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Cash Flow Trends and Their Fundamental Drivers: Comprehensive Review (Quarter 4, 2018)

Free Cash Margin Index:

0.99%, 3.45%	**4.39%**	**6.88%**
Recession Lows	**Current**	**Recent High**
(Dec. 2000, Dec. 2008)	**(Dec. 2018)**	**(Dec. 2009)**

Median free cash margin increased to 4.39% for the twelve months ending December 2018, compared to 4.01% for the twelve months ending September 2018 and 4.59% in December 2017. Median free cash margin has increased for the first time compared to a previous quarter since March 2017. Median revenues have also seen a turnaround and have increased to $1,248.26 million in December 2018 compared to $1,238.43 million in September 2018, marking the end of four consecutives periods of falling revenues since the record high posted in December 2017.

Driving the rise in free cash margin was an increase in median operating cushion, which rose to 15% in the December 2018 reporting period, compared to 14.29% in September 2018 and 14.45% in December 2017. This increase in median operating cushion was driven by a rather sharp decrease in SG&A spending as a percentage of revenue, which fell to 16.29% in December 2018, down from 17.63% in September 2018 and 17.26% in December 2017. A slight reduction in the cash cycle favored this period's rise in free cash margin. The cash cycle fell to 47.77 revenue days in the December 2018 reporting period, down from 48.81 days reported in September 2018 and 52.16 days in December 2017. This decline in the cash cycle was driven primarily by a reduction in inventory days, which fell from 22.15 in September 2018 and 24.61 in December 2017 to a record low of 20.60 days in this most recent reporting period. Receivables days and payables days also declined from the previous quarter.

Capital expenditures also increased to 3.79% in the current quarter compared to 3.58% in September 2018. This was a record high since the 3.89% in December 2016. Tax payments significantly increased from 0.55% in September 2018 and 0.80% in December 2017 to 0.96% in December 2018. Dividends and stock buybacks as a percent of revenue continue to climb, as they rose to 2.15% in December 2018, up from 1.92% in September 2018 and 1.59% in December 2017.

The recent tax reform bill was signed into law in December 2017 with the hope that lower corporate taxes would increase capital spending and spur general economic growth. We are finally seeing an increase in capital spending as capital expenditures as a percent of revenue have increased for the first time since the tax law change took effect. We also see evidence of economic growth in the form of increasing median revenues. Finally, defying expectations for declining margins that typically occur late in an economic expansion, we saw an improvement in operating cushion.

Data for this research were provided by the Wharton Research Data Services database. **May 2019**

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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.

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Cash Flow Trends and Their Fundamental Drivers: Comprehensive Industry Review (Quarter 4, 2018)

Table of Contents

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Free Cash Margin Index*:

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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 fourth quarter of 2018. 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 2,263 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 December 31, 2018 represent amounts for the twelve months (four quarters) ended December 31, 2018.

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 Stapes (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 increased to 4.39% for the twelve months ending December 2018, compared with 4.01% for the twelve months ending September 2018 and 4.59% in December 2017.

Factors impacting free cash margin were operating cushion, or operating profit before depreciation, which increased to 15% during the twelve months ending December 2018 from 14.29% in September 2018 and was down from 14.45% in December 2017. A decline in the cash cycle, which fell to 47.77 days in December 2018, up from 48.81 days in September 2018 and 52.16 days in December 2017, also favored the increase in cash margin. Accounts receivable days and inventory days both ticked down slightly since June.

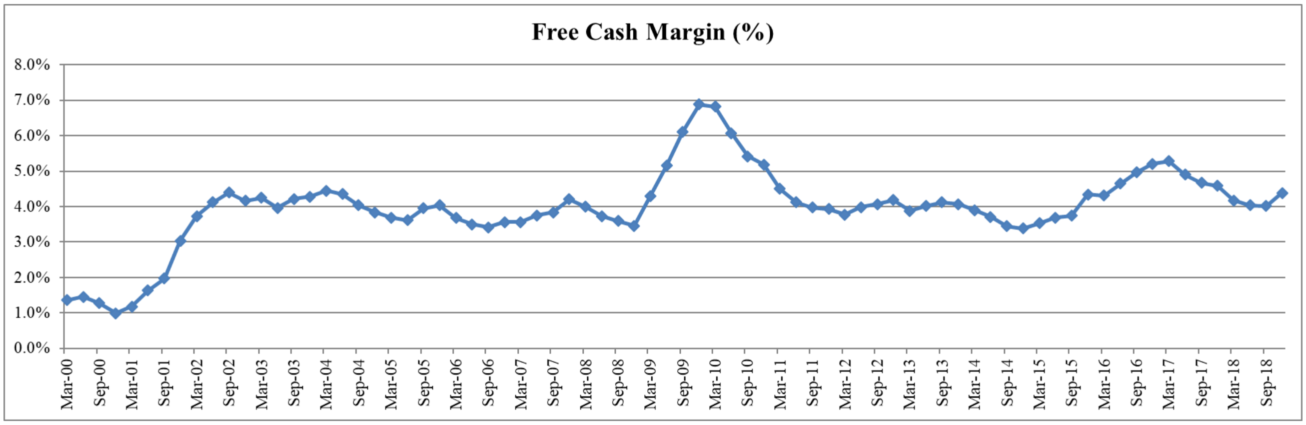
Median revenues also increased after declining for two consecutive quarters, rising to $1,248.26 million in the December 2018 reporting period, up from $1,238.43 from the previous reporting period. Revenues remain high relative to historical standards.

