Growth and value creation in the car rental industry

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Revenue quality versus revenue quantity

April 2020

DISCLAIMER

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ANALYTICAL NOTES

Our calculation methodologies may differ from reported figures. Accordingly, data, operating metrics and KPIs presented herein may not match what is reported elsewhere and by other sources, including from Avis Budget, Europcar, Hertz and Sixt.

Unless otherwise indicated, the data presented is based on an aggregate of reported figures from Avis Budget, Europcar, Hertz and Sixt. Where data was not reported or unavailable, we made what we consider reasonable assumptions with regards to relevant metrics.

Rounding may lead to visual inconsistencies.

All figures are presented in USD. We have tried our best to eliminate FX effects from the analysis using an average EUR/USD rate for 2015 of 1.1099 to convert figures where applicable. No adjustments have been made for other currencies.

1. INTRODUCTION

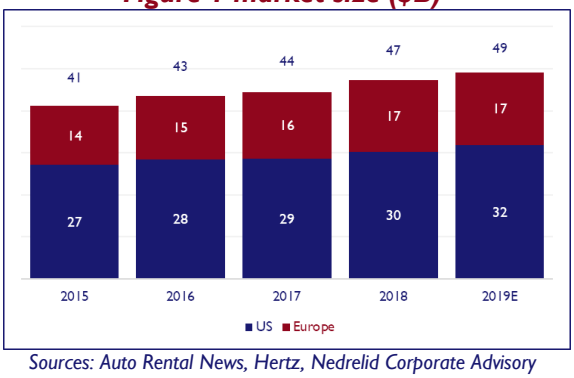
The car rental industry has grown steadily in recent years. Between 2015 and 2019, the total market in the US and Europe grew from $41 billion to approximately $49 billion, representing a 4.6% CAGR. Over the same period, however, operating profits, using Corporate EBITDA as a proxy, declined for the four publicly traded operators Avis Budget, Europcar, Hertz and Sixt with the sector destroying a significant amount of shareholder value in the process.

What are the potential explanations for why the industry has been unable to translate macrolevel tailwinds into improved profitability and value creation? In this article we aim to offer an understanding of the performance drivers for the industry and thereby provide insights into the conundrum of a growing market and shareholder value destruction, i.e. what are the operational issues in the industry that have made it pariah for investors? Further, what can the industry do to turn around its fortune going forward?

2. INDUSTRY TRENDS

The car rental industry has grown steadily in recent years with the two largest, and most developed, markets, i.e. the US and Europe, having increased in value from around $41B in 2015 to an estimated $49B in 2019, representing a CAGR of approximately 4.6% for the period.

Figure 1 market size ($B)

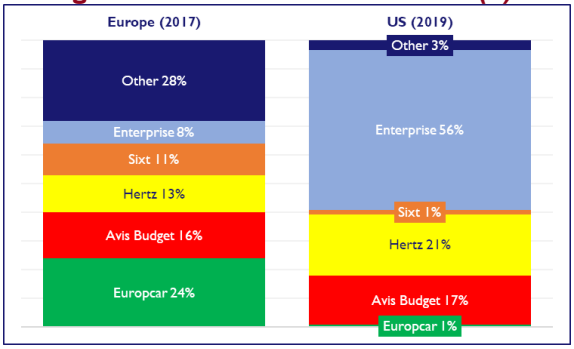


Sources: Auto Rental News, Hertz, Nedrelid Corporate Advisory

From a structural perspective car rental possesses oligopolistic characteristics with a limited number of global operators, five of which have a worldwide footprint, controlling a significant share of the market both in Europe

(+/- 75%) and the US (+/- 97%), as seen in Figure 2.

Figure 2 Car rental market share (1)

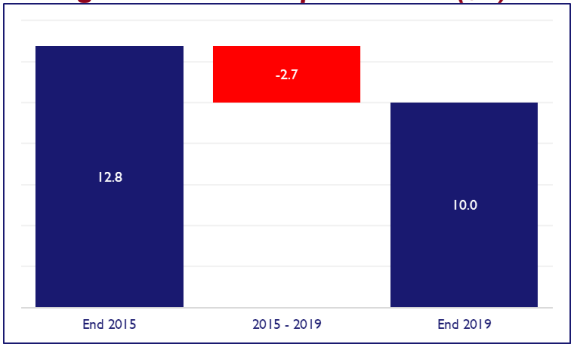


Sources: Auto Rental News, Europcar 2018 annual report
(1) Europcar in the US is Fox Rent a Car

Of the five operators mentioned above, four are listed companies whereas one, Enterprise Holdings, is privately held. As a private company, there is limited information publicly available regarding the latter's operational performance, beyond the Group's consolidated revenue figures, whereas the other four publish sufficiently detailed financial and data to get a good picture of its operational performance. Accordingly, the current paper mainly focuses on the operational performance of the listed peer-group, who on an aggregated level represent approximately 64% of the European market and about 40% of the US market.

The premise for this paper is that the car rental industry has destroyed a considerable amount shareholder value over the period 2015 – 2019 despite solid growth over the same interval. Figure 3 shows the market capitalization of the peer group at the end of 2015 and the value destruction through 2019[1].

