



CreditRiskMonitor’s warning of Carillion plc’s (“Carillion”) bankruptcy risk was determined by a combination of factors:

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1. Bankruptcy throughout this case study refers to a proceeding in the United Kingdom called “Compulsory Liquidation,” which has several similarities to the U.S. Bankruptcy code.

MONTHLY AVERAGE FRISK® SCORE

CreditRiskMonitor's FRISK® score has been warning of financial stress at Carillion plc (LON: CLLN) for more than a year.

The company ultimately filed for bankruptcy on 1/15/2018.

Business Name	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2018
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN
Carillion plc	5	5	4	4	4	4	3	2	2	1	1	1	1

BANKRUPT!

The FRISK® score is 96% accurate² in predicting the risk of corporate failure/bankruptcy over a 12-month horizon. All FRISK® scores are recalculated every night for each subsequent 12-month period.

FRISK®	Probability of bankruptcy within 12 months		
	From	To	
Best	10	0.00%	0.12%
	9	0.12%	0.27%
	8	0.27%	0.34%
	7	0.34%	0.55%
	6	0.55%	0.87%
	5	0.87%	1.40%
	4	1.40%	2.10%
	3	2.10%	4.00%
	2	4.00%	9.99%
Worst	1	9.99%	50.00%

While the percentage risk of bankruptcy varies at each FRISK® score, nearly all public companies that eventually go bankrupt enter the FRISK® "red zone" prior to filing. A FRISK® score of 5 or less is an important warning sign.

2. FRISK® score accuracy of 96% is based on backtesting of U.S. public companies; results may vary by country.

THE FRISK® SCORE COMPONENTS

At the core of the CreditRiskMonitor process is our 96% accurate FRISK® score, which indicates a company's level of financial stress on a scale of 1 to 10, based on the probability of bankruptcy over a 12-month horizon. When available, the FRISK® score incorporates a number of powerful risk indicators including:

