



2016 US Working Capital Survey

The High Cost

The 2016 US Working Capital Survey and scorecard calculates working capital based on the latest publicly available annual financial statements of the 1,000 largest listed nonfinancial companies in the United States, according to statistics gathered by FactSet.

Lax working capital management habits learned in easy credit years are starting to take a toll

Last year, the 1,000 US companies tracked by The Hackett Group's working capital division borrowed another \$413 billion, adding 9.3% to their overall debt level, even though cash on hand stayed essentially the same (up 0.4%).

Today, these 1,000 companies are \$4.86 trillion in debt, more than double their level of indebtedness in 2008. That might not seem too worrisome given the continued low interest rates, which have fallen from low (3%) to almost zero (0.12%), but we believe many firms are now beginning to pay the price for all that low-interest money. This year's survey suggests that they paid the first installment in 2015 in the form of the worst working capital performance since the 2007-2008 financial crisis.

Lax working capital management habits learned in these easy credit years are now taking their toll on many companies' overall operational efficiency:

- Cash conversion cycle (CCC) performance among the 1,000 companies tracked declined by 2.4 days, or 7%, from the prior year. The 35.5-day CCC average is now higher than it's been at any time since 2008.
- Days inventory on-hand (DIO) grew by 10.3%, climbing by 4.6 days to 49.1 days. Much of this deterioration was driven by weakness in the oil and gas and telecommunications sectors, but even excluding oil and gas, DIO still grew 3.7% year-on-year, adding 1.9 days to the previous average of 52.2 days.

Averages mask even greater weakness. Median companies were seven times slower at turning their working capital into cash than companies in the top quartile. They collected from their customers 2+ weeks slower, paid their suppliers 2+ weeks faster and held over two times more inventory than

of Low Interest



top-quartile companies. We estimate that by not replicating their competitors' best practices in working capital, they left over \$1.07 trillion on the table – as much as 36.7% of their gross working capital, 10.2% of their revenue – or 6% of the \$18.1 trillion US gross domestic product.

This performance gap increased only slightly in 2015; but since 2010, the size of the inventory opportunity has grown by 48% and receivables by 18%. Overall, there are stunning gaps between the performances of the median and first-quartile companies:

- 53% for DIO (54.7 to 25.5 days)
- 45% in DPO (41.1 to 59.4 days)
- 42% in DSO (43.5 to 25.1 days)

In total working capital terms, this means an astonishing 115% difference in the cash conversion

cycle, between 57.1 days for median companies and negative 8.4 days for the top quartile.

Savings opportunities start here

Inventory (DIO), payables (DPO) and receivables (DSO) all offer big sources of opportunity. Streamlining supply chains, reducing inventory buffers, negotiating better customer and supplier payment terms, and improving billing and cash collection could shave time off DIO (which currently ties up \$421 billion) and DSO (\$316 billion tied up) while increasing DPO (which locks in \$334 billion).

This might seem like it could be the beginning of a lasting competitive advantage, but few companies sustain working capital improvement for very long. In this survey, we found that only 10% (98) of companies improved their CCC every year for the past three years.

Fewer companies are able to keep improving for much longer. Only 2% (22) managed to improve their CCC every year for the past five years – and less than 1% (four) achieved it every year for each of the past seven years: Goodyear, Priceline, Kimberly-Clark and AmerisourceBergen.



The trap of 'good enough'

Why the loss of momentum? It's not lack of opportunity for more gains: the four companies that persevered with their working capital program for seven years saw revenue rise by 62%, compared with the 18% average; cash on hand grow 203%, compared with the 81% average; and CCC plummeted 112%, compared with an average 11% increase. Overall, their cash as a percentage of revenue climbed to 87%, compared with 53% average growth.

A look at companies where working capital positions deteriorated several years running may offer a clue about the thought process behind this behavior. Only 10% (100) of companies saw their CCC worsen every year over the past three years (a 181% cumulative deterioration). In addition, 2% (20) of companies saw CCC deteriorate every year for the past five years, and less than ½ of 1% (two) lost ground for each of the last seven consecutive years.

We believe that after focusing on working capital for a few years, executives decide their working capital ratios are in good shape and turn their attention to other priorities. Or, after taking their eyes off the working capital gauges for awhile and seeing a

worsening trend over a period of years, they refocus attention on it to bring performance back in line.

Over time, however, both leaders and laggards appear to grow content with "good enough" working capital performance instead of seeing exceptional working capital management as a potential source of competitive advantage. "Good enough" may not be good enough for much longer though.

Deteriorating cash positions

Although most companies are still managing their cash fairly well, the overall position continues to deteriorate. In 2011, the average stood at 37% cash to debt, which has now shrunk to about 30%, and interest rate coverage has slumped from 7.1 times to less than 6.5. Much of this cash was used to fund 9% more merger and acquisition activity (a total of \$2.5 trillion) and 10% higher dividends.

However, if the recovery continues, the Federal Reserve has signaled that it might begin raising interest rates soon. Given that much of this debt has been used not on capital investment but to buy back stock and plump dividends, some companies may feel squeezed as the cost of their debt service rises. Although it is true that the 1,000 companies we track sit on \$900+ billion in cash, that fortune is not distributed evenly: 10 companies hold more than a quarter (28%) of the total hoard.

Gradually and Then Suddenly

"How did you go bankrupt?" Bill asked.

"Two ways," Mike said. "Gradually and then suddenly."

— Ernest Hemingway, *"The Sun Also Rises"*

Efficient cash conversion and easy credit don't mix very well. The 432 companies that increased their debt levels by more than 100% between 2008 and 2015 saw their CCC increase by 332%, while the 212 companies that paid down debt saw their CCC fall by 40% over that same period.