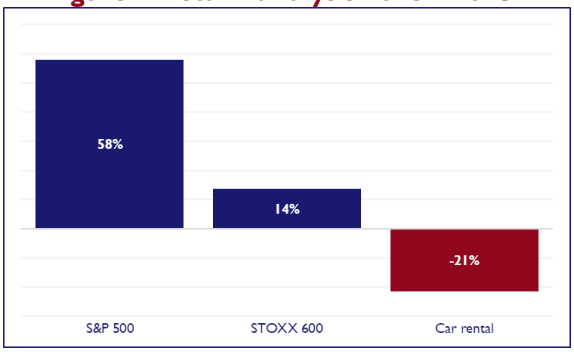
Figure 3 Market capitalization ($B)



Sources: wsj.com, company reports, Nedrelid Corporate Advisory

The sector has significantly underperformed the broader market over the period, highlighting the lack of love from investors for the car rental sector.

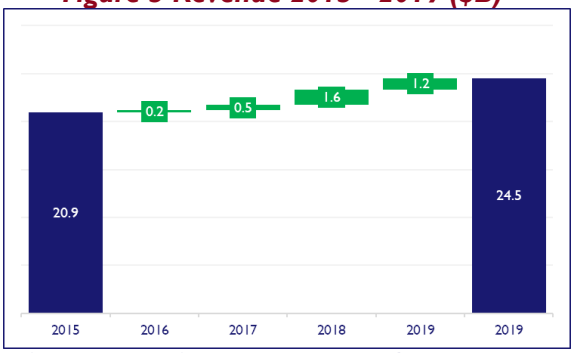
Figure 4 Return analysis 2015 - 2019



Sources: wsj.com, company reports, Nedrelid Corporate Advisory

How did the sector perform operationally over the period and what were the main performance drivers? As seen in Figure 1 above, the industry has grown steadily in recent years and this also goes for the listed companies. Figure 5 shows the aggregated revenue evolution for Hertz, Avis Budget, Europcar and Sixt on an annual basis for the period 2015 – 2019, measured in USD billion. Revenue growth for the sample group has not been exclusively organic, Europcar in particular has aggressively pursued inorganic growth through extensive M&A activity, but for the purpose of understanding shareholder value creation in the car rental industry we consider the figures at face value as relevant.

Figure 5 Revenue 2015 - 2019 ($B)



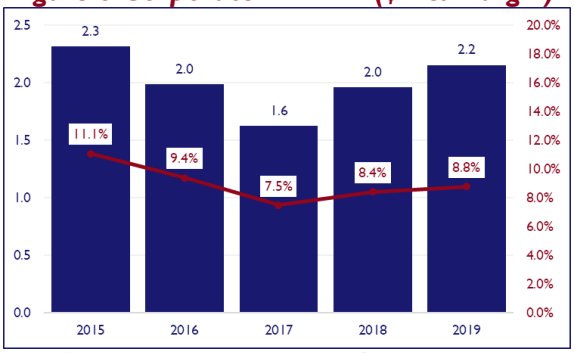
Sources: company financial reports, Nedrelid Corporate Advisory

Industry growth has not translated into improved profitability. Using Corporate EBITDA, a widely used operational performance metric across the industry, as a

[1] €-denominated figures converted into USD at the end 2015 rate, amounts have been adjusted for corporate action events such as dividends, buybacks and capital increases over the period, so represents our estimated, real value destruction

proxy, the industry's operating profitability declined between 2015 and 2019, both in absolute numbers and measured as margin, as shown in Figure 6.

Figure 6 Corporate EBITDA ($B & margin)



Sources: company reports, Nedrelid Corporate Advisory

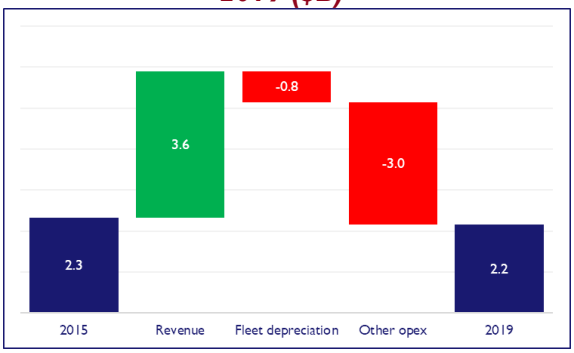
What explains the discrepancy between revenue growth and profitability in the car rental sector in recent years? Based on publicly available data and information from the listed car rental operators, we have analyzed the sector's operational performance. The objective of the exercise has been to (better) identify drivers of operational performance and how these have trended recently, thus attempting to understand the reasons behind the shareholder value destruction that has occurred in a growing market.

Section 3 considers the various factors that are susceptible to explain the conundrum of revenue growth, declining operating profits and shareholder value destruction that has riddled the car rental industry in recent years. There are, broadly speaking, two angles through which one can analyze the situation, being the revenue and the cost side, which we will do next.

3. PERFORMANCE ANALYSIS

Figure 7 shows a simplified bridge for the corporate EBITDA evolution for the period 2015 – 2019. We have considered revenue, fleet depreciation and other opex as performance drivers.