A "Merton" type model using stock market capitalization and volatility

Financial ratios, including those used in the Altman Z"-Score Model

Bond agency ratings from Moody's and Fitch

Crowdsourced CreditRiskMonitor Usage Data

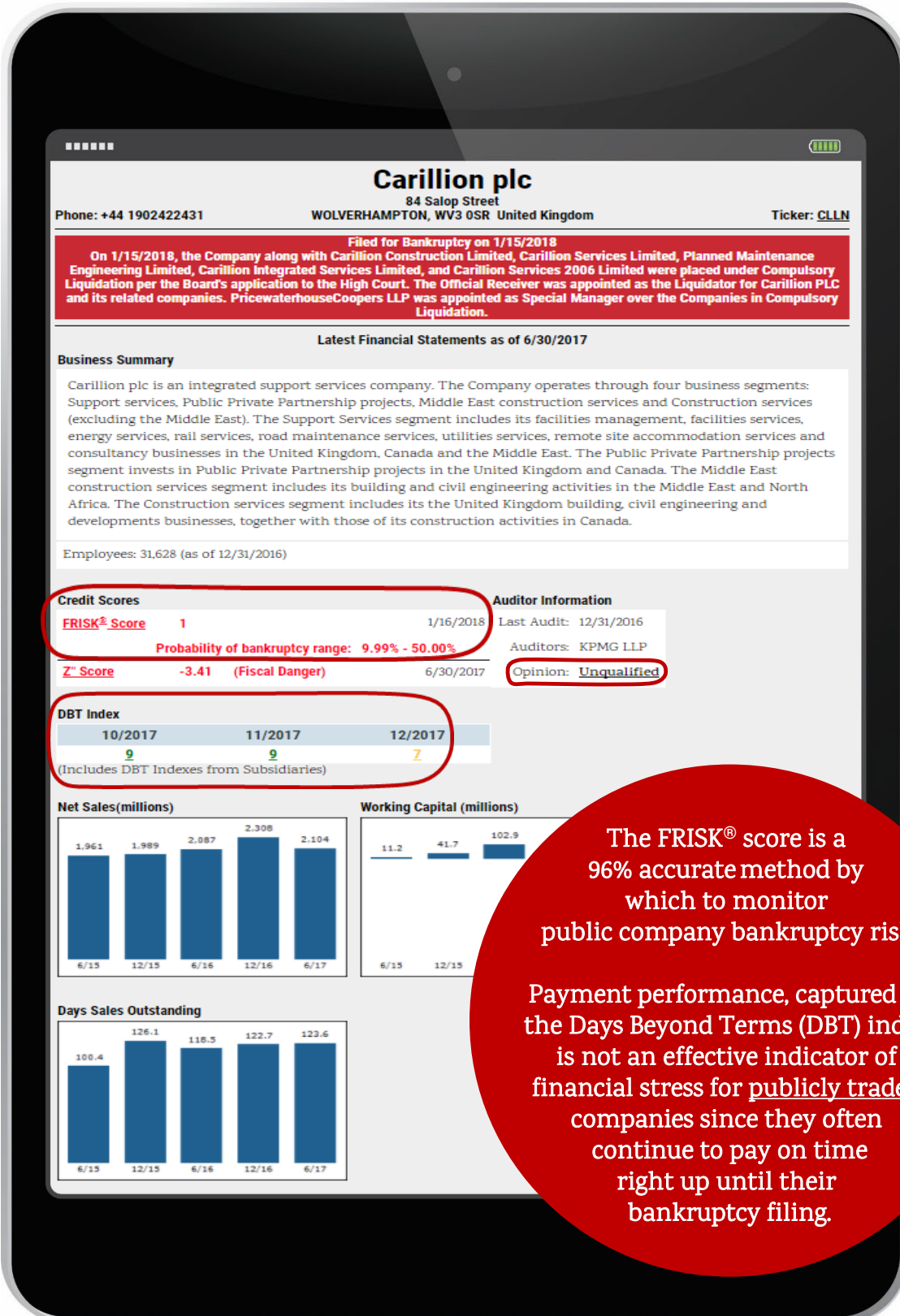
Crowdsourcing has enhanced the accuracy and timeliness of the FRISK® score. We collect and analyze data patterns from thousands of CreditRiskMonitor subscribers, including professionals from more than 35% of the Fortune 1000 and other large corporations worldwide.

The crowdsourcing advantage is even more powerful in our FRISK® score since many of the professionals who use our service are credit managers:

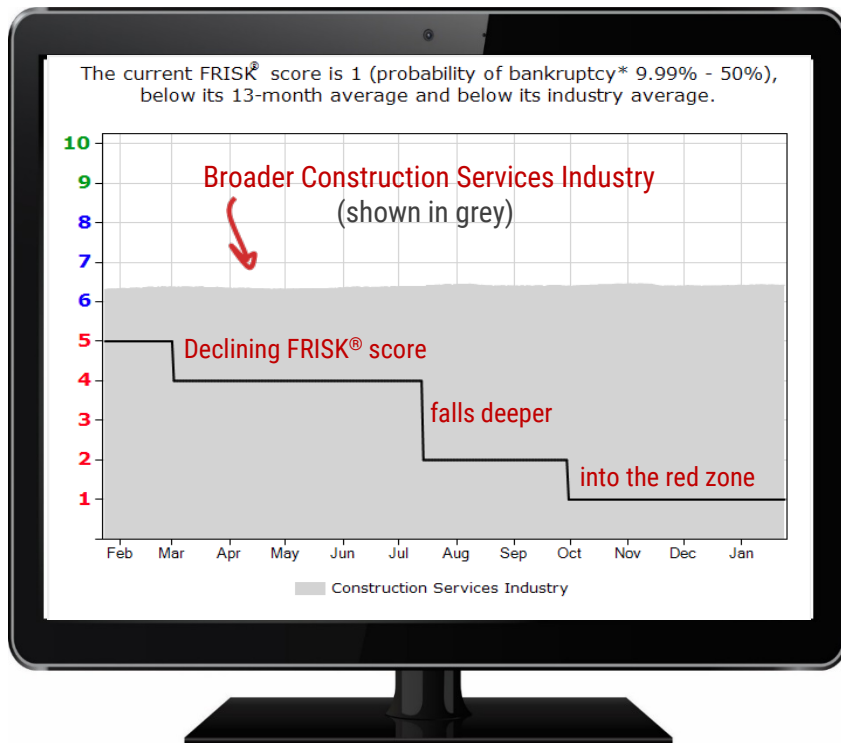
- Credit managers control one of the largest sources of working capital going into a company
- They are not held to the same "Fair Disclosure" restrictions that prevent non-disclosed information sharing on public companies
- Credit managers use a variety of non-public information sources such as their own company's management and sales representatives to be alerted to concerns in a public company's performance
- It is commonly known credit managers confidentially share information with other credit managers, thus collectively, their behavior helps to provide advanced insight to financial problems in public companies

