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Financial Due Diligence Process for the Aircraft Manufacturing Supply Chain Sector

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The global aircraft manufacturing sector has grown substantially in the past 30 years, with an average growth of approximately 5% a year. Orders for new aircraft are currently at their highest level, driven as much by the renewal needs of ageing fleets in Europe and North America as by growing new and emerging markets. The civil aviation manufacture market is massively dominated by Boeing and Airbus, which have a quasi-equal market share (official data for 2013 places Airbus at the first rank with a 51% of market share and 53% in annual net orders).

To ensure increased manufacturing pace, Airbus and Boeing are continuously adapting their business model to rely more and more on the whole aircraft manufacturing supply chain – a situation known for years in the automotive industry. This creates significant capital expenditure and working capital needs.

Consequently, cross border M&A activity has accelerated to support the financing needs of tier I and tier II suppliers trying to reach critical size. With their dominance of the market, manufacturers prefer to deal only with suppliers who have the necessary scale and knowledge to support heavy technological investments. As a result, private equity firms, industry leaders and national funds, for whom civil aviation is a strategic activity, are becoming increasingly active in funding M&A operations in the aircraft manufacturing supply chain worldwide.

Addressing the civil aviation industry during the financial due diligence process requires specific focus due to the specific situation described above. GCA has gained knowledge on key drivers of civil aviation due diligence process, providing high quality services to a large range of customers.

Figure 1 Orders Boeing - Airbus 1989 - 2013

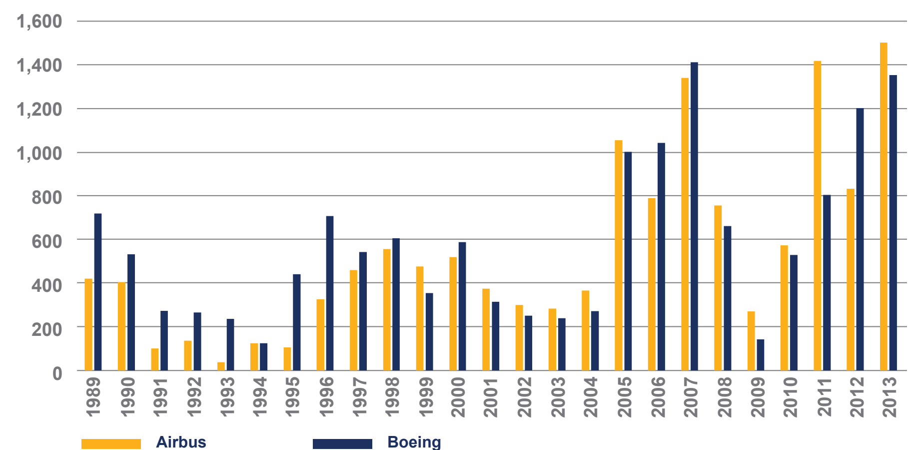
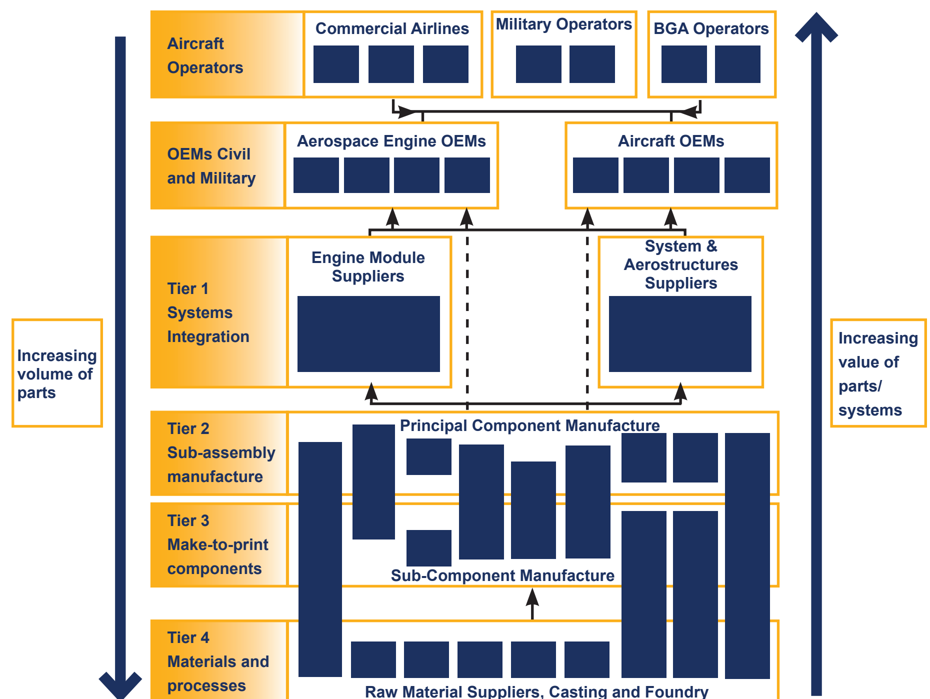


