COLEGIO UNIVERSITARIO DE ESTUDIOS FINANCIEROS

BACHELOR'S DEGREE IN BUSINESS ADMINISTRATION

Final Degree Project

AUTO TRADER GROUP PLC

Private Equity

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1. INTRODUCTION

The main goal of this project is to determine whether "Auto Trader Group plc" (henceforth "Auto Trader" or the "Company") would be a good target for a private equity fund.

In order to do so, I will conduct a screening process, in which I thoroughly analyse the Company´s past and present situation contrasting it to that of its competitors, to test whether the company fulfils certain characteristics. Then, the macroeconomic and microeconomic environment will be examined, attending to both quantitative and qualitative metrics. Last, I will simulate the public to private transaction by valuing the company and conducting a leveraged buyout, arriving to the expected returns of this investment.

To sum up, after considering all this information, I will try to conclude whether the expected returns derived from the transaction are attractive enough for the fund to proceed with the investment. Please note that because the company has not yet published FY2019 annual report, we will take FY2018[1] as our last year and **assume inception in March 2019**.

2. SCREENING CRITERIA

2.1 COMPANY OUTLOOK

2.1.1 Activity

Auto Trader Group plc is a public company listed in the London Stock Exchange (LON: AUTO, Market cap. of £3,944m[2]). The Company is the clear market leader in the UK automotive digital marketplace.

The Company offers online advertising slots, allowing vehicle **retailers** and **manufacturers** to post their vehicles in Auto Trader´s website, while enabling **customers** to purchase these vehicles. It must be clear that the Company does not buy and sell vehicles, but it acts as a mediator between sellers and buyers by advertising these vehicles in its digital platform.

[1] The Company´s fiscal year ends the 31st of March, therefore, FY2018 corresponds to the period comprised between 31st March 2018 to 31st March 2019.
[2] FactSet data as of March 31st, 2019.

The Company´s activity is best understood graphically:

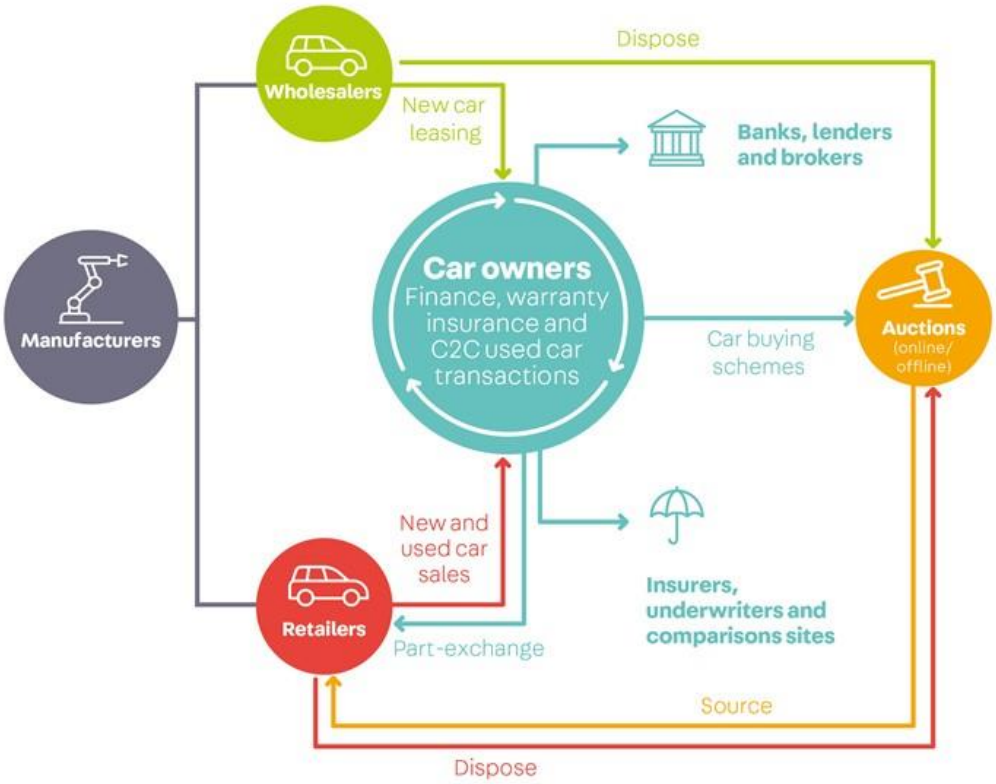

Figure 1 - Business Model

Source: **(Auto Trader Group, 2019)**

Therefore, the Company´s revenue streams come from three business lines:

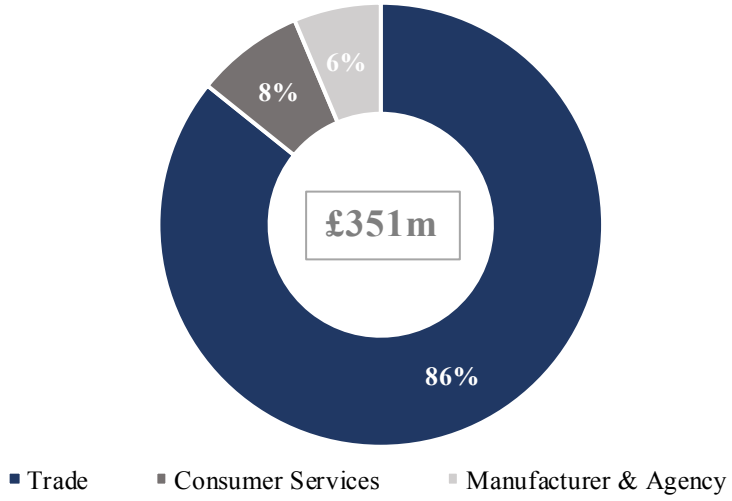

Figure 2 - FY2018 Revenue by Division

Source: own elaboration

Trade:

Through this business line the Company enables owners of used cars (concessionaires, retailers, etc.) to advertise these vehicles in their website. Advertisers pay according to the visibility of their advertisements and the number of cars they are willing to announce.

Customer Services:

From the customer´s perspective (buyer), the platform enables them to search in a wide listing of new and used cars (+460,000 cars), with additional services such as free vehicle checks, car valuations and other. The platform has been carefully designed using big data in order to permit the customer to filter the search according to the most demanded categories (price, monthly budget, years of usage, etc). Revenue is generated by charging a fee to the customer if it finally decides to purchase a vehicle.

Manufacturer & Agency:

Last, the Company enables vehicle manufacturers (automotive companies, wholesalers) to advertise their new car stock. The interest in new cars has been growing at a fast pace in the past years and, thus, so has Auto Trader´s interest in improving the "Manufacturer & Agency" business line. Again, advertisers pay according to their visibility and the number of vehicles they decide to post.

2.1.2 History

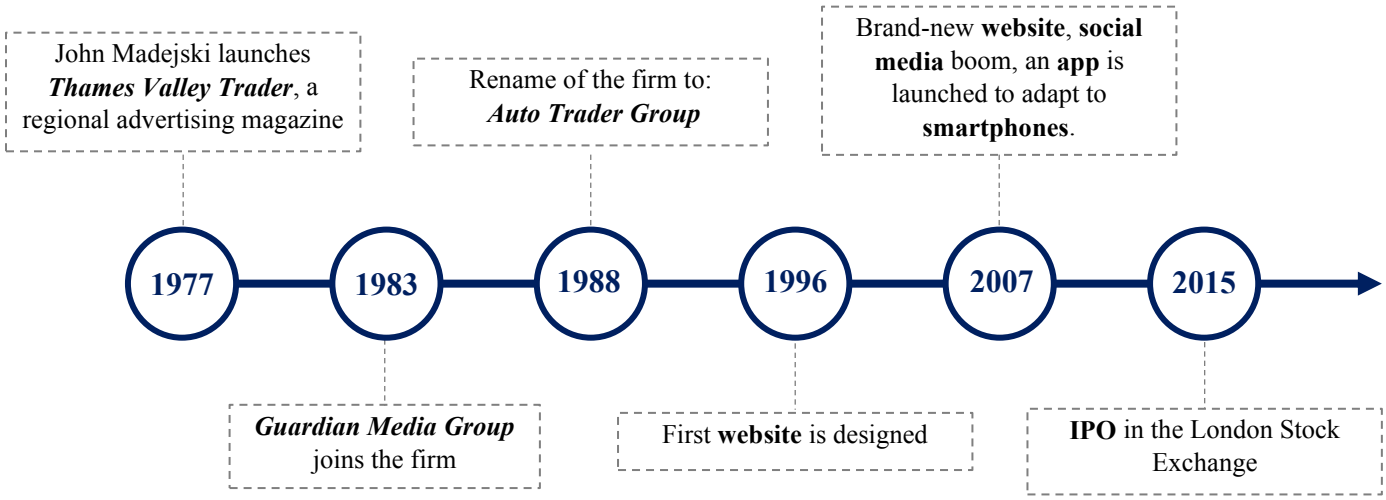

Figure 3 - History Timeline

Source: own elaboration **(Auto Trader Group, 2019)**

2.1.3 Location

The Company is domiciled in the UK and it has geographical presence in the United Kingdom and Ireland. In FY2018, 99% of revenues were generated in the UK and only 1% in Ireland.