[Read more in Credit Research Foundation's quarterly journal article, "Assessing Public Company Financial Risk by Crowdsourcing the Research of Credit Professionals"](#)

COMPANY REPORT DETAIL



FRISK® DEEP DIVE



The FRISK® score relative to the broader Construction Services industry raises an additional red flag signaling heightened risk relative to peers, as well...

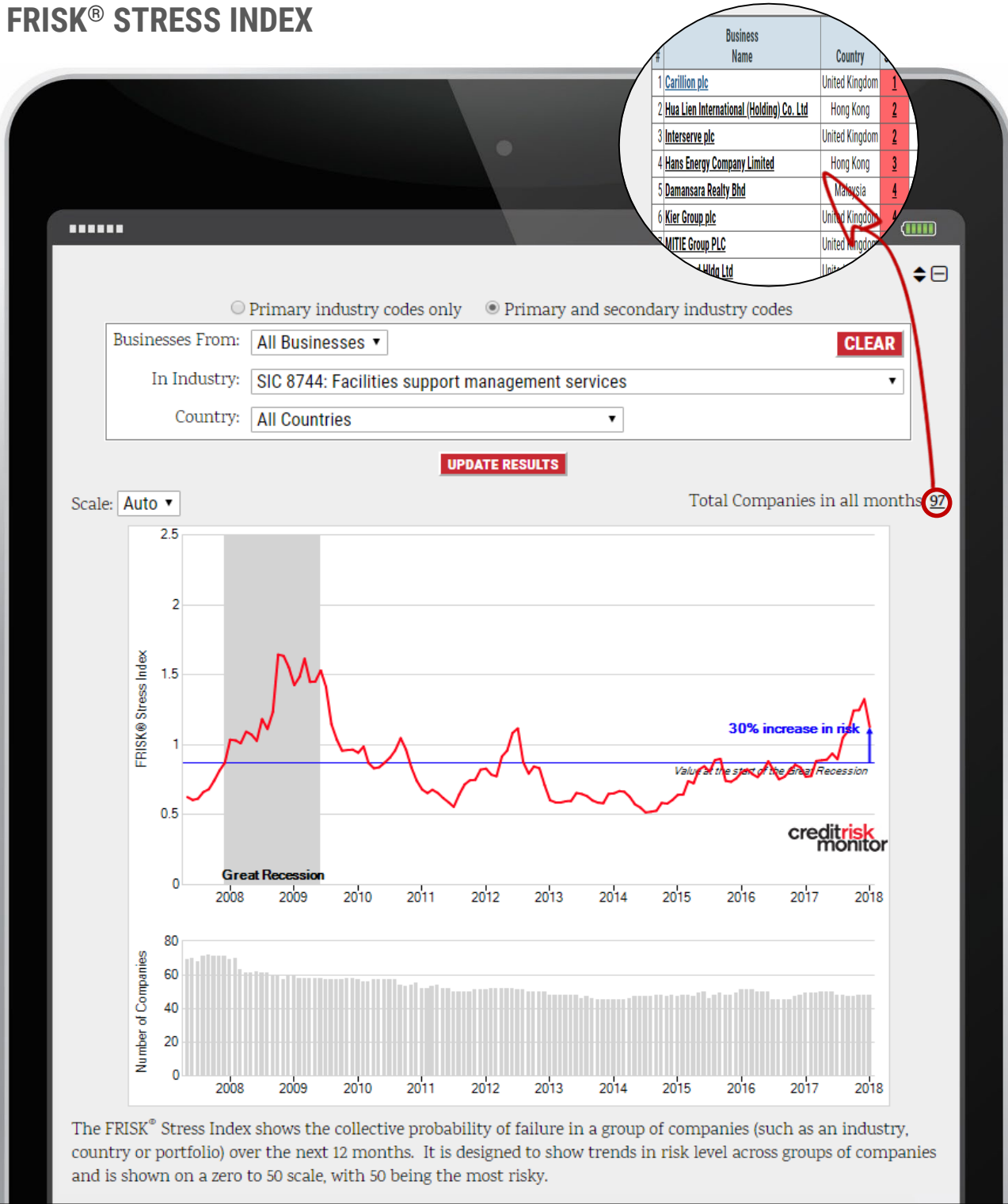
MAKING IMMEDIATE ATTENTION REQUIRED.