Figure 7 Corporate EBITDA bridge 2015 - 2019 ($B)



Sources: company reports, Nedrelid Corporate Advisory

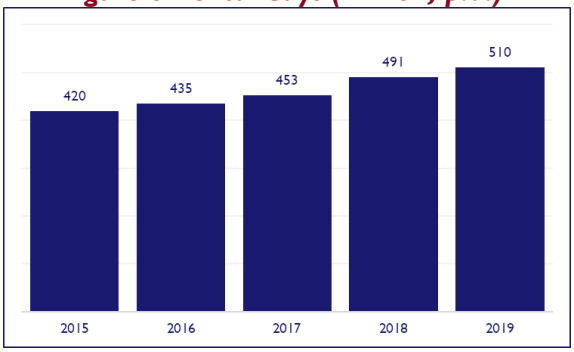
From the chart, one gets the impression that the main issue is related to cost as fleet depreciation and other opex cumulated have grown more than revenue, thus creating pressure on operational performance. Our research, however, suggests that this is not necessarily the case but rather that revenue quality represents a significant issue across the industry. The following paragraphs will show this in more detail

Revenue in car rental is a function of volume, defined as rental days, and unit price, defined as revenue per day ("RPD"), summarized in the following equation:

$$Revenue = Rental\ days\ x\ Revenue\ per\ day$$

For the purpose of this exercise, we have not made a distinction between rental revenue and other revenue (Sixt and Europcar break down this split as part of their reporting, Hertz and Avis Budget do not), so numbers may differ from reported numbers. Nevertheless, given that we are looking at macrolevel industry trends with rental revenues representing >90% of revenue at car rental operators and the split between rental and other revenue having remained stable over time, we consider this tradeoff acceptable and without a significant impact on the takeaways from the analysis.
Figure 8 shows the number of annual rental days (in million) sold over the period. The increase in days is not exclusively organic (Europcar's acquisitions of various franchisees across Europe as well as Goldcar and Buchbinder have added significant inorganic volume to their operations) but as we are considering performance drivers, this is irrelevant for this exercise.

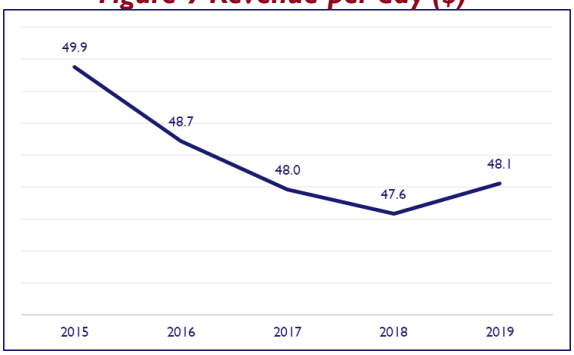
Figure 8 Rental days (million, p.a.)



Sources: company reports, Nedrelid Corporate Advisory

Volume has grown steadily over the period in question with a 5.0% CAGR between 2015 and 2019, i.e. slightly above overall market growth rates. The other component of the revenue function is RPD, with fully loaded annual figures shown in Figure 9.

Figure 9 Revenue per day ($)

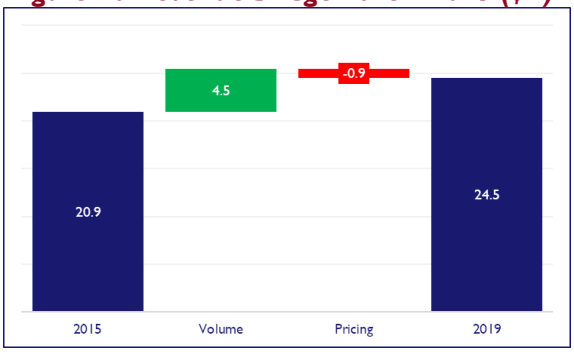


Sources: company reports, Nedrelid Corporate Advisory

As can be seen, average RPD has trended down for the period, though there was a minor uptick in 2019. The information available is not sufficient to determine all the factors behind the RPD decline, e.g. to what degree it has been driven by a general decline in market rates, a shift in business mix (segments, car categories etc) or other factors, but it is conceivable that multiple reasons have, to different degrees, played a role. Accordingly, we take the RPD as estimated for this purpose, as the industry has had to adapt to it.

Having considered both drivers of revenue generation, volume and price, and observed that they have trended in different directions in recent years, what is the actual impact from an operational perspective? In Figure 10 we show our estimate for what has driven the revenue increase from 2015 through 2019.

Figure 10 Revenue bridge 2015 - 2019 ($B)



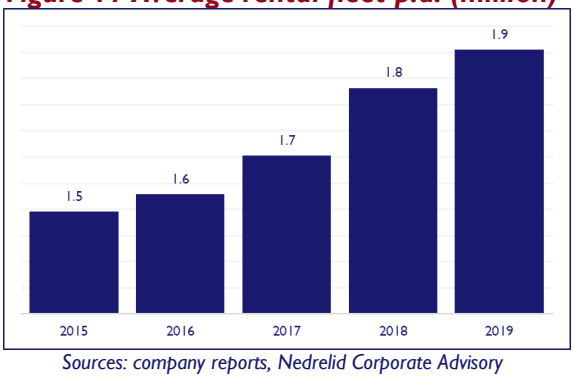
Sources: company reports, Nedrelid Corporate Advisory

Our analysis suggests that revenue growth has been exclusively driven by increased volume with the negative RPD development representing a headwind of $0.9 billion for the period. A change in average pricing, be it up or down, will not, per se, necessarily lead to a direct impact on profitability, the latter also being a function of cost and expenses.

In our analysis, we have considered a simplified P&L with the cost lines being fleet depreciation and other operating expenses ("other opex"). As seen in Figure 7, both cost lines have increased significantly over the period in question, suggestion that pressure on profitability in the car rental industry is driven largely by issues around expenses. In order to verify and better understand whether this is the case, we have analyzed the unit economics for the industry. Accordingly, in the next section we will explore how the unit economics have evolved, taking two perspectives, being per fleet unit and per rental day, into consideration.