2.1.4 Ownership structure[3]

The shareholding structure is as follows:

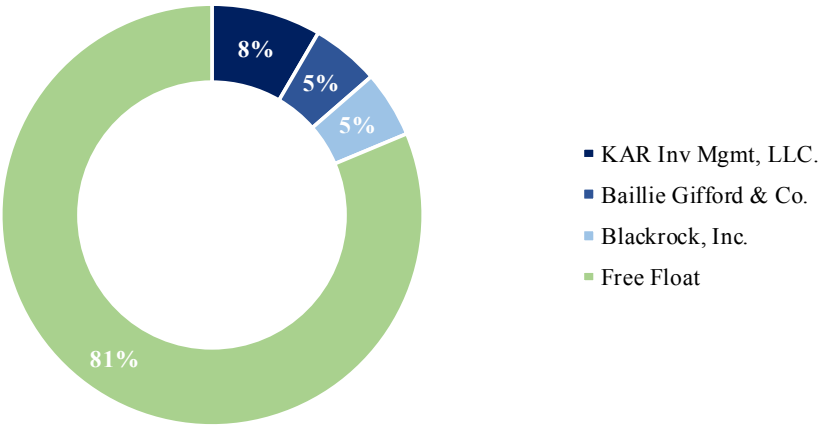

Figure 4 - Shareholding Structure

Source: own elaboration **(FactSet, 2019)**

I deemed appropriate to illustrate only the institutions which hold a stake superior to 5%. Other institutions include: The Vanguard Group, Inc., Cantillon Capital Management, Llc., L&G Investment Management and Aberdeen Asset Investment, Ltd., among others. However, given the low stake that they hold we will consider their participation to be part of the free float.

The capital structure of the Company is therefore mainly institutional and highly distributed, with numerous institutional investors holding small stakes. There is not much ownership concentrated (highest stake is 8%). This structure has remained stable over the last few years.

[3] Source: FactSet as of March 31st, 2019.

2.2 TOP LINE GROWTH

2.2.1 Historical top line growth[4]

As mentioned before, the Company´s revenue streams come from three main divisions: Trade, Consumer Services and Manufacturer & Agency. Considering the three business lines, total revenue has grown at a $CAGR_{FY2014-FY2018}$ of +8.6% mainly on the back of organic growth, and its evolution is shown below.

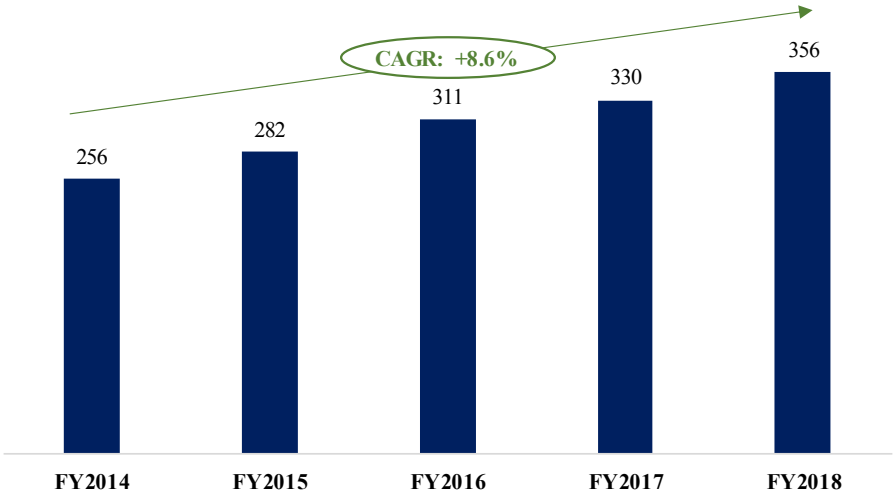

Figure 5 - FY2014-FY2018 Revenue (in £m)

Source: own elaboration

However, this growth is best understood if we break it down by business line:

First, the **Trade** division is modelled as a function of the number of used cars advertised (volume) and the average price per advertisement (price). So, trade revenue is derived from the following formula[5]:

$$Trade\ Revenue = N.of\ Used\ Cars\ Advertised\ x\ Avg.Price\ per\ Advertisement$$

[4] Source: Company consolidated annual reports

[5] Other items are added to this formula to obtain trade revenue; however, we will be using this formula for simplicity purposes.

In the past years, the evolution of these two variables has been as follows:

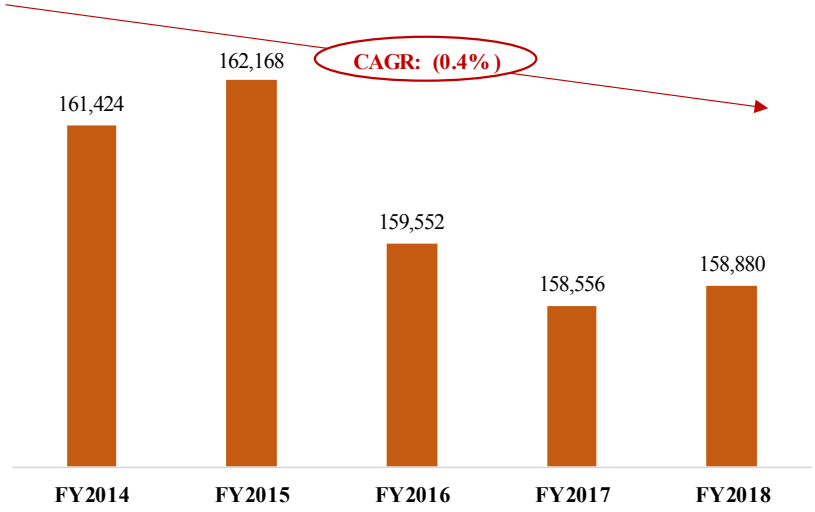

Figure 6 - Number of Used Cars Advertised (in units)

Source: own elaboration

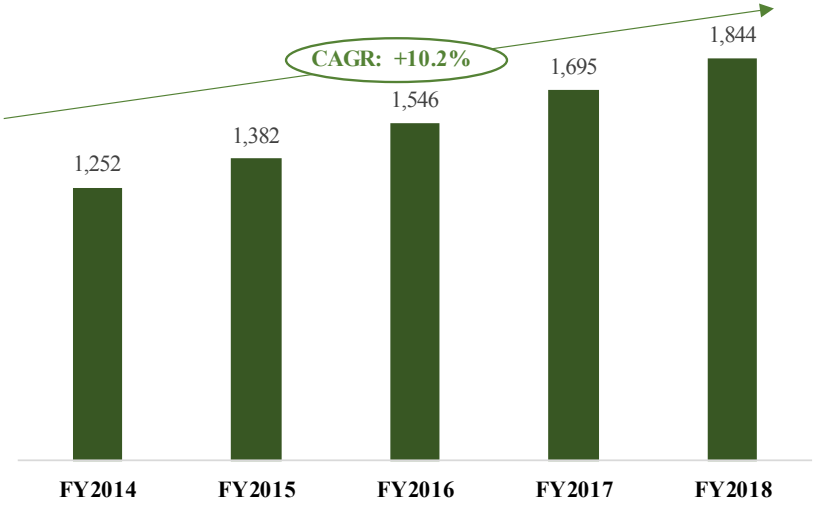

Figure 7 - Avg. Price per Advertisement (in £)

Source: own elaboration

As evidenced above, the number of cars advertised have been decreasing at a $CAGR_{FY2014-FY2018}$ of (0.4%). However, this drawback in volume was offset by the strong increase of average price per advertisement at a $CAGR_{FY2014-FY2018}$ of +10.2%. With this, **the trade business line has seen a revenue growth at a $CAGR_{FY2014-FY2018}$ of +9.2%**.

The fact that the Company was able to continuously increase price throughout the last five years indicates the Company´s leading market position and the low price-elasticity among its customer (retailers), evidencing that its business model is healthy and well-functioning.

As regards to **Consumer Services**, it has experienced a negative growth at a $CAGR_{FY2014-FY2018}$ of (0.9%), mainly due to a downturn in FY2017 and FY2018 in Used Car Transactions, which will be analysed in further sections. Hence, as fewer transactions were executed, less consumer fees were collected. However, as this business line has a relative minor importance, it did not have a major impact in total revenues.