Just like the character in "The Sun Also Rises," companies could find that their gradually weakening performance has left them in a vulnerable position. The stability of the past eight years has masked a gradually worsening balance sheet that doesn't hurt now but certainly might if some of the fundamentals, such as interest rates, were to suddenly change. In the same way that the unexpected collapse of energy prices hurt many oil and gas companies, tighter credit could throw many companies seriously off balance.

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companies in working capital management by 2015 CCC

COMPANY	2015	CCC 1 YR% CHANGE	2014	2015	DSO 1 YR% CHANGE	2014	2015	DIO 1 YR% CHANGE	2014	2015	DPO 1 YR% CHANGE	2014
Aerospace and Defense Industry												
Northrop Grumman Corporation	34	9%	31	44	3%	43	17	12%	15	27	1%	27
ManTech International Corporation	42	53%	27	72	13%	64	NM	NM	NM	30	-18%	37
Aerojet Rocketdyne Holdings, Inc.	50	-8%	54	37	-7%	39	39	-32%	58	26	-39%	43
BE Aerospace, Inc.	235	14%	205	47	17%	41	258	10%	234	71	2%	70
Rockwell Collins, Inc.	263	7%	247	72	-5%	76	260	4%	249	69	-11%	78
KLX, Inc.	443	1%	436	60	-9%	66	431	3%	419	49	0%	49
Median Performance	108	1%	106	65	3%	64	97	4%	94	36	-5%	38
Air Freight and Logistics Industry												
Atlas Air Worldwide Holdings, Inc.	7	-68%	22	33	0%	33	NM	NM	NM	26	143%	11
Hub Group, Inc.	13	4%	13	39	-4%	41	NM	NM	NM	26	-8%	28
Expeditors International of Washington, Inc.	19	1%	19	61	-11%	69	NM	NM	NM	42	-15%	50
C.H. Robinson Worldwide, Inc.	20	-7%	21	41	-4%	43	NM	NM	NM	21	-1%	21
United Parcel Service, Inc.	25	13%	23	45	7%	42	3	-5%	3	22	0%	22
Roadrunner Transportation Systems, Inc.	26	-4%	27	50	-10%	55	NM	NM	NM	24	-16%	29
Median Performance	19	-11%	22	43	2%	42	3	-5%	3	25	0%	25
Airlines Industry												
Virgin America, Inc.	-25	-576%	-13	2	-5%	2	NM	NM	NM	27	79%	15
SkyWest, Inc.	-14	-58%	-9	7	-22%	9	22	14%	19	44	16%	38
Delta Air Lines, Inc.	-10	-1664%	-1	18	-13%	21	10	-7%	10	38	19%	32
Allegiant Travel Company	9	41%	6	4	-4%	5	8	0%	8	4	-44%	6
Alaska Air Group, Inc.	12	-27%	17	14	-22%	18	6	-4%	6	7	11%	6
Republic Airways Holdings, Inc.	34	41%	24	21	283%	5	23	-17%	27	10	11%	9
Median Performance	(1)	-186%	1	10	9%	9	9	13%	8	20	25%	16
Automotive Parts & Aftermarket												
Tower International, Inc.	-3	-304%	2	47	15%	41	16	7%	15	66	22%	54
Visteon Corporation	15	-49%	29	59	-10%	66	28	-8%	30	72	8%	67
Cooper-Standard Holdings Inc.	15	-27%	21	50	17%	42	21	-11%	23	55	24%	45
Federal-Mogul Holdings Corp.	94	6%	88	68	-5%	71	81	9%	74	54	-4%	57
LKO Corporation	126	1%	125	30	-8%	33	131	2%	128	35	-3%	36
CLARCOR Inc.	137	-2%	140	64	-14%	74	107	5%	102	34	-6%	36
Median Performance	34	18%	29	49	6%	46	41	17%	35	55	1%	55
Beverages												
Molson Coors Brewing Company	-27	-50%	-18	43	-6%	46	38	3%	37	109	7%	102
PepsiCo, Inc.	-8	-222%	6	32	0%	32	38	-6%	40	78	18%	66
Coca-Cola Bottling Co. Consolidated	14	-17%	16	34	8%	31	25	-6%	26	45	9%	41
Coca-Cola Enterprises, Inc.	50	-4%	52	71	2%	70	29	4%	27	50	11%	45
Monster Beverage Corp.	68	19%	57	64	54%	42	54	-7%	58	50	18%	42
Constellation Brands, Inc.	194	-8%	211	41	13%	36	200	-4%	208	46	43%	32
Median Performance	29	-19%	36	37	4%	36	38	-2%	39	50	12%	45

NOTE: For the purpose of the study companies that securitize their receivables have had the value of securitized receivables added back to the overall receivables figure.
 NM (not meaningful).

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companies in working capital management by 2015 CCC