Drivers of Free Cash Margin

ALL NON-FINANCIAL INDUSTRIES	Q4 2018 (Dec 2018)	Q3 2018 (Sep 2018)	Q4 2017 (Dec 2017)	Effect on FCM (Q4 2018 vs. Q4 2017)
Revenue (millions)	**$1,248.26**	**$1,238.43**	**$1,320.15**	**DOWN 5.44%**
Free Cash Flow (millions)	**$47.35**	**$43.13**	**$50.69**	**DOWN 6.58%**
Free Cash Margin	**4.39%**	**4.01%**	**4.59%**	**DOWN 4.35%**
Operating Cushion %	15.00%	14.29%	14.45%	Driving **UP**
Gross Margin % (before depreciations)	37.42%	37.47%	37.61%	Driving **DOWN**
SGA% (before depreciation)	16.29%	17.63%	17.26%	Driving **UP**
Cash Cycle (rev days)	47.77	48.81	52.16	Driving **UP**
Accounts Receivable (rev days)	52.97	53.32	53.05	Driving **UP**
Inventory (rev days)	20.60	22.15	24.61	Driving **UP**
Accounts Payable (rev days)	25.81	26.66	25.50	Driving **UP**
Income tax to Rev %	0.96%	0.55%	0.80%	Driving **DOWN**
Cap Exp. to Rev %	3.79%	3.58%	3.70%	Driving **DOWN**

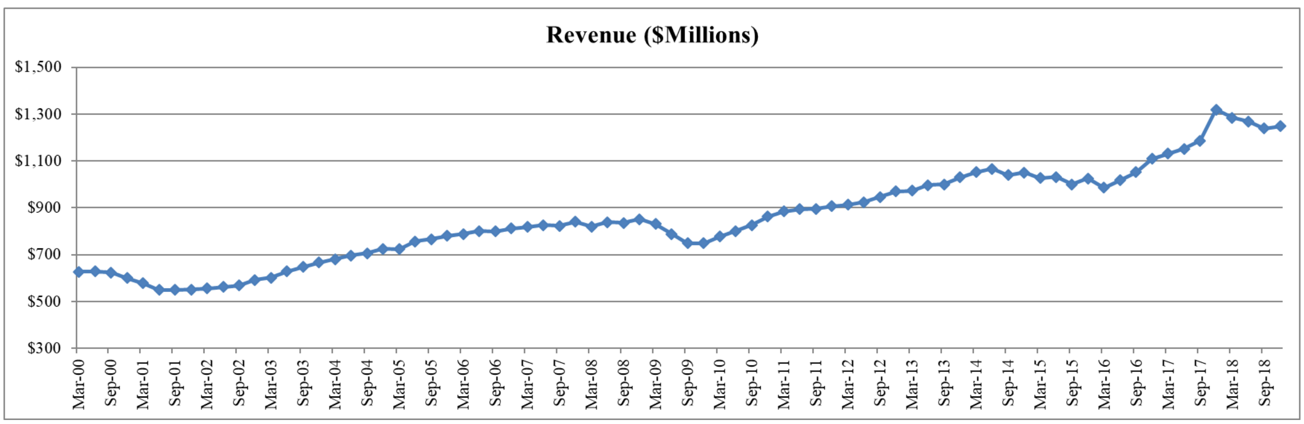
In the exhibits below we present graphs of free cash margin and several of its underlying drivers. These exhibits were constructed with data from the complete sample of 2,263 non-financial companies. For more details on each of the 20 individual industry groups included, please refer to the individual industry spreadsheets and supporting charts that are available on our website (www.scheller.gatech.edu/finlab).

All Non-financials, Q1 2000 – Q4 2018



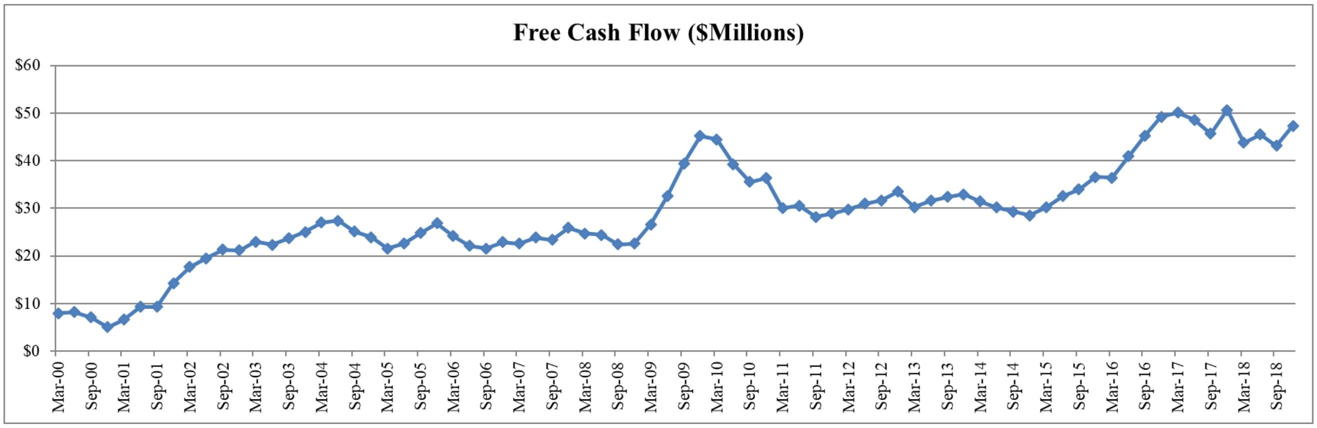
Free cash margin has increased for the first time since March 2017 after declining for six consecutive quarters.

