Carillion's Demise: What's At Stake?

March 23, 2018

The liquidation of Carillion (not rated), until recently the second-biggest facilities management (FM) and construction services company in the U.K. with £4 billion in turnover, has disrupted the construction and FM market and has resurfaced the old debate about the country's private finance initiatives (PFI) scheme. The string of announcements is also raising new concerns about the construction and outsourcing industry in the U.K. and the stability of public services. Carillion's fall has had a knock-on effect on several other players, such as its partners and suppliers, its financiers--even the U.K. government, which commissioned The Collapse of Carillion (House of Commons Library Briefing Paper (Number 8206, 14 March 2018)) (the Commons Briefing) to study the matter.

What's more, it has weakened or weighed on the creditworthiness of some of Carillion's project finance ratings, where it served as construction contractor or services provider. The most affected so far has been the rating on one project still in construction, Aberdeen Roads (Finance), where Carillion was a construction joint venture partner, which we lowered to 'BBB-' while keeping the rating on CreditWatch with negative implications on Feb. 23, 2018. The risks on the project finance ratings of the projects in operation include potential cost increases associated with replacing Carillion as FM provider, especially if it underbid the contracts or the service provider underestimated the costs of providing the service in the first place.

Here, we delve into why Carillion got into financial trouble and what it means for the PFI market in the U.K. Carillion was a preferred government contractor and was providing construction and services for a portfolio of PFI projects at the time of its demise. We believe that among the main culprits were some significant construction project impairments and a decrease in operating margins, pointing to poor risk management policies. The extensive use of the U.K. government's supply chain finance (SCF) scheme as a source of financing and lack of related disclosure kept Carillion's fragile financial situation hidden for longer. We believe that a great deal more needs to be done by audit committees, auditors, and regulators to ensure that companies clearly disclose their use of SCF.

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Key Takeaways

- Carillion's construction business added significant volatility to its income statement in 2012-2016, resulting in a steadily declining profitability margin.
- In 2017, the company reported significant construction project impairments, signaling likely poor risk management practices. According to the Commons Briefing, the board did not exercise proper governance oversight.
- Although we do not rate Carillion, we believe it likely that contracts were mispriced and that management likely used debt for dividend distributions, despite Carillion's substantial underfunded pension liabilities.
- Carillion reported only a modest increase in working capital in 2012-2016, which however obscured significant working capital outflows and negative operating cash flow when adjusted for reverse factoring (which we would treat as debt).
- Carillion's adjusted debt would have suggested aggressive leverage when including sizable pension liabilities and reverse factoring.
- The main downside risk to Carillion-related project finance ratings stems from the uncertainty surrounding potential increases in costs to replace Carillion by other companies, and, in the case of Aberdeen Roads (Finance), further delays in construction resulting in additional cost overruns (even if completed works comprised about 91% of contract value at end-January 2018). (See "The Impact Of Carillion's Demise On Our PFI Ratings To Date" section of this article for details on the ratings implications for these nine projects.)

The Road To Liquidation

Carillion filed for compulsory liquidation on Jan. 15, 2018, the most drastic procedure under U.K. insolvency law. Before its liquidation, it was the second-largest construction company in the U.K., listed on the London Stock Exchange, and had some 43,000 employees--around 20,000 of them in the U.K.

Carillion's demise was a long time in the making:

- Back in May 2013, lobbyists had urged the government to exclude Carillion from any future construction and PFI contracts, after it emerged that the company had been late in paying subcontractors by extending the payment period to 120 days from 30 days.
- In July 2016, Carillion's first-half results showed a strong increase in revenues but lower operating margins, which in our view, may have indicated that new contracts were less profitable or existing contracts were underperforming. In December 2016, Carillion was the most shorted stock on the market partly because of concerns about its rising average debt levels and weaker profitability.
- By March 2017, Carillion's pretax profit was down 5% from 2015 but revenues were still climbing by an annual average 14%. The company announced plans to reduce average net debt.
- In July 2017 Carillion delivered a revenue warning, announcing: its deleveraging target would

not be met; £1.05 billion in provisions, of which £850 million were for the construction segment; and its decision to exit the public-private partnership (PPP which comprises PFI) construction market. The CEO stepped down, and the company lost 70% of market capital in the two days that followed.

- Between July and November 2017, Carillion issued three profit warnings.

What Drove Carillion Into A Ditch?

Although we do not rate Carillion, we believe compulsory liquidation resulted from the following key flaws:

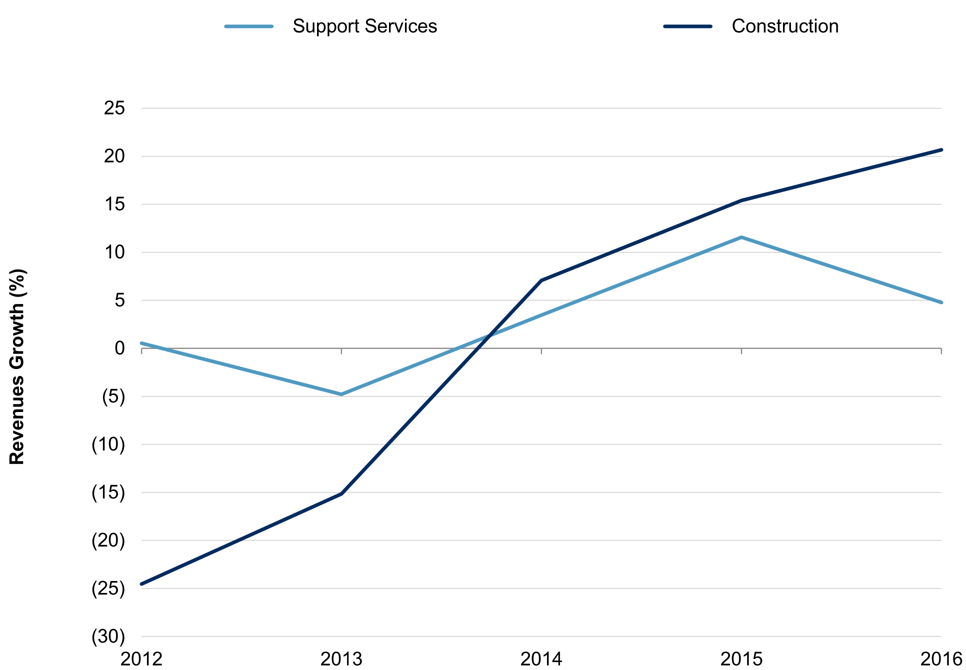
- Declining profit margins in the construction business, also reflecting aggressive growth in the past few years. High reliance on low-margin government contracts to maintain revenue growth;
- Significant construction project impairments in 2017, signaling likely poor risk management practices (according to the Commons Briefing, governance and board oversight was weak);
- Growing working capital levels that resulted in negative cumulative operating cash generation in 2012-2016;
- Aggressive dividend distributions to shareholders funded through increased adjusted debt; and
- A weak balance sheet due to high adjusted debt (when including reverse factoring and its unfunded pension deficit), and negative tangible capital.