Average fleet size for the industry has increased steadily in recent years, which is unsurprising given the growth in volume. Figure 11 shows the annual average fleet size for the four operators that are part of the analysis.

Figure 11 Average rental fleet p.a. (million)



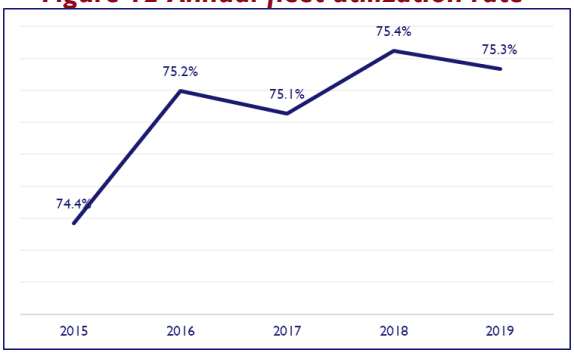
Sources: company reports, Nedrelid Corporate Advisory

The number of cars in the fleet is one volume driver, but key to performance is also the efficiency in fleet usage, measured as fleet utilization.

$$Utilization = \frac{Rental\ days}{Available\ fleet\ days}$$

Fleet utilization has increased somewhat between 2015 and 2019, although the increase was mainly in 2016 with overall utilization rates reasonably flat from 2016 through 2019 as seen in Figure 12.

Figure 12 Annual fleet utilization rate



Sources: company reports, Nedrelid Corporate Advisory

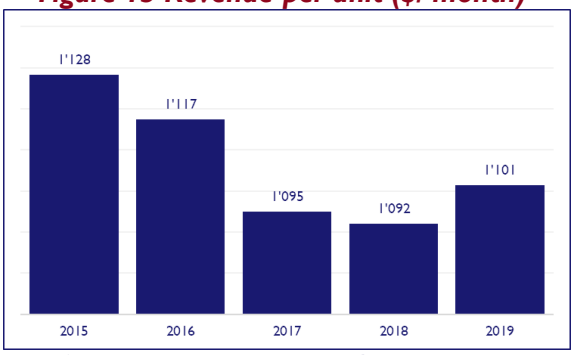
The flattish utilization development in the last few years suggests that fleets are efficiently employed across the industry, which implies that there is limited potential for operational improvement to be extracted from making the fleet sweat harder. Accordingly, volume growth can only be expected to be captured through fleet growth, not through higher utilization of existing fleet sizes.

Another fleet operating metric is revenue per unit, a measure for revenue earning capacity of the fleet. Revenue per unit is a function of the number of days and the average RPD for a period. Thus, using the methodology and data points previously described, the formula for revenue per unit ("RPU") is

$$RPU = Days\ in\ period\ x\ Utilization\ rate\ x\ RPD$$

Accordingly, there is not necessarily a direct relationship between RPD and RPU as a decline in the former can be compensated by an increase in utilization rates. Figure 13 summarizes the RPU development for the period 2015 through 2019 on a monthly basis, which is in line with established industry practice. Despite utilization rates increasing throughout the period, this has not fully compensated the decline in RPD, thus average RPU has declined in recent years.

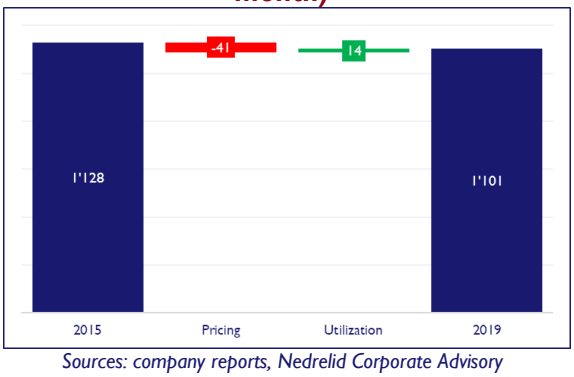
Figure 13 Revenue per unit ($/ month)



Sources: company reports, Nedrelid Corporate Advisory

Using the above data points, we have estimated the drivers behind the RPU evolution between 2015 and 2019, which we show in Figure 14.

Figure 14 RPU bridge 2015 - 2019 ($/ month)



Sources: company reports, Nedrelid Corporate Advisory

As one can see, the improvement in utilization, has only compensated about 1/3 of the RPD decline over the period. Based on the available data and trends, utilization seems close to what can realistically be achieved, thus focusing on higher daily pricing is key to improve revenue per unit.

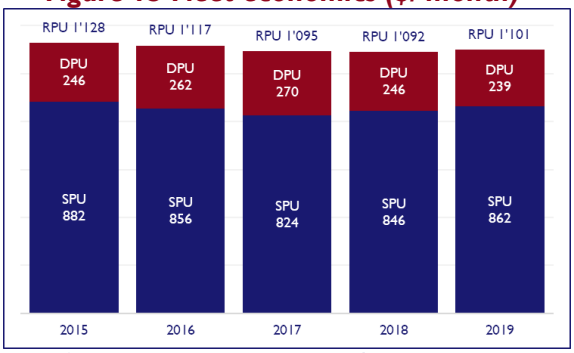
Profitability is a function both of revenue generated and expenses incurred. Given the nature of the car rental industry, the notion of gross margin does not exist. However, one can use spread per unit ("SPU") as a proxy, represented by the following formula

$$SPU = RPU - Depreciation\ per\ unit$$

The above formula summarizes fleet economics at a high-level. Figure 15 shows the unit fleet economics for 2015 through 2019. Lower depreciation rates per unit for the period has

only partially compensated the decline in RPU and as such SPU has been under pressure.