ADJUSTED MARKET CAP VOLATILITY



One of the inputs of the FRISK® score is a company's market cap volatility, adjusted for dividends, over the course of a year. Incorporating this information allows us to capture the "wisdom of markets" on a daily basis. This ensures our subscribers are getting the most up to date view of the risks they face since stocks tend to be more liquid and faster moving than bond prices and ratings.

FRISK® STRESS INDEX



The FRISK® Stress Index shows the collective probability of failure in a group of companies (such as an industry, country or portfolio) over the next 12 months. It is designed to show trends in risk level across groups of companies and is shown on a zero to 50 scale, with 50 being the most risky.

The average probability of failure for SIC code 8744 (Facilities Support Management Services) reflects an industry subsector whose risk has increased 30% since 2007.

Carillion is among the weakest names in the industry as evidenced by its FRISK® score of 1.

PEER ANALYSIS ON ALTERNATE SUPPLIERS AND CUSTOMERS

Carillion demonstrates bottom quartile ranking in key financial ratios (shown in red) vs. its Construction Services industry peers.

The Peer Analysis expands to provide a ranking of a company's competitors, which can help provide options for alternate suppliers or new customers.

Peer Analysis

Quarter: 2017.2

Peer Group: Sector: Capital Goods, Industry: Construction Services

REFRESH

[Sector: Capital Goods] [Industry: Construction Services] [Calendar Year/Quarter: 2017.2]