The construction business added significant volatility to Carillion's income statement in 2012-2016, leading to a steady decline in the profitability margin

The trend in revenue growth for Carillion from 2012 through 2016 is markedly different if we consider the more stable support services business separately from the volatile construction business. Construction revenues declined markedly until 2013 and then grew considerably in 2015-2016 (see chart 1), while the change in support services revenues was much more contained.

Chart 1

Revenues Growth

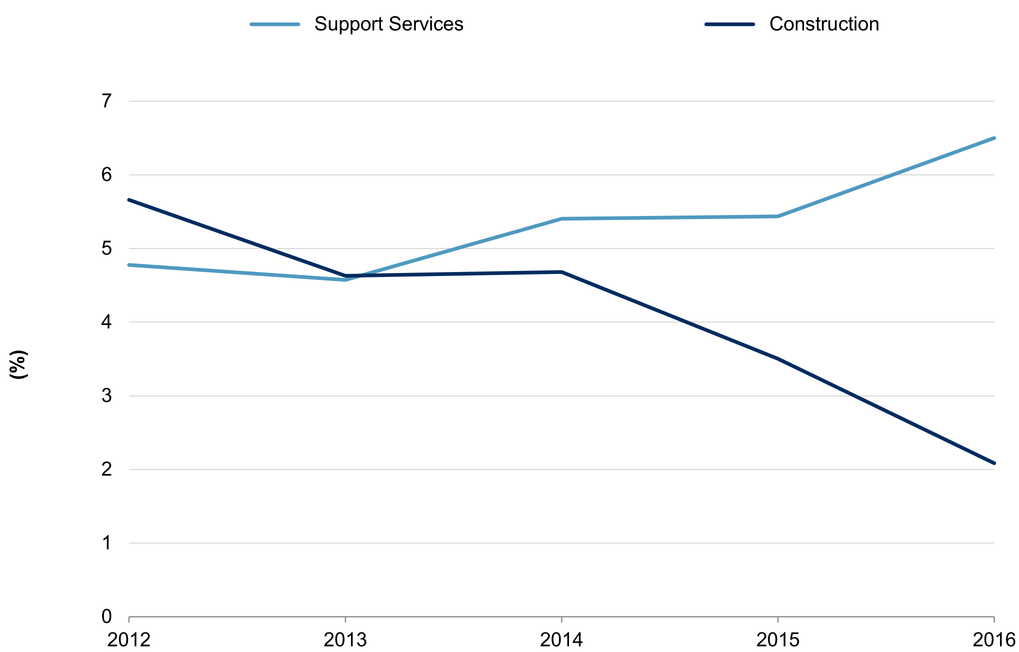


Construction segment is composed of "Middle East construction services" and "Construction services (excluding the Middle East)". Source: Carillion Annual Reports.

In the same period, the EBITDA margin for the construction business dropped to 2% in 2016 from 6% in 2012, while the support services business margin stood at about 5%-6% (see chart 2). This highlights the much higher volatility and riskiness that is typical of the construction business. Carillion's significant construction revenue growth in 2015-2016 was accompanied by markedly falling margins.

Chart 2

Carillion's Reported EBITDA Margin



Construction segment is composed of "Middle East construction services" and "Construction services (excluding the Middle East)". Source: Carillion Annual Reports.

Carillion's construction EBITDA margin over the five-year period was below the 6%-11% range we consider average for the sector. The U.K. construction market, like most construction markets in developed countries, displays somewhat thin margins due to its high fragmentation and competition. In this context, we cannot exclude the possibility that some of the projects Carillion won during this time were mispriced. Some of the contracts Carillion was awarded outside the U.K. also displayed low margins. High competition, low barriers to entry, and low margins are among the reasons S&P Global Ratings assigns a moderately high risk of 4 (on a scale ranging between 1 to 6, with 1 being the least risky industry) to the engineering and construction industry.

Further, Carillion's significant revenue concentration in the U.K. did not help at a time when the country's construction market suffered from subdued business confidence following the Brexit referendum (and still is). Fragile business confidence and ongoing political uncertainty have been the main reasons for dampened client demand in the U.K. construction sector since 2016. In January 2018, construction output continued its recent decline, falling 1% over the past three months for the ninth consecutive quarter, according to the U.K. Office for National Statistics.

Significant construction project impairments, signaling likely poor risk management practices

Carillion seems to have lacked solid risk management. The company did not make any significant write-downs or provisions in 2012-2016, but then reassessed its whole portfolio in 2017, which led to significant loss recognition.

- On July 10, 2017, Carillion announced £845 million in project write-downs, of which: (i) a £375 million provision, related to the Midland Metropolitan Hospital, the Royal Liverpool Hospital, and the Aberdeen bypass; and (ii) a £470 million provision, related to Canada and Middle East. After a decline in oil prices, Qatar, Saudi Arabia, and Egypt stalled projects and stretched payments on key contracts.

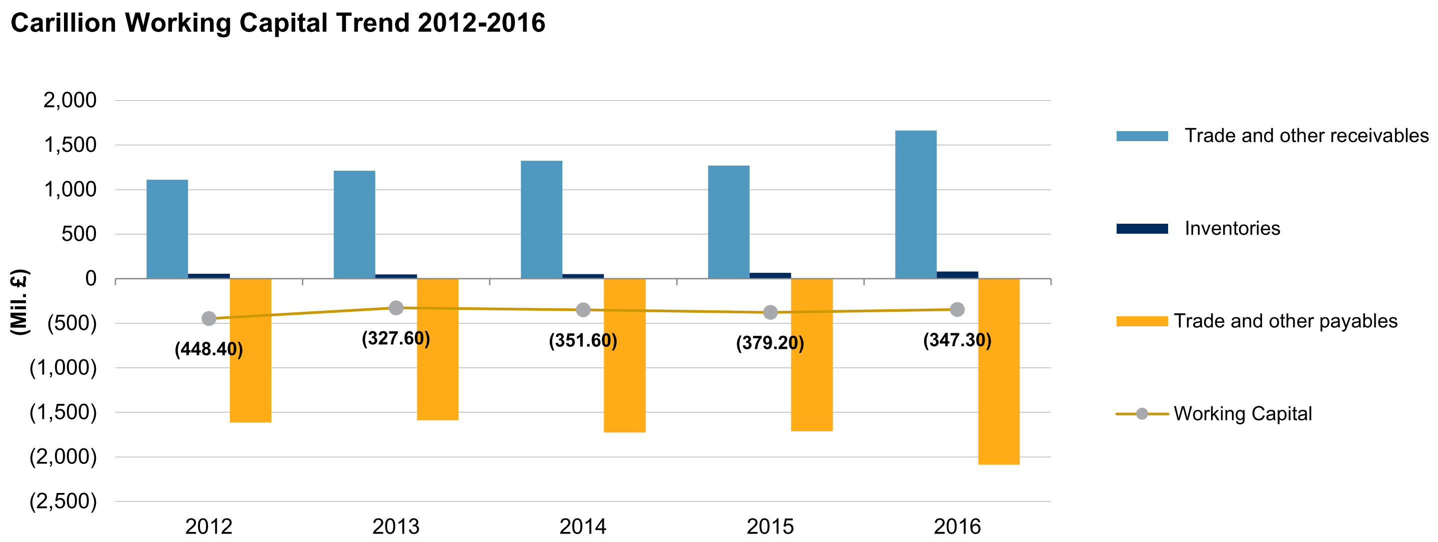
- On Sept. 29, 2017, Carillion also announced: (i) confirmation of the £845 million provision with a slight change in the split: A £427 million provision in the U.K., £104 million in Canada, and £314 million in the Middle East. (ii) £200 million in additional provisions for support services: £91 million for underperforming contracts the group decided to exit; £56 million for underperforming contracts "for which expectations have been rebased," and £53 million in respect of contracts "for which a more prudent view of receivables has been taken."