Last, **Manufacturer & Agency** experienced a high paced growth at a $CAGR_{FY2014-FY2018}$ of +16.8%, mainly due to an increasing interest in new cars, which can be explained by the recent carbon emission regulations which prohibit the usage of certain cars which do not comply with the EURO6 standards (manufactured before 2015). Again, this increase had only a minor effect in total revenue.

Nonetheless, not all this growth can be attributed only to organic growth, instead it must be explained together with some minor inorganic growth that the company pursued in the form of acquisitions and joint ventures.

In April 2017, the Company acquired 100% of "Motor Trade Delivery, Ltd.", an online platform which trades the right to transport vehicles across the United Kingdom. The acquisition entailed a net cash outflow of £11.9m and contributed £1.1m to the Company´s next fiscal year revenue, that is, 0.3% of total revenue.

In December 2018, Auto Trader entered into a joint venture with "Cox Automotive UK", the second largest car auction business in the UK. Through this deal the firm aimed to enable retailers to distribute vehicles via an entirely online experience, reinforcing its digital leading position. The JV contributed £0.9m to the Company´s revenues in the year, representing 0.3% of total revenue.

All in all, we can say that the remarkable revenue growth was mainly **organically led**, with average price per advertisement growth (price improvement) as the leading factor.

2.2.2 Competitive environment

The UK automotive digital marketplace has numerous market participants. However, the vast majority of the market share is held in hands of the three main UK players: **"Auto Trader Group, plc."**, **"eBay, Inc"** (which operates through its subsidiaries "Gumtree.com, Ltd.", "eBay Motors, Ltd." and "eBay UK, Ltd.") and **"CarGurus, Inc"** (which operates through its subsidiaries "CarGurus UK, Ltd." and "Pistonheads Holdco, Ltd."). These companies account for c.92% of the market share, with Auto Trader leading the trio.

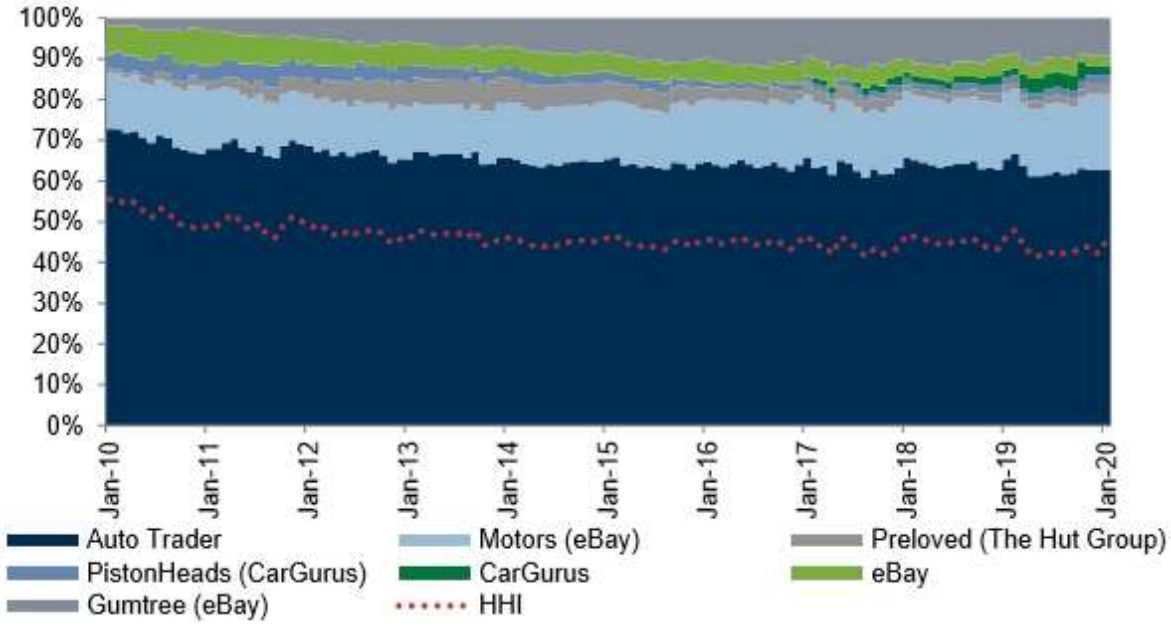

Figure 8 - Desktop Search Traffic

Source: Google Trends **(Goldman Sachs Equity Research, 2020)**

The Company has managed to maintain its dominant position as the clear market leader with c.70% of desktop search traffic throughout the last ten years despite increasing competition. However, the above figure shows a slightly negative trend. When looking at the evolution of the closest competitors, they have been slowly gaining ground in detriment of that of the Company. Although they are still far from being a real threat to the Company´s market leading position, this could be a potential hazard in the medium-long term. On the other hand, the entrance of new competitors gives room to a more atomized market, allowing for inorganic growth through potential M&A transactions.

As regards to the percentage share of time spent on automotive portals, Auto Trader leads the chart with 76% of the market share, which is more than five times that of the nearest player.

Last, research shows that the Company has 90% prompted brand awareness, being consistently voted as the most influential digital marketplace.

Barriers to entry:

Despite the lack of regulatory, strong capital expenditure or know-how barriers to entry, entering the market can be challenging due to:

i) The Company's leading market share benefits from a virtuous circle derived from the **network effect**. This, in turn, can cause an effective **barrier to entry**, and create, to a certain degree, a monopoly position.
ii) On top of that, the solid **brand establishment** of these three firms leading this **highly competitive** market can make market penetration very challenging to new entrants.

In brief, the UK automotive digital marketplace is managed by three main firms, with Auto Trader evidently leading the trio. Due to either industry-level or firm-level barriers to entry, penetrating the market would convey an arduous endeavour.

2.2.3 Company growth vs market growth

In previous sections the absolute performance of the Company over the last five years has been analysed. However, in order to understand it´s relative performance, it must be compared to that of its competitors. Accordingly, I have selected three competitors with which to benchmark against:

- **"CarGurus, Inc.":** it is the largest digital automotive marketplace in the United States and is also present in Canada, UK, Germany, Spain and Italy. As noted earlier, the company operates in the UK through its subsidiaries "CarGurus UK, Ltd." and "Pistonheads Holdco, Ltd.". The company´s core business is identical to that of Auto Trader.
- **"eBay, Inc.":** this US based company is the online marketplace pioneer with local presence in all regions of the world. Although the scope of its products is much wider, the strong technology dependence and its ability to scale make it very suitable for comparison. In the UK it operates via "Gumtree.com, Ltd.", "eBay Motors, Ltd." and "eBay UK, Ltd.".

- **"Cars.com, Inc":** the second largest player in the US digital automotive marketplace. Unlike the previous competitors, the firm´s geographical presence is limited to the United States. Despite the geographical differences, given that it follows an identical business model as the Company and that the US vehicle transaction historical trend has been very much like the UK´s, it will provide us with an accurate benchmark.

Company	YoY Growth			CAGR
	FY2016	FY2017	FY2018	FY2016-FY2018
Auto Trader	10.6%	6.0%	7.6%	6.8%
CarGurus	101.0%	59.9%	43.3%	51.4%
eBay	4.5%	6.5%	12.3%	9.4%
Cars.com	6.1%	(1.1%)	5.7%	2.3%
Mean	**37.2%**	**21.8%**	**20.5%**	**21.0%**
Median	**6.1%**	**6.5%**	**12.3%**	**9.4%**

Table 1 - Revenue growth: Company vs market[6]

Source: own elaboration

As evidenced by the table above, the Company has been growing its revenues at a lower rate than the market. The average compounded annual growth rate of the market is +21.0% and the median is +9.4%, while the Company presents a growth of +6.8%. For comparative purposes, I deem more appropriate to employ the median as the benchmark metric in order to avoid outliers, as CarGurus is. It must also be noted that CarGurus is a younger company which encounters itself in an expansionary period and its growth will eventually flatten out and adjust to that of the market.

Ultimately, the Company´s top line growth rate has been lower than the market´s. This can be partially explained by the drawback on the Used Car Transactions trend in the UK, which, as we will see later, is directly linked to the Group´s revenues. With less product and geographical diversification, Auto Trader is greatly affected by this drawback, while its competitors are hedged against it thanks to the wide range of products offered and their global presence.

[6] Since both Cars.com and CarGurus were listed in 2017, there is no previous financial information available on these companies. Thus, the comparative has been reduced to the period 2016-2018.

2.2.4 Future growth levers

As delineated in its strategic proposal, the Company can grow its revenues on three main fronts: **core**, **adjacent** and **future**.