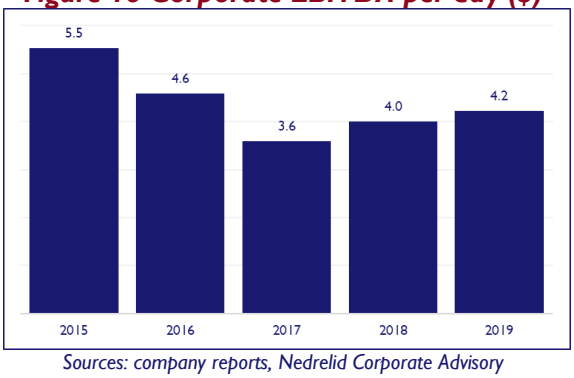
Figure 15 Fleet economics ($/ month)



Sources: company reports, Nedrelid Corporate Advisory

Next, we will take a detailed look at the unit economics, measured on a per day and monthly fleet unit basis, to see what recent trend has been as well as what has driven the change over the period. Figures 16 and 17 show the Corporate EBITDA per day and per fleet unit for the period 2015 through 2019.

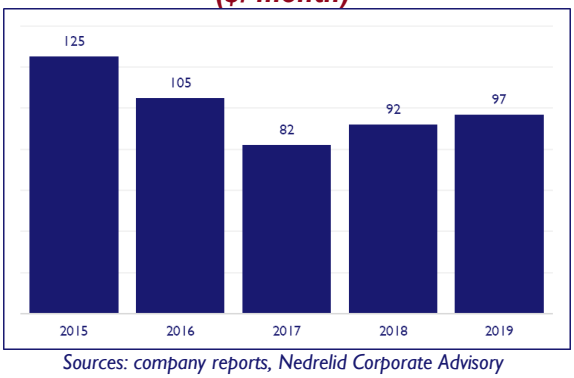
Figure 16 Corporate EBITDA per day ($)



Sources: company reports, Nedrelid Corporate Advisory

Corporate EBITDA per day declined by $1.3 or 24% from 2015 to 2019 whereas on per fleet unit basis, corporate EBITDA declined by $28 or 23% per month.

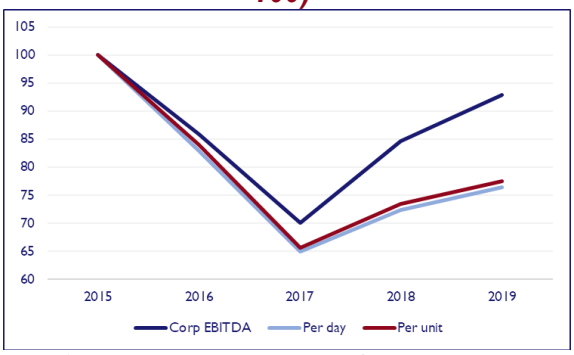
Figure 17 Corporate EBITDA per fleet unit ($/ month)



Sources: company reports, Nedrelid Corporate Advisory

Using 2015 as the base year, the per unit profitability has, unsurprisingly, followed directionally the trend for Corporate EBITDA in absolute dollars, as seen in Figure 18.

Figure 18 Corporate EBITDA trend (2015 = 100)

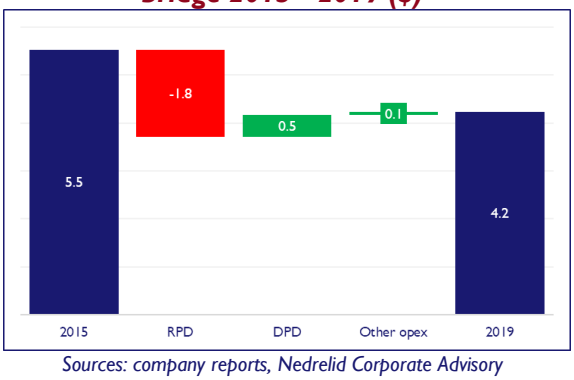


Sources: company reports, Nedrelid Corporate Advisory

The difference in amplitude over the period is explained by Corporate EBITDA in absolute figures being measured against the 2015 number, whereas both fleet units and rental days have increased significantly over the period, so a lower absolute figure is spread over a higher number of units.

What has driven the deterioration in unit economics over the period in question? We have analyzed the available data, as detailed above, and have broken down the impact of revenue, fleet depreciation and other operating expenses to see how each of these factors have impacted the operating performance for the car rental industry.