In our view, in a very competitive market such as Europe, it is critical for construction companies to adopt solid risk management practices with conservative project selection and successful project execution to protect their profit margins from cost overruns. In our rated universe, there are companies that operate in the European market with successful project management. For example, Austria-based Strabag SE (BBB/Stable/--), which operates predominantly in continental Europe, has displayed an improving EBITDA margin from 5.2% in 2012 to 7.7% in 2016, thanks, in large part, to a very solid risk management and a track record of successful project completion. Others include Spain-based Ferrovial (BBB/Stable/A-2) and ACS (BBB/Negative/A-2), and German-based Hochtief (BBB/Negative/A-2).

Carillion's modest increase of reported working capital in 2012-2016 masks significant working capital growth and weak operating cash flow generation when adjusted for reverse factoring

From 2012 to 2016, Carillion's working capital moved from a negative £450 million to a negative £350 million (see chart 3), thus absorbing a limited £100 million. This compares with a total revenue increase of about 20% in the same period to £4.4 billion in 2016 and a revenue increase of 26% just for construction-related revenues that stood at £1.9 billion in 2016.

Chart 3

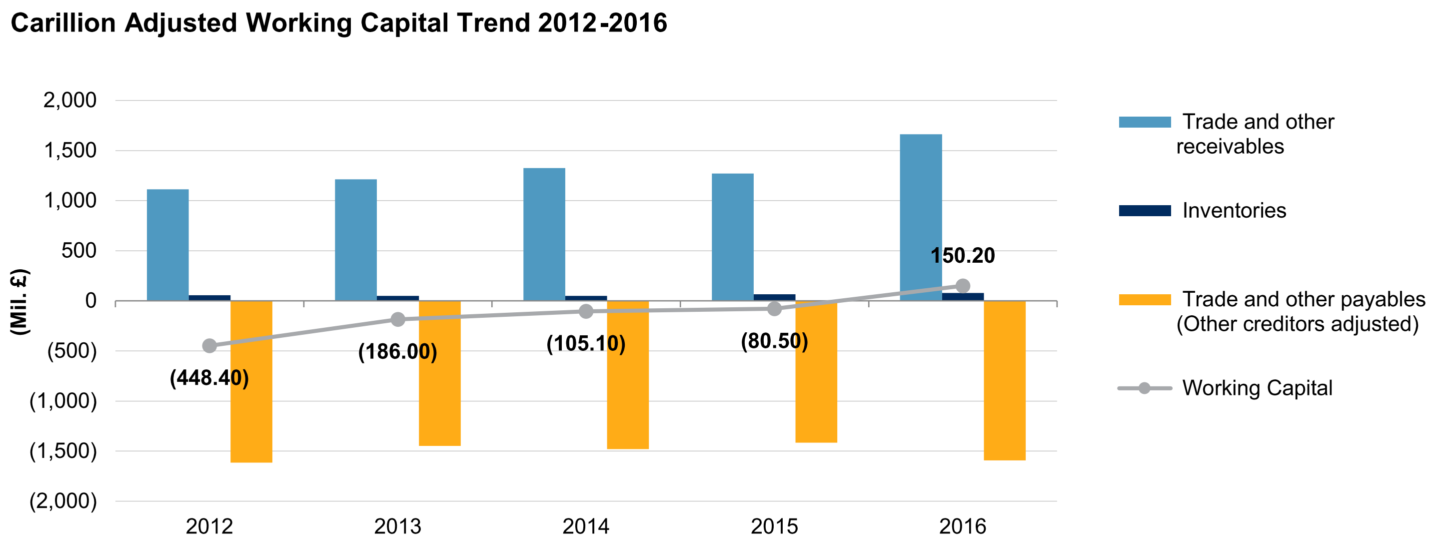


Source: Carillion Annual Reports.

A detailed examination of the different items of working capital shows that, on the asset side, the amounts owed by customers on construction contracts and other receivables and prepayments grew significantly in the period, almost doubling to £1.4 billion at end-2016. This does not come as a surprise considering the material increase in construction revenues in 2015-2016. However, on the liability side, we did not see a similar increase in trade payables, which averaged between £600 million and £700 million in the same period. Nevertheless, we note that an item named "other creditors" almost triples, reaching £761 million in 2016 from £263 million in 2012.

The Commons Briefing paper suggests that these "other creditors" included reverse factoring, which Carillion started using in 2013. Carillion disclosed its use of reverse factoring (see box below) as an "early payment facility" in its strategic report at the front of its annual report, but did not quantify to what extent it used the facility or the impact on its financial statements. The "other creditor" line increased by £497 million in 2012-2016 (£761 million in 2016 less £263 million in 2012), so may represent that total of reverse factoring in the period. If we assume this is the case and subtract the increase of "other creditors," working capital might have drained a sizable £598 million in 2012-2016 (see chart 4), instead of £101 million on a reported basis.

Chart 4



Source: Carillion Annual Reports, S&P Global Ratings.

Although Carillion's reported increase in working capital was modest, in reality the business was using a significant amount of cash. In our view, one of Carillion's issues during the period was the management of cash-absorbing working capital as its construction activities grew. Management of working capital is among the most critical focus areas for a construction company, particularly during the initial phase of multiyear projects when front-up costs may result in significant cash disbursement. Companies, whenever possible, manage it through asking for advance payments from clients, though this is a practice not common in all markets. We also believe that working capital in the construction business may become very sensitive to client and supplier confidence; in our view, Carillion's use of reverse factoring might also have helped to mitigate pressure from suppliers to be paid in advance.

Carillion made extensive use of reverse factoring as a source of financing. Companies are usually attracted to reverse factoring because of liquidity benefits, but reverse factoring can carry risks as well as benefits for suppliers. In Carillion's case, it acted to hide a substantial part of its debt from view.

Supply Chain Finance (Reverse Factoring)

In 2012, the U.K. government announced a supply chain finance (SCF) scheme to boost growth, particularly for small and midsize enterprises (SME) expecting that "leading companies could deliver up to as much as £20 billion of new cheaper, finance to their suppliers." SCF, also known as supplier finance or reverse factoring, is a set of solutions that optimizes cash flow by allowing businesses to lengthen their payment terms to their suppliers while providing the option for their large and SME suppliers to obtain payment early.