COMPANY	2015	CCC 1 YR% CHANGE	2014	2015	DSO 1 YR% CHANGE	2014	2015	DIO 1 YR% CHANGE	2014	2015	DPO 1 YR% CHANGE	2014
Biotechnology												
Vertex Pharmaceuticals Incorporated	-41	79%	-194	63	31%	48	336	82%	185	440	3%	426
Charles River Laboratories International, Inc.	101	0%	101	74	0%	74	44	3%	43	17	6%	16
Agilent Technologies, Inc.	109	-13%	125	55	7%	51	112	-16%	133	58	-2%	59
Amgen Inc.	311	6%	293	51	10%	46	430	-5%	454	170	-18%	208
Celgene Corporation	313	-2%	319	58	5%	56	558	5%	530	303	13%	267
Alexion Pharmaceuticals, Inc.	526	54%	341	78	10%	71	559	55%	360	111	23%	90
Median Performance	191	17%	164	64	9%	58	278	34%	207	121	14%	106
Building Products Industry												
A. O. Smith Corporation	22	-18%	27	72	-2%	74	55	5%	53	106	6%	100
Masco Corporation	39	6%	36	44	-2%	45	53	5%	50	58	-1%	58
NCI Building Systems, Inc.	43	4%	41	39	7%	36	49	10%	44	45	13%	40
Griffon Corporation	89	5%	85	58	-13%	68	80	12%	72	49	-9%	54
Watsco, Inc.	102	0%	102	40	0%	40	79	-4%	83	17	-20%	21
BMC Stock Holdings, Inc.	108	138%	45	75	111%	36	74	102%	36	41	53%	27
Median Performance	63	11%	57	44	3%	43	70	18%	59	48	4%	46
Chemicals Industry												
Westlake Chemical Partners LP	-2	-127%	6	19	60%	12	3	-1%	3	23	188%	8
Calumet Specialty Products Partners, L.P.	25	-7%	27	18	-14%	21	43	18%	36	35	19%	30
Sherwin-Williams Company	27	-27%	37	36	-3%	37	67	2%	66	76	15%	66
Sensient Technologies Corporation	194	-3%	199	62	7%	58	172	-5%	181	40	1%	40
Monsanto Company	202	10%	185	40	-14%	46	213	7%	200	51	-17%	62
FMC Corporation	278	25%	222	206	15%	179	145	27%	114	73	3%	71
Median Performance	79	1%	78	51	-1%	52	72	8%	67	45	0%	45
Commercial & Personnel Service												
Expedia, Inc.	-476	-5%	-453	59	20%	49	NM	NM	NM	535	7%	502
eBay Inc.	-85	-143%	198	26	-89%	231	NM	NM	NM	111	242%	32
ADT Corporation	-69	22%	-88	10	-4%	11	53	-7%	57	132	-15%	155
UniFirst Corporation	108	-2%	111	38	-5%	40	91	-5%	96	21	-17%	25
Houghton Mifflin Harcourt Company	117	-28%	162	66	-3%	68	114	-12%	130	63	73%	36
KAR Auction Services, Inc.	148	4%	142	296	9%	272	NM	NM	NM	148	14%	131
Median Performance	33	-8%	36	55	1%	55	15	22%	12	24	4%	23
Computer Hardware & Peripherals												
Lexmark International, Inc.	-12	-42%	-8	45	9%	41	49	9%	45	106	12%	95
HP Inc.	2	-32%	3	48	5%	45	31	9%	29	77	8%	71
Brocade Communications Systems, Inc.	6	-10%	6	38	2%	37	23	5%	22	55	5%	52
Super Micro Computer, Inc.	95	17%	81	59	12%	53	102	9%	93	66	2%	65
Fortinet, Inc.	126	3%	122	94	7%	88	120	-1%	121	88	1%	87
NETGEAR, Inc.	131	13%	117	82	13%	72	87	2%	85	37	-9%	40
Median Performance	46	-6%	49	59	13%	52	50	-1%	50	66	-3%	68

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COMPANY	2015	CCC 1 YR% CHANGE	2014	2015	DSO 1 YR% CHANGE	2014	2015	DIO 1 YR% CHANGE	2014	2015	DPO 1 YR% CHANGE	2014
Construction Materials												
USG Corporation	45	0%	44	38	-5%	40	39	-5%	41	32	-11%	36
Owens Corning	59	-18%	72	48	4%	47	61	-19%	75	50	2%	50
Vulcan Materials Company	70	-5%	73	42	-2%	43	55	0%	55	28	12%	25
Martin Marietta Materials, Inc.	86	-13%	98	42	-18%	52	67	-16%	80	24	-30%	33
Median Performance	64	-12%	73	42	-6%	45	58	-11%	65	30	-13%	35
Consumer Durables												
Select Comfort Corporation	-6	69%	-21	9	40%	6	76	59%	48	91	22%	75
Whirlpool Corporation	5	-6%	5	44	-13%	51	58	-8%	63	97	-11%	108
Tempur Sealy International, Inc.	31	-32%	45	44	-7%	47	39	-11%	44	53	14%	46
Taylor Morrison Home Corp.	471	4%	452	15	-60%	37	479	10%	435	23	10%	21
TRI Pointe Group, Inc.	492	-18%	602	5	134%	2	500	-19%	618	13	-31%	19
William Lyon Homes	660	-7%	707	6	-40%	10	685	-5%	723	31	16%	27
Median Performance	118	-6%	125	28	-32%	41	113	9%	104	38	-11%	42
Containers & Packaging												
Crown Holdings, Inc.	-1	-117%	7	31	-9%	34	62	-3%	64	95	3%	92
Ball Corporation	0	-99%	17	34	2%	34	51	-6%	54	85	20%	71
Owens-Illinois, Inc.	17	-23%	22	33	13%	30	80	8%	74	96	18%	81
Packaging Corporation of America	74	7%	69	40	0%	40	59	2%	58	26	-10%	29
WestRock Co.	82	58%	52	54	31%	41	84	64%	51	56	38%	40
AptarGroup, Inc.	105	8%	98	62	8%	57	72	11%	65	28	15%	24
Median Performance	43	7%	40	40	-2%	41	58	4%	55	52	7%	48
Electrical Products												
Acuity Brands, Inc.	35	-6%	37	56	-3%	57	54	-4%	56	75	-2%	77
Belden Inc.	54	10%	49	61	2%	60	54	-8%	59	61	-12%	70
SunPower Corporation	54	-16%	65	53	-36%	83	158	216%	50	157	130%	69
Spectrum Brands Holdings, Inc.	59	17%	50	39	7%	36	99	17%	85	79	12%	70
Hubbell Incorporated	95	9%	87	53	-1%	54	90	21%	74	48	18%	41
Generac Holdings Inc.	145	20%	121	50	7%	47	142	13%	125	47	-9%	52
Median Performance	56	10%	51	53	-7%	57	90	54%	59	68	-2%	70
Electronic Equipment, Instruments & Components												
Jabil Circuit, Inc.	3	218%	1	30	7%	28	58	12%	51	84	8%	78
Ingram Micro Inc.	22	-31%	32	48	0%	48	31	-9%	35	58	13%	51
Tech Data Corporation	22	7%	21	41	12%	37	31	13%	27	50	15%	43
Keysight Technologies, Inc.	138	-2%	141	51	14%	44	153	3%	148	65	27%	51
Bruker Corporation	205	-3%	212	53	-11%	59	183	1%	181	31	8%	29
National Instruments Corporation	267	18%	226	66	10%	60	277	10%	252	76	-11%	85
Median Performance	82	11%	74	58	1%	58	79	6%	74	60	1%	59

