flow. It is free cash flow and growth in free cash flow, that discretionary stream of cash that a company can put to use for acquisitions, debt retirement, dividends and stock buybacks that works with growing earnings to drive firm value

higher. Because it is “free,” free cash flow comes with no strings attached. It is truly discretionary. Spending it does not impact the company’s ability to generate more. A company with revenue growth will eventually lose the favor of investors if it never finds a way to generate earnings. In a similar way, a company with profits that is unable to generate cash will also experience waning investor enthusiasm. It may take a while. Investors are patient with profitable, growing companies. Ultimately, however, a company must show an ability to generate free cash flow.

Companies that consume cash must continually seek new sources of capital – whether debt or equity. At some point, those sources of capital will dry up or become prohibitively expensive if the firm does not show at least some progress toward getting closer to positive cash generation. Worse, if cash flow does not back a company’s earnings, ultimately those earnings themselves may become suspect, necessitating write-downs of the resulting non-cash assets. Net losses will likely accompany those write-downs.

When free cash margin is positive, a firm is covering all ongoing claims and is able to pay dividends, reduce debt or simply add to its cash coffers. When free cash margin turns negative, ongoing claims are not being met. Cash and short-term investments can be used to meet the shortfall. However, on-hand cash and short-term investments are not an unlimited source of funds. Firms can borrow money to meet their needs. However, even if this were an option, increasing debt levels add new, unwanted risks. Equity issues provide another avenue, but capital markets can be painfully dilutive when share prices are depressed for firms that are seemingly unable to generate cash.

During periods of growth, firms may have problems generating cash as profits are consumed with growth-related investments in working capital and property, plant and equipment needed to support that growth. During recessions, cash generation can be particularly problematic as revenues and profits decline, draining the economic engine that supports cash generation. Regardless of the economic environment, however, free cash margin serves as an important measure of long-term financial health for individual companies, industries and the economy as a whole. The Lab thinks that by periodically examining their cash generating ability, readers will gain insight into the overall financial health of important segments of U.S. firms. With all “nonfinancial firm industry” data dating back to 2000, it is possible to see how the cash-generating performance of these firms presently compares with their performance during previous periods of economic contraction (e.g., 2001 and 2008-2009) and economic expansion.

Cash Flow Definitions

Free cash flow is the cash flow equivalent of the income statement “bottom line”. Like net income, free cash flow is available for shareholders after all prior claims have been satisfied. However, also like net income, which, to facilitate analysis, can be divided into certain sub-measures of performance, like gross profit and operating profit, free cash flow can be similarly divided. Thus, while the primary focus of the report is on free cash flow and free cash margin, or free cash flow as a percentage of revenue, it analyzes the fundamental drivers underlying two distinct, but also closely related, measures of cash flow:

- 1) Operating cash flow and operating cash margin - cash flow from operations after interest charges and income taxes. Operating cash margin is operating cash flow divided by revenue.
- 2) Free cash flow and free cash margin - cash flow available for common shareholders that can be used for such discretionary purposes as stock buybacks and dividends without affecting the firm's ability to grow and generate more. This measure is calculated as operating cash flow less preferred dividends and net capital expenditures. Free cash margin is free cash flow divided by revenue.

Data and Methodology

The data is provided by Compustat through a license with the Wharton Research Data Services. As noted, each data amount is for a rolling twelve-month period ending with the quarter end in question. For example, cash flow amounts for June 30, 2019 represent amounts for the twelve months (four quarters) ended June 30, 2019.

The 20 analyzed industry groups are as follows:

GICS	Industry Group
1010	Energy
1510	Materials
2010	Capital Goods
2020	Commercial & Professional Services
2030	Transportation
2510	Automobiles & Components
2520	Consumer Durables & Apparel
2530	Consumer Services
2550	Retailing
3010	Food & Staples Retailing
3020	Food, Beverage, & Tobacco
3030	Household & Personal Products
3510	Health Care Equipment & Services
3520	Pharmaceuticals, Biotech, & Life Sciences
4510	Software & Services
4520	Technology Hardware & Equipment
4530	Semiconductors & Equipment
5010	Telecommunication Services
5020	Media
5510	Utilities

The 20 industry groups use the four-digit Global Industrial Classification System (GICS) and represent 10 overall sectors. The ten sectors with industry groups included in parentheses are: Energy (Energy), Materials (Materials), Industrials (Capital Goods, Commercial & Professional Services, and Transportation), Consumer Discretionary (Automobiles & Components, Consumer Durables & Apparel, Consumer Services, Media and Retailing), Consumer Staples (Food & Staples Retailing, Food, Beverage & Tobacco and Household & Personal Products), Health Care (Health Care Equipment & Services and Pharmaceuticals, Biotech & Life Sciences), Information Technology (Software & Services, Technology Hardware & Equipment and Semiconductors & Equipment), Telecommunications (Telecommunication Services) and Utilities (Utilities).

Summary of Results for All Non-Financial Companies

Median free cash margin decreased to 3.83% for the twelve months ending June 2019, compared with 3.90% for the twelve months ending March 2019 and 4.04% in June 2018.

Factors impacting free cash margin were operating cushion, or operating profit before depreciation, which marginally decreased to 14.06% during the twelve months ending June 2019 from 14.09% in March 2019 and 14.35% in June 2018. An increase in the cash cycle favored this period's fall in free cash margin. The cash cycle rose to 51.38 days in the June 2019 reporting period compared to 50.81 days in March 2019 but decreased from 52.78 days in June 2018. This increase in the cash cycle was driven primarily by an increase in inventory days, which rose from 22.72 in March 2019 to 23.35 in June 2019. Receivables days and payables days slightly increased from the previous quarter.