With SCF, a bank is notified by a large company that an invoice has been approved for payment; the bank is then able to offer a 100% immediate advance to the supplier at lower interest rates based on the customer's credit rating, knowing the invoice will be paid.

The practice of SCF is not unique to the U.K. or to construction companies; many different industries use it, including in the automotive, consumer goods, and industrial manufacturing sectors.

Source: "Prime Minister announces Supply Chain Finance scheme," U.K. Prime Minister's Office, Oct. 23, 2012.

Companies should consider more transparency about their reverse factoring practices when necessary to achieve a fair presentation of financial statements

Carillion did not disclose the exact amount of reverse factoring in its annual report, nor the impact on its financial statements, though it used the facility extensively as source of financing. In our view, though reverse factoring is not an explicit disclosure requirement under IFRS, the reporting of such arrangements are still necessary when material, to comply with IFRS. International Accounting Standard (IAS) 1 says "financial statements shall present fairly the financial position, financial performance and cash flows of an entity. The application of IFRS, with additional disclosure when necessary, would result in financial statements that achieve a fair presentation."

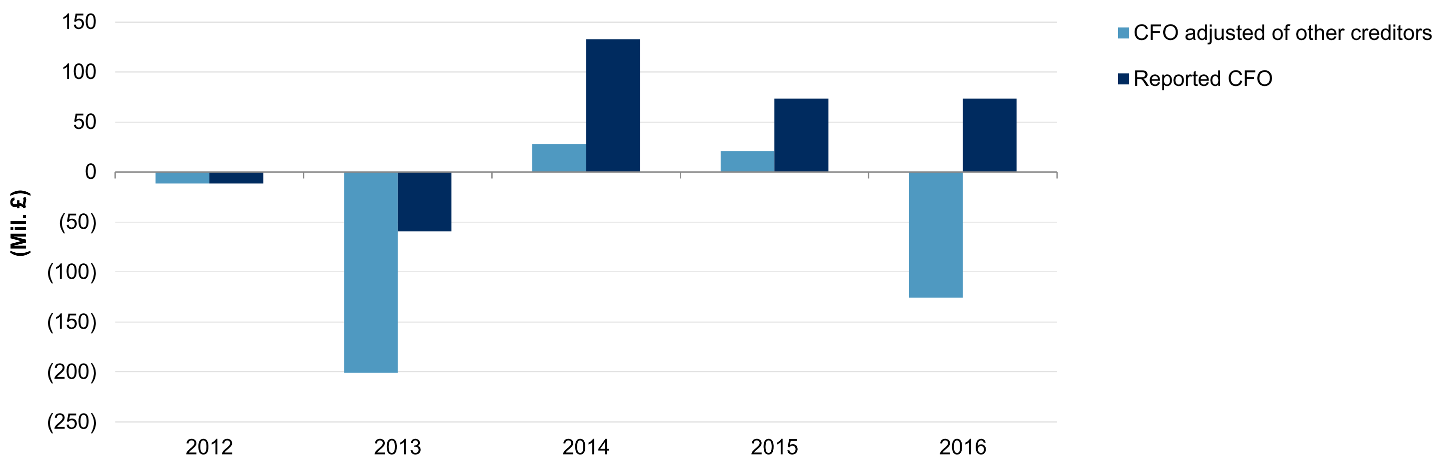
If we believe trade payable days for a customer are well beyond the range of typical trade terms for the industry, S&P Global Ratings typically adjusts the company's debt upward, treating the increase in payables as part of the company's debt. In those cases where companies do not disclose reverse factoring, we seek to identify it in our discussions with management and the confidential information that we may request from rated companies. In so doing, whenever we find material instances of reverse factoring extending trade payable days, we incorporate reverse factoring in our credit metrics to build our ratings. In our view, Carillion's financial debt would have been significantly higher if adjusted to reflect the use of reverse factoring.

Carillion's cumulative operating cash flow in 2012-2016 would have been negative when adjusted for reverse factoring

Carillion's cumulative reported operating cash flow for 2012-2016 totaled £209 million. If we assume growth in "other creditors" since 2013 entirely reflected recourse to reverse factoring, positive cumulative operating cash flow dramatically becomes a cumulative negative of roughly £290 million (see chart 5). The largest differences between reported and adjusted cash flow from operations would occur in 2013, when Carillion started using reverse factoring, and in 2016.

Chart 5

Carillion's Cash Flow From Operations



Source: Carillion annual reports, S&P calculations.

Dividends that Carillion paid in 2012-2016 would have been largely funded through increased debt, on an adjusted basis

During 2012-2016, Carillion paid out a cumulative £376 million in dividends to equityholders. Assuming that operating cash flow in the same period was markedly negative when adjusted for reverse factoring, this means in our view that those dividends would have been largely funded through increases in adjusted debt.

Carillion's financial leverage would have been high when adjusted for pension liabilities and reverse factoring, and together with a negative tangible capital, would have implied a weak balance sheet

Carillion's own reported net debt to EBITDA averaged 1x in the 2012-2016 period, which indicates low financial leverage. However, there are several items that we might have added to reported net debt that would have pointed to a higher financial leverage.

First, Carillion had a sizable defined benefit pension deficit that averaged £400 million until 2015 and then doubled in 2016 to £805 million as result of a noticeable reduction of the discount rate used in financial assumptions. The sizable rise in the pension accounting deficit in 2016 is not unique to Carillion; we noted a similar rise in several of our rated companies in the U.K. and Europe. This has been due to subdued inflation and low economic growth that depressed long-term bond yields. While rising shortfalls may not require discrete funding in the short term, depending on the regulatory framework that applies in each country, we believe that the market-based approach underpinning financial reporting is a fair method for estimating and standardizing the net liability that many defined benefit pension schemes have in Europe. Accordingly, we adjust IAS 19 defined benefit pension deficits to include them as debt in our financial analysis, net of deferred tax. If we add Carillion's net pension deficit to its debt, debt to EBITDA would have increased by 1.2x-1.8x in 2012-2015, and by a sizable 3.5x in 2016.