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companies in working capital management by 2015 CCC

COMPANY	2015	CCC 1 YR% CHANGE	2014	2015	DSO 1 YR% CHANGE	2014	2015	DIO 1 YR% CHANGE	2014	2015	DPO 1 YR% CHANGE	2014
Energy Services & Equipment												
Patterson-UTI Energy, Inc.	22	42%	16	42	-44%	76	4	-22%	6	25	-63%	66
Rowan Cos. Plc	27	-59%	67	68	-36%	105	NM	NM	NM	40	6%	38
SEACOR Holdings Inc.	32	7%	30	55	-12%	62	12	32%	9	35	-16%	42
Oil States International, Inc.	182	33%	137	111	11%	100	99	41%	70	27	-17%	33
Forum Energy Technologies, Inc.	221	28%	173	51	-19%	63	208	38%	151	38	-10%	42
National Oilwell Varco, Inc.	242	16%	208	103	-4%	107	160	23%	130	21	-27%	29
Median Performance	86	-9%	95	67	-13%	77	56	5%	53	31	-27%	42
Engineering & Construction												
Fluor Corporation	24	-5%	26	52	0%	52	NM	NM	NM	28	6%	26
Granite Construction Incorporated	41	4%	39	59	9%	55	10	-21%	13	29	1%	28
Matrix Service Company	41	-8%	44	78	-3%	80	1	-18%	1	37	1%	37
Aegion Corporation	81	-10%	90	90	-9%	99	17	-21%	22	26	-14%	31
Tutor Perini Corporation	100	-5%	105	176	-2%	179	NM	NM	NM	76	2%	74
Dycom Industries, Inc.	101	3%	98	106	5%	101	11	-8%	12	16	5%	16
Median Performance	55	-6%	59	81	-4%	84	9	-14%	10	29	-3%	30
Food												
Mondelez International, Inc.	-15	-280%	9	32	-20%	41	55	-11%	61	102	10%	93
Kellogg Company	2	-90%	16	31	14%	27	56	0%	56	86	28%	67
WhiteWave Foods Company	10	49%	7	24	19%	20	41	12%	36	55	10%	50
Ingredion Incorporated	69	7%	65	44	3%	42	63	6%	59	37	2%	37
TreeHouse Foods, Inc.	79	-12%	90	23	-20%	29	85	-11%	96	29	-16%	35
McCormick & Company, Incorporated	83	-12%	94	39	-9%	42	106	-2%	108	61	9%	56
Median Performance	49	24%	39	28	3%	27	51	2%	50	29	-16%	35
Food & Staples Retail												
Costco Wholesale Corporation	2	-11%	2	2	0%	2	33	3%	32	33	3%	32
PriceSmart, Inc.	5	322%	1	1	10%	1	42	6%	40	38	-4%	40
Sprouts Farmers Markets, Inc.	6	-10%	6	1	17%	1	24	-5%	25	19	-2%	20
Chefs' Warehouse, Inc.	56	-9%	61	43	1%	42	44	-1%	44	31	21%	25
Sears Holdings Corporation	73	31%	56	6	21%	5	98	30%	75	31	25%	25
GNC Holdings, Inc.	112	9%	102	20	6%	19	127	17%	108	35	41%	25
Median Performance	15	-17%	18	6	15%	5	41	3%	40	29	15%	26
General & Specialty Retail												
AutoZone, Inc.	-26	18%	-32	9	15%	8	272	2%	267	307	0%	307
CST Brands, Inc.	-1		0	3	-20%	4	8	16%	7	12	15%	11
Murphy USA, Inc.	2	-6%	2	4	32%	3	5	16%	4	7	33%	5
Restoration Hardware Holdings, Inc.	160	13%	141	5	-3%	5	205	14%	179	49	16%	43
Conn's, Inc.	220	8%	204	168	7%	158	91	-8%	98	39	-26%	53
Tiffany & Co.	504	-8%	551	18	9%	17	570	1%	562	84	200%	28
Median Performance	62	-6%	66	7	-1%	7	81	4%	79	40	2%	39

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companies in working capital management by 2015 CCC