Figure 2 The Aerospace Supply Chain



Source: ICF International

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Figure 3

Contract by Contract Analysis - Example															
Initial Data				**Opening 2013**				**Fiscal Year 2013**				**Fiscal Year 2014**			
Begining Ending				%		EBITDA %		%	% EBITDA			%	% EBITDA		
	Date	Date	**Sales**	Completion	Sales	EBITDA	**(k€)**	Completion	Sales	EBITDA	**(k€)**	Completion	Sales	EBITDA	**(k€)**
Contract 1	2011	2014	**1,500**	30%	450	30%	**135**	70%	600	15%	**23**	100%	450	15%	**68**
Contract 2	2012	2015	**1,400**	10%	140	35%	**49**	30%	280	40%	**119**	65%	490	40%	**196**
Contract 3	2012	2017	**2,100**	5%	105	30%	**32**	15%	210	30%	**63**	40%	525	40%	**242**
Contract 4	2013	2020	**2,500**	0%	0	40%	**0**	5%	125	30%	**38**	12%	175	30%	**53**
Total			**7,500**		**695**		**216**		**1,215**		**242**		**1,640**		**558**

We review three key drivers in the process with a focus on how due diligence work can reduce uncertainties and improve buyer understanding of targeted business.

Key driver 1

Long-term agreements and using percentage of completion analysis relying on the judgment of the management

Most business in civil aviation supply is done using long-term agreements (LTA) that impact forecast profitability and business strategy. The percentage of completion method is mainly used to record profitability and requires estimate of costs and profits over the entire duration of the arrangement, including estimates of resources and costs necessary to complete the agreement. The percentage of completion method attempts to recognize revenues and gross profit during the applicable periods of construction. This method is also used to estimate potential losses that should be reserved on the entire project.

How can financial due diligence address key driver 1: Financial due diligence work will be oriented toward the understanding of milestones for each long-term agreement, with business oriented interviews with the management and the project manager. Thus, due diligence combining both financial and commercial understanding of these long-term contracts is essential to appreciate the percentage of completion and expected gain/loss on each project:

- Revenue breakdown table by contract can be provided in the due diligence report, including very detailed information about contract dates, actual revenue, budgeted revenue and percentage of completion.
- Margin analysis can be performed on each long-term contract and charts containing margin rates and expected revenue by project can be provided to understand the margins on completion.
- Projects with negative margins at completion receive special focus and are often considered restated by sellers in normative EBITDA calculation.

Key driver 2

Highlighting trends using contract-by-contract analysis

Global business analysis is almost impossible due to the fact that each long-term agreement has its own cycle and specific lengths that can disrupt global analysis, depending on the period analyzed. Indeed, highlighting trends is made difficult and discrepancies could appear in a short-time length with, for example, contract 1 being at end of its life and contract 2, 3 or 4 just starting to build.

How financial due diligence can address key driver 2: The financial due diligence has to include a contract-by-contract analysis, which is the only way to appreciate global business trends. Information gathered on each contract will be related to commercial, financial and technological fields and contracts can be classified by maturity progress to highlight those trends. Deep due diligence work, which focuses on a contract by contract analysis, is essential to understand business trends.