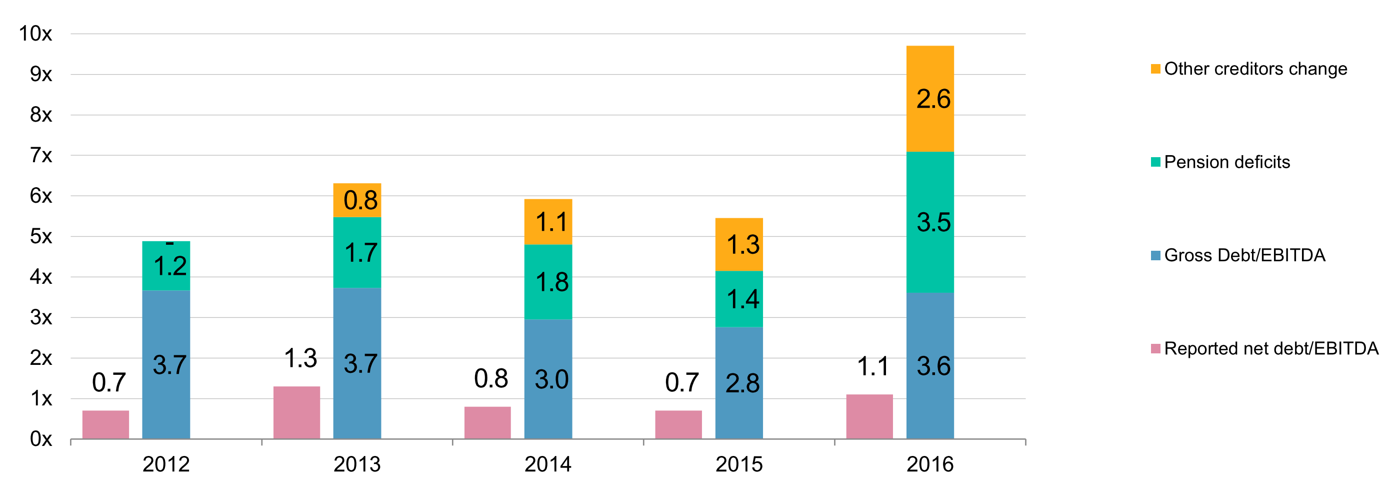
Second, if we approximate the "other creditors" balance change versus year 2012 as reflecting Carillion's use of reverse factoring, and add it to debt, the company's debt to EBITDA would have increased by another 0.8x-1.3x in 2013-2015, and by a sizable 2.6x in 2016.

Lastly, we typically net a company's cash with its debt only if the company believes that such cash would be immediately available for debt repayment. This may be due to cash trapped at projects or joint ventures or when the cash is held in high-risk countries. This analysis is particularly relevant for construction companies for which on average we apply a cash haircut higher than in other sectors. When we do not have sufficient data to perform our analysis on company cash we typically apply a haircut of 25%. Furthermore, we generally do not deduct surplus cash from debt if we assess a company's business risk profile as "weak" or "vulnerable." Based on the publicly available information on Carillion, we are not able to perform our analysis on its cash position. However, we note that Carillion displays some features (such as a low profit margin, volatility for its construction activities, and poor risk management practices) that might have led us to assess its business risk profile as "weak." If we do not net Carillion's cash from its debt, debt to EBITDA increases on average by another 2x-3x in the same period.

As result of all the above adjustments to reported net debt, we estimate that Carillion's financial leverage might have been significantly weaker than on a reported basis (see chart 6). On top of this, Carillion displayed negative tangible capital as result of its sizable goodwill. Accordingly, Carillion's balance sheet appeared to be weak.

Chart 6

Carillion's Debt To EBITDA 2012-2016



Net debt: Carillion reported debt - cash. Adjusted debt: Carillion reported debt + adjusted pension deficit + others creditors change. Source: Carillion Annual Reports, S&P Global Ratings' calculations.

In our view, low financial leverage is among the key drivers of a construction company's competitive advantage, as it heightens its ability to continue securing new business. As large projects can sometimes extend for years, clients seek assurance that they will not have to change contractor mid-project due to a contractor's financial distress. A strong balance sheet, with low leverage and a solid liquidity profile to withstand unexpected occurrences, such as large cost overruns, often provide the necessary assurance. Most rated construction companies to which we have assigned a business risk profile of "satisfactory" display limited leverage on adjusted basis and a liquidity profile of at least "strong," including Strabag, Ferrovial, Hochtief, and ACS.

When a construction company displays adjusted financial leverage that exceeds 5x or material short-term debt impairs its liquidity profile, we would typically assess its capital structure as unsustainable in the medium to long term, given the high volatility of the construction industry and potential significant swings in working capital.

Construction contract accounting is subjective

A further challenge for any investor or stakeholder seeking to understand Carillion's financial statements and those of other companies in the construction sector is the subjective nature of revenue and profit recognition in long-term construction contract accounting. Under IAS 11 Construction Contracts, contract revenue and costs are recognized by reference to the degree of completion of each contract, which has to be estimated using the preparation of forecasts on a contract-by-contract basis. As result, reported profits may deviate markedly from operating cash generated.

Such estimates are by definition subjective and vulnerable to rosy assumptions by management. The new IFRS 15, which became mandatorily applicable at the start of 2018 has introduced a significantly heightened revenue recognition threshold of "highly probable" that a significant reversal will not occur in the future, instead of the previous "probable" threshold. This may reduce to some extent the subjectivity in revenue recognition. Actually, most construction companies that we rate reported a non-cash negative adjustment to equity when publishing their 2017 results, as consequence of first-time IFRS 15 application, though the effect on capital has been on average moderate.

Some unbiased evidence of poor risk management and poor governance according to the Commons Briefing

Carillion was a major supplier to the U.K. public sector, with around 450 of government contracts across a range of areas at the time of its collapse. Generally, we understand the U.K. government monitors the financial health of all of its strategic suppliers and are in regular discussions with them regarding their financial position.

Under our criteria, sound management and governance is a key driver of ratings. Based on our analysis of rated companies, poor management and governance practices are among leading causes of weakened creditworthiness in the long term. Though we did not rate Carillion, based on public information we observe that it displayed features, such as the lack of a comprehensive risk management system and practices, adoption of aggressive accounting policies, significant dividend distribution detached from operating cash flow and trend, and size of pension deficits that are associated with weaker management and governance. We also noted the alleged lack of transparency over both financial and nonfinancial reporting, such as the nondisclosure of reverse factoring and timeliness of market updates.

The Financial Conduct Authority has opened an investigation into announcements made by Carillion between Dec. 7, 2016, when the company told the market it had suffered a slowdown in orders driven by shifts in government spending plans since the Brexit vote, and July 10, 2017, when it issued a profit warning and announced a strategic review. The watchdog will focus on the "timeliness and content" of market updates during a period that resulted in a 70% plunge in the company's share price and the departure of its chief executive.

On Jan. 16, 2018, the government announced that the official receiver's investigation into the causes of the failure of Carillion is to be fast-tracked. The investigation is to look at the conduct of directors in charge at the time of the company's insolvency and the conduct of previous directors, to determine whether their actions might have been detrimental to the company's creditors (including any employees who are owed money or to the pension schemes).

The Impact Of Carillion's Demise On Our PFI Ratings To Date

U.K. operational projects remain resilient while construction suffers

S&P Global Ratings currently rates six U.K.-based PFI projects, in which Carillion's recent application for compulsory liquidation triggered "potential event of default" provisions in these projects' financing documentation. Five of the projects are operational and one is still under construction. The role of Carillion in these projects varies (see table 2). Since Jan. 15, 2018, we have lowered by two notches the ratings assigned to Aberdeen Roads (Finance) plc (Aberdeen), the project still under construction. The operational projects remain, to date, unaffected pending satisfactory implementation of remediation plans (following on the occurrence of the potential events of default), which typically include the effective replacement of Carillion (see "Ratings On Five U.K.-Based Operational Projects Continue To Be Unaffected By Carillion's Liquidation," published on March 20, 2018, and "Aberdeen Roads (Finance) Downgraded To 'BBB-' On Security Package And Construction Uncertainty; Stays On Watch Negative," published on Feb. 23, 2018).