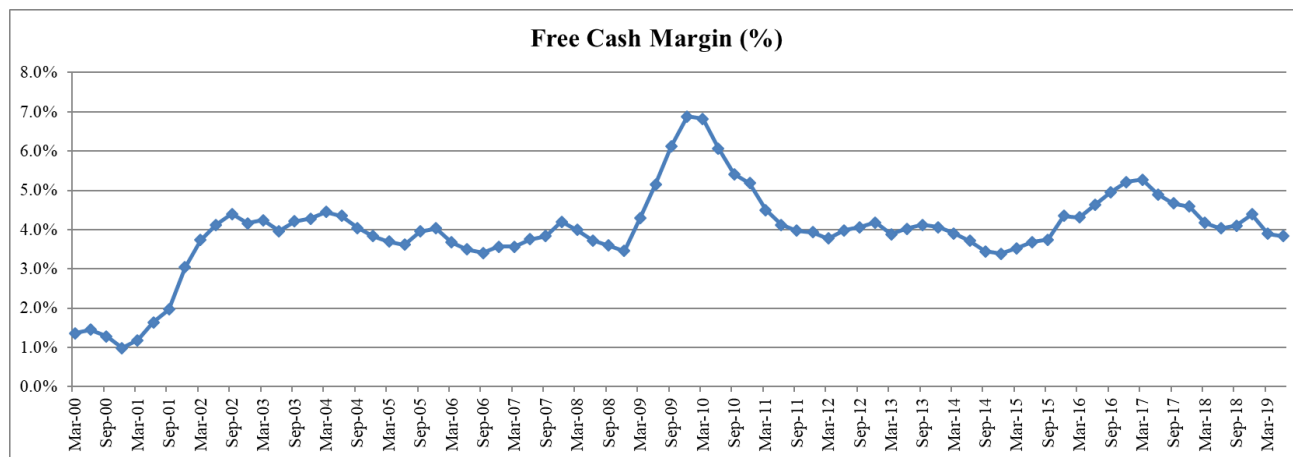
Median revenues have also decreased to \$1,194 million in June 2019 compared to \$1,234.73 million in March 2019. While revenues still remain high relative to historical standards, the rate of growth in revenues seen in recent quarters has stopped.

Drivers of Free Cash Margin

ALL NON-FINANCIAL INDUSTRIES	Q2 2019	Q1 2019	Q2 2018	Effect on FCM
	(Jun 2019)	(Mar 2019)	(Jun 2018)	(Q2 2019 vs. Q2 2018)
Revenue (millions)	\$1,194.00	\$1,234.73	\$1,268.80	DOWN 5.89%
Free Cash Flow (millions)	\$36.30	\$40.21	\$45.49	DOWN 20.37%
Free Cash Margin	3.83%	3.90%	4.04%	DOWN 5.18%
Operating Cushion %	14.06%	14.09%	14.35%	Driving DOWN
Gross Margin % (before depreciations)	37.26%	37.27%	37.08%	Driving UP
SGA% (before depreciation)	17.57%	17.68%	16.99%	Driving DOWN
Cash Cycle (rev days)	51.38	50.81	52.78	Driving UP
Accounts Receivable (rev days)	54.25	53.87	53.87	Driving DOWN
Inventory (rev days)	23.35	22.72	25.62	Driving UP
Accounts Payable (rev days)	26.21	25.77	26.70	Driving DOWN
Income tax to Rev %	0.95%	0.92%	0.68%	Driving DOWN
Cap Exp. to Rev %	3.68%	3.64%	3.68%	No IMPACT

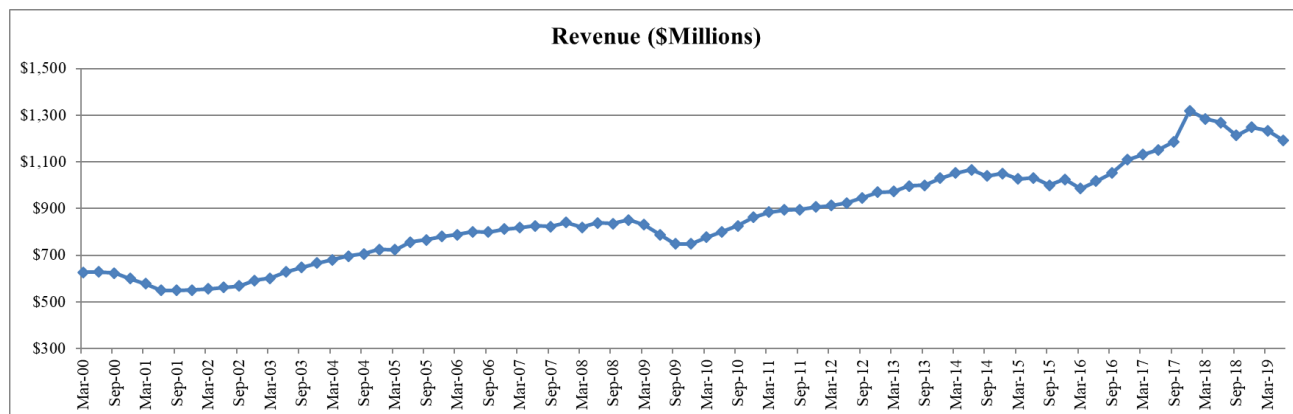
In the exhibits below we present graphs of free cash margin and several of its underlying drivers. These exhibits were constructed with data from the complete sample of 2,623 non-financial companies. For more details on each of the 20 individual industry groups included, please refer to the individual industry spreadsheets and supporting charts that are available on our website (www.scheller.gatech.edu/finlab).

All Non-financials, Q1 2000 – Q2 2019



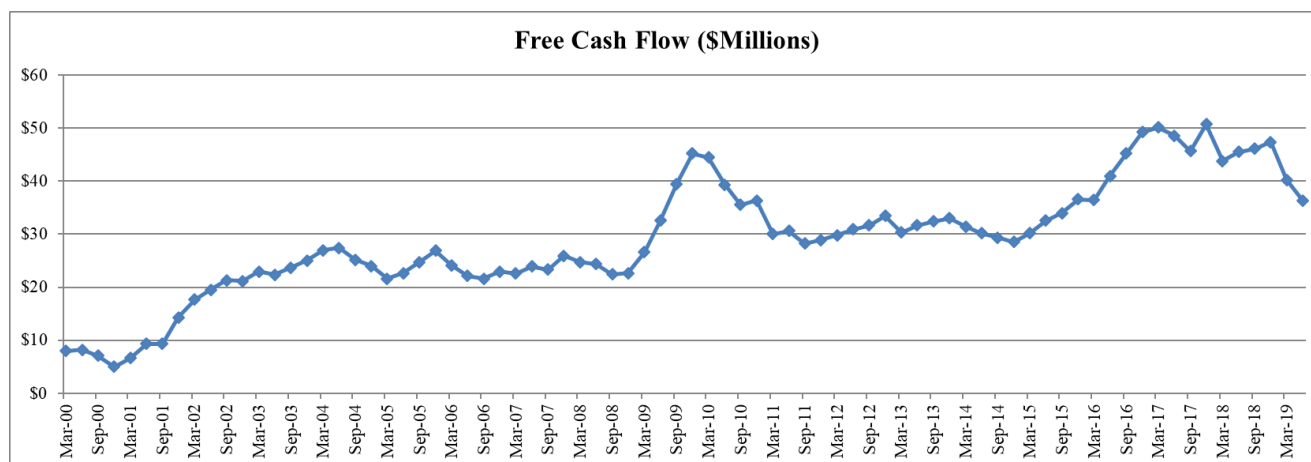
Free cash margin marginally decreased to 3.83% in the June 2019 reporting from 3.90% in the March 2019 reporting period.