The firm´s **core** digital marketplace continues to provide a strong road for growth, underpinned by the enhancement of the vehicle purchasing process and the improvement of the retailer´s profitability. In the same line, the firm will also rely on the increase of its customer base (volume) and membership prices, pursuing, thus, further organic growth. **(Auto Trader Group plc, 2019)**

Furthermore, the firm has identified **adjacent** opportunities to its core business in new car distribution. Thanks to the Company´s existing customer base and retailer relationship, it could expand its business into new car sales without a significant investment. In words of the Company: *"becoming to new cars what we are in used cars"* **(Auto Trader Group plc, 2019)**. As of FY2018 the Company had 30,000 new cars announced on its website vs +120,000 new cars that are readily available in UK concessionaires yearly. There is therefore a lot of room for improvement. This related diversification strategy would enable the company to lever on its already existing resources and capabilities, reducing the implementation risk.

On top of that, the company goes a step further when it comes to long term strategic plans: pioneering the fully online buying experience. As of today, the car purchasing experience for customers is partly online, however, there are still parts of the process which require physical presence. In the next few years much of the product development will be focused on providing a fully online experience. Pioneering this fully online car purchasing experience will be differential to the brand recognition and, thus, to revenue growth.

Aside from the Company´s strategic proposal, there are two other growth levers that the Company could benefit from moving forward: acquisitions and geographical expansion. Given the relatively large size of the Company, acquisitions would be a feasible growth strategy. Also, with geographical presence solely in the UK, the firm has plenty of room to penetrate new geographical markets.

2.2.5 Revenue visibility

The company enjoys high revenue visibility as a result of its subscription-based revenue model. As agents agree to their advertising packages in advance, there is room for planning ahead of headwinds. Additionally, the Company operates in a resilient industry with low volatility. However, there are certain factors that could affect the revenue visibility and that will be detailed when we analyse the macroeconomic environment.

2.3 COST STRUCTURE

As a result of the nature of the business model, the Company manifests a pure fixed cost structure, composed mainly of administrative expenses. In this structure, c.100% of the costs are fixed, with some minor variable costs including share-based payments and management incentive plans (average in the past five years of 2.5% of total costs). For simplicity purposes we will assume the Company holds an entirely fixed cost structure. This structure can be highly beneficial in economic prosperity periods, as it allows for operational leverage. That is, the Company will benefit from high EBITDA growth when sales go up, as fixed cost remain the same and there are no variable costs attached to the increase in sales. Likewise, in a declining sales period, the Company´s EBITDA would suffer more than that of a company with low operating leverage, as fixed costs would remain the same. Thus, this cost structure magnifies both profits and losses.

In the past years, this cost structure has allowed the company to more than offset its top line growth underperformance, enabling it to grow its EBITDA at a considerably higher rate than that of the market (median of (1.9%)) with a solid rate of +8.4%.

Company	$CAGR_{FY2016-FY2018}$		EBITDA margin		
	Revenue	EBITDA	FY2016	FY2017	FY2018
Auto Trader	6.8%	8.4%	69.1%	70.9%	71.1%
CarGurus	51.4%	59.6%	5.2%	5.7%	5.7%
eBay	9.4%	(1.9%)	26.3%	24.1%	21.1%
Cars.com	2.3%	(15.0%)	41.0%	35.6%	28.4%
Mean	**21.0%**	**14.2%**	**24.2%**	**21.8%**	**18.4%**
Median	**9.4%**	**(1.9%)**	**26.3%**	**24.1%**	**21.1%**

Table 2 - Various measures: Company vs Market

Source: own elaboration

In the above table we can see how, despite the revenue growth being lower than that of the market, EBITDA considerably outgrew the market median rate. This outperformance can be explained by the improvement in EBITDA margin that the company achieved during the period. Not only does the company benefit from a leading market position with regards to EBITDA margin (average for the period of 70.4% vs market average median for the period of 23.8%), but it also has been able to grow it throughout the period on the back of operational leverage.

The table also evidences the fact that "eBay´s" and "Cars.com´s" variable costs have additional weight in its respective cost structures (an increase in revenues does not imply an increase in EBIDTA, instead, EBITDA margins shrink throughout the period). This makes them more resilient companies but, at the same time, limits their ability to increase profits.

2.4 CASH CONVERSION

Cash conversion is a key element in a leveraged buyout, as it is going to determine how many times you can lever up your company, that is, how much debt you can afford to repay. Auto Trader exhibits a track record of solid cash conversion, with a four-year average of 98%, as illustrated below.

(in £ m)	FY2015	FY2016	FY2017	FY2018
EBITDA	**182**	**215**	**234**	**253**
(-) CAPEX	(3)	(4)	(3)	(2)
(+/-) Change in WC	(7)	(2)	(9)	12
Cash available for debt service	**173**	**209**	**222**	**262**
/EBITDA	182	215	234	253
Cash conversion	**95%**	**97%**	**95%**	**104%**

Table 3 - Cash conversion FY2015-FY2018[7]

Source: own elaboration

The cash conversion of the Company is higher than that of its peers: Cargurus´ four-year average is 88%, followed by eBay with an average of 76% and Cars.com with 55%.

[7] 2017 and 2018 CAPEX have been adjusted to subtract non-recurrent items. For simplicity purposes taxes were not considered. Note that cash conversion is not highly impacted if acquisitions are included (average of 91%).

These strong levels of cash conversion are underpinned by low **capital expenditure** requirements and a good **working capital management**. These concepts are worth further explaining.

On the one hand, the Company runs an asset-light business, which enables the firm to hold very few tangible assets (four-year PP&E average of £13m, or 5% of FY2018 net fixed assets, o/w 81% are land and buildings and the rest office equipment). Instead, the Company generates revenues on the back of its intangible assets (four-year average of £323m, or 95% of FY2018 net fixed assets). The Company´s main intangible asset is its "goodwill", which accounts for 99% of total intangible assets. This line item represents the difference between the book value of the company and the acquisition value. The high value of the goodwill can be attributed to the strong brand that the Company possesses. Other intangible assets include "Software and website development" and "Financial systems".

These intangible assets are amortized using the straight-line method, except for goodwill, which follows a particular impairment test. In brief, the amortization of the Company´s intangible assets is very low (1.6% as a percentage of intangible assets). This low amortization rate coupled with an also low amount of tangible assets results in a very small maintenance capex (£2.9m five-year average).

As regards to expansionary capex, in April 2017 the Company acquired "Motor Trade Delivery, Ltd." (explained before) for a net cash outflow of £11.9m. On top of that, in December 2018 the Company entered into a joint venture with "Cox Automotive UK", paying £19.7m to acquire the shares of the new entity. However, these operations do not represent the recurrent capex of the Company and will therefore not be considered for the cash conversion calculation. It must be noted that if these capital expenditures were taken into account, cash conversion would not be largely affected. Moving forward, the Company does not foresee any further investments.

To sum up, the Company´s business nature allows it to generate its revenues on the back of intangible assets, resulting in low maintenance capital expenditure requirements. With an organically led growth strategy the Company does not plan to have any expansion capex. This, in turn, benefits its cash conversion.

On the other hand, the Company has demonstrated over the past years to have a robust working capital management. We must first analyse how has the Company managed its "Days Sales Outstanding" **(DSO)** and its "Days Payables Outstanding" **(DPO)**.

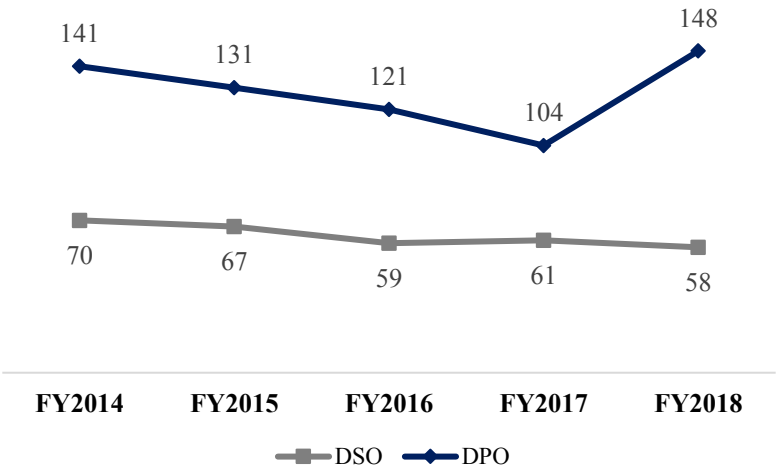

Figure 9 - DSO vs DPO

Source: own elaboration

The optimal working capital management would arise through a combination of reducing accounts receivables collection period (DSO) while simultaneously leaning on suppliers to extend days payables outstanding (DPO). As evidenced above, there has been an almost constant improvement (reduction) of DSO throughout the period, with the exception of FY2017. Conversely, DPO has been greatly deteriorated (reduced) in the past years except for FY2018, in which it jumped up over the initial levels of FY2014, due to the application of IFRS16[8] and its subsequent reallocation of trade and other payables.