All Non-financials, Q1 2000 – Q4 2018



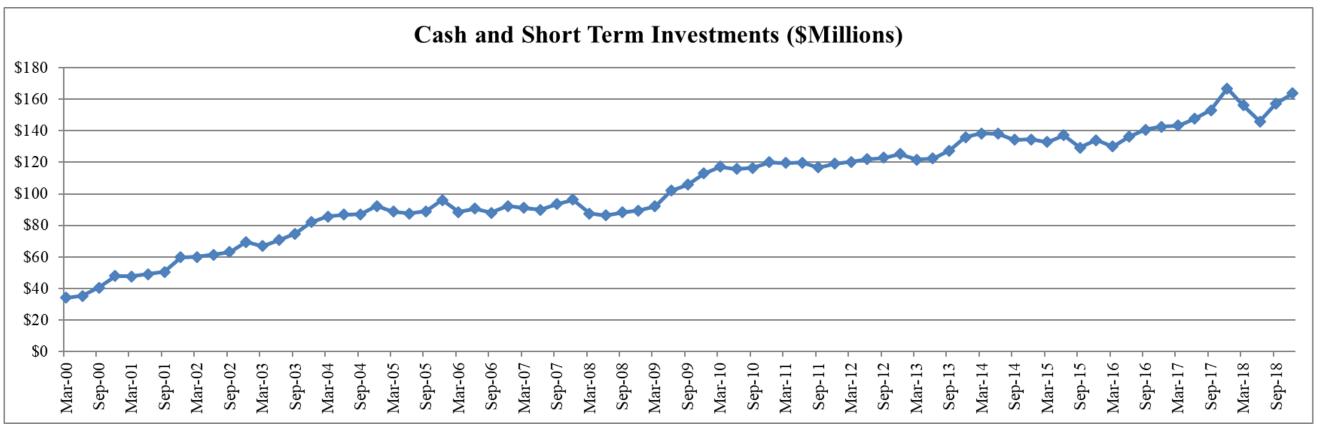
Median revenues increased after falling for three consecutive reporting periods, rising to $1,248.26 in the current period from $1,238.43 in September 2018.

All Non-financials, Q1 2000 – Q4 2018



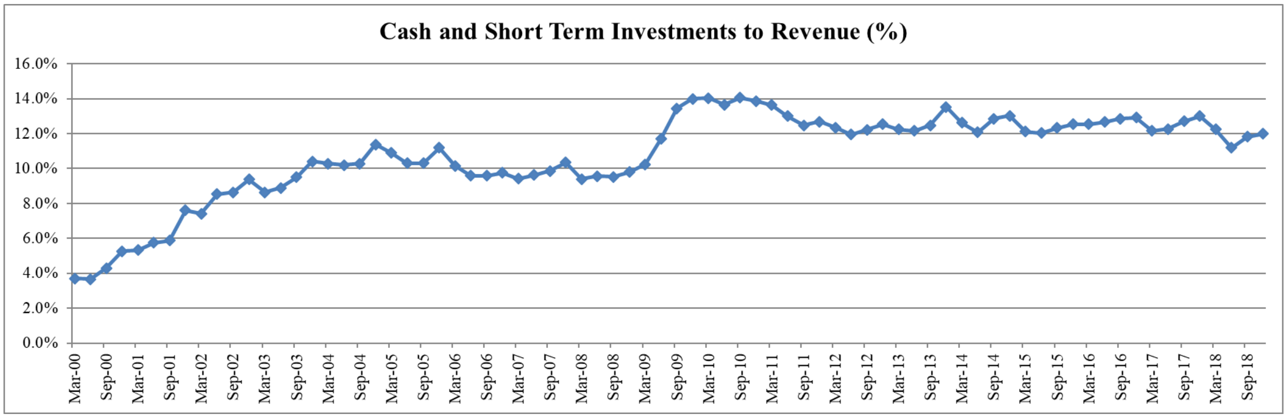
A modest increase in revenues pushed median free cash flow higher for the December 2018 reporting period.

All Non-financials, Q1 2000 – Q4 2018



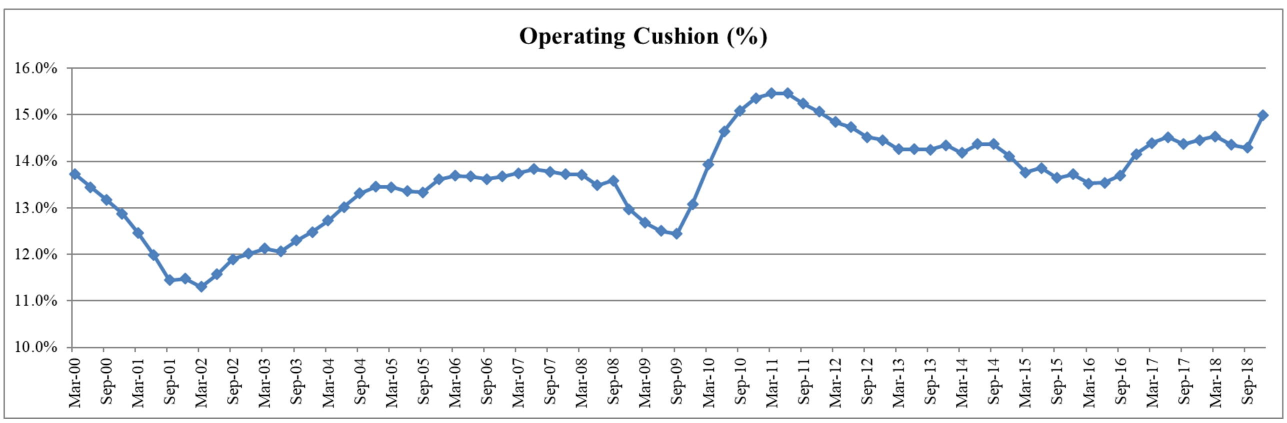
Median cash and short-term investments increased to $163.77 million in December 2018, up from the 157.20 million reported in September 2018.