All Non-financials, Q1 2000 – Q2 2019



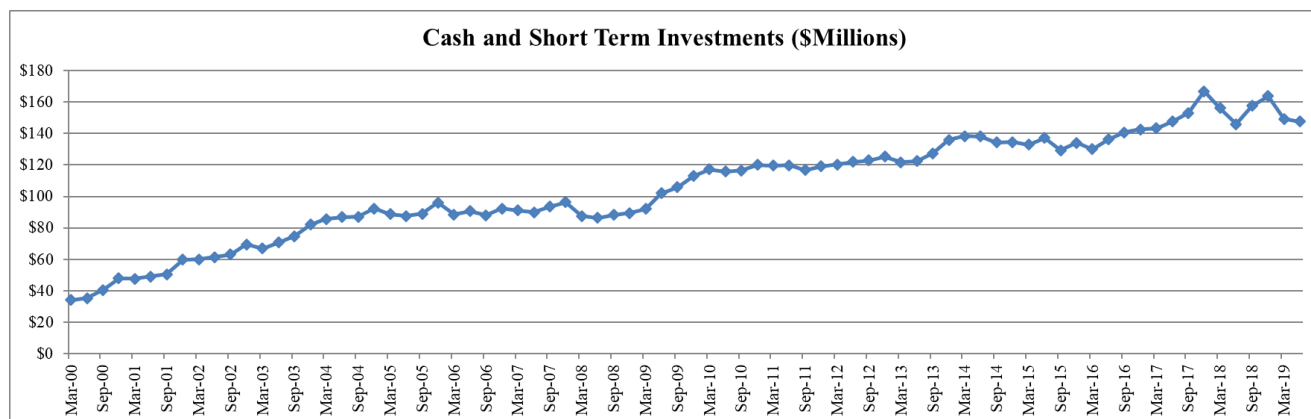
Median revenues decreased to \$1,194 million in June 2019 compared to \$1,234.73 million in March 2019 and \$1,268.80 million in June 2018.

All Non-financials, Q1 2000 – Q2 2019



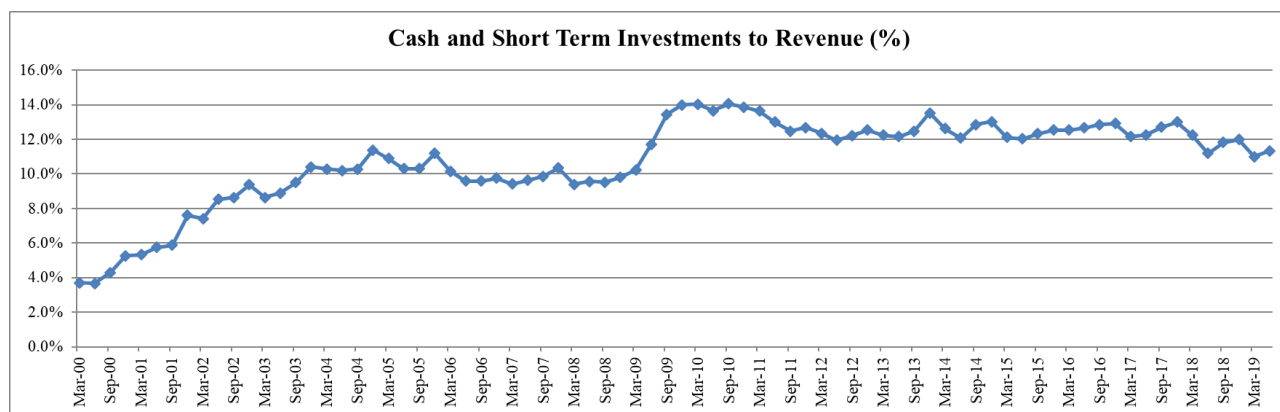
Free cash flow decreased to \$36.30 million in June 2019 reporting period from \$40.21 million in March 2019 and \$45.49 million in June 2018.

All Non-financials, Q1 2000 – Q2 2019



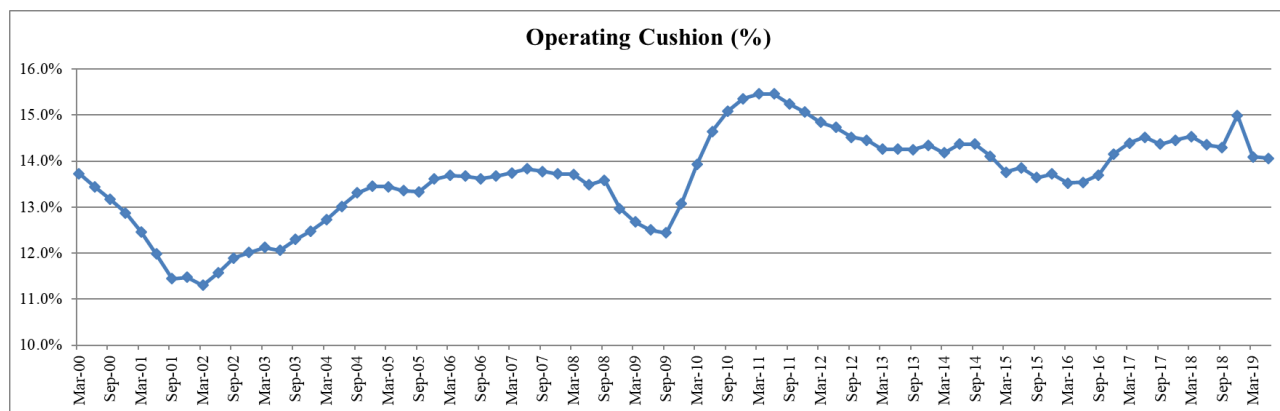
Median cash and short-term investments decreased to \$147.62 million in June 2019 from \$149.29 million in March 2019 but increased year over year from \$145.83 million in June 2018.