Table 1

Carillion-Related U.K. PFI Transactions

Name	Phase	Ratings*	Role of Carillion	Rating actions since Jan. 15, 2018
Aberdeen Road Finance	Construction	BBB-/WatchNeg	JV construction partner	Two-notch downgrade
Services Support (Manchester) Ltd.	Operation	BBB+/Stable	Hard and soft FM provider	No change
The Hospital Co. (QAH Portsmouth) Ltd.	Operation	BBB/Stable	Hard and soft FM provider; lifecycle provider	Underlying rating assigned on Jan. 29
The Hospital Co. (Swindon & Marlborough) Ltd.	Operation	A-/Stable	Hard and soft FM provider	No change
Aspire Defence Finance PLC	Operation	A-/Negative	50% owner and guarantor of hard and soft FM provider	No change
Integrated Accommodation Services PLC	Operation	A/Stable	Lifecycle provider	No change

*Where the debt is guaranteed by a monoline insurer, this refers to S&P Underlying Rating (SPUR).

Although the projects' lenders appear currently supportive of the remedial actions underway, the projects are, under their documentation, unable to make shareholder distributions for as long as a potential event of default is outstanding. As a result, until the potential events of default are cured, the projects will retain those distribution amounts. The steps necessary to unlock distributions include:

- The requirement for each ProjectCo to put in place, no later than 90-120 days from Jan. 15--the date of Carillion's application for liquidation--a replacement contractor or other procedures acceptable to the controlling creditors; and
- Once the replacement contractor is in place or the alternative plan is implemented, the controlling creditors must approve the replacement contractor or alternative plan. This approval needs to be provided over a time period that is not always specified. In the case of one project, for example, the time period is "not less than one month following such appointment" (of the replacement contractor). Once accepted, the potential event of default is considered as remedied and the project is no longer prohibited from making equity distributions.

We expect the remediation plans to continue to evolve until long-term replacement parties are in place, a process that the projects anticipate will take a number of months.

Until suitable alternatives to Carillion are found (either through another contractor or brought in-house), we expect all employees, agents, and subcontractors providing services to the affected projects will work as normal; these individuals to be paid for their work during the Carillion liquidation by its official receiver. The government has undertaken to provide the necessary funding required by the official receiver to maintain public services carried on by Carillion staff, subcontractors, and suppliers. The day-to-day operations and delivery of services at the rated projects in operation has indeed continued as normal and in line with our expectations, without any disruption to cash flows available to service the senior rated debt. The projects are actively engaging with the official receiver and appear to be fulfilling their contractual obligations.

According to the official receiver, over 90% of customers have indicated they want Carillion to continue providing services in the interim until new suppliers can be found and will provide funding that enables the official receiver to retain the employees working on those contracts. We understand that work has paused on certain construction sites, pending decisions about how and if they will be restarted. This, however, is not the case for Aberdeen, where, since the announcement of the compulsory liquidation, construction has progressed without significant disruption.

How sensitive are Carillion's U.K. projects to cost increases?

We believe the main risk of implementing the remediation plans is the potential costs increases associated when replacing Carillion, especially if the contracts in place with Carillion were underbid or the costs of services provided were underestimated. While at this stage, the cost of new contracts cannot be confirmed, we expect that benchmarking of the key contracts, which ProjectCos are generally required to undertake periodically, would be able to mitigate any short-term decrease in cash flow triggered by Carillion's replacement.

We have tested the resilience of the rated operational projects that have contracts with Carillion to an increase in all operational expenses (opex). The assumptions underpinning the analysis include:

- A stress of 100% of opex. However, we note it is unlikely that all operational costs would be affected as the costs associated with the services provided by Carillion's entities are generally a fraction of opex;

- We apply the cost increases starting from each project's base case scenario;
- The increase in cost summarized in table 3 looks to assess what magnitude of opex increase could potentially trigger a one-notch rating change; and
- We did not fully adjust the tax calculation to reflect the increase in the overall costs, therefore the cash flow available for debt service is slightly underestimated reducing the actual buffer.

On this basis, we observe that, everything else being equal, an opex increase between 2% and 7% (including FM, SPV, and lifecycle costs) could trigger a one-notch downgrade. If SPV and lifecycle costs are excluded, an opex increase between 3% and 8% could trigger a downward revision of the rating by up to one notch. Again, each project is different and in some cases Carillion only performs limited activities and therefore affected replacement costs will likely be a fraction of total opex.

Table 2

Opex Headroom Assuming 100% Of Opex Is Affected By Carillion's Replacement – U.K. Projects

Project	Current Min DSCR (x)	What mininum DSCR could potentially trigger a rating change by up to one notch?	Total opex headroom before one-notch downgrade (Including SPV & lifecycle) (%)	Total opex headroom before one-notch downgrade (Excluding SPV & lifecycle) (%)	Year last FM benchmarking* took place	S&P Underlying Rating (SPUR)	OPBA
Services Support (Manchester) Ltd	1.19	1.15	2	3	2015	BBB+	1
Hospital Co. (QAH Portsmouth) Ltd	1.18	1.15	2	3	2014	BBB	2
The Hospital Co. (Swindon & Marlborough) Ltd.	1.26	1.15	7	8	2017	A-	1

*Benchmarking is the process of market testing, generally included in the contract, which aims to pass inflation and general market risk back to the public sector at periodic intervals and is an important risk mitigant for the soft FM contractor. By contrast, hard FM service costs are usually fixed for the life of the concession. DSCR—Debt service cover ratio. SPV—Special purpose vehicle. FM—Facilities management. OPBA—S&P Global Ratings' operation phase business assessment. Source: S&P Global Ratings.

Notably, the remediation plan is not in all cases expected to require service contract renegotiations that could expose the project to potential cost increases. This is the case both for Aspire Defence Finance PLC and Integrated Accommodation Services PLC, which are therefore excluded from the sensitivity analysis above.

In the case of Aspire Defence Finance PLC, arrangements are in place to ensure that the joint ventures to which Carillion is party can carry on regardless of its insolvency, until a replacement party accedes to the joint ventures through the sale of Carillion's economic interest. No material service element is subcontracted to Carillion and therefore nothing needs to be renegotiated.

In the case of IAS, Carillion was a direct counterparty to the project in its role of lifecycle provider. Following Carillion's liquidation capital replacement will be undertaken directly by the project.

The impact of Carillion's bankruptcy on Canadian projects

In Canada, S&P Global Ratings rates debt issued by three projects, all of which are in Ontario, and are operational (see table 3). For these projects too, Carillion's liquidation triggered various events, including cross-default provisions requiring the replacement of Carillion as the provider of lifecycle and maintenance services. For two of these projects, the issues involving Carillion are resolved or nearly resolved. A third project continues to seek a viable alternative.