All Non-financials, Q1 2000 – Q4 2018



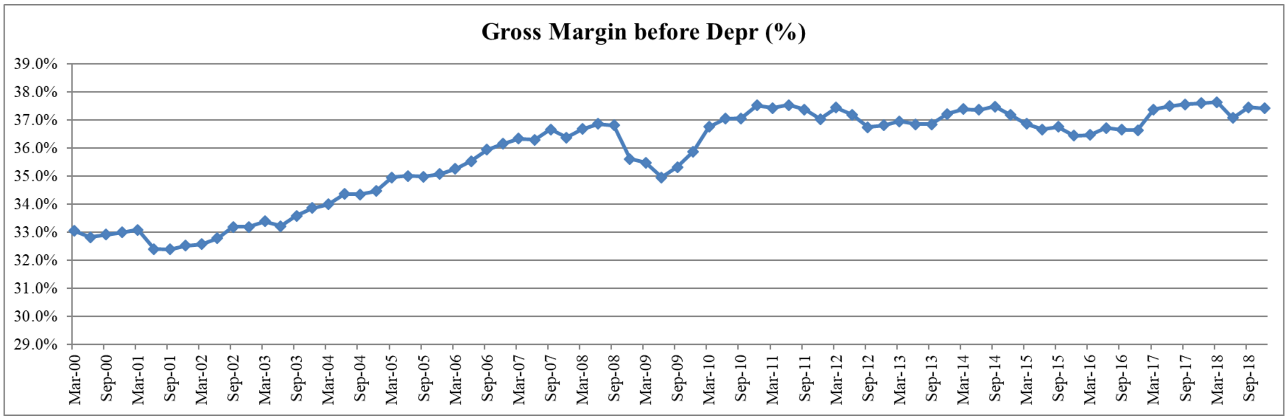
Cash and short-term investments to revenue rose to 11.98% in December 2018 but are down year-over-year from 13.01% in December 2017. Prior to the recession, cash and short-term investments were approximately 10% of revenue.

All Non-financials, Q1 2000 – Q4 2018



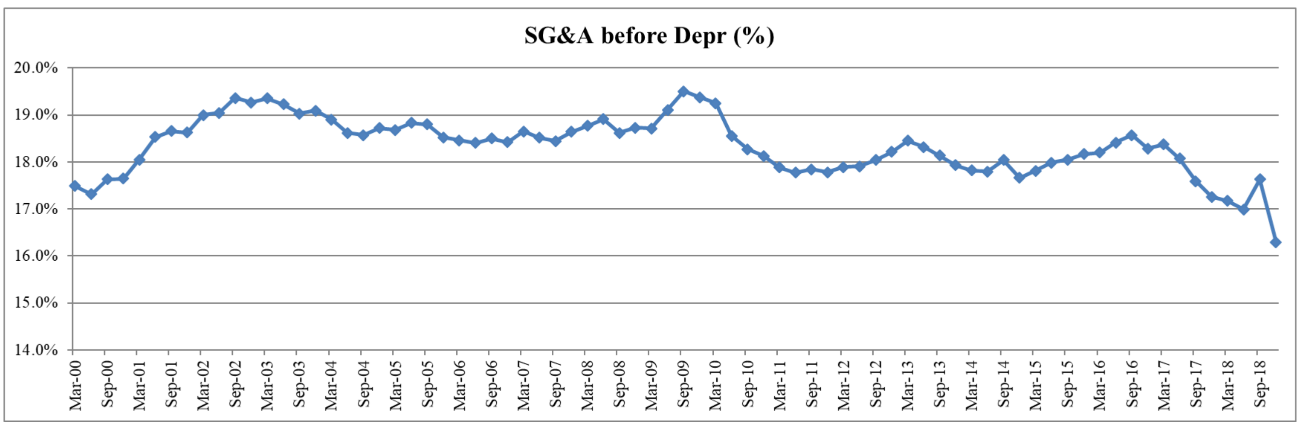
Median operating cushion increased to 15% in the reporting period ending December 2018, up from 14.29% in September 2018 and 14.45% in December 2017.

All Non-financials, Q1 2000 – Q4 2018



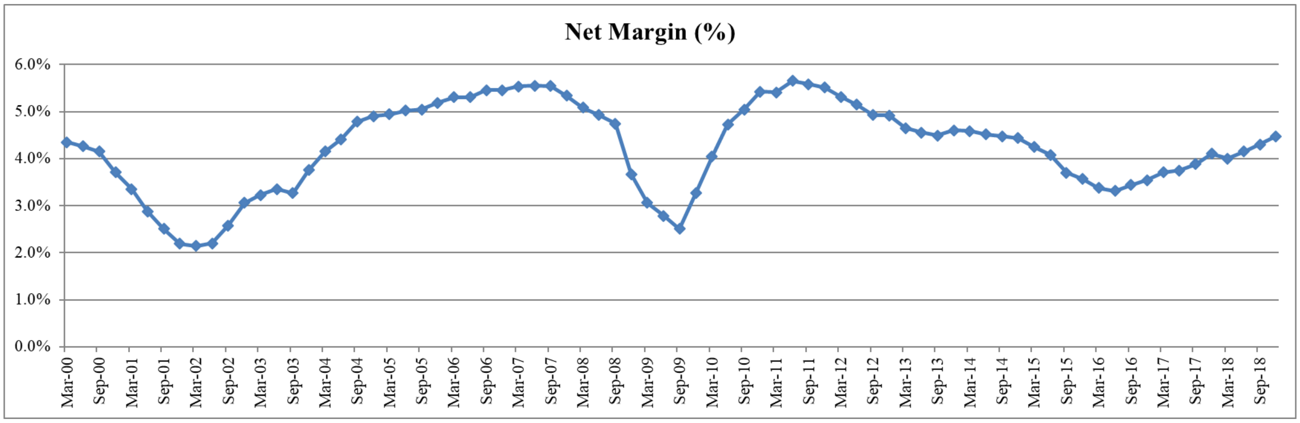
Median gross margin before depreciation marginally decreased to 37.42% for the twelve months ending December 2018 compared to 37.47% in September 2018 and is down from 37.61% in December 2017.