All Non-financials, Q1 2000 – Q2 2019



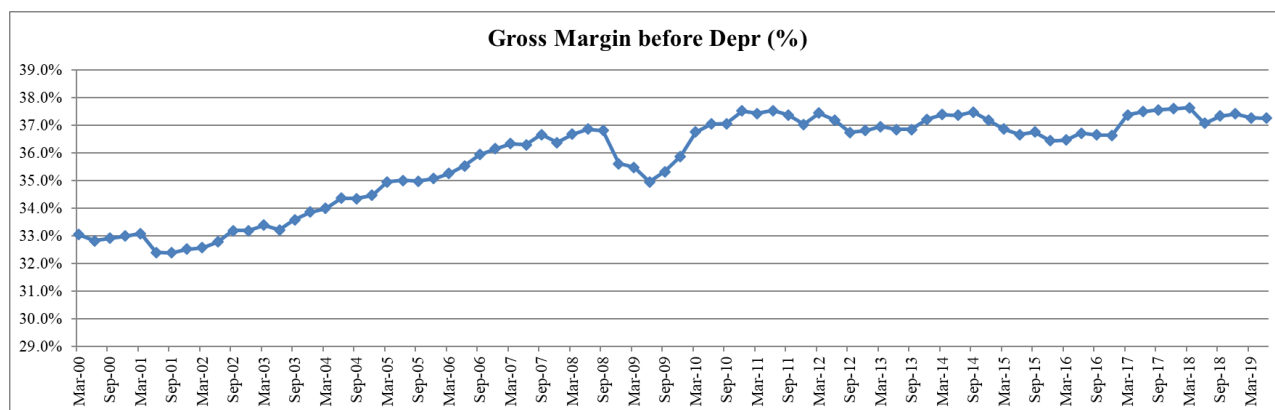
Cash and short-term investments to revenue increased to 11.32% in June 2019 from 10.99% in March 2019 and from 11.18% in June 2018. Prior to the recession, cash and short-term investments were approximately 10% of revenue, so scaled for revenue, the excess cash balances we’ve seen in previous periods is dissipating.

All Non-financials, Q1 2000 – Q2 2019



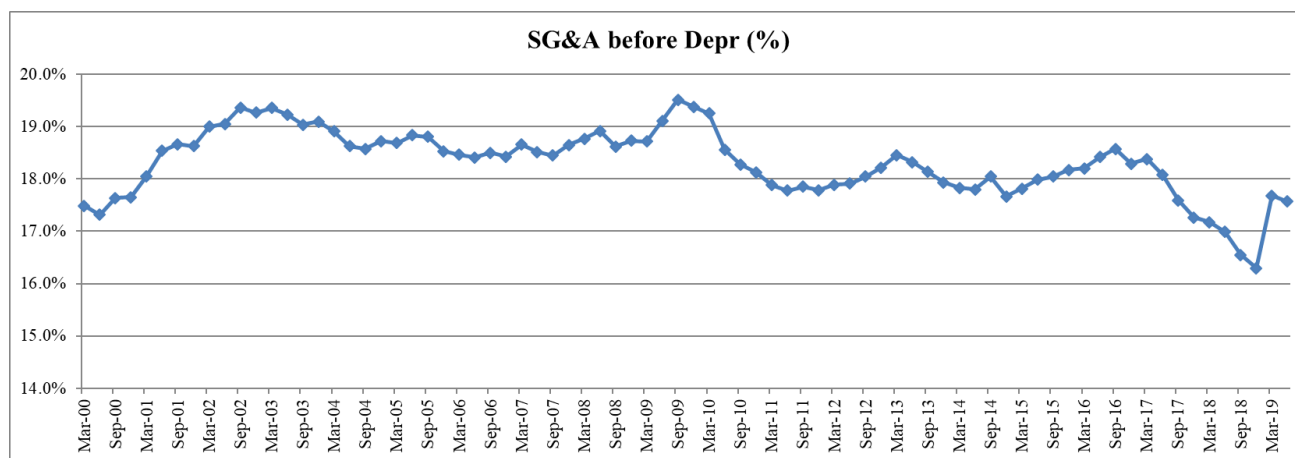
Median operating cushion marginally decreased to 14.06% in the current reporting period from 14.09% in the reporting period ending March 2019.

All Non-financials, Q1 2000 – Q2 2019

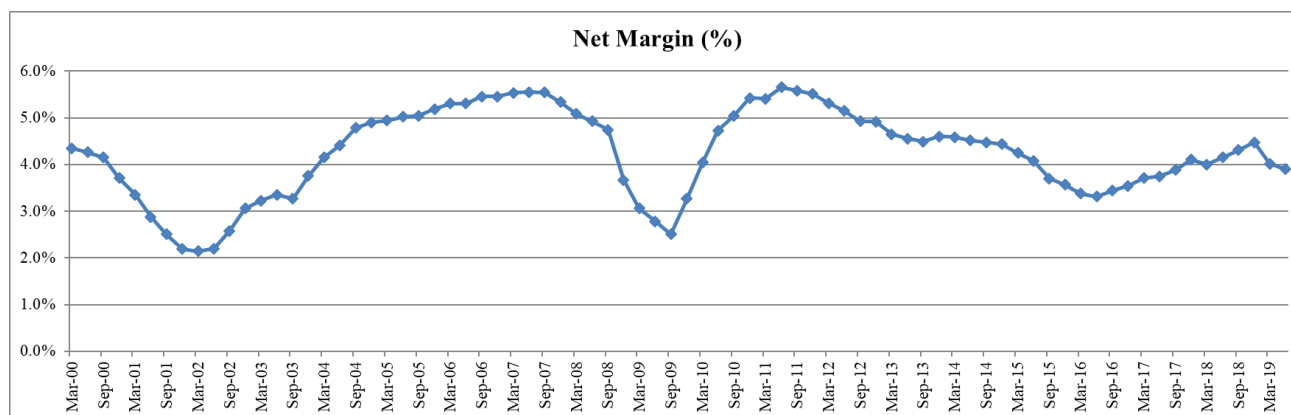


Median gross margin before depreciation marginally decreased to 37.26% for the twelve months ending June 2019 compared to 37.27% for the twelve months ending March 2019.