Figure 19 Corporate EBITDA per day bridge 2015 - 2019 ($)



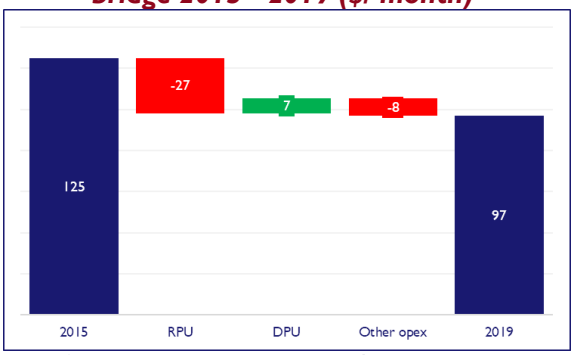
Sources: company reports, Nedrelid Corporate Advisory

Corporate EBITDA per rental day declined by 24%, from $5.5 to $4.2, from 2015 through 2019. Figure 19 shows the impact from average RPD, fleet depreciation and other opex respectively, and it is immediately observable

that the industry has done a reasonably good job in their quest to streamline and improve operational efficiencies. Both fleet depreciation and other opex declined on a per unit basis, but all the progress, and some, was eaten up by the decline in RPD, which represented a staggering 140% of the overall decline in Corporate EBITDA per rental day. Thus, revenue has clearly been the major issue.

On a per fleet unit basis the picture is in line with observations on per day basis. Revenue fully explains the deterioration in profit unit as cost per unit improved moderately over the period with an improvement in fleet depreciation rates in excess of a small increase in other opex per fleet.

Figure 20 Corporate EBITDA per fleet unit bridge 2015 - 2019 ($/ month)



Sources: company reports, Nedrelid Corporate Advisory

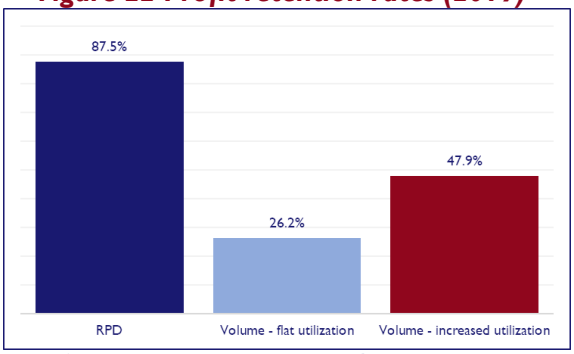
Having analyzed performance on a per unit basis, we now revert to how the industry has performed on a macrolevel. In Figure 21 we revisit our Corporate EBITDA bridge for the period 2015 through 2019 with a decomposition of the revenue development broken down into the impact in absolute figures from pricing/ RPD, volume and the change in utilization compared with a the overall change in operating expenses (fleet depreciation and other opex combined).

Figure 21 Corporate EBITDA bridge 2015 - 2019 ($B)

Sources: company reports, Nedrelid Corporate Advisory

Why is it of interest to break down revenue into various drivers? In our opinion all revenue is not created equal, with profitability of various revenue streams representing a measure for revenue quality. In Figure 22 we have estimated the profit retention ratios, based on 2019 financial and operational indicators as well as what we consider reasonable assumptions, e.g. regarding variable versus fixed costs, for the three revenue streams we have identified – average RPD, volume without change in utilization (i.e. increased fleet levels) and volume from better utilization levels – to get a feel for the profit impact from each.

Figure 22 Profit retention rates (2019)

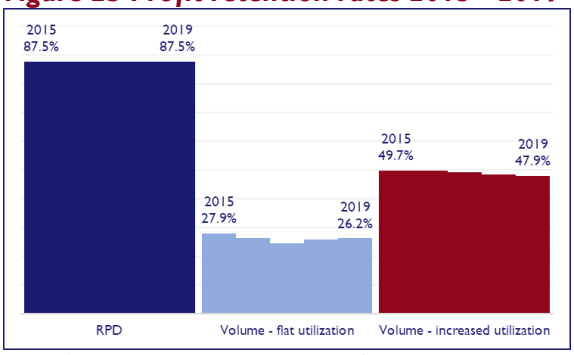


Sources: company reports, Nedrelid Corporate Advisory

It is evident from the above that the source of revenue has significant implications on how much profits is derived from the incremental revenue derived from each stream. The retention rates in Figure 22 work both ways, i.e. a decline in revenue will have the reverse effect and represent a mirror image of an increase in revenue. Accordingly, a decline in volume at flat utilization will have significantly less impact on profitability than a decline in average RPD.

The relationship between the different retention ratios have proven reasonably stable from year to year, as seen in Figure 23 where we have estimated the ratios based on the annual performance for the period 2015 – 2019. We see the decline in volume-based growth retention rates as driven by the deterioration in unit economics.

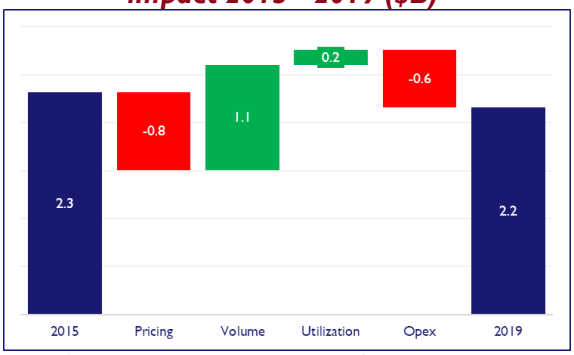
Figure 23 Profit retention rates 2015 - 2019



Sources: company reports, Nedrelid Corporate Advisory

Using our estimated retention rates, we have calculated the impact on Corporate EBITDA from the different revenue drivers with the balance being assumed to be other expenses, conceivably a function of the decline in retention rates over the period. Our estimated impact is presented in Figure 24.