Table 3

Carillion-Related Canadian PFI Transactions

Name	Phase	Rating	Role of Carillion	Rating actions since Jan. 15, 2018
CSS (FSCC) Partnership	Operation	A-/Stable	Hard facility maintenance (FM) services and lifecycle services	None
Hospital Infrastructure Partners (NOH)	Operation	BBB+/Negative	Provides hard FM and lifecycle services for the project together with second joint-venture partner	None
CHS (CAMH) Partnership	Operation	A-/Stable	Hard FM services and lifecycle services, soft FM services	None

For CSS (FSCC) Partnership (A-/Stable), a forensics complex in Ontario, a replacement provider has been arranged. Fairfax Financial Holdings Ltd. (Fairfax) completed its acquisition of the FM on March 12, 2018, at the same terms of the original contract. As a result, the potential event of default was waived by lenders within the project's cure period.

A second project, Hospital Infrastructure Partners (NOH) Partnership (BBB+/Negative) contracted its FM and lifecycle services to a joint venture in which Carillion was a member. Specifically, Carillion EllisDon Services (NOH) Inc. was a joint venture between Carillion and EllisDon entities (jointly and severally guaranteed by Carillion PLC and EllisDon Inc.). On March 1, 2018, Ellis Don announced its plans to acquire the remaining equity in the FM contract and it will become the sole service provider for the project. The transaction is subject to approval by the Ontario Superior Court Justice under the Companies Creditors Arrangement Act and is expected to close in April 2018. NOH's cure period extends to the end of April and we believe it could be extended, if needed. At this stage, we view it likely that EllisDon's acquisition will be successful, resulting in no negative impacts on the project. The current negative outlook reflects operational issues, primarily related to humidity and temperature levels in some critical rooms, resulting in continued above-average deductions.

We are monitoring the third project, CHS (CAMH) Partnership (A-/Stable), a mental health and addiction facility that relied on Carillion as the sole provider of FM and lifecycle services. Fairfax did not acquire the CHS contract. The project continues to seek a replacement contractor or it could elect to self-provide with experienced staff. CHS's cure period will expire in mid-April 2018 if it does not seek an extension.

In an unlikely scenario where the acquisition of the FM contract for CAMH doesn't go through or the senior lenders do not accept EllisDon as sole contractor/guarantor for NOH, the projects would need to submit remedial plans involving self-performance or replacement of the contractor. Those remedial plans would need to be implemented at "market rates," with a risk of an increase in the costs of running these projects. That said, in our view, these projects have sufficient cushion to absorb the increase in costs for the ratings to be sustained at the current levels. Table 4 summarizes the results of our sensitivity analysis under the same assumptions adopted for the analysis of the U.K. projects.

All three projects initially had a relatively narrow 30-day cure period to provide a remedial plan acceptable to the collateral agent, and in each case an extension of 60 days was sought and granted by the senior lenders of the three projects. Additional time was required because while the replacement provisions were similar to the U.K., the Canadian projects face more strenuous requirements about what constitutes a cure. This includes not only submitting a remedial plan (as with the U.K. projects), but also obtaining approval by senior lenders within the original 30-day cure period. This necessitated the extensions, whereas in the U.K. the requirement is only that a plan be put in place within the cure period, with more flexibility to receive lender approval at a later date.

Table 4

Opex Headroom Assuming 100% Of Opex Is Affected By Carillion's Replacement--Canadian Projects

Project	Current minimum DSCR (x)	What minimum DSCR could trigger a one-notch rating change?	Total opex headroom before one-notch downgrade (including SPV and lifecycle) (%)	Total opex headroom before one-notch downgrade (excluding SPV and lifecycle) (%)	Year last FM benchmarking* took place	Rating	OPBA
NOH	1.25	1.16	10	19	N/A	BBB+	2
CHS (CAMH)	1.23	1.19	5	10	N/A	A-	1

DSCR--Debt service coverage ratio. SPV--Special-purpose vehicle. FM--Facilities management. OPBA--S&P Global Ratings' operation phase business assessment. N/A--Not applicable. Source: S&P Global Ratings.

The Pros And Cons Of Public-Private Partnerships--Including PFI

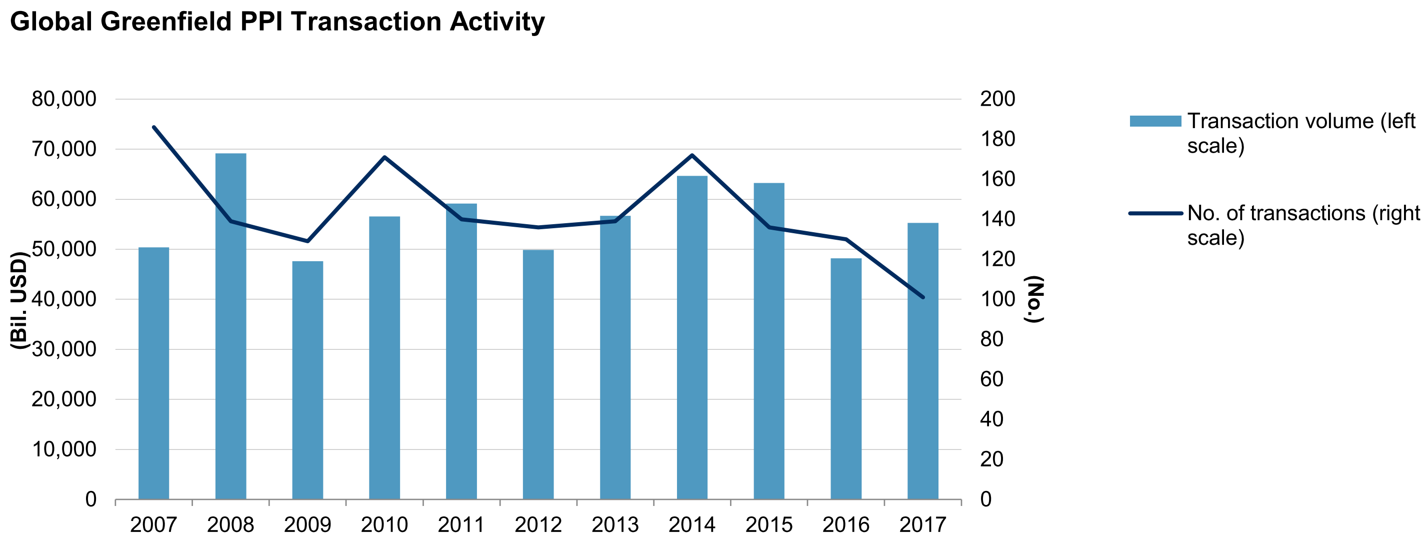
Carillion was a preferred government contractor and was providing construction and services for a portfolio of PFI projects at the time of its demise. (See the box below for more information about PFIs.)

PFI allows public bodies to invest in capital projects when they do not have sufficient capital budgets. Most privately financed debt for PFI and PF2 projects is off balance sheet for U.K. national accounts purposes. This is an incentive for the government and public bodies to use private finance procurement because--unlike conventional procurement--debt raised to construct assets for PFI projects does not feature in government debt figures, and the capital investment is not recorded as public spending even though it is for the public sector. This allows liabilities for the public sector to be spread over the long term and public bodies to invest in infrastructure projects when they do not necessarily have sufficient capital budgets.