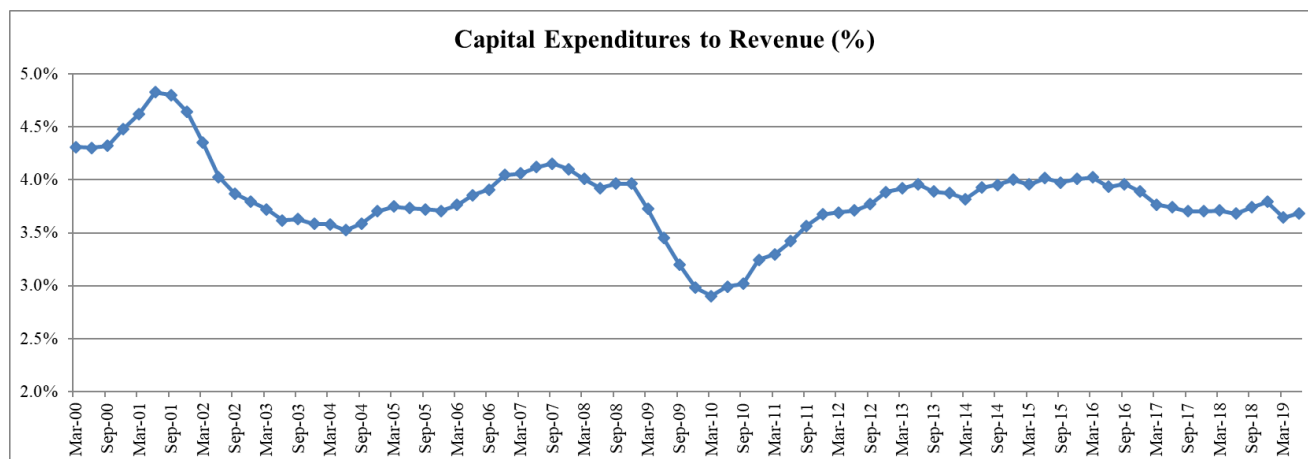
All Non-financials, Q1 2000 – Q2 2019



Median selling, general, and administrative expense (before depreciation) as a percent of revenue decreased to 17.57% in June 2019 from 17.68% in March 2019.

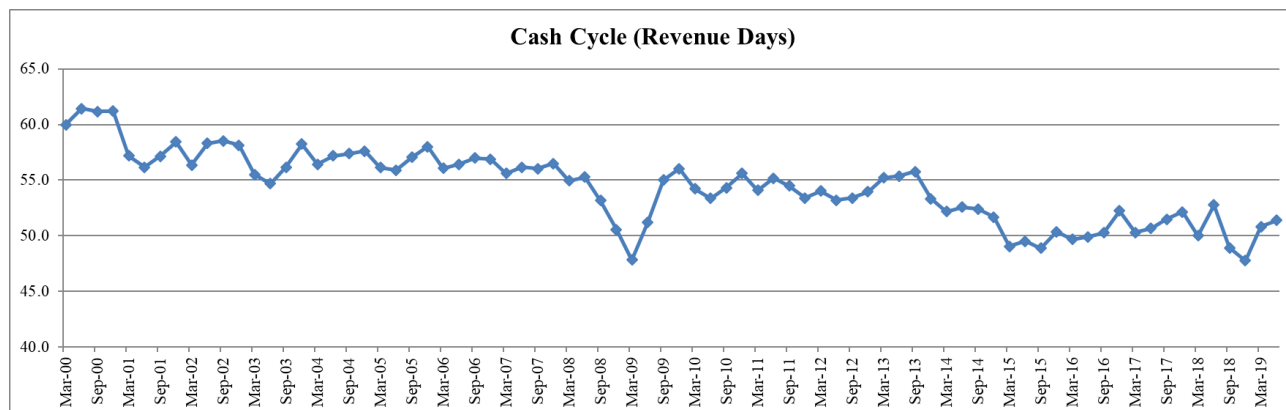
All Non-financials, Q1 2000 – Q2 2019

Median net margin decreased to 3.90% in June 2019 reporting period from 4.01% in March 2019 period and from 4.15% in June 2018 period.

All Non-financials, Q1 2000 – Q2 2019

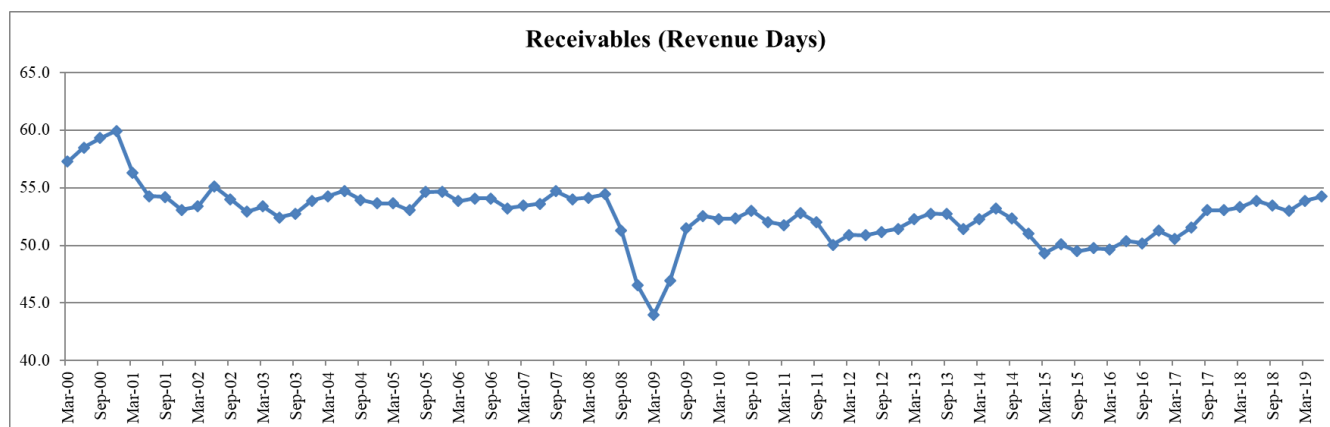
Capital expenditures as a percentage of revenue increased to 3.68% in June 2019 reporting period from 3.64% in the March 2019 reporting period but remained constant compared to June 2018 reporting period. The intent of tax reform was to encourage increased capital spending, a development that has not materialized.