COMPANY	2015	CCC 1 YR% CHANGE	2014	2015	DSO 1 YR% CHANGE	2014	2015	DIO 1 YR% CHANGE	2014	2015	DPO 1 YR% CHANGE	2014
Healthcare Services												
AmerisourceBergen Corporation	-9	-226%	-3	22	15%	19	27	0%	27	58	18%	49
Brookdale Senior Living Inc.	-3	-169%	4	11	-26%	14	NM	NM	NM	13	29%	10
Cardinal Health, Inc.	4	-26%	5	23	8%	22	35	-1%	35	54	5%	52
Community Health Systems, Inc.	59	9%	54	72	2%	70	12	-1%	13	26	-12%	29
Henry Schein, Inc.	67	6%	63	42	6%	40	74	11%	66	49	14%	43
Air Methods Corporation	138	8%	127	127	19%	107	28	-8%	31	17	64%	11
Median Performance	33	3%	33	45	4%	43	12	-16%	15	18	-4%	18
Hotels, Restaurants & Recreation												
Extended Stay America, Inc.	-119	-63%	-73	5	-35%	8	NM	NM	NM	124	53%	81
Royal Caribbean Cruises Ltd.	-28	-998%	-3	11	-11%	12	26	204%	9	65	182%	23
McDonald's Corporation	-15	-11%	-13	19	15%	16	4	0%	4	38	12%	34
Vail Resorts, Inc.	39	48%	26	30	6%	28	59	138%	25	50	88%	26
Wyndham Worldwide Corporation	46	0%	46	57	2%	55	31	-7%	34	42	-2%	43
Starwood Hotels & Resorts Worldwide, Inc.	65	19%	54	46	6%	43	27	40%	19	8	1%	8
Median Performance	2	587%	(0)	12	5%	12	7	-5%	8	18	6%	17
Household & Personal Care												
Procter & Gamble Company	-6	-147%	12	23	-20%	29	57	-14%	66	86	4%	82
Avon Products, Inc.	3	-83%	15	26	13%	23	98	8%	91	122	23%	99
Coty Inc.	13	16%	11	57	6%	53	127	-5%	134	171	-3%	176
Central Garden & Pet Company	126	3%	122	46	4%	44	109	2%	107	29	-1%	29
Estee Lauder Companies Inc.	164	-20%	204	40	-13%	46	261	-2%	267	136	26%	108
Nu Skin Enterprises, Inc.	212	-21%	267	6	13%	5	232	-21%	292	25	-16%	30
Median Performance	28	-28%	38	33	-8%	36	106	17%	91	85	3%	82
Industrial Conglomerates												
Berkshire Hathaway Inc.	-7	81%	-36	40	-2%	41	29	11%	26	76	-26%	103
Honeywell International Inc.	57	0%	57	75	6%	71	68	9%	63	86	13%	76
Icahn Enterprises L.P.	63	47%	43	38	20%	32	66	56%	42	41	33%	31
3M Company	97	3%	95	50	3%	49	91	1%	90	44	0%	44
General Electric Company	126	97%	64	81	42%	57	114	29%	89	70	-15%	82
Textron Inc.	144	10%	131	28	5%	27	155	11%	140	40	11%	36
Median Performance	76	14%	66	66	20%	55	73	8%	67	57	3%	55

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 NM (not meaningful).

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companies in working capital management by 2015 CCC

COMPANY	2015	CCC 1 YR% CHANGE	2014	2015	DSO 1 YR% CHANGE	2014	2015	DIO 1 YR% CHANGE	2014	2015	DPO 1 YR% CHANGE	2014
Information Technology Services												
CoreLogic, Inc.	-17	41%	-28	58	3%	56	NM	NM	NM	74	-11%	84
International Business Machines Corporation	-6	-13%	-5	37	4%	36	15	-18%	18	58	-2%	59
Science Applications International Corp.	14	14%	12	41	8%	38	6	-7%	7	33	2%	33
Workday, Inc.	67	-2%	68	92	6%	87	NM	NM	NM	25	32%	19
Cognizant Technology Solutions Corporation	69	-5%	73	77	-6%	82	NM	NM	NM	8	-6%	9
Teradata Corporation	69	26%	55	85	1%	85	17	30%	13	33	-23%	42
Median Performance	40	-10%	45	66	10%	60	14	8%	13	30	33%	22
Internet & Catalog Retail												
Wayfair, Inc.	-53	-16%	-46	2	-2%	2	4	-41%	7	59	8%	55
Amazon.com, Inc.	-41	-10%	-37	15	11%	14	56	9%	51	112	10%	102
Overstock.com, Inc.	-24	-17%	-20	4	-23%	5	6	-35%	9	33	-2%	34
Liberty Interactive Corporation	65	12%	58	53	23%	43	51	2%	51	39	11%	35
Cabela's Incorporated	93	14%	81	7	16%	6	131	-3%	135	45	-24%	60
Lands' End, Inc.	95	16%	82	8	17%	7	157	17%	134	70	18%	59
Median Performance	37	24%	30	8	-38%	14	51	6%	48	45	-14%	52
Internet Software & Services												
Intuit Inc.	-129	-14%	-113	8	-20%	10	NM	NM	NM	137	12%	123
Facebook, Inc.	-111	-15%	-97	52	6%	49	NM	NM	NM	163	12%	146
Autodesk, Inc.	-73	18%	-88	97	45%	67	NM	NM	NM	170	9%	155
Pandora Media, Inc.	70	-11%	79	87	0%	87	NM	NM	NM	17	110%	8
PTC Inc.	78	88%	41	95	50%	63	NM	NM	NM	17	-23%	22
salesforce.com, inc.	107	17%	92	137	5%	131	NM	NM	NM	29	-24%	39
Median Performance	(1)	75%	(6)	60	6%	57	-	NM	-	47	-30%	67
Machinery												
Navistar International Corporation	8	-8%	9	15	-17%	19	49	-5%	52	57	-9%	62
PACCAR Inc	11	-2%	11	14	-17%	17	19	-13%	22	23	-19%	28
Shiloh Industries, Inc.	26	-42%	45	64	-10%	71	21	-50%	43	59	-14%	69
Nordson Corporation	162	9%	149	81	9%	75	116	5%	110	35	-2%	36
Graco Inc.	167	14%	147	61	-1%	62	132	18%	112	27	-4%	28
Joy Global Inc.	214	5%	204	93	-9%	102	166	4%	159	45	-20%	57
Median Performance	86	8%	79	55	0%	55	76	5%	73	45	-1%	46
Marine Shipping												
Kirby Corporation	63	20%	53	49	-17%	59	49	19%	41	36	-26%	48
Median Performance	63	20%	53	49	-17%	59	49	19%	41	36	-26%	48