Figure 24 Corporate EBITDA contribution impact 2015 - 2019 ($B)

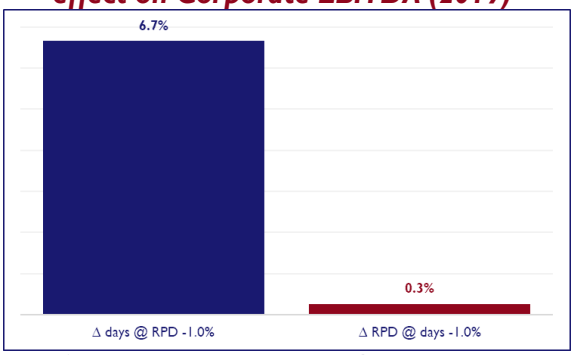


Sources: company reports, Nedrelid Corporate Advisory

Using profit retention rates to measure the impact of pricing vs volume growth gives a better feel and understanding of the underlying relationship works. Thus, as seen in Figure 24 above, the profit contribution from the volume driven growth and other changes in opex has been approximately $650M, which has been insufficient to compensate the approximate $810M negative contribution from lower daily average rental rates.

Another way of looking at this is the substitution effect between volume and pricing. As part of our analysis, we have also considered the degree to which one can compensate the other. Figure 25 shows the required change in one variable, either RPD or rental days (volume), required to compensate a 1.0% decline, *ceteris paribus*, on the other in order to maintain monetary profitability.

Figure 25 RPD vs volume substitution effect on Corporate EBITDA (2019)

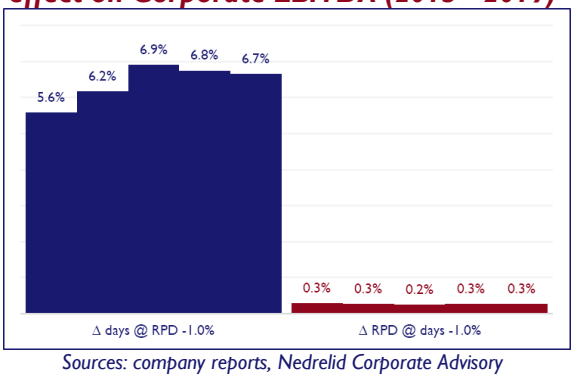


Sources: company reports, Nedrelid Corporate Advisory

Our calculations show that for profitability to remain unaffected in absolute figures, i.e. not margin, a decline in volume by 1.0% can be compensated by 0.3% increase in RPD. A 1.0% decline in RPD, however, requires a 6.5% growth in rental days for there to be no impact on profits.

The relationship between the two over the period 2015 – 2019 is shown in Figure 26.

Figure 26 RPD vs rental day substitution effect on Corporate EBITDA (2015 - 2019)

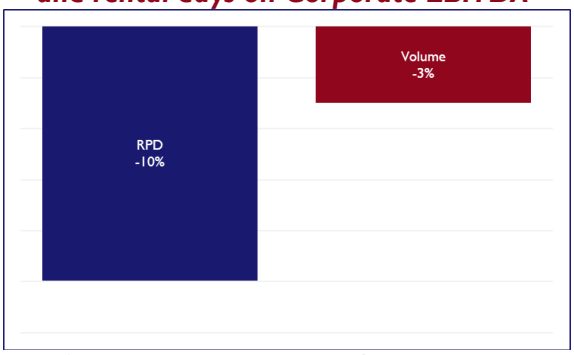


Sources: company reports, Nedrelid Corporate Advisory

Whereas the absolute substitution relationship has evolved somewhat over time, depending on industry margin, it has consistently been significantly more difficult to compensate a decline in RPD by an increase in volume to maintain profitability than vice versa.

A further measure is the direct impact on corporate EBITDA, *ceteris paribus*, from a 1% change in either RPD or volume, which we have shown in Figure 27.

Figure 27 Impact from 1.0% change in RPD and rental days on Corporate EBITDA



Sources: company reports, Nedrelid Corporate Advisory

Our calculations indicate that a 1% decline in RPD leads to a 10% decline in Corporate EBITDA whereas an equivalent decline in volume only generates a 3% reduction in Corporate EBITDA, in both cases everything else assumed equal. This example clearly shows the role, and power, of pricing as a profit lever in the car rental industry.

When combined with the other findings concerning the relationship between RPD, volume and profitability outlined above, it is evident that it is very complicated for the car rental industry to compensate a deteriorating RPD through focusing on growing its volume.

4. TAKEAWAYS AND CONCLUSIONS

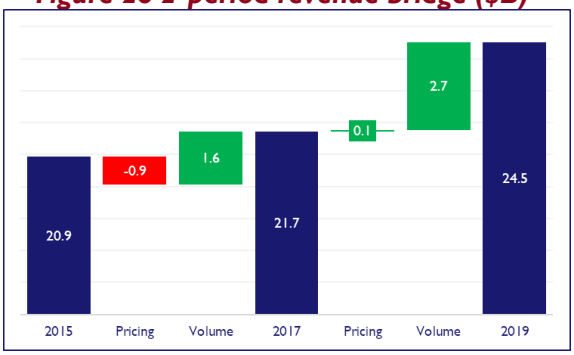
We started this paper by showing that there was significant shareholder value destruction in the car rental industry from 2015 through 2019 despite the global market growing. Revenue growth has not translated into improved profitability based on using Corporate EBITDA as a proxy for operating performance. Over the period, Corporate EBITDA fell, both measured in margin and, more importantly, absolute numbers, declining from $2.3B+ in 2015 to somewhat less than $2.2B in 2019 despite revenue growing around 17% over the same timeframe.

