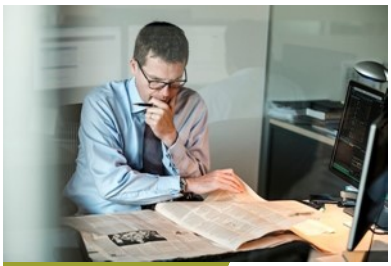

Friday Morning Coffee

Nr. 87 — The Flying Elevator

What does a jet engine have in common with an elevator? Strange question, you may think, but let's go search for an answer.

Elevator companies are one of the best business models you can think of as an investor:

- Elevators are critical for a building to function. In any case, none of us is willing to take the stairs to the 12th floor of a high rise building every morning to get to work.
- Elevators does not easily get disrupted by competing technology. After all, human beings have not yet learned to fly and we still want to reach that 12th floor in the building.
- Elevators have +20 years of lifetime and they must be maintained to stay in service.
- The know-how in the elevator industry is concentrated in the hands of a few large players.

All of the above provides solid and reliable earnings. Of course, this has not gone unnoticed and investors in the two main European players in the industry, Kone in Finland and Schindler in Switzerland, have been rewarded with gains of 480% and 420% in the last 10 years. Very impressive by all standards!

Let's get back to our question: **What does a jet engine have in common with an elevator?**

Well, the business model is quite the same:

- Without an engine the plane does not fly.
- Disruption risk is low as taking the boat or the train travelling between continents is less than ideal for a busy traveler or family.
- The engines have a lifetime of +/- 30 years and must be maintained to stay in service.
- There are only 3-4 players in the jet engine industry who can supply on a global scale.

As you can notice, the business models are very much alike. In the past we were invested in the elevator industry and we will probably also be in the future when prices are more attractive than it is currently the case. Instead, we are invested in Rolls-Royce and we have been so since 2015.

Our investment has been difficult for us because the company ran into some problems with one of their engines which has been very costly to mitigate. The jet engine industry has very long cycles. It takes up to 10 years to develop a new engine which has a functional lifetime of +/- 30 years. The development and production phases are very expensive while the multi-year service contracts are very profitable. In such an industry, taking market share is a long-lasting effort and very costly for short-term profits. Nobody knows that better than Rolls-Royce. They have expanded their market share from 14% to 35% since year 2000.

The following note gives the opinion of the Investment team at the time of the publication. Please refer to important notice at the end of the document.

Friday Morning Coffee

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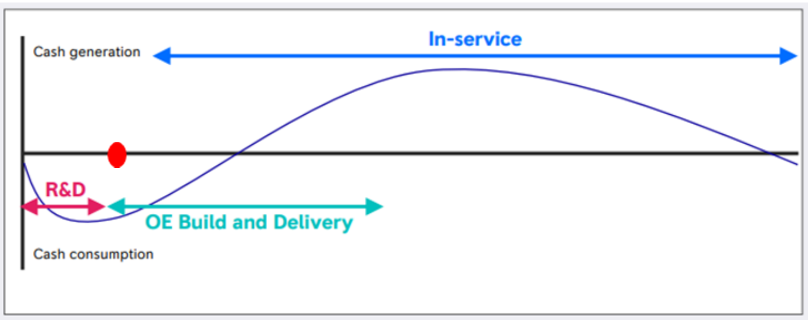
That involves significant investments in research, development and production facilities. Not to mention the maintenance facilities they also need to have ready for when the engines come in for service. All in, the margins of Rolls-Royce jet engine division have gone down to +/- breakeven while their main US competitor GE Aviation has margins of more than 20% for a similar business. We think Rolls-Royce has potential to reach profitability levels of GE Aviation as the large installed base of engines expands, matures and accumulate millions of flying hours. The aftermarket revenues of Rolls-Royce are driven by the number of flying hours so the bigger the installed base of engines is and the more hours they fly, the better it is for Rolls-Royce.

It seems Rolls-Royce has been caught in the perfect storm of short-term costly market share gains and significant one-off costs. **We think most of the bad news are behind us and there is a wall of cash-flow coming. Just imagine the scale of the numbers.** By 2018 the company had 2800 wide-body engines in service globally. They also had 2400 new engines on the order book. Having an order book close to the size of your already installed base in a business where the final product has a lifetime of +/- 30 years is pretty spectacular. All those engines will fly millions of hours annually and Rolls-Royce will be paid very profitable revenues. The inflection point is now. Below figure is from the Capital Markets Day of Rolls-Royce. We just added a red dot to illustrate where we believe we are in the cycle: Facing the wall of cash flows coming for multiple years.



That's why our internal nickname for Rolls-Royce has become **The Flying Elevator**.

Wish everyone a nice weekend,

Allan S. Jensen, CFA, CAIA
Portfolio Manager
January 17 th, 2020