All Non-financials, Q1 2000 – Q4 2018



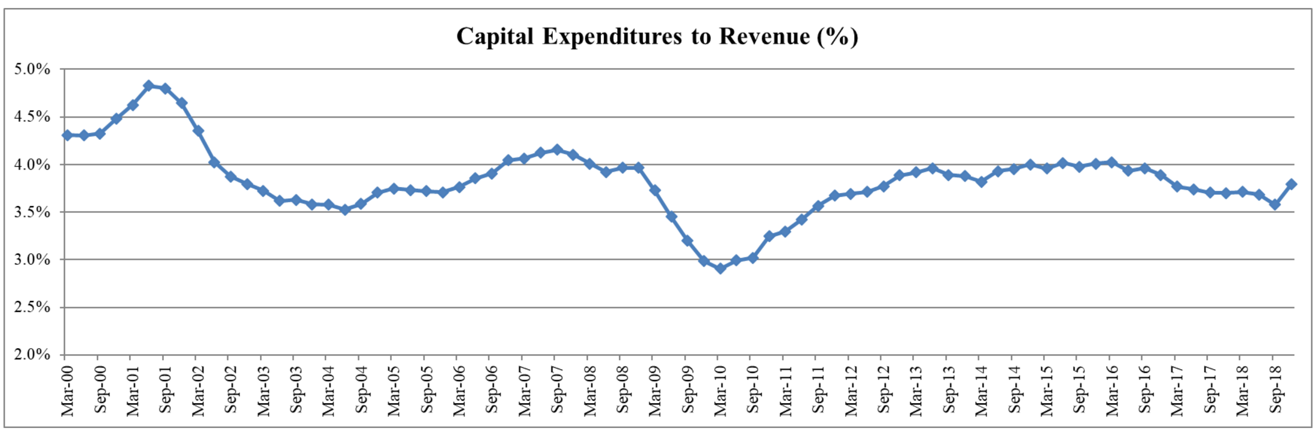
Median selling, general, and administrative expense (before depreciation) as a percent of revenue decreased to 16.29% in December 2018, down from 17.63% in September 2018 and 17.26% in December 2017.

All Non-financials, Q1 2000 – Q4 2018



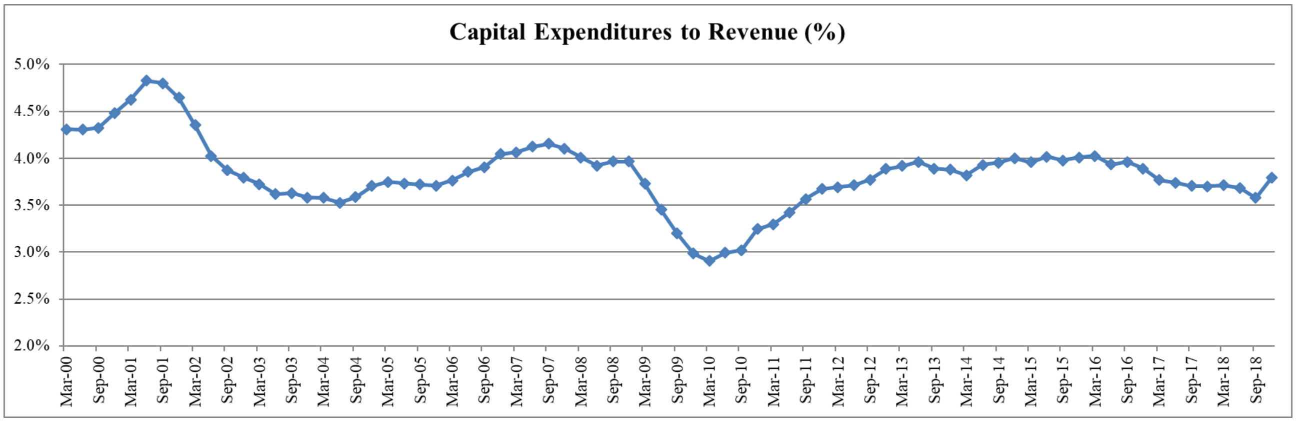
Median net margin increased to 4.48% for the December 2018 period, up from 4.30% for the September 2018 reporting period and from 4.11% for the December 2017 period.

All Non-financials, Q1 2000 – Q4 2018



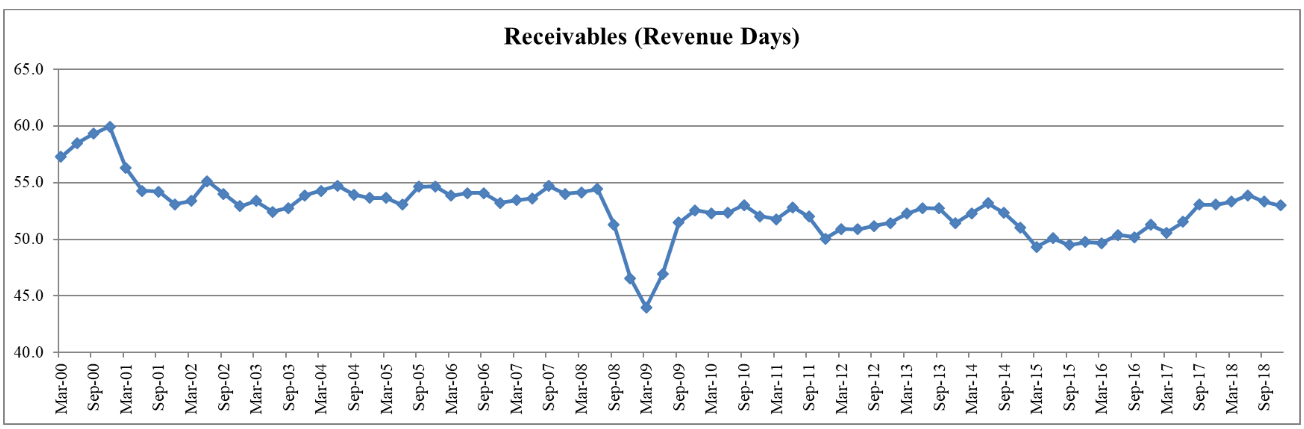
Capital expenditures as a percentage of revenue increased to 3.79% in the December 2018 reporting period, up from 3.58% in September 2018 and down from 3.70% in December 2017. This increase marks the end of continued stagnation from past three quarters and is worth monitoring. While capital spending is up, it remains well below the level of investment needed to replace capital expenditures lost during the recession.