Businesses in Peer Group: 4744	Ranking Within Peer Group	Number Of Peers Ranked	Company Value	Peer Group Range		
				Low	Median	High
Credit Ratings						
ZScore	1473	1538	-3.41	-42,525.71	3.01	1,162.51
Performance ratios:						
Net Sales (Thousands of U.S. Dollars)	N/A	91	N/A	0	229,367	19,430,000
Gross Margin % Of Sales	1399	1643	8.00	-11,200.00	19.95	3,746.77
Gross Margin % Of Sales -- TTM	1428	1672	7.93	-5,407.62	19.50	3,746.77
SG&A % Of Sales	261	1615	4.70	0.16	10.75	10.75
SG&A % Of Sales -- TTM	245	1646	4.56	0.11		
Operating Margin % Of Sales	1588	1708	-53.00	-78,933.63		
Operating Margin % Of Sales TTM	1571	1724	-23.14	-51,180.95		
EBITDA Margin Of Sales	786	843	-45.68	-68,554.30		
EBITDA Margin Of Sales -- TTM	850	924	-19.86	-48,219.05		
Net Profit Margin % Of Sales	1589	1708	-53.41	-79,800.82		
Net Profit Margin % Of Sales - TTM	1565	1724	-24.19	-37,566.67		
Pre-tax Income % Of Sales	1591	1708	-54.83	-79,800.82		
Effective Tax Rate	429	1700	2.78	-40,252.78	21.11	21.11
Depreciation % Of Prop/Plant/Equipment	1250	1496	26.35	0.00	10.35	10.35
Capital Expense % Of Prop/Plant/Equipment	780	1082	27.49	0.00	12.95	28,966.22
Interest Coverage	700	759	-5.77	-1,381.52	4.29	79,490.88
Interest Coverage -- TTM	804	872	-4.93	-3,746.29	4.49	36,241.92
Liquidity ratios:						
Cash Ratio	1023	1563	0.17	0.00	0.29	330.43
Quick Ratio	830	1503	0.70	-0.09	0.77	332.59
Current Ratio	1452	1563	0.74	0.00	1.52	4,341.67
Efficiency ratios:						
Accounts Receivable Turnover	1019	1666	2.95	-30,588.50	3.89	49,225.65
Days Sales Outstanding	1094	1705	123.60	-11,560.76	85.75	62,009.22
% of Inventory Financed by Vendors	48	1303	3,490.05	0.00	82.50	82.50
% of Inventory Financed by Vendors -- TTM	64	1429	3,005.07	0.00	83.25	83.25
Inventory Turnover	124	1574	56.88	-416.18	2.00	2.00
Inventory Turnover TTM	130	1587	57.46	-533.53		
Days Sales in Inventory	132	1505	6.42	-80,926.72	1.00	1.00
Inventory to Working Capital	1381	1425	-0.10	-279.55		
Accounts Payable Turnover	1087	1556	1.89	-3.65		
Accounts Payable Turnover -- TTM	1133	1576	2.09	-3.51		
Leverage & debt coverage:						
Total Debt to Equity Ratio	N/A	1421	N/A	0.00		
Debt to Tangible Equity Ratio	N/A	1363	N/A	0.00		
Total Debt to Assets Ratio	825	1477	0.26	0.00	0.23	0.23
Short-Term Debt % of Total Debt	66	1410	3.84	0.00	47.85	100.00
Short-Term Debt % of Working Capital	1402	1406	-6.34	-59,578.57	26.68	38,194.56
Liabilities to Net Worth Ratio	N/A	1484	N/A	0.00	1.51	1,119.49
Total Liabilities to Equity Ratio	N/A	1546	N/A	0.00	1.42	269.17
TTM EBITDA Over Total Debt	831	865	-0.91	-98.58	0.18	4,324.87

- 1 Vijay Shanthi Builders Ltd
- 2 Viver Incorporadora e Construtora SA
- 3 Daldrup & Soehne AG
- 4 Vietnam Investment Constructn & Trdg JSC
- 5 Resbud SA
- 6 Housing Development & Infrastructure
- 7 Housing Development & Infrastrctr Ltd (P)
- 8 UMT United Mobility Technology AG

- 1 BEH-Property Co Ltd
- 2 Bharti Infratel Ltd
- 3 EDRAIS - C.PSALLIDAS S.A.
- 4 Everbright Jijabao Co Ltd
- 5 Firma Energozashchita OAO (P)
- 6 Hock Lian Seng Holdings Limited
- 7 Pacific Century Premium Developments Ltd
- 8 Far Industry Limited

Green - Ranked in Upper Quartile of Peer Group
 White - Ranked in the Middle Two Quartiles of Peer Group
 Red - Ranked in Lower Quartile of Peer Group
 Orange - Confidential
 Grey - Data is Not Available

TTM = trailing 12 months
 N/A = Not Available

SEQUENTIAL PERFORMANCE RATIOS

H1 2017
impairment charges
of £734M contribute
to operating margin
and income turning
negative

Performance Ratios – Sequential

(Thousands of British Pounds)