When appropriately structured, PFIs allow new infrastructure (such as hospitals and social housing) to be built and services provided to end users earlier than if only public finance was used. What's more, the construction risk allocation of PFIs usually remains with the private sector--specifically construction joint venture partners, equity, and to a lesser extent, debt investors in the PFI projects. In addition, other PFI benefits could be leveraging the private sector's operational and construction expertise to bring costs down through the competitive tender process.

Despite its challenges, PFI schemes (in their various forms around the world) are a significant source of private financing for infrastructure projects. Between US$50 billion and US$80 billion of private capital is invested in PFI transactions globally each year (see chart 7).

Chart 7



e--Estimate. PFI--Private finance initiative. Source: Inframation.

Despite Its Challenges, The PFI Scheme Shouldn't Be Blamed

Although the July 2017 profit warning possibly marked the beginning of the end for Carillion, it reflects poor decisions in the years leading up to that time. Those poor decisions likely included, in our view, aggressive pursuit of growth and weak risk management, a shareholder focused financial policy while insufficiently recognizing the risks related to its sizable pension liabilities, combined with weak governance as noted by the Commons Briefing. All of these factors contributed in our view to the huge contract impairments announced on Sept. 29, 2017. Importantly, its troubles were not exclusive to the U.K.: out of £845 million of contract provisions, £427 million related to the U.K., £104 million to Canada and £314 million to the Middle East.

Carillion hasn't been the first U.K. support services and construction company to issue profit warnings this year. Outsourcing firm Capita, another U.K. preferred contractor, warned on Jan. 31 that profits for 2018 would be much lower than expected and that drastic measures were needed to turn the business around. On Feb. 21, U.K.-based Lagan Construction group entered into administration.

Carillion's fall has had a knock-on effect on several other players, such as its partners and suppliers, its financiers, and even the U.K. government. Balfour Beatty, which operates in the transport, energy, water, and social infrastructure sectors and which was partner with Carillion on three road projects, recently said it expected to take a hit of between £35 million and £45 million in 2018 due to the collapse of Carillion. U.K. construction group Galliford Try announced plans on Feb. 15 to raise £150 million in new equity and cut its dividend to offset costs related to the collapse of Carillion. Others such as KBR, a global provider of professional services and joint venture partner with Carillion in a defense project, assert that they were aware of Carillion's challenges for some time and foresee no disruption.

The string of announcements is reviving the old discussion about the effectiveness of the PFI and PPP schemes at the same time as it's raising new concerns about the construction and outsourcing industry in the U.K. and the stability of public services in general.

The PFI scheme comes under review regularly, and issues such as poor procurement practices (awarding contracts to the cheapest option) or inability to deliver the cost benefits (higher administration or financing costs) are regularly mentioned in such reviews. What's more, during the last 20 years of PFIs, at times some contract managers have indicated that their FM contracts (or elements of them) were not profitable or that the contract had not been profitable at some point in the past. This suggests that FM contracts may have been routinely mispriced.

Due to the structure of PPP projects, low profits for the operator should not immediately affect individual projects. Certain market players may be willing to support unprofitable contracts rather than jeopardize their market position. In addition, mispriced soft FM contracts may often be corrected by market testing or benchmarking. No such mechanism is usually available for hard FM services, however, which as a result face significant medium-term to long-term exposure on these costs. Consequently, the project company too will find mispricing a significant issue if it must replace a hard FM contractor.

A noticeable trend during the first 20 years of PPP has been the reduction in absolute and relative levels of long lifecycle funds, with early budgets often significantly higher than at present. The marked decline, in our view, does not reflect any advance in lifecycle methodology, but rather an aggressive costing approach. Given that lifecycle expenditure is largely incurred only later in the concessions, increased risk may have been building from the outset.

Despite some weaknesses, the PFI scheme should not be blamed for Carillion's liquidation and the string of troubling news in the U.K. construction and outsourcing sector this year.

According to the Commons Briefing, the cause of Carillion's financial difficulties is, for the most part, not connected with its government contracts but rather with other parts of its business. At the time of the release of Carillion's 2017 annual report, "support services" represented 52% of revenue (76% of its order book). The report does not include the split between support services for the public sector (central government departments, local authorities) versus the private sector (operators of utilities, transport networks, and others). Therefore, the details needed to determine whether the vast majority of Carillion's problems originated from private-sector rather than public-sector contracts have not yet been made available.

Table 5

Carillion's Liquidation Has Reignited The Debate About The U.K. PFI Scheme

Company-level issues	Possible systemic issues
Use of reverse factoring as a source of financing	Aggressive government policy making
Use of SCF schemes hidden to auditors	Aggressive corporate accounting practices
Several construction project write-downs	Poor risk management, weak controls over cost and project bids
Low-margin contracts	Shrinking profitability margins in the construction business
High reliance on government contracts	Flaws in government procurement
High cost of substitution of contractors/suppliers during construction and operation	PFI model not capable of delivering the cost benefits

Table 5

Carillion's Liquidation Has Reignited The Debate About The U.K. PFI Scheme (cont.)

Company-level issues	Possible systemic issues
Poor management practices, weak board oversight	Low standards of corporate governance

Government contracts with Carillion included services for hospitals, schools, prisons, and transport. Carillion delivered around 450 government contracts, representing about £2 billion (38%) of Carillion's reported revenue for 2016. Key central government contracts were held at the Department for Education, Department for Health and Social Care, Ministry of Justice, and Department for Transport. Only £106 million in revenues (approximately $5% of total government contract revenues) were expected in 2017 and 2018 from PFI contracts.

Related Criteria And Research

Related criteria

- Corporate Methodology, Nov. 19, 2013
- Project Finance: Project Finance Construction Methodology, Nov. 15, 2013
- Management and Governance Credit Factors For Corporate Entities and Insurers, Nov. 13, 2012
- Ratios and Adjustments, Nov 19, 2013

Related research

- Aberdeen Roads (Finance) Downgraded To 'BBB-' On Security Package And Construction Uncertainty; Stays On Watch Negative, Feb. 23, 2018
- Ratings On CSS (FSCC) And CHS (CAMH) Partnerships Continue To Be Unaffected By Carillion Plc. Insolvency, Feb. 15, 2018
- Ratings On Five U.K.-Based Operational Projects Currently Unaffected By Carillion's Compulsory Liquidation Application, Jan. 17, 2018
- Default, Transition, And Recovery: 2014 Project Finance Default Study And Rating Transitions, Feb. 23, 2016
- Lessons Learned From 20 Years Of Rating Global Project Finance Debt, Oct. 29, 2014
- Credit FAQ: Provision Of Information For Assessing Project Finance Transactions, Dec. 16, 2013

External sources

- The collapse of Carillion, Jan. 30, 2018, House of Commons Library
- European common enforcement priorities for 2015 financial statements, ESMA, Oct. 27, 2015

Only a rating committee may determine a rating action and this report does not constitute a rating action.

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