This almost constant decline of DPO had a bigger effect on the firm´s cash conversion cycle than the improvement of DSO. The cash conversion cycle represents the time elapsed from when the Company must pay out cash until it collects the cash. In other words, it measures the length of time for which the Company must finance its purchases. Without the presence of any inventory, it is computed by subtracting DPO from DSO, so: Cash Conversion Cycle (CCC) = DSO – DPO **(Holthausen, 2019)**. As we mentioned before the deterioration of the DPO had a greater impact on the cash conversion cycle than the improvement in DSO did, so cash conversion cycle declined throughout the period.

[8] The IFRS-16 is a new financial reporting standard which is **mandatory** from January 2019 onwards.

Despite this decline in the CCC, the Company´s DPO was still well above its DSO, maintaining the CCC negative throughout the hole period with an average of (66) days. The fact that this period is negative indicates that **the Company has been financing itself through its suppliers due to a solid working capital management.**

Relative to its competitors, the Company has a more disadvantageous DSO (average of 63 vs peer average of 32 days), but it also has a much more favourable DPO (average of 129 vs peer average of 18 days). All in all, if we compare the cash conversion cycle (average of (66) vs peer average of 14 days), the superiority of the Company´s working capital management is evidenced. This makes sense as the Company´s DSO is only 1.96x higher than that of the market, while DPO is 7.16x higher than the market´s. The inferiority of DSO is, thus, more than offset by the superiority of DPO.

This above-explained working capital management has a direct impact on the cash conversion of the Company. Let´s see how it has impacted the cash flow generation of the firm in the recent years.

(in £m)	FY2014	FY2015	FY2016	FY2017	FY2018
Revenue	256	282	311	330	356
DSO	70	67	59	61	58
Accounts Receivables	49	52	51	55	56
WC Effect in Cash Flow		**(3)**	**1**	**(4)**	**(1)**

Table 4 - WC Effect in Cash Flow (DSO)
Source: own elaboration

With increasing sales and declining DSO, it is usual to see a positive effect in cash flow, as seen in FY2016. However, the decline in DSO was insufficient to offset the increase in sales in the rest of the years and, thus, it had a negative effect in the Company´s cash flow. The negative effect was even higher in FY2017 due to an increase in both sales and DSO. This evidences how the improvement of DSO delivered by the Company has helped to smooth the negative effect in cash flow.

(in £m)	FY2014	FY2015	FY2016	FY2017	FY2018
Costs	105	102	101	100	103
DPO	141	131	121	104	148
Accounts Payable	40	37	33	29	42
WC Effect in Cash Flow		**(4)**	**(3)**	**(5)**	**13**

Table 5 - WC Effect in Cash Flow (DPO)

Source: own elaboration

Likewise, with slightly decreasing costs (almost constant) and declining DPO, the Company saw a negative effect on its cash flow. This was not the case of FY2018, in which the great increase in DPO resulted in a large positive effect in cash flow which, coupled with a lower capital expenditure, increased cash conversion to 104%.

In a nutshell, the Company has a track record of strong levels of cash conversion due to low levels of capital expenditure requirements and a good working capital management ahead of that of the market.

2.5 MANAGEMENT TEAM

The quality of the management team has been demonstrated throughout the previous decade, in which the Company has been able to achieve and maintain a leading market position. This team counts with wide-ranging experience in the digital industry and has been working for Auto Trader for a long time.

As of March 2019, the Board of Directors is composed of the Non-Executive Chairman, three Executive Directors and three independent Non-Executive Directors. For the sake of understanding if the management team is well prepared and capable of delivering value to the shareholders it is worth analysing the Chairman´s, CEO´s and CFO´s backgrounds, while the Non-Executives are less relevant to the matter.

Ed Williams
Non-Executive Chairman

Current position:

❖2015-present: Chairman

Relevant work experience:

❖2010-2015: Auto Trader Non-Executive Director

❖2000-2013: Founder and CEO of "Rightmove plc"

❖Consultant at "McKinsey & Co." and "Accenture"

Academic background:

❖ BA in Philosophy, Politics and Economics from St. Anne´s College

SUITABILITY

Industry Experience

Time in Company

Figure 10 - Management Team: Chairman

Source: own elaboration

Trevor Mather
Chief Executive Officer

Current position:

❖2013-present: CEO

Relevant work experience:

❖2007-2013: "ThoughtWorks" CEO

❖2001-2007: "ThoughtWorks" international expansion

❖1991-2001: Consultant at "Accenture"

Academic background:

❖ MEng in Aeronautics and Astronautics from Southampton University

Warning:

❖ Will be leaving the Company in March 2020

SUITABILITY

Industry Experience

Time in Company

Figure 11 - Management Team: CEO

Source: own elaboration

Nathan Coe
Chief Financial Officer & Chief Executive Officer Designate

Current position:

❖2017-present: CFO

Relevant work experience:

❖2007-2017: Auto Trader Operations Director

❖2000-2007: "Telstra" Head of M&A for media and internet business

❖Previous: Consultant at "PWC"

Academic background:

❖ BCom (Hons) from University of Sydney

Warning:

❖ Will become CEO of the Company in March 2020

SUITABILITY

Industry Experience

Time in Company

Figure 12 - Management Team: CFO

Source: own elaboration

The most important point in the above executive profiles is the fact that **Trevor Mather (CEO) will leave the Company in March 2020** and **Nathan Coe (CFO) will then be appointed new CEO**. This is a major concern for most analysts as, although the next appointment will be internal and it should not deviate the Company´s strategic direction, you never know how the market will react to a new CEO. Research suggests that new CEO appointments lead companies to underperform in the market until the first Strategy Day, when they start to outperform over the next 12 months **(Societe Generale, 2020)**. On top of that, the appointment of Nathan Coe as CEO is an internal, well-executed succession planning rather than a fire-fighting strategy.

Thus, I believe that Auto Trader has a strong management team, led by top-notch professionals with plenty of experience in the industry. Their work has taken the Company to the leading market position of which it benefits today and there is no evidence to suspect that the management´s performance will deteriorate going forward.

3. MACRO ANALYSIS

This section will address the main macroeconomic variables affecting Auto Trader. The dominant factor influencing the Company is **a) the number of used car transactions.** At the same time, the amount of used car transactions will be affected by: **b) the increasing regulation on carbon-emission levels;** and **c) the effect that a No-deal Brexit would have on tariffs, regulatory standards, and the labour market.** These factors have been selected considering both the industry in which the Company operates and its geographical presence.

Before digging deeper into each variable, I deem appropriate mentioning the current worldwide health crisis caused by COVID-19. This pandemic has derived into an economic crunch owing to the massive close down of businesses and the consequent uncertainty. Auto Trader, as almost any other business in the world, will be adversely affected. However, I did not include this pandemic as a major variable for two reasons. First, it does not affect the Company to a larger extent than it does to any other business. Secondly, not even experts have been able to estimate the damage that this will have on the economy, so any estimation that I could have come up with would have been merely speculative. Hence, I will continue without considering the impact that COVID-19 crisis will have on the economy in general nor in the Company in particular.

Having mentioned this, I will continue to describe the main variables:

a) **Used Car Transactions (UCT):** c.94% of the Company´s revenues come from Used Car Transactions related services. As we can see below, the number of UCT has been following the same trend as the New Car Registrations, showing a strong positive correlation of 0.92 on a one-year lag **(Credit Suisse, 2020)**.