All Non-financials, Q1 2000 – Q2 2019



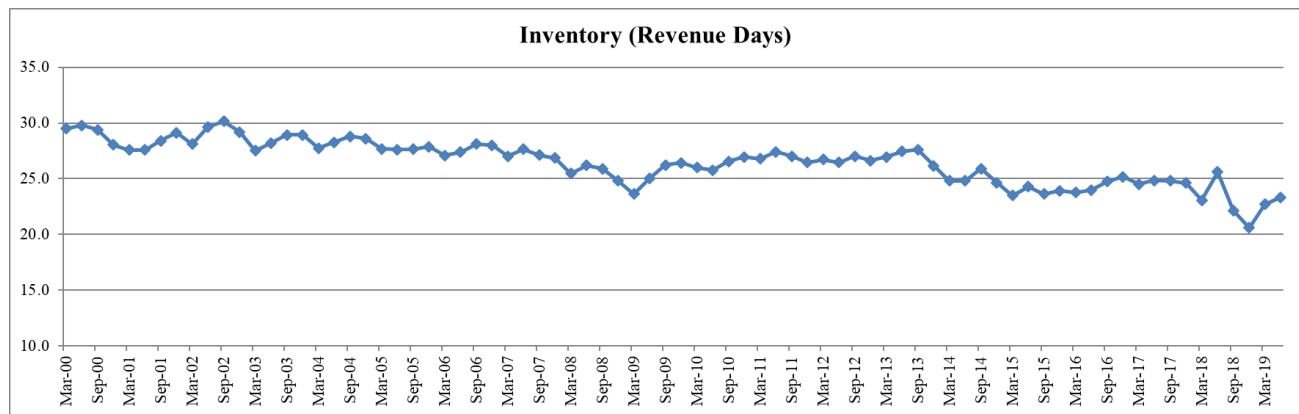
The cash cycle measures the proportion of operating cash flow carried in working capital and is measured by receivables days plus inventory days less payables days. The metric increased to 51.38 days for the period ending June 2019 compared to 50.81 days for the period ending March 2019 but decreased from 52.78 days in June 2018. The increase was driven by increased in accounts receivable days and inventory days.

All Non-financials, Q1 2000 – Q2 2019



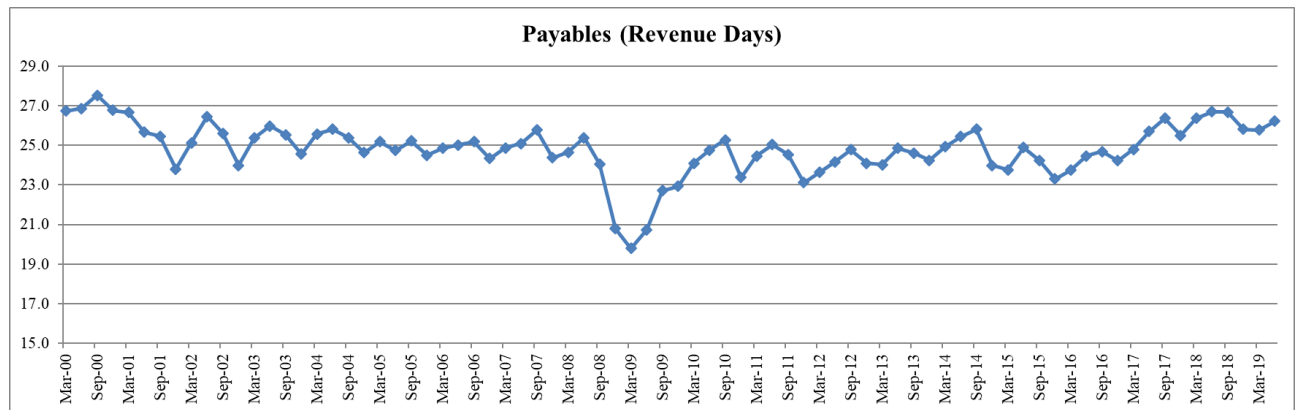
Median accounts receivable days increased to 54.25 days in the June 2019 reporting period from 53.87 days in the March 2019 reporting period and from 53.87 days in June 2018 reporting period.

All Non-financials, Q1 2000 – Q2 2019



Median inventory days increased to 23.35 days in June 2019 from 22.72 days in March 2019 and was down from 25.62 days in June 2018.

All Non-financials, Q1 2000 – Q2 2019



Accounts payable days increased to 26.21 days in June 2019 from 25.77 days in March 2019 but decreased from 26.70 days in the June 2018 reporting period.

Individual Industry Results

During the twelve months ended June 2019, recent industry trends evidenced a moderate to substantial improvement in free cash margin in **6** industries, a relatively stable in **1** industry and a declining free cash margin in **13** industries.

Please refer to the individual industry spreadsheets, available on our website, for charts and further details on each of the 20 industry groups outlined in the following tables.

Industry Trends in Free Cash Margin

GICS	Industry Group	Increasing	Stable	Declining
1010	Energy	X		
1510	Materials			X
2010	Capital Goods			X
2020	Commercial & Prof Services			X
2030	Transportation	X		
2510	Automobiles & Components			X
2520	Consumer Durables & Apparel	X		
2530	Consumer Services	X		
2550	Retailing			X
3010	Food & Staples Retailing	X		
3020	Food, Beverage, & Tobacco	X		
3030	Household & Personal Products			X
3510	Health Care Equipment & Services			X
3520	Pharmaceuticals, Biotech, & Life Sciences			X
4510	Software & Services		X	
4520	Technology Hardware & Equipment			X
4530	Semiconductors & Equipment			X
5010	Telecommunication Services			X
5020	Media			X
5510	Utilities			X
	Total	6	1	13

The following table compares Free Cash Margin for the 20 industry groups in the period ending June 2019 (Q2 2019) with the March 2019 and June 2018 reporting periods.