A high-level analysis of industry performance for the period, as we did in Figure 7, only focusing on revenue growth and change in total cost, gave the impression that the major issue for the industry has been on the cost side and that this is the primary reason for pressure on operating profits.

Digging further into the numbers to better understand performance drivers, our analysis, however, suggests that this is not the case and that revenue quality has been a significant issue. We base this assessment on the unit economics for industry, having looked at profit drivers on a per rental day and per fleet basis. Corporate EBITDA has declined both per day and per fleet unit, but the impact from cost has been positive both per rental day and per fleet unit, with profit deterioration being exclusively due to lower revenue per fleet unit or per day. Accordingly, we believe that revenue quality has been the major challenge for the industry.

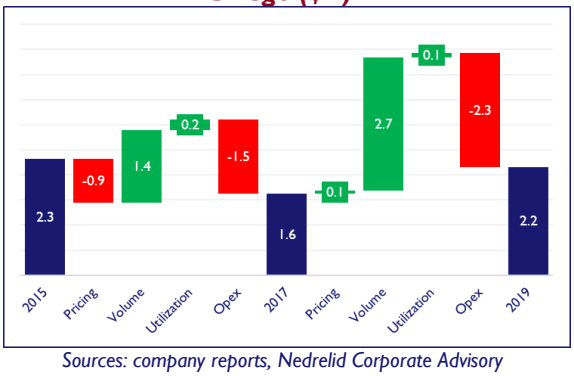
On a macro-/ industry-level the issue of revenue quality is better illustrated if one breaks down the period 2015 – 2019 into two 2-year periods, being 2015 – 2017 and 2017 – 2019. Figures 28, 29 and 30 show the performance drivers for these two periods using the same methodology as we used in our analysis for the full period above.

Figure 28 2-period revenue bridge ($B)



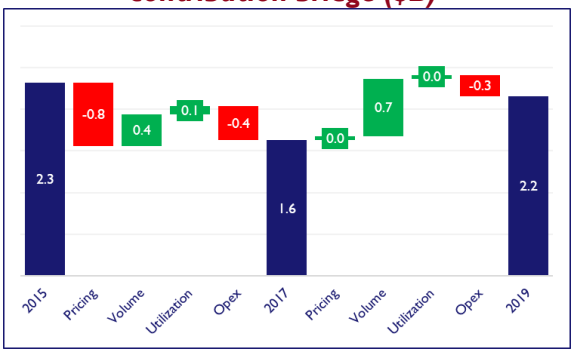
Sources: company reports, Nedrelid Corporate Advisory

Figure 29 2-period Corporate EBITDA bridge ($B)



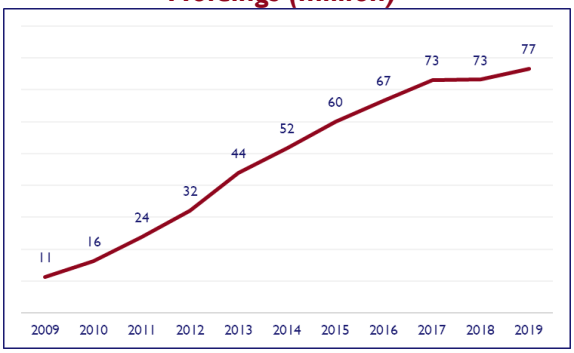
Sources: company reports, Nedrelid Corporate Advisory

Figure 30 2-period Corporate EBITDA contribution bridge ($B)



Sources: company reports, Nedrelid Corporate Advisory

Figure 31 Rentals days sold at Booking Holdings (million)



Source: Booking Holdings financial reports

It is evident from the 2-period analysis that volume growth is contributing positively to Corporate EBITDA both between 2015 and 2017 and from 2017 through 2019, but that how RPD, our proxy for pricing, changed over the respective periods was a major determinant for how profitability evolved.

What the data does not explicitly say or explain is what has driven the decline in RPD in recent years. It is conceivable that there have been more than one factor driving the development, examples of which could be

- General market pressure on rates
- Shift in business mix, either in segments (the low-cost segment has been a priority for several operators, notably Europcar) and/ or geography (figures are based on consolidated, global operations)
- Change in rental profile, e.g. average rental duration, in previous research of ours we have established that RPD is a function rental length
- Changes in sales and distribution channels, e.g. growth in intermediaries as seen in Figure 31
- Supply versus demand driven volume growth

to mention but a few potential factors.

Regardless of the underlying causes for the recent pressure on average RPD, what we consider to be the major takeaway from our analysis of car rental performance is the importance of pricing as a profit driver and that all car rental revenue is clearly not created equal.

As we have shown Growing for the sake of growing is not necessarily a good approach and for the industry to create to shareholder value, revenue quality should be prioritized over revenue quality.

Going forward, we believe that for the car rental industry to create value for its shareholders, it should give at least as much focus and attention to the quality of its revenue streams as it has on its operating expenses, which have developed favorably measured on a unit level, recently. Accordingly, revenue quality should be considered a strategic priority for car rental operators.

About us

Nedrelid Corporate Advisory is an independent advisory and consulting boutique based in Geneva, Switzerland.

Our service offering is targeted at the car rental industry and our ambition is to be the consultant of choice to current and prospective operators and other industry stakeholders.

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