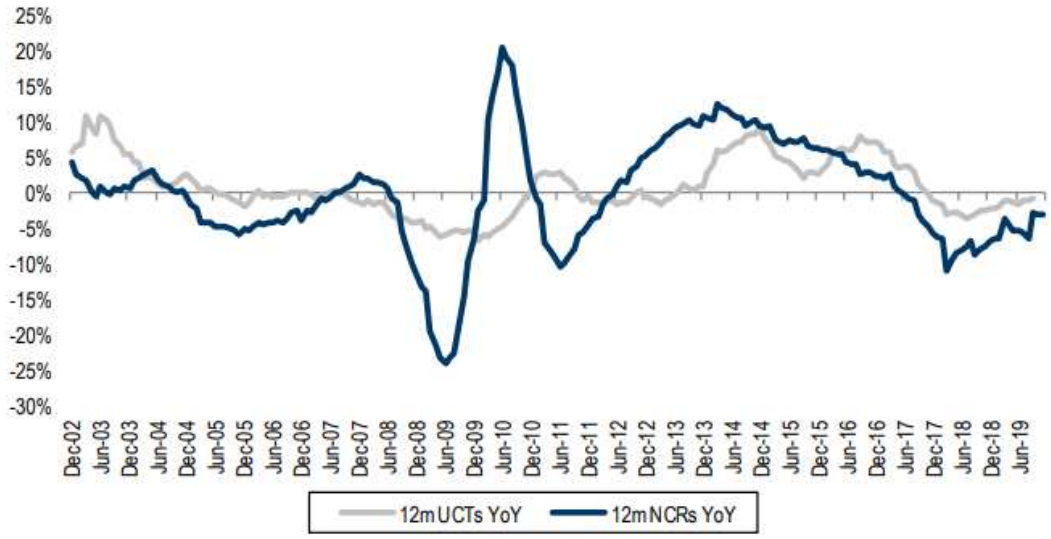

Figure 13 - UK New Car Registrations vs Used Car Transactions

Source: SMMT, Credit Suisse Research **(Credit Suisse, 2020)**

Looking at how the Firm was impacted over the past five years, this drawback in Used Car Transactions resulted in a contraction in the number of used cars advertised at an aforementioned $CAGR_{FY2014\text{-}FY2018}$ of (0.4%), showing a strong positive correlation of 0.93. Thus, a contraction in Used Car Transactions would result in a decrease of advertised cars, as it has happened in the recent past. The Society of Motor Manufacturers & Traders (SMMT) expects further meaningful declines of NCR (and therefore of UCT) in 2020 of (4.4%) ahead of improvement in 2021 of +2.0% **(SMMT, 2019)**. On top of that, Credit Suisse analysts also anticipate a challenging scenario for Used Car Transactions for years 2020 and 2021.

Furthermore, by looking at the above graph we can conclude that used car transactions have a certain degree of **cyclicality** (decrease in economic drawbacks and increase in economic prosperity), while also showing signs of resilience (it is much less affected than NCR and is pretty stable over time).

Hence, used car transactions will be slightly affected by the evolution of the UK economy. As of March 2019, most experts agree in that the worldwide growth will decrease in the following years (cannot provide an exact figure because estimates are too broad) **(The World Bank, 2019)**. Some experts even affirm that the world is entering another economic recession. Either way, this will negatively impact Used Car Transactions.

All this evidence leads me to believe that the evolution of Used Car Transactions will have a **slightly negative** effect on the Company´s top line growth. Note that this decrease in volume is generalized to the whole industry and Auto Trader is in the best position to offset this decline in volume via a price increase (remember the leading position and low price-elasticity of their customers mentioned before).

Aside from the course of the economy, the number of used car transactions in the UK will also be impacted by the increasing regulations on carbon emissions set by the government and the possibility of a no-deal Brexit scenario.

b) Evolving Carbon-Emissions Regulation: in the past years, the UK automotive industry has seen unprecedent levels of uncertainty driven by: diesel taxes, introduction of the World Harmonized Light Vehicle Test Procedure (WLTP), carbon-emissions regulations, etc. This increasing uncertainty has led to a general distrust on diesel vehicles and a consequent reduction of the registration of these in the UK, as illustrated below.

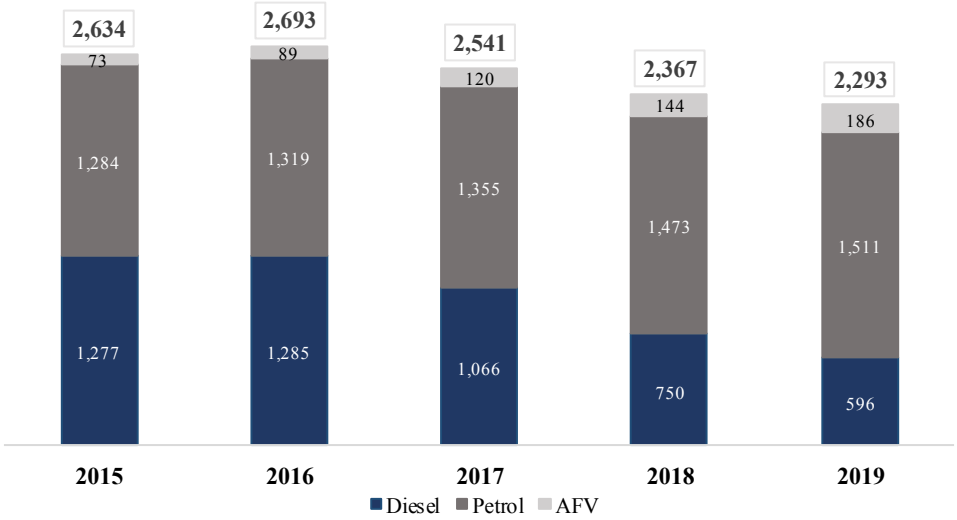

Figure 14 - UK New Car Registrations by Type

Source: own elaboration, SMMT (SMMT, 2019)

With 46% of the used cars advertised by the Company being diesel cars, the Company is highly affected by this decrease which, as evidenced above, is not being offset by the increase in petrol or alternative fuel vehicles. An increasing regulation is most likely to cause even more uncertainty, leading to a reduction in diesel car transactions.

Moving forward, the government plans to introduce further regulations that would deteriorate the diesel vehicles outlook.

Name	Date	Vehicles	Areas	Implications
Clean Air Zones (CAZ´s)	Due throughout 2019	Euro 6 standards (2015 or previous)	Birmingham, Nottingham, Southampton, Derby and Leeds	Daily surcharge for driving through the designated clean air zones
Ultra Low Emission Zone	Due April 2019	Euro 6 standards (2015 or previous)	Central London with expansion plans due 2021	£12.5 fee to enter applied 24/7
T-Charge	April 2018	Euro 4 standards (2006 or previous)	Central London	£21.5 fee to enter between 07.00 to 18.00 Monday to Friday
WLTP	September 2018	All light vehicles	Europe	All vehicles must comply with a rigurous vehicle test

Table 6 - UK Carbon-Emission Regulations

Source: own elaboration **(buyacar.com, 2019)**

As we can see, many of these regulations are due to be applied during 2019 and future years, making the outlook for diesel vehicles even more uncertain. If Auto Trader fails to shift its attention to alternative fuel and petrol cars, this could negatively impact its revenues. However, the Company is already planning to diversify to new cars (which would not be affected by these regulations) and has been able to dodge the regulatory issues in the past years, what leads me to conclude that the regulatory issues will have a **moderately negative** effect on the Company´s revenues**.**

c) **No-Deal Brexit:** the departure of the UK from the European Union is another variable to bear in mind. A No-Deal Brexit could lead to the imposition of tariffs and a decrease in consumer confidence. With a No-Deal exit, the UK would fall under the World Trade Organisation terms and tariffs, imposing a 10% tariff on vehicles, leading to a price increase of cars **(SMMT, 2019)**. With increasing prices and declining consumer confidence, the Used Car Transactions would most likely fall. As I explained before, a decrease in UCT would adversely impact the firm.

Furthermore, the UK automotive industry highly relies on non-UK workers who would need a visa sponsorship in order to work in the UK (replacing these workers would imply a high cost and time).

Nonetheless, the Company does not foresee any adverse effect derived from Brexit, alleging that it would not materially affect its cost base **(Auto Trader Group plc, 2019)**. On top of that, the industry´s importance to the UK´s GDP (1% of total GDP and 8% of the UK´s manufacturing sector) and labour market (1% of total employees), together with the importance of the UK´s exports to the European Union, makes me think that special terms will be agreed for this industry. This belief is in line with that of the experts **(Department for Exiting the EU Select Comittee, 2017)**.

Hence, this variable should have a **neutral** effect in the Company´s growth. However, I deemed appropriate mentioning the implications it could have.

To sum up, the downward trending estimates of Used Car Transactions, which could be further aggravated by the evolving carbon-emission regulations, leave an adverse macroeconomic situation for the automotive digital marketplace industry. Conversely, Brexit concerns should not have a material impact on the Company.

4. MICRO ANALYSIS

This section aims to identify the Company´s competitive advantages as well as determining if these are sustainable in time. Auto Trader benefits from two main competitive advantages: a **network effect** model and a **strong brand establishment.**

Auto Trader launched its first website in 1996, two years before Google was conceived. This was the first online automotive magazine in the UK. In 2007 the firm redesigned its website, allowing customers to see all the vehicles available. By pioneering the online auto marketplace in the UK, Auto Trader benefitted from a **first-mover advantage**, attracting retailers to post their cars on its website. This, in turn, attracted vehicle buyers which, in turn, attracted even more car sellers, etc. This first-mover advantage, coupled with high customer and retailer satisfaction, gave birth to the **network effect** that sustains Auto Trader´s business model. Through this network effect, the Company has built a network of highly engaged customers searching +450,000 cars from a diverse retailer base, becoming the largest digital automotive marketplace in the UK.