All Non-financials, Q1 2000 – Q4 2018



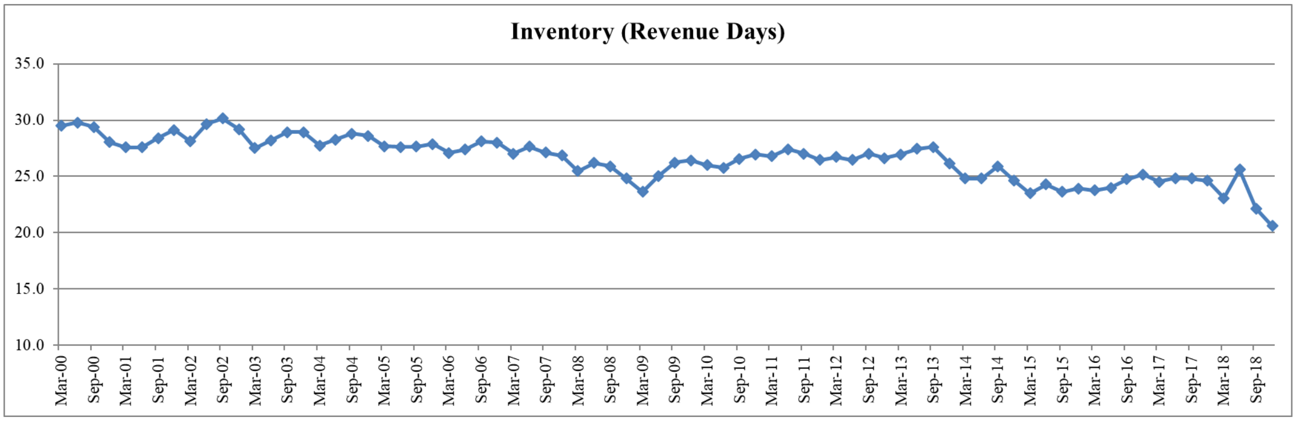
The cash cycle measures the proportion of operating cash flow carried in working capital and is measured by receivables days plus inventory days less payables days. The metric declined to 47.77 days for the period ending December 2018 compared to 48.81 days from September 2018 and 52.16 days from December 2017.

All Non-financials, Q1 2000 – Q4 2018



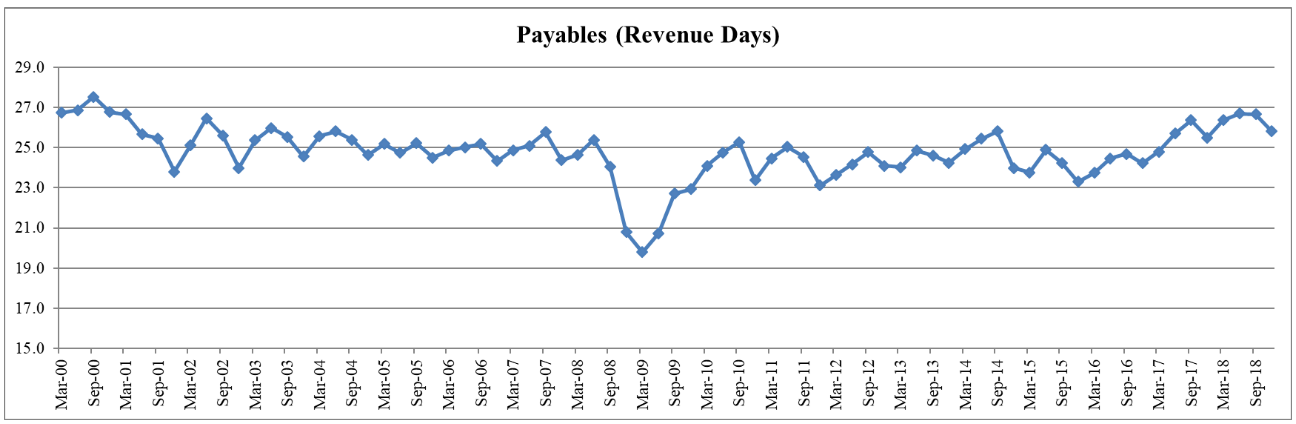
Median accounts receivable days decreased to 52.97 days in the December 2018 reporting period from 53.32 days in September 2018 and is down from the 53.05 days seen in December 2017.

All Non-financials, Q1 2000 – Q4 2018



Median inventory days decreased to 20.60 days in December 2018 from 22.15 days in September 2018 and from 24.61 days in December 2017.

All Non-financials, Q1 2000 – Q4 2018



Accounts payable days declined slightly to 25.81days in December 2018 from 26.66 days in the September 2018 reporting period but is up from 25.50 days in December 2017.

Individual Industry Results

During the twelve months ended December 2018, recent industry trends evidenced a moderate to substantial improvement in free cash margin in **9** industries, relatively stable free cash margin in **2** industries, and a declining free cash margin in **9** 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	**9**	**2**	**9**

The following table compares Free Cash Margin for the 20 industry groups in the period ending December 2018 (Q4 2018) with the September 2018 and December 2017 reporting periods.