Period Ended	6 mos 6/30/2017	6 mos 12/31/2016	6 mos 6/30/2016	6 mos 12/31/2015	6 mos 6/30/2015
Net Sales £	£2,103,600	£2,308,300	£2,086,600	£1,989,400	£1,961,300
% change	-8.87%	10.62%	4.89%	1.43%	-0.59%
Gross Margin £	£168,200	£181,500	£169,200	£188,800	£152,100
% change	-7.33%	7.27%	-10.38%	24.13%	-16.75%
% of sales	8.00%	7.86%	8.11%	9.49%	7.76%
change as % of incremental sales	n/m	5.55%	-20.16%	130.61%	n/m
SG&A £	£98,900	£102,500	£101,500	£97,500	£77,700
% change	-3.51%	0.99%	4.10%	25.48%	-8.16%
% of sales	4.70%	4.44%	4.86%	4.90%	3.96%
change as % of incremental sales	n/m	0.45%	4.12%	70.46%	n/m
Operating margin £	(£1,114,900)	£94,200	£102,200	£104,100	£102,800
% change	-1,283.55%	-7.83%	-1.83%	1.26%	1.58%
% of sales	-53.00%	4.08%	4.90%	5.23%	5.24%
change as % of incremental sales	n/m	-3.61%	-1.95%	4.63%	n/m
EBITDA £	(£960,900)	£84,700	£66,500	£79,000	£65,000
% change	-1,234.47%	27.37%	-15.82%	21.54%	-31.43%
% of sales	-45.68%	3.67%	3.19%	3.97%	3.31%
change as % of incremental sales	n/m	8.21%	-12.86%	49.82%	n/m
EBIT £	(£986,900)	£59,500	£46,700	£55,700	£42,900
% change	-1,758.66%	27.41%	-16.16%	29.84%	-39.92%
% of sales	-46.91%	2.58%	2.24%	2.80%	2.19%
change as % of incremental sales	n/m	5.77%	-9.26%	45.55%	n/m
Pre-tax income £	(£1,153,300)	£62,800	£83,900	£87,600	£67,500
% change	-1,936.47%	-25.15%	-4.22%	29.78%	-10.12%
% of sales	-54.83%	2.72%	4.02%	4.40%	3.44%
change as % of incremental sales	n/m	-9.52%	-3.81%	71.53%	n/m
Net income (loss) £	(£1,123,600)	£56,400	£67,800	£78,100	£54,700
% change	-2,092.20%	-16.81%	-13.19%	42.78%	-14.66%
% of sales	-53.41%	2.44%	3.25%	3.93%	2.79%
change as % of incremental sales	n/m	-5.14%	-10.60%	83.27%	n/m
Operating cash flow £	(£32,100)	£5,000	£12,200	£7,400	£8,300
% change	2.78%	7.96%	14.54%	8.45%	12.30%
% of sales	1.53%	0.22%	0.59%	0.37%	0.42%
change as % of incremental sales	n/m	0.05%	0.16%	0.10%	n/m
Free cash flow £	(£18,600)	£18,200	£13,000	£11,500	£13,900
% change	0.88%	0.79%	0.62%	0.58%	0.71%
% of sales	0.88%	0.79%	0.62%	0.58%	0.71%
change as % of incremental sales	95.88%	90.55%	75.58%	91.27%	78.09%
Operating capital (annualized)	£19,400	£20,100	£17,200	£12,600	£17,800
% change	-3.48%	16.86%	36.51%	-29.21%	9.20%
% of sales	0.92%	0.88%	0.82%	0.63%	0.90%
change as % of incremental sales	27.49%	27.44%	23.75%	18.42%	25.92%
Operating capital (annualized)	(£14,650)	51.77%	47.58%	95.27%	127.83%
% change	-14.65%	51.77%	47.58%	95.27%	127.83%
Interest coverage ratio	(5.77)	7.56	8.75	10.26	4.81
% change	-176.36%	-13.57%	-14.71%	113.09%	-52.77%
Free cash flow £	(£309,400)	£116,400	(£80,400)	£48,400	(£5,500)
% change	-365.81%	244.78%	-266.12%	980.00%	-110.02%

Interest
coverage ratio
turns negative in
H1 2017; recurring
negative free
cash flow

SEQUENTIAL LEVERAGE RATIOS

Recurring negative tangible net worth suggests that all loanable collateral has been exhausted

Leverage Ratios - Sequential

(Thousands of British Pounds)