The huge gap between the Company´s market share and that of its competitors makes this competitive advantage **sustainable** in time. On top of that, the relatively high switching costs that retailers would incur if they decided to change to another digital platform reassures Auto Trader´s network effect-based business model.

Secondly, with 40 years of history, Auto Trader has been able to establish a **strong trusted brand**. As stated by the Company: *"our brand is one of our biggest assets"* (95% of net fixed assets are intangible, o/w 99% are goodwill) **(Auto Trader Group plc, 2019)**. Through continuous investment, Auto Trader has been able to become the 15th biggest website in the UK and the most trusted automotive marketplace brand. This leading position enables the Company to charge premium prices (as we have seen in the past years) due to a low price-elasticity of its customers (retailers) derived from a strong brand perception. In previous years, with a decrease in volume of cars advertised, the Company has been able to increase the average price per advertisements thanks to this competitive advantage. Going forward, it will be very challenging for competitors to emulate this strong brand in which the Company has invested so much and plans to continue doing. It is therefore a **sustainable** competitive advantage.

5. VALUATION BENCHMARK

There are multiple valuation methodologies that can be employed to determine the value of a company. I am going to make use of the publicly traded comparable companies analysis. For this purpose, I have selected a wider group of peers than the previously used for historical comparison, attending to industry and business model. By comparing with a larger sample, I aim to mitigate the short-term divergences from fundamental value.

These peers can be categorized in two main groups:

- **Global competitors:** these are the previously employed competitors, which are online classifieds leaders with strong technology and ability to scale but have weaker national positions or offer wider ranges of products. These include: "Cargurus, Inc.", "Cars.com, Inc." and "eBay, Inc.".
- **European vertical leaders:** these are Auto Trader´s competitors in the digital industry and include "Rightmove plc", "Adevinta A S.A." and "Scout 24 AG". The core business of these companies differs from that of Auto Trader but are good for multiple comparison as they follow a similar business model and are also leading digital platforms.

Given that the peer universe is highly comparable, it is appropriate to use this valuation methodology. As regards to metrics, I will be using the Enterprise Value to EBITDA (EV/EBITDA)[9] multiple. This is one of the most commonly used metrics and it enables us to compare companies regardless of their capital structure and their capital expenditures (EBITDA is before interests and D&A).

The selected peers are trading at the following multiples:

Company name	Market Cap.	EV	Net Debt	EV / LTM EBITDA
Autotrader Group plc	3,944	4,249	304	16.8x
Cargurus, Inc.	1,831	1,678	(153)	36.6x
Cars.com, Inc.	306	867	560	6.8x
eBay, Inc.	22,801	27,198	4,396	10.4x
Rightmove plc	4,514	4,471	(43)	18.1x
Adevinta, A S.A.	4,124	4,254	130	18.8x
Scout 24 AG	4,927	5,652	725	17.2x
Average				**18.0x**
Median				**17.6x**
Average excluding outliers				**16.1x**
Median excluding outliers				**17.6x**

Table 7 - Trading Comps Valuation Multiples[10]

Source: own elaboration

The comparable companies are trading at an average of 18.0x and a median of 17.6x. Because of the presence of outliers ("CarGurus, Inc." because of the aforementioned growing stage and "Cars.com, Inc" due to a share price drop of c.73% YTD), I deem more appropriate to use the median as the benchmark metric. Auto Trader trades at 16.8x EBITDA. We can therefore conclude that Auto Trader is **trading at a discount** versus its peers. This can be partially explained by the generalized market scepticism in the UK derived from Brexit uncertainties and the expected macroeconomic headwinds. Also, as we mentioned before, new CEO appointments lead companies to underperform in the market, what could also explain the Company´s lower multiple.

Although these factors have led the Company to trade at a discount, I believe this represents an **opportunity to buy cheap**, as in the long-run the market will recognise the fundamental value of the Company.

[9] Enterprise Value = Equity Value + Net Financial Debt, while NFD = Total Debt – Cash and Equivalents. This EV was then divided by FY2018 EBITDA to arrive to the trading multiple.
[10] FactSet data as of March 31st, 2019.

As we have seen in previous sections, Auto Trader has margin and cash conversion superiority against its peers. It is the number one automotive portal and it has a much greater market share than that of its competitors, while its competitive advantages make it a best-in-class company in the UK. Thus, it should be trading at a premium and I believe such thing will happen when the market uncertainty disappears.

6. FINANCING DECISION

The ability to generate cash is a key consideration when structuring highly leveraged transactions, as it will determine the amount of debt that you will be able to amortise. For this reason, I calculated the repayment capacity. Given that the Company operates in an industry with low volatility and that it has been showing strong and stable levels of cash conversion, with a four-year average of 98%, I set the margin of safety at 15%. Although setting the margin at 10% would be reasonable, I deemed appropriate to set it at 15% in order to compensate for the slightly lower cash conversion levels of previous years (98% average vs 104% in FY2018).

(in £m)	FY2018
EBITDA	253
(-) Capex	(2)
(+/-) Change in WC	(9)
Cash flow for debt service	**241**
(-) Safety margin	(36)
Repayment capacity	**205**

Table 8 - FY2018 Repayment Capacity[11]
Source: own elaboration

This means that in FY2018 the Company generated enough cash to repay £205m on interests and principal in the following period, leaving a safety margin of £36m.

With this, and assuming that the debt raised for the transaction will be 50% **Tranche A (7-year amortizing loan with an interest rate of Euribor[12] + 3.0% margin)**; and 50% **Tranche B (6-year bullet loan with an interest rate Euribor + 5.0% margin)**, I arrived at an optimal leverage of **6.7x FY2018EBITDA**, for a total debt of **£1,695m** (of which £847m correspond to Tranche A and £847m correspond to Tranche B).

[11] Again, CAPEX has been adjusted to subtract the acquisition of FY2018, as it does not reflect the recurrent CAPEX of the Company.
[12] Euribor as of March 2019 was -0.11%, resulting in an interest rate of 2.89% for Tranche A and 4.89% for Tranche B. (Expansion.com, 2019)

The debt repayment schedule is as follows:

(in £m)	FY2019E	FY2020E	FY2021E	FY2022E	FY2023E
Tranche A					
Beginning balance	847	706	565	424	282
Amortization	(141)	(141)	(141)	(141)	(141)
% of Beginning balance	*17%*	*17%*	*17%*	*17%*	*17%*
Ending Balance	**706**	**565**	**424**	**282**	**141**
Tranche B					
Beginning balance	847	847	847	847	847
Amortization	0	0	0	0	0
% of Beginning balance	*0%*	*0%*	*0%*	*0%*	*0%*
Ending Balance	**847**	**847**	**847**	**847**	**847**
Interes payments					
Tranche A	(22)	(18)	(14)	(10)	(6)
Tranche B	(41)	(41)	(41)	(41)	(41)
Total cash payment	**(205)**	**(201)**	**(197)**	**(193)**	**(189)**

Table 9 - Debt Schedule[13]

Source: own elaboration

7. FINAL DECISION BUILDUP

7.1 BUSINESS PLAN

In this section I will attempt to give an accurate estimation of the Company´s performance in the next five years. These forecasts are based on historical performance and future expectations, and are detailed below:

- **Revenues:** these have been forecasted by business line.

  Trade revenues have been modelled as a function of number of cars advertised (volume) and average price per advertisement (price). As we mentioned before, the average number of cars advertised has been decreasing in the past years at a $CAGR_{FY14-FY18}$ of (0.4%). In line with the estimations of the SMMT of Used Car Transactions decrease of (4.4%) ahead of improvement of +2.0% in future years, I have forecasted the volume of cars advertised to decrease by (2.0%) in FY2019E and increase by +1.0% in FY2020. This smoother decline is backed by what we have seen in previous years in which a decline in Used Car Transactions resulted in a less than proportional decline in number of cars advertised.

[13] Note that interests for Tranche A have been calculated with the average level of outstanding debt throughout the year. That is, the average between beginning and ending balance.

From FY2021E onwards the number of cars advertised are expected to decrease at a constant rate of (0.5%). Overall. this results in a decline of used cars advertised at a $CAGR_{FY19E-FY23E}$ of (0.1%).

With regards to the average price per advertisement, we have seen how the Company has consistently increased it throughout the last five years at a $CAGR_{FY14-FY18}$ of 10.2% in order to offset the decrease in volume. I believe that the leading market position that the Company benefits from will enable it to continue to do so in the following years. For this reason, I have forecasted a constant price increase at a $CAGR_{FY19E-FY23E}$ of +10.0%. This is reasonable given the low price-elasticity of the Company´s customers (retailers) and the rate at which the Company has been increasing price in the past years.