GICS	Sector/Industry Group	Q2 2019	Q1 2019	Q2 2018
1010	Energy	0.71%	0.68%	-1.17%
1510	Materials	4.08%	4.30%	4.84%
2010	Capital Goods	4.40%	4.50%	3.75%
2020	Commercial & Prof Services	5.04%	6.03%	5.59%
2030	Transportation	4.05%	2.98%	1.39%
2510	Automobiles & Components	1.87%	2.14%	2.85%
2520	Consumer Durables & Apparel	4.62%	4.46%	4.88%
2530	Consumer Services	4.52%	4.44%	5.86%
2550	Retailing	2.99%	3.32%	4.00%
3010	Food & Staples Retailing	1.66%	1.41%	1.50%
3020	Food, Beverage, & Tobacco	6.84%	5.69%	4.98%
3030	Household & Personal Products	7.99%	9.19%	12.01%
3510	Health Care Equipment & Services	3.86%	5.18%	6.21%
3520	Pharmaceuticals, Biotech, & Life Sciences	-62.96%	-48.17%	-47.67%
4510	Software & Services	9.52%	9.51%	9.77%
4520	Technology Hardware & Equipment	3.13%	3.69%	2.85%
4530	Semiconductors & Equipment	9.90%	10.42%	13.37%
5010	Telecommunication Services	5.15%	6.64%	5.71%
5020	Media	6.00%	7.04%	5.53%
5510	Utilities	-2.16%	-1.55%	0.63%
	All Industries Median	3.83%	3.90%	4.04%

The Standouts: A Closer Look

The drivers of improvements or declines in free cash margin consist of factors that impact profitability and efficiency. On the profitability front, operating cushion measures operating profit, exclusive of the non-cash expenses, depreciation and amortization. Factors impacting operating cushion consist of gross margin (excluding depreciation and amortization), and SG&A% (excluding depreciation and amortization). Also impacting profitability and a firm's ability to generate free cash flow, but excluded from operating cushion, is income taxes paid, which is measured as a percent of revenue. Capital expenditures do not impact profitability directly, but through depreciation on fixed asset additions. However, these expenditures are subtracted in computing free cash flow. It is also important to look at capital expenditures because these are

investments in fixed assets that will likely improve a company's ability to generate revenue, and subsequent profit, in the future. Like operating expenses and taxes, capital expenditures are measured as a percent of revenue.

On the efficiency front, increases in receivables and inventory consume free cash flow. Increases in accounts payable provide free cash flow. The combination of receivables days plus inventory days less payables days is a firm's cash cycle. Reductions in the cash cycle provide free cash flow, while increases in the cash cycle consume free cash flow. All of these factors are evaluated when analyzing changes in free cash margin for the standout firms discussed in this section.

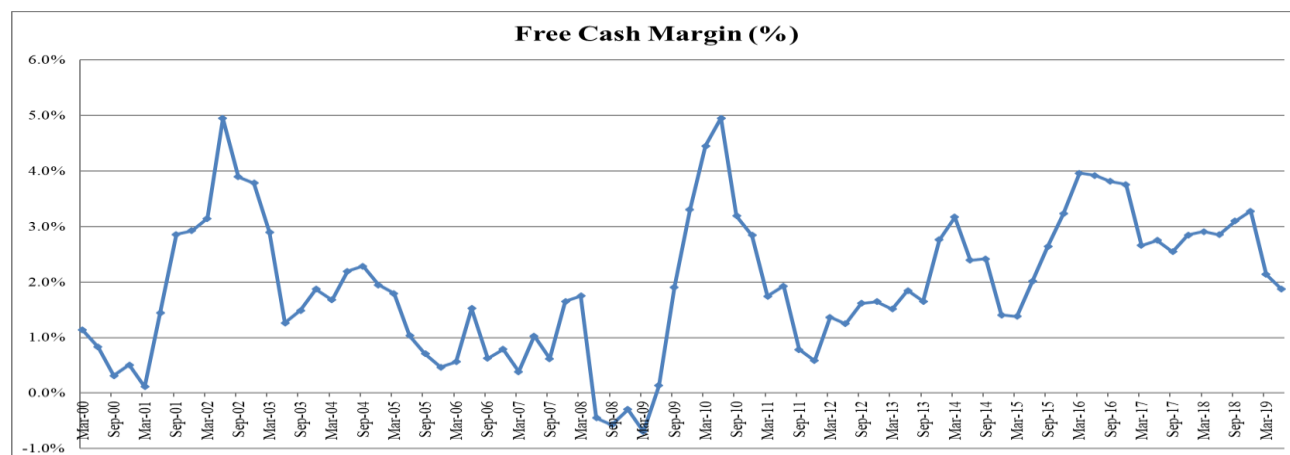
Graphs of free cash margin for select industries studied in the reporting period are provided below. With each graph we provide a short summary of the primary drivers or factors that are behind the observed changes in free cash margin for the selected industries. For more details regarding the industries, please refer to the separate industry spreadsheets found on our website.

Industries with Declining Free Cash Margin

In the twelve-month period ending June 2019, thirteen industries saw free cash margin decline: Materials; Capital Goods; Commercial & Professional Services; Automobiles & Components; Telecommunication Services; Pharmaceuticals, Biotech & Life Sciences; Retailing; Household & Personal Products; Health Care Equipment & Services; Technology Hardware & Equipment; Semiconductors & Equipment; Media and Utilities.

In the following paragraphs we take a closer look at an industry with declining free cash margin: Automobiles & Components.