GICS	Sector/Industry Group	Q4 2018	Q3 2018	Q4 2017
1010	Energy	0.18%	-0.56%	0.60%
1510	Materials	5.12%	4.47%	5.39%
2010	Capital Goods	4.40%	3.80%	4.38%
2020	Commercial & Prof Services	6.04%	5.98%	7.17%
2030	Transportation	2.86%	2.66%	1.68%
2510	Automobiles & Components	3.28%	2.27%	2.85%
2520	Consumer Durables & Apparel	4.53%	4.45%	5.99%
2530	Consumer Services	4.28%	5.22%	5.61%
2550	Retailing	3.37%	3.82%	3.37%
3010	Food & Staples Retailing	1.50%	1.91%	1.07%
3020	Food, Beverage, & Tobacco	4.80%	5.56%	5.58%
3030	Household & Personal Products	11.32%	11.68%	11.19%
3510	Health Care Equipment & Services	5.44%	6.29%	6.18%
3520	Pharmaceuticals, Biotech, & Life Sciences	-57.17%	-56.33%	-32.32%
4510	Software & Services	11.29%	8.93%	10.05%
4520	Technology Hardware & Equipment	4.81%	3.87%	5.65%
4530	Semiconductors & Equipment	10.89%	11.58%	12.30%
5010	Telecommunication Services	4.79%	5.08%	3.21%
5020	Media	6.52%	5.94%	8.42%
5510	Utilities	-0.08%	0.70%	-0.02%
	All Industries Median	**4.39%**	**4.01%**	**4.59%**

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.

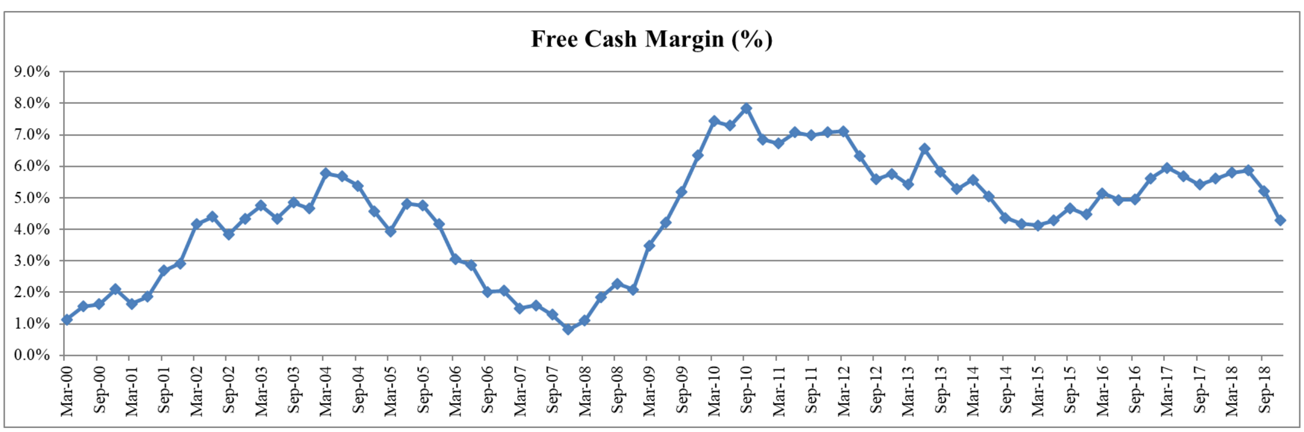
Graphs of free cash margin for select industries studied in the reporting period are provided below. With each graph we provide a short summary of the primary drivers or factors that are behind the observed changes in free cash margin for the selected industries. For more details regarding the industries,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

Industries with Declining Free Cash Margin

In the twelve-month period ending December 2018, nine industries saw free cash margin decline: Consumer Services; Retailing; Food & Staples Retailing; Food, Beverage, & Tobacco; Household & Personal Products; Health Care Equipment & Services; Pharmaceuticals, Biotechnology, & Life Sciences; Semiconductors & Equipment; and Utilities.

In the following paragraphs we take a closer look at an industry with declining free cash margin: Consumer Services.

Consumer Services, Q1 2000 – Q4 2018



Drivers of Free Cash Margin

Consumer Services	Q4 2018 (Dec 2018)	Q3 2018 (Sep 2018)	Q4 2017 (Dec 2017)	Effect on FCM (Q4 2018 vs. Q4 2017)
Revenue (millions)	**$977.92**	**$847.85**	**$1,007.36**	**DOWN 2.92%**
Free Cash Flow (millions)	**$41.09**	**$36.43**	**$43.55**	**DOWN 5.64%**
Free Cash Margin	**4.28%**	**5.22%**	**5.61%**	**DOWN 23.70%**
Operating Cushion %	15.41%	15.71%	17.20%	Driving **DOWN**
Gross Margin % (before depreciations)	42.29%	41.95%	42.97%	Driving **DOWN**
SGA% (before depreciation)	18.24%	16.40%	16.63%	Driving **DOWN**
Cash Cycle (rev days)	7.33	5.82	6.74	Driving **DOWN**
Accounts Receivable (rev days)	16.14	15.73	15.42	Driving **DOWN**
Inventory (rev days)	3.11	2.99	2.96	Driving **DOWN**
Accounts Payable (rev days)	11.92	12.90	11.64	Driving **UP**
Income tax to Rev %	1.31%	0.10%	0.12%	Driving **DOWN**
Cap Exp. to Rev %	5.05%	5.20%	5.68%	Driving **UP**