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companies in working capital management by 2015 CCC

COMPANY	2015	CCC 1 YR% CHANGE	2014	2015	DSO 1 YR% CHANGE	2014	2015	DIO 1 YR% CHANGE	2014	2015	DPO 1 YR% CHANGE	2014
Media												
Omnicom Group Inc	-114	-44%	-79	201	10%	183	NM	NM	NM	315	20%	263
Liberty Media Corp.	-99	7%	-106	19	-2%	19	NM	NM	NM	117	-6%	125
Sirius XM Holdings, Inc.	-75	7%	-81	17	-3%	17	3	2%	3	96	-6%	102
Clear Channel Outdoor Holdings, Inc.	72	-2%	74	91	5%	86	6	15%	5	24	41%	17
Viacom Inc.	92	-10%	102	77	-5%	81	42	-12%	47	27	1%	27
Starz	636	17%	762	54	-1%	55	597	18%	762	15	-38%	24
Median Performance	13	-5%	14	53	5%	50	4	6%	3	31	-19%	39
Medical Specialties & Services												
Cerner Corporation	-58	-14%	-51	85	18%	72	11	-47%	21	154	7%	144
Express Scripts Holding Company	-19	-15%	-17	24	11%	22	8	-5%	9	52	10%	47
Quest Diagnostics Incorporated	28	-18%	33	44	-4%	46	7	-24%	9	23	9%	21
St. Jude Medical, Inc.	254	3%	247	81	3%	79	221	7%	208	49	22%	40
Cooper Companies, Inc.	268	8%	249	57	-2%	59	292	7%	274	81	-3%	84
Zimmer Biomet Holdings, Inc.	552	28%	432	88	24%	71	532	26%	421	67	12%	60
Median Performance	122	2%	120	59	3%	58	116	-3%	119	47	17%	41
Metals & Mining												
CONSOL Energy Inc.	-16	72%	-57	29	7%	27	25	27%	20	71	-32%	105
Peabody Energy Corporation	13	-52%	27	15	-51%	31	25	-7%	26	27	-11%	30
SunCoke Energy, Inc.	20	-26%	27	13	-30%	19	41	-6%	43	33	-4%	34
Newmont Mining Corporation	113	14%	99	12	-48%	24	133	24%	107	33	3%	32
Materion Corporation	117	-1%	118	35	-5%	37	96	0%	97	15	-4%	15
Allegheny Technologies Incorporated	133	-7%	143	39	-25%	52	133	-9%	146	40	-28%	55
Median Performance	53	4%	51	22	-26%	30	62	5%	59	24	-18%	29
Motor Vehicles												
Ford Motor Company	-10	-3%	-10	28	-7%	30	26	3%	26	64	-2%	65
General Motors Company	-12	-324%	-3	20	-6%	21	43	15%	37	74	22%	61
Harley-Davidson, Inc.	51	30%	40	15	4%	15	61	36%	45	24	24%	20
Tesla Motors, Inc.	64	13%	57	15	-41%	26	173	3%	167	124	-9%	136
Median Performance	21	12%	18	18	-25%	24	52	26%	41	69	10%	63

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Office Equipment, Services & Supplies												
Pitney Bowes Inc.	-10	-67%	-6	47	18%	40	23	12%	21	80	20%	66
Deluxe Corporation	-3	64%	-8	27	9%	25	27	2%	27	57	-3%	59
Republic Services, Inc.	3	-59%	7	39	0%	39	3	11%	2	38	12%	34
Knoll, Inc.	66	23%	54	39	-3%	40	77	-2%	78	49	-24%	64
Tetra Tech, Inc.	102	-2%	103	142	-3%	146	NM	NM	NM	40	-5%	42
ACCO Brands Corporation	109	-4%	114	89	-2%	91	74	-1%	74	53	4%	52
Median Performance	29	-3%	30	47	2%	46	27	2%	27	49	-6%	52
Oil & Gas												
Murphy Oil Corporation	-463	13%	-529	72	19%	60	65	-7%	70	600	-9%	660
Noble Energy, Inc.	-295	39%	-484	2	-89%	22	34	-6%	36	331	-39%	542
Anadarko Petroleum Corporation	-245	20%	-307	25	1%	25	22	-6%	23	292	-18%	356
Cimarex Energy Co.	48	54%	31	57	-9%	62	38	-33%	57	47	-47%	88
Par Pacific Holdings Inc	55	44%	38	12	-9%	13	48	66%	29	5	32%	4
Apache Corporation	63	528%	-15	72	23%	58	101	-2%	103	109	-38%	176
Median Performance	2	20%	1	34	12%	31	22	29%	17	48	8%	45
Pharmaceuticals												
Bristol-Myers Squibb Company	45	195%	-48	86	25%	69	145	-26%	196	186	-40%	312
Catalent, Inc.	76	0%	76	74	-8%	81	47	0%	47	45	-12%	51
Johnson & Johnson	84	30%	64	56	3%	54	165	5%	157	136	-7%	146
Eli Lilly and Company	277	23%	226	64	7%	60	348	24%	281	135	17%	116
Zoetis, Inc.	344	11%	311	72	-4%	75	340	11%	305	68	-1%	69
United Therapeutics Corporation	794	184%	280	48	4%	46	822	215%	261	76	178%	27
Median Performance	127	-6%	135	68	3%	66	210	-12%	239	124	22%	102
Pulp, Paper & Forest Products												
Boise Cascade Co.	45	-3%	46	19	7%	18	45	-5%	47	19	2%	18
Clearwater Paper Corporation	62	-1%	62	29	17%	25	65	0%	65	33	17%	28
KapStone Paper and Packaging Corporation	73	28%	57	48	31%	36	62	11%	56	36	3%	35
Louisiana-Pacific Corporation	48	-2%	49	16	-12%	18	48	1%	48	16	-5%	17
P. H. Glatfelter Company	56	1%	55	37	11%	33	64	6%	60	45	18%	38
Universal Forest Products, Inc.	60	-11%	67	29	4%	28	46	-16%	54	14	0%	14
Median Performance	58	3%	56	29	10%	26	55	0%	55	26	11%	23