Automobiles & Components, Q1 2000 – Q2 2019



Drivers of Free Cash Margin

Automobiles & Components	Q2 2019	Q4 2018	Q2 2018	Effect on FCM
	(Jun 2019)	(Mar 2019)	(Jun 2018)	(Q2 2019 vs. Q2 2018)
Revenue (millions)	\$2,806.45	\$2,866.36	\$3,134.00	DOWN 10.4%
Free Cash Flow (millions)	\$36.30	\$55.55	\$73.99	DOWN 50.93%
Free Cash Margin	1.87%	2.14%	2.85%	DOWN 34.3%
Operating Cushion %	10.11%	10.13%	11.36%	Driving DOWN
Gross Margin % (before depreciations)	20.64%	20.89%	21.41%	Driving DOWN
SGA% (before depreciation)	9.76%	9.58%	9.58%	Driving DOWN
Cash Cycle (rev days)	52.64	51.42	48.28	Driving DOWN
Accounts Receivable (rev days)	64.68	65.42	62.88	Driving DOWN
Inventory (rev days)	40.83	39.15	37.72	Driving DOWN
Accounts Payable (rev days)	52.87	53.15	52.32	Driving UP
Income tax to Rev %	0.87%	0.83%	1.90%	Driving UP
Cap Exp. to Rev %	4.62%	4.73%	4.71%	Driving UP

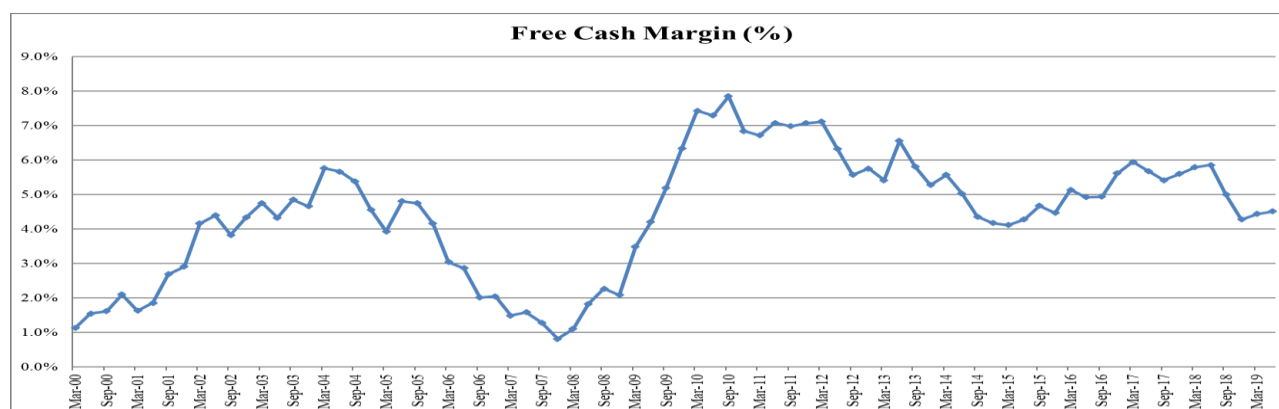
Analysis

Free cash margin for the Automobiles & Components industry declined significantly in June 2019, due to a myriad of factors. Operating cushion declined, driven by a decline in gross margin, and the cash cycle increased, caused by an increase in inventory days.

Industries with Improving Free Cash Margin

In the twelve-month period ending June 2019, six industries enjoyed improving free cash margin: Energy; Transportation; Consumer Services; Consumer Durables and Apparel; Food & Staples Retailing; and Food, Beverage, & Tobacco. In the following paragraphs, we take a closer look at an industry with improving free cash margin: Consumer Services.

Consumer Services, Q1 2000 – Q2 2019



Drivers of Free Cash Margin

	Q2 2019	Q1 2018	Q2 2018	Effect on FCM
Consumer Services	(Jun 2019)	(Mar 2019)	(Jun 2018)	(Q2 2019 vs. Q2 2018)
Revenue (millions)	\$1,029.55	\$1,005.86	\$1,028.39	UP 0.11%
Free Cash Flow (millions)	\$41.94	\$36.31	\$41.16	DOWN 1.93%
Free Cash Margin	4.52%	4.44%	5.86%	DOWN 22.87%
Operating Cushion %	17.14%	17.24%	17.15%	Driving UP
Gross Margin % (before depreciations)	42.31%	41.53%	42.82%	Driving DOWN
SGA% (before depreciation)	18.46%	18.80%	17.74%	Driving DOWN
Cash Cycle (rev days)	4.49	4.92	4.82	Driving UP
Accounts Receivable (rev days)	14.50	15.57	14.38	Driving DOWN
Inventory (rev days)	3.04	2.95	3.19	Driving UP
Accounts Payable (rev days)	13.05	13.60	12.75	Driving UP
Income tax to Rev %	1.64%	1.56%	0.13%	Driving DOWN
Cap Exp. to Rev %	4.48%	4.99%	5.13%	Driving UP

Analysis

Improving free cash margin for the Consumer Services industry is being driven by an increase in gross margin, as well as a decline in the cash cycle and a decrease in capital expenditures as a percent of revenue. An increase in taxes paid as a percentage of revenue limited the cash margin improvement, however.

Conclusions

The cash flow data reported through the second quarter of 2019 provides us with new insight into the U.S. economy. The ratios suggest a slightly economic downturn with declining revenue and downward free cash margin trends.

Median free cash margin continued the decreasing in the June 2019 reporting period from March 2019 reporting period. Median revenues also decreased to \$1194 million in the current quarter from \$1234.73 million in March 2019 and from \$1268.80 million in June 2018. Cash and short-term investments are down from the previous quarter but increased year-over-year.

The tax reform legislation passed in 2017 targeted increased business investment to spur economic growth. We witnessed that the desired result began to materialize in 2018, as median capital expenditures as a percentage of revenue increased in the four quarters ending December 2018 after falling for three consecutive quarters. Capital spending increased in June 2019 reporting period but is still lower compared to historical standards. Median capital expenditures as a percentage of revenue increased to 3.68% in the June 2019 period compared to 3.64% of revenue in the March 2019 period and 3.68% in the June 2018 period.

With a decrease in free cash margin came a decrease in dividends and stock repurchases. Measured as a percent of revenue, dividends and stock repurchases decreased to 1.97% in June 2019 from 2.06% in March 2019.

We are in the late stages of the current expansion. As is typical at this stage of an expansion, we are seeing declining margins as costs rise and discounting occurs as a means to support sales increases. As noted earlier, during this reporting period we saw a slump in free cash margin driven, in part, by a decrease in operating cushion (reflecting a deteriorating operating margins) as gross margin declined. A declining gross margin with declining revenues suggests that we are seeing widespread discounting. Further, the rise in inventory days, which increased the cash cycle and decreased free cash margin, suggests that companies are not as efficient as they have been in prior reporting periods.

Whether the uncertainties that have accompanied the tariff battles subsides and permits an increase in business confidence and new investments in capital assets, remains to be seen. We will continue to watch and report.