Period Ended	6/30/2017	12/31/2016	6/30/2016	12/31/2015	6/30/2015
Total debt £	£961,200	£688,700	£666,300	£632,000	£621,300
% change	39.57%	3.36%	5.43%	1.72%	-4.31%
Stockholders' equity £	(£435,500)	£701,100	£940,500	£993,500	£910,000
% change	-162.12%	-25.45%	-5.33%	9.18%	4.27%
Total debt to equity ratio	n/a	0.98	0.71	0.64	0.68
% change	n/a	38.65%	11.38%	-6.83%	-8.24%
Tangible net worth £	(£1,986,700)	(£968,200)	(£712,200)	(£640,400)	(£735,700)
% change	-105.20%	-35.95%	-11.21%	12.95%	0.77%
Total assets £	£3,669,400	£4,433,100	£4,020,700	£3,870,100	£4,035,600
% change	-17.23%	10.26%	3.89%	1.77%	1.77%
Total debt to assets ratio	0.26	0.16	0.17	0.17	0.16
% change	68.60%	-6.22%	1.47%	0.00%	6.25%
Tangible assets £	£2,118,200	£2,763,800	£2,368,000	£2,368,000	£2,368,000
% change	-23.36%	16.71%	5.89%	0.00%	0.00%
Short-term debt £	£36,900	£96,700	£35,900	£35,900	£35,900
% change	-61.84%	169.36%	7.16%	0.00%	0.00%
Short-term debt % of total debt	3.84%	14.04%	5.39%	5.68%	5.78%
% change	-72.66%	160.60%	1.65%	23.75%	12.14%
Short-term debt % of working capital	-6.34%	184.54%	34.89%	80.34%	234.82%
% change	-103.43%	428.95%	-56.57%	-65.79%	196.02%
Total liabilities £	£4,104,900	£3,732,000	£3,080,200	£2,876,600	£3,125,600
% change	9.99%	21.16%	7.08%	-7.97%	3.37%
Total liabilities to equity ratio	n/a	5.32	3.28	2.90	3.43
% change	n/a	62.53%	13.11%	-15.70%	-0.87%
Total debt to EBITDA ratio (annualized)	n/a	4.07	5.01	4.00	4.78
% change	n/a	-18.85%	25.25%	-16.30%	39.56%
Source:	Interim Report 9/29/2017	ARS 3/29/2017	Interim Report 9/29/2017	ARS 3/21/2016	Interim Report 8/26/2015

Working capital turns negative in H1 2017; is insufficient to meet short-term liabilities in 3 of the last 5 periods

SEQUENTIAL LIQUIDITY RATIOS AND RATES OF RETURN

Working capital drastically decreases & turns negative in H1 2017

Current ratio is ranked in lower quartile of peer group in the last 5 periods

Liquidity Ratios – Sequential

(Thousands of British Pounds)

Period Ended	6/30/2017	12/31/2016	6/30/2016	12/31/2015	6/30/2015
Current assets £	£1,682,200	£2,269,800	£1,926,700	£1,812,800	£1,960,700
% change	-25.89%	17.81%	6.28%	-7.54%	5.83%
% of short-term debt	4,558.81%	2,347.26%	5,366.85%	5,411.34%	7,455.13%
Current liabilities £	£2,264,400	£2,217,400	£1,823,800	£1,771,100	£1,949,500
% change	2.12%	21.58%	2.98%	-9.15%	7.81%
Working capital £	(£582,200)	£52,400	£102,900	£41,700	£11,200
% change	-1,211.07%	-49.08%	146.76%	272.32%	-74.83%
% of sales (annualized)	-13.84%	1.14%	2.47%	1.05%	0.29%
Cash £	£390,400	£469,800	£375,700	£462,200	£421,700
% change	-16.90%	25.05%	-18.71%	9.60%	-11.02%
% of short-term debt	1,057.99%	485.83%	1,046.52%	1,379.70%	1,603.42%
Cash ratio	0.17	0.21	0.21	0.26	0.22
% change	-18.64%	2.86%	-21.07%	20.67%	-17.47%
Quick assets £	£1,575,700	£2,133,800	£1,814,400	£1,732,700	£1,899,400
% change	-26.16%	17.60%	4.72%	-8.78%	64.54%
% of short-term debt	4,270.19%	2,206.62%	5,054.04%	5,172.24%	7,222.05%
Quick ratio	0.70	0.96	0.99	0.98	0.97
% change	-27.68%	-3.27%	1.69%	0.41%	52.62%
Current ratio	0.74	1.02	1.06	1.02	1.01
% change	-27.42%	-3.10%	3.21%	1.77%	-1.84%
Source:	Interim Report 9/29/2017	ARS 3/29/2017	Interim Report 9/29/2017	ARS 3/21/2016	Interim Report 8/26/2015