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Railroads & Trucking												
Genesee & Wyoming, Inc.	-4	87%	-30	62	-9%	68	13	12%	11	78	-28%	109
Norfolk Southern Corporation	-3	65%	-9	33	-1%	33	15	24%	12	51	-5%	54
CSX Corporation	9	44%	6	30	-7%	33	18	44%	13	40	2%	39
Werner Enterprises, Inc.	33	-9%	37	46	-2%	47	4	-2%	4	16	16%	14
Knight Transportation, Inc.	35	-11%	39	41	-15%	48	NM	NM	NM	6	-30%	9
XPO Logistics, Inc.	50	34%	37	109	29%	84	3	NM	NM	61	30%	47
Median Performance	20	-5%	21	38	-4%	39	13	9%	12	25	2%	24
Recreational Products												
Activision Blizzard, Inc.	1	111%	-9	53	-3%	55	43	11%	39	95	-7%	102
Thor Industries, Inc.	31	-8%	34	22	-19%	27	26	1%	26	17	-11%	19
Polaris Industries Inc.	58	33%	43	12	-30%	17	80	18%	68	34	-18%	41
Brunswick Corporation	79	-4%	82	35	-4%	37	86	-2%	88	42	0%	43
Scientific Games Corporation	117	-36%	182	87	-35%	134	85	-26%	115	55	-19%	67
Hasbro, Inc.	126	7%	118	100	7%	93	70	7%	65	44	7%	41
Median Performance	64	-21%	82	53	-3%	55	80	18%	68	44	3%	43
Semiconductors & Equipment												
Amkor Technology, Inc.	29	-26%	39	67	22%	55	45	13%	40	83	49%	55
Synopsys, Inc.	52	132%	22	63	9%	58	NM	NM	NM	11	-69%	36
Skyworks Solutions, Inc.	55	-24%	72	60	19%	51	63	-25%	84	69	10%	62
Lam Research Corporation	163	12%	145	76	20%	64	128	9%	117	41	15%	35
Mentor Graphics Corporation	173	-5%	182	152	-5%	160	62	23%	50	42	47%	28
KLA-Tencor Corporation	246	8%	228	79	23%	64	200	3%	195	34	9%	31
Median Performance	125	3%	121	49	-3%	51	125	7%	117	51	10%	46
Telecommunications												
AT&T Inc.	-52	-34%	-39	41	3%	40	22	89%	12	115	27%	90
Frontier Communications Corporation	-51	-27%	-40	37	-21%	47	NM	NM	NM	88	1%	87
Level 3 Communications, Inc.	-20	18%	-25	34	-15%	40	NM	NM	NM	54	-16%	64
Verizon Communications Inc.	2	-79%	8	37	-7%	40	9	3%	8	44	8%	41
IDT Corporation	5	32%	4	13	-13%	15	NM	NM	NM	8	-29%	11
West Corporation	16	-30%	23	60	2%	59	NM	NM	NM	44	23%	35
Median Performance	(7)	42%	(12)	38	-4%	40	10	18%	8	50	-18%	61
Telecommunications Equipment												
Apple Inc.	-66	-4%	-63	27	-24%	35	7	-11%	7	99	-6%	105
EchoStar Corporation	20	8%	18	54	20%	45	14	25%	11	48	27%	38
QUALCOMM Incorporated	36	616%	5	28	-14%	33	61	10%	56	53	-36%	84
CommScope Holding Co., Inc.	102	16%	88	80	37%	58	68	19%	57	46	68%	28
Trimble Navigation Limited	119	0%	119	58	5%	55	99	-3%	103	38	-1%	38
Harris Corporation	135	78%	76	84	103%	41	119	64%	73	68	79%	38
Median Performance	67	67%	40	55	20%	45	61	7%	57	57	19%	48