The chart in Figure 3 illustrates how the financial due diligence analysis can be provided, with an example of four contracts at different maturity levels. The contribution of the contracts to sales and EBITDA varies significantly depending on the degree of maturity of each contract and any change in the profitability estimate has a dramatic impact on EBITDA:

- Contract 1 is the main contributor to sales in FY2012 and FY2013. However, its contribution to EBITDA is high in 2012 and very small in FY2013 because an adjustment of its global profitability estimate occurred in FY 2013.
- Contract 2 and contract 3 are well-monitored and executed contracts with alignment between their contribution to sales and their contribution to EBITDA because the estimated profitability was confirmed at the time of execution. They even trigger additional profitability at the end when final commercial and technological milestones are reached without unpleasant surprises.
- Contract 4 has a small impact on the financials but it is nevertheless a key focus area for financial due diligence to assess the accuracy of management estimates and the future profitability of the company.

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Key driver 3

Working capital requirements

A business ruled by long-term agreements implies a significant gap between expenses engaged and cash collection. Thus, working capital requirement and cash planning are central topics that need to be fully addressed by the financial due diligence work. Cash flows are not regular and it is of utmost importance to identify at which cash phase each contract is.

Cash collection under long-term agreements are ruled by specific milestones that have to be addressed by companies:

- Most LTAs include down payment once signed. This down payment does not represent a significant amount in the total contract; this, in turn, places companies with important cash needs in a position of having to finance the required investment to realize the LTA project. Thus, most of the internal and external expenses, especially with more mature contracts, will be engaged based on the company's own resources.

- Remaining payments are spread out through the duration of the LTA and subject to commercial/technological acceptance from customers – a fact that can widely delay cash collection. Thus, cash collection is subject to third party acceptance, and any technical disagreement would heavily weigh on the company's working capital.

- Even when fully executed, contracts still trigger financial commitment, especially because the supplier usually provides bank guarantees to its customers, which often have to be waived 12 to 24 months later.

How financial due diligence can address key driver 3: A sharp understanding of the payment cycle will be brought by deep due diligence work with a retrospective and prospective analysis of working capital needs.

- The company's capacity of facing previous and forecasted working capital peaks is a strong part of the analysis, where forecasted working capital table and forecasted cash flow statement are provided.

- Moreover, most companies engaged in such long-term agreement business use factoring facilities to ease the cash constraints mentioned above. Financial due diligence provides a full analysis of factoring contracts, the accounting positions and the factors in debt.

  A factoring neutral analysis of the working capital requirement is also performed to reflect the real cash generation capacity of the target company.

- Finally, long-term agreements often include a bank guarantee as a mandatory coverage for customers. Bank guarantees shall be analyzed by the financial due diligence team and banks can be asked for direct confirmation on the amounts involved. These bank guarantees usually also require cash deposits.

Figure 4 Sales Contribution by contracts (%) - FY12, FY13, FY14

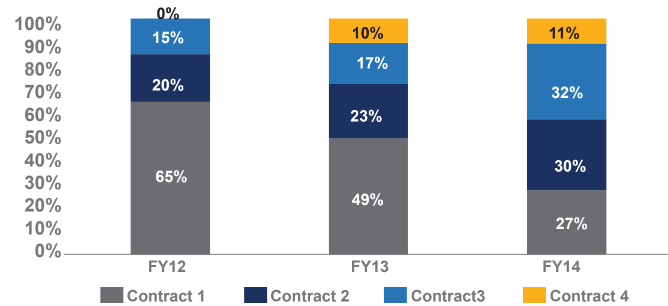
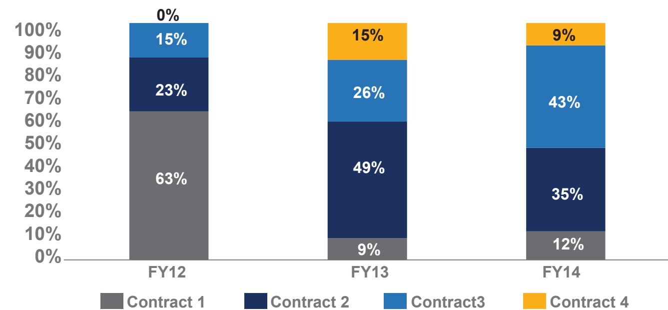


Figure 5 EBITDA Contribution by contracts (%) - FY12, FY13, FY14



Conclusion

As described above, the financial due diligence process in the aircraft manufacturing supply chain sector includes specific items that have to be addressed in order to fully understand targeted company businesses and reduce uncertainty regarding forecasted business and working capital requirement.

Financial analysis has to be fully business oriented, and a deep understanding of long-term flows and cycles of the long term contracts business is a necessary prerequisite for the financial due diligence team.

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