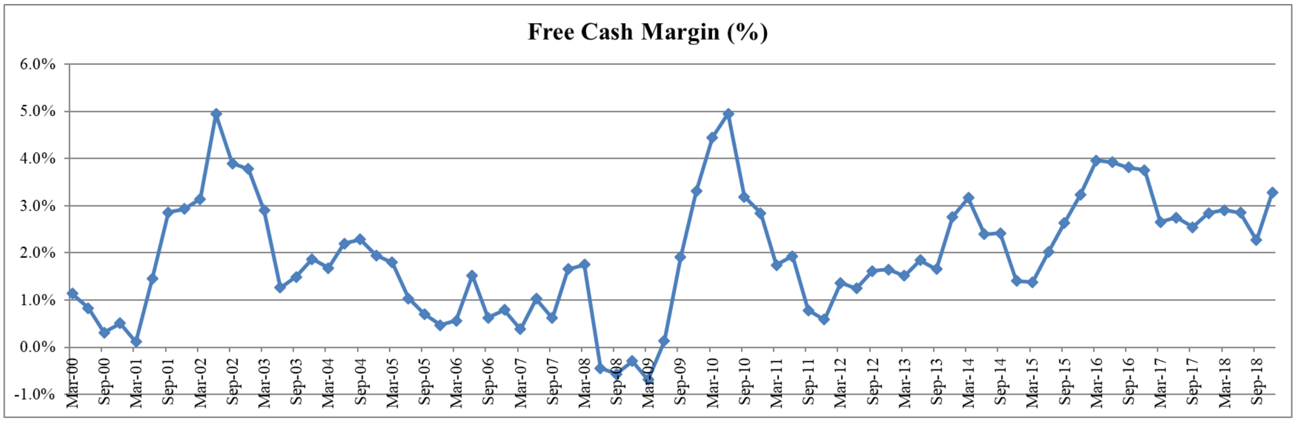
Analysis

Free cash margin for the Consumer Services industry declined significantly in December 2018, due to a myriad of factors. Operating cushion declined, the cash cycle increased, and taxes paid increased.

Industries with Improving Free Cash Margin

In the twelve-month period ending December 2018, nine industries enjoyed improving free cash margin: Energy; Materials; Capital Goods; Transportation; Automobiles & Components; Consumer Durables & Apparel; Software & Services; Technology Hardware & Equipment and Media. In the following paragraphs we take a closer look at an industry with improving free cash margin: Automobiles & Components.

Automobiles & Components, Q1 2000 – Q4 2018



Drivers of Free Cash Margin

Automobiles & Components	Q4 2018 (Sep 2018)	Q3 2018 (Jun 2018)	Q4 2017 (Sep 2017)	Effect on FCM (Q4 2018 vs. Q4 2017)
Revenue (millions)	**$3,772.61**	**$2,922.31**	**$3,382.06**	**UP 11.54%**
Free Cash Flow (millions)	**$76.95**	**$70.04**	**$114.47**	**DOWN 32.77%**
Free Cash Margin	**3.28%**	**2.27%**	**2.85%**	**UP 15.08%**
Operating Cushion %	11.01%	11.11%	11.61%	Driving **DOWN**
Gross Margin % (before depreciations)	22.04%	22.20%	23.39%	Driving **DOWN**
SGA% (before depreciation)	9.60%	9.79%	10.38%	Driving **UP**
Cash Cycle (rev days)	45.30	48.32	38.94	Driving **DOWN**
Accounts Receivable (rev days)	57.11	63.38	58.86	Driving **UP**
Inventory (rev days)	35.43	36.02	34.46	Driving **DOWN**
Accounts Payable (rev days)	47.24	51.08	54.37	Driving **DOWN**
Income tax to Rev %	1.29%	2.00%	2.05%	Driving **UP**
Cap Exp. to Rev %	4.76%	4.70%	4.61%	Driving **DOWN**

Analysis

Improving free cash margin for the Automobiles & Components industry is being driven by a reduction in SGA spending, as well as a decrease in taxes paid as a percent of revenue. A longer cash cycle limited this free cash margin improvement, however.

Conclusions

The cash flow data reported through the fourth quarter of 2018 provides us with new insight into the U.S. economy. The ratios suggest a generally healthy economy with growing revenue, upward free cash margin trends and increasing capital spending.

Median free cash margin increased during the December 2018 reporting period after falling for six consecutive quarters. Median revenues also increased to $1,248.26 million, from $1,238.43 million in September 2018 but it is down 5.44% year-over-year. Cash and short-term investments ticked up in the December 2018 reporting period but are down year-over-year.

The tax reform legislation passed in 2017 targeted increased business investment to spur widescale economic growth. This desired result has begun to materialize, as median capital expenditures as a percentage of revenue increased after three falling for three consecutive quarters. Median capital expenditures increased to 3.79% of revenue in the December 2018 period, compared to 3.58% of revenue in September 2018 and 3.70% of revenue in December 2017. We are beginning to see a healthy increase in capital spending, as revenues grow and the percentage of revenues devoted to capital expenditures increases.

With an increase in free cash margin came an increase in dividends and stock repurchases. Measured as a percent of revenue, dividends and stock repurchases increased to 2.15% in December 2018. This was the fifth consecutive quarter this metric has increased.

One other important observation can be made. General consensus holds that, at ten years, the current expansion is old and tired. Typically at this stage of an expansion, we tend to see declining margins as costs rise and discounting occurs as a means to keep sales rising. As noted earlier, this reporting period we saw a boost in free cash margin driven, in part, by an increase in operating cushion (reflecting an improvement in operating margins) as SG&A expense as a percentage of revenue declined. A stable gross margin with growing revenues indicates that we are not seeing widespread discounting. All of these are healthy developments. Further, the drop in inventory days, which lowered the cash cycle and also helped to improve free cash margin, suggests that companies are maintaining efficiencies and not becoming sloppy, as can happen late in a business cycle.

Our hope and expectation is that the positive effects of tax reform: increased capital spending and economic growth will continue in future quarters. We will continue to watch and report.