Returns turn drastically negative in H1 2017

Rate of Return - Sequential

(Thousands of British Pounds)

Period Ended	6 mos 6/30/2017	6 mos 12/31/2016	6 mos 6/30/2016	6 mos 12/31/2015	6 mos 6/30/2015
Return on equity	-160.26%	6.00%	6.82%	8.58%	6.27%
% change	-2,772.47%	-12.13%	-20.48%	36.93%	-6.96%
Return on total assets	-27.73%	1.33%	1.72%	1.98%	1.38%
% change	-2,178.59%	-22.36%	-13.02%	43.26%	-20.37%
Return on tangible assets	-46.03%	2.20%	2.95%	3.38%	2.34%
% change	-2,194.09%	-25.36%	-12.78%	44.20%	-22.50%
Source:	Interim Report 9/29/2017	ARS 3/29/2017	Interim Report 8/24/2016	ARS 3/21/2016	Interim Report 8/26/2015

NEWS ALERTS: A TIMELINE OF CONCERNING HEADLINES

Carillion warned that it expected H1 2017 operating profit to be lower than forecasts; CEO steps down.

7/10/2017	Stock Market Wire	Carillion strategic review as H1 operating profits fall short
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The stock hit a new low of 57.25 pence on speculation the company may seek to raise money via a big share sale.

7/13/2017	CRMZ News Service	Carillion Bondholders Brace for Painful Talks as Shares Plunge
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The Company announced the immediate appointment of a new CFO. Its COO and two managing directors were to depart on September 30th.

9/11/2017	Stock Market Wire	Carillion finance director steps down
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H1 2017 year-over-year operating income decreased by 1,191% to £(1.11) billion; net income decreased 1,757% to £(1.12)billion.

9/30/2017	CRMZ News Service	Carillion plc -- updated financials available
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Carillion sought to defer the 12/31/17 test date for its financial covenants.

11/17/2017	Reuters	Carillion sees 2017 profits "materially lower", expects covenant breach as at Dec. 31
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The Financial Conduct Authority commenced an investigation in connection with the timeliness and content of Company announcements made between December 7, 2016 - July 10, 2017.

1/3/2018	Reuters	Carillion Plc Says FCA Probing Into Co
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Carillion was swamped by pension liabilities of at least £2.2 billion; pension deficit stood at £580 million.

1/11/2018	Reuters	Pensions Regulator And Whitehall Officials Will Hold Talks On Friday About Carillion's Pension Deficit - Sky News
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British government was informed to consider all options - including bringing state contracts in-house.

1/11/2018	Reuters	UK's Unite Says "Govt Must Consider All Options As Concerns Grow On Carillion's Future"
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Carillion filed for compulsory liquidation.

1/15/2018	Stock Market Wire	Carillion goes into liquidation
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ABOUT THIS REPORT/CONTACT CREDITRISKMONITOR



CreditRiskMonitor is a financial risk analysis and news service that helps credit, supply chain and financial professionals stay ahead of and manage risk quickly, accurately and cost effectively. More than 35% of the Fortune 1000, plus over a thousand other large corporations worldwide, rely on our financial risk coverage of over 57,000 global public companies.

CreditRiskMonitor Bankruptcy Case Studies provide post-filing analyses of public company bankruptcies. Our case studies educate subscribers about methods they can apply to assess bankruptcy risk using CreditRiskMonitor's proprietary FRISK[®] score, robust financial database and timely news alerts.

[Request a Personalized Demo and Risk Assessment](#)

[Read more Bankruptcy Case Studies, High Risk Reports and other resources](#)

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creditriskmonitor.com/contact-us