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COMPANY	2015	CCC 1 YR% CHANGE	2014	2015	DSO 1 YR% CHANGE	2014	2015	DIO 1 YR% CHANGE	2014	2015	DPO 1 YR% CHANGE	2014
Textiles, Apparel & Footwear												
Steven Madden, Ltd.	20	35%	15	11	-25%	15	41	5%	39	32	-18%	39
Guess?, Inc.	76	-1%	76	40	8%	37	84	6%	80	48	20%	40
V.F. Corporation	91	8%	84	37	2%	36	94	5%	90	40	-4%	42
Columbia Sportswear Company	132	16%	114	58	-2%	60	136	11%	123	63	-9%	68
Under Armour, Inc.	148	32%	112	40	21%	33	145	12%	130	37	-27%	51
Hanesbrands Inc.	164	10%	149	43	-6%	46	193	12%	173	71	2%	70
Median Performance	98	-3%	101	40	9%	36	131	6%	123	48	-6%	51
Tobacco												
Altria Group, Inc.	214	-3%	220	2	-5%	3	264	-4%	274	52	-7%	56
Philip Morris International Inc.	343	5%	328	38	-23%	49	359	10%	325	55	16%	47
Reynolds American Inc.	238	13%	210	4	-46%	7	261	14%	229	27	6%	25
Median Performance	238	8%	220	4	-46%	7	264	-4%	274	52	10%	47
Utilities												
ITC Holdings Corp.	-282	-30%	-216	36	1%	36	83	-18%	101	401	14%	353
NextEra Energy, Inc.	-15	-142%	36	41	6%	39	56	0%	56	112	91%	59
Alliant Energy Corporation	-11	54%	-24	19	110%	9	38	5%	36	68	-1%	69
Dynegy Inc.	79	123%	35	40	9%	37	76	109%	36	37	-2%	38
ONE Gas, Inc.	86	15%	75	51	-22%	66	91	33%	68	56	-5%	59
Dominion Resources, Inc.	107	36%	79	38	-13%	44	148	40%	106	80	11%	72
Median Performance	29	5%	28	40	4%	39	42	5%	40	54	-4%	57
Wholesale Distributors												
Sunoco LP	5	83%	3	5	-20%	6	10	188%	3	10	41%	7
World Fuel Services Corporation	10	31%	7	22	13%	19	4	19%	4	17	6%	16
Global Partners LP	14	100%	7	11	14%	10	14	96%	7	11	13%	10
MSC Industrial Direct Co., Inc.	145	7%	135	51	1%	50	121	6%	114	27	-7%	30
Fastenal Company	201	-1%	204	44	-2%	45	182	1%	180	25	17%	22
Wesco Aircraft Holdings, Inc	233	-25%	313	62	-24%	81	218	-26%	294	47	-25%	62
Median Performance	60	-4%	63	44	-3%	45	64	-2%	65	32	-11%	35
Wireless Telecommunications												
T-Mobile US, Inc.	-74	-92%	-39	48	-23%	62	32	23%	26	154	22%	126
SBA Communications Corporation	0	102%	-4	22	-30%	32	NM	NM	NM	22	-39%	37
Telephone and Data Systems, Inc.	21	-11%	23	50	24%	40	24	-40%	40	53	-6%	56
United States Cellular Corporation	30	13%	27	57	60%	36	30	-40%	50	57	-3%	59
NII Holdings, Inc.	32	16%	28	44	10%	39	14	-58%	33	25	-44%	45
Median Performance	21	-11%	23	48	21%	39	27	-26%	36	53	-6%	56

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SCORECARD METHODOLOGY

The Hackett Group's Working Capital Survey calculates working capital performance based on the latest publicly available annual financial statements of the 1,000 largest listed nonfinancial companies with headquarters in the US. The survey takes an industry-based approach to ranking companies according to the four key working capital metrics: days sales outstanding (DSO), days inventory outstanding (DIO), days payables outstanding (DPO) and cash conversion cycle (CCC). For each industry the companies are ranked according to overall CCC, the top three and bottom three performers are listed in the scorecard.

Companies are classified according to the FactSet industry classification system, using data sourced from FactSet. For purposes of the survey and presenting results, we have grouped certain industries together. Historical comparisons within the survey are made on a like-for-like basis. Where off-balance sheet arrangements are used by the company, adjustments have been made to the data in order to provide true, consistent and comparable figures.

The survey calculates working capital performance based on the latest publicly available data, and this is sourced from FactSet/FactSet Fundamentals.

Days Sales Outstanding (DSO) = Accounts Receivable/(One day revenue)

- Year-end trade receivables net of allowance for doubtful accounts, divided by one day of average revenue
- A decrease in DSO represents an improvement, an increase a deterioration

Days Inventory Outstanding (DIO) = Inventory/(One Day Cost of Goods Sold (COGS))

- Year-end inventory balance divided by average days COGS
- A decrease is an improvement, an increase a deterioration

Days Payables Outstanding (DPO) = Accounts Payable/(One Day COGS)

- Year-end trade accounts payable balance divided by average days COGS
- An increase in DPO represents an improvement, a decrease a deterioration

Cash Conversion Cycle (CCC) = (DSO + DIO - DPO)

- Year-end DSO + DIO - DPO performance (in days as calculated above)

“The 300m (\$332m) plus improvement in our cash position is the sum of a pragmatic no-nonsense approach, continuous focus on the operational drivers, creating company-wide awareness through extensive training sessions and a transparent reporting structure. The Hackett Group consultants facilitated this, showed by example, and executed the project plan as a trusted ‘team member.’ ”

— Erik Bax, COO, Royal BAM Group NV

“We were very impressed with The Hackett Group’s expertise and deep operational knowledge. They were committed, hard-working and flexible – always willing to ‘go the extra mile’ to deliver the best possible output.”

— Roger Sonnevile, Corporate Controller, Nutreco NV

To receive a complimentary cash flow assessment, call +1 866 442 2538 or register your details online to take the first step toward releasing more cash from your operations today. To download our Working Capital Survey and its summary of findings, please register your details at www.thehackettgroup.com/workingcapital.

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The Hackett Group (NASDAQ: HCKT) is an intellectual property-based strategic consultancy and leading enterprise benchmarking and best practices implementation firm to global companies. Services include business transformation, enterprise performance management, working capital management, and global business services. The Hackett Group also provides dedicated expertise in business strategy, operations, finance, human capital management, strategic sourcing, procurement and information technology, including its award-winning Oracle EPM and SAP practices.

The Hackett Group has completed more than 11,000 benchmarking studies with major corporations and government agencies, including 93% of the Dow Jones Industrials, 86% of the Fortune 100, 87% of the DAX 30 and 51% of the FTSE 100. These studies drive its Best Practice Intelligence Center™, which includes the firm's benchmarking metrics, best practices repository, and best practice configuration guides and process flows. It is this intellectual capital that enables The Hackett Group's clients and partners to achieve world-class performance.

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