All in all, this yields a **trade revenue increase at a $CAGR_{FY19E-FY23E}$ of +9.8%**, in line with the one seen in previous years. As the Company´s market share remained stable throughout the past five years (c.70%), I do not foresee any market share reduction or gain moving forward.

Consumer Services revenues have remained almost constant in the past five years with an average of £30m and a standard deviation of £1.4m. Thus, I considered suitable assuming no growth nor decline in the future years, setting the revenues derived from this business line constant at the average of the past years, £30m.

Last, as mentioned before, the Company aims to *become to new cars what they are in used cars*. With this, and the considerable growth seen in previous years at a $CAGR_{FY14-FY18}$ of +16.8%, I judged suitable to grow the **Manufacturer & Agency** business line at a constant rate so that it accounts for 10% of the Firm´s revenues at the end of the forecasted period, that is, in FY2023E (as of FY2018 it accounts for 6.3% of the Company´s revenues). This results in a constant growth at a $CAGR_{FY19E-FY23E}$ of +20.2%. Given the Company´s determination to grow this business line and the increasing demand in new cars, I consider this growth to be ambitious yet attainable.

Overall, the Company is expected to see a **top line growth at a $CAGR_{FY19E-FY23E}$ of +9.9%.**

- **Fixed Costs:** although the Company´s fixed-cost structure allows for operational leverage, I will not assume 100% operational leverage. Costs are divided into personnel costs, marketing costs and other costs.

Personnel cost decreased from FY2014-FY2016 due to the Company´s efforts in reducing FTE´s (full time equivalent employees). However, they increased in FY2017 and FY2018 driven by the increasing demand for digital talent, +4% and +3%, respectively. Thus, moving forward I will grow personnel costs at the expected CPI inflation rate[14] plus a "margin of safety" of +1.0% upon possible growing demand for digital talent which could cause salary´s to go up.

Marketing cost has been increasing at a YoY rate of +1.9% for the last four years. However, I expect higher marketing costs in the future derived from the increased efforts in boosting the Manufacturing & Agency business line. Hence, marketing costs will be assumed to grow at a constant rate of +3.0% annually.

Last, **Other costs** (which include property, IT, data services and other corporate overheads) have been decreasing in the past at an average of (2.2%). Moving forward I expect these costs to continue to decrease at the same rate.

With this, we arrive at an **EBITDA margin of 80.1%** at the end of the forecasted period (FY2023E). This expansion is in line with that seen in the historical period, in which it grew from 59.0% in FY2014 to 71.0% in FY2018. **EBITDA will be growing, then, at a $CAGR_{FY19E-FY23E}$ of +12.6%**, vs $CAGR_{FY14-FY18}$ of +13.7% in the past years.

- **CAPEX:** apart from the acquisitions in FY17 and FY18, the Company´s CAPEX has been mainly maintenance capex. Moving forward, the Company´s growth will be only organic, with no further investments expected. Thus, **no expansionary capex** has been forecasted, while **maintenance capex has been equalized to D&A**. Given that capital expenditure will be matched to D&A, Net PP&E and intangible assets will remain constant throughout the forecasted period.

  Depreciation and amortization rates have been calculated separately for the historical period, arriving to an average rate at which PP&E and intangible assets will be depreciated and amortized, respectively, in the future.

[14] Expected CPI inflation rate in the UK of 2.1%, 1.7%, 2.1% and 2.2% in 2019,2020,2021 and 2022, respectively (The Bank of England, 2019). I assume 2023 CPI inflation rate to be the same as 2022.

- **Change in Working Capital:** accounts receivable and accounts payables have been modelled as a function of "Days Sales Outstanding" and "Days Payables Outstanding", respectively. As we analysed before, the Company has been improving its DSO, reducing them from 70 days in FY2014 to 58 days in FY2018. Since there is still margin of improvement to reach the average DSO of competitors (32 days), I expect the Company to continue to improve its DSO at the same rate as that seen in the past: (5%) yearly. Contrarily, the Company´s DPO was worsened throughout the historical period, in which it dropped from 141 days in FY2014 to 104 in FY2017 (FY2018 is excluded as the DPO jumped up to FY2014 levels but this does not accurately represent the Company´s payables management). Moving forward, I expect the Company to continue to decrease the days of payables outstanding at the same rate as it did in the past. Again, since there is margin until the Company´s DPO reaches the average level of that of its competitors (18 days), I will assume constant deterioration.

  This working capital management results in a negative impact on cash flow generation every year of the forecasted period, which would have been even more negative if it wasn´t for the DSO improvement. The DPO will remain higher than the DSO along the forecasted period, so we can say the Company will exhibit an appropriate working capital management, ahead of that of its peers.

With all these assumptions, the resulting Business Plan for the Company is as follows:

	Historical			Budget	Business Plan				
Consolidated (in £m)	**FY2015**	**FY2016**	**FY2017**	**FY2018**	**FY2019E**	**FY2020E**	**FY2021E**	**FY2022E**	**FY2023E**
Revenues	**282**	**311**	**330**	**356**	**386**	**428**	**468**	**513**	**563**
% Growth	*10.0%*	*10.6%*	*6.0%*	*7.8%*	*8.3%*	*11.0%*	*9.3%*	*9.6%*	*9.8%*
Gross Margin	**279**	**307**	**330**	**356**	**386**	**428**	**468**	**513**	**563**
% Margin	*99.1%*	*98.6%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*
EBITDA	**179**	**211**	**230**	**253**	**280**	**321**	**359**	**403**	**451**
% of Revenues	*63.7%*	*67.7%*	*69.8%*	*71.0%*	*72.8%*	*75.1%*	*76.8%*	*78.5%*	*80.1%*
(-) Capex	(3)	(4)	(31)	(43)	(12)	(12)	(12)	(12)	(12)
% of Revenues	*(1.0%)*	*(1.4%)*	*(9.5%)*	*(12.0%)*	*(3.0%)*	*(2.7%)*	*(2.5%)*	*(2.3%)*	*(2.1%)*
(+/-) Change in WC	(7)	(2)	(9)	12	(5)	(6)	(5)	(5)	(5)
% of Revenues	*(2.3%)*	*(0.7%)*	*(2.7%)*	*3.4%*	*(1.2%)*	*(1.4%)*	*(1.1%)*	*(1.0%)*	*(0.9%)*
Operating Cash Flow	**170**	**204**	**190**	**222**	**264**	**304**	**343**	**386**	**434**
% of Revenues	*60.4%*	*65.5%*	*57.5%*	*62.4%*	*68.5%*	*71.0%*	*73.3%*	*75.2%*	*77.1%*
(-) Interests					(64)	(60)	(56)	(52)	(48)
(-) Debt Amortization					(141)	(141)	(141)	(141)	(141)
Free Cash Flow	**170**	**204**	**190**	**222**	**59**	**103**	**146**	**193**	**245**
Net Debt				**1,695**	**1,494**	**1,250**	**963**	**629**	**242**
x Leverage				6.7x	5.3x	3.9x	2.7x	1.6x	0.5x

Table 10 - Model

Source: own elaboration

7.2 ENTRY & EXIT ANALYSIS

As we have seen before, Auto Trader is trading at an EV/EBITDA multiple of 16.8x, so this will be our entry multiple. With a FY2018 EBITDA of £253m this yields an **Enterprise Value of £4,244m.**

Entry Parameters (in £m)	
EBITDA FY2018	253
Entry multiple	16.8x
Enterprise Value	**4,244**
(-) Debt	(310)
(+) Cash	6
Equity Value	3,939

Table 11 - Entry Parameters

Source: own elaboration

That is, the private equity fund will buy the Company for £4,244m, of which £3,939m will be employed to buy the equity from shareholders and £304m will be destined to repay the outstanding net debt. As regards to the sources from which these funds will come from, they will be divided into debt (40%) and equity (60%).

As detailed before, the £1,695m of total debt will be equally divided into Tranche A (7-year amortizing loan with an interest rate of EURIBOR + 3.0% margin) and Tranche B (6-year bullet loan with an interest rate of EURIBOR + 5.0% margin).

Sources and uses (in £m)				
Sources		***x EBITDA***	**Uses**	
Sponsor Equity	2,549	*10.1x*	Equity Value	3,939
Tranche A	847	*3.4x*	Net Debt to be Refinanced	304
Tranche B	847	*3.4x*		
Total Sources	**4,244**	***16.8x***	**Total Uses (EV)**	**4,244**

Table 12 - Sources and Uses

Source: own elaboration

For conservative purposes I will not consider any multiple expansion upon exit and, thus, the exit multiple will be 16.8x. The exit year will be FY2023 (so March 2024).

7.3 RETURN ANALYSIS

With the above transaction assumptions and performance forecasts, I arrived at the following returns:

Returns (in £m)	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24
EBITDA at exit	280	321	359	403	451
Exit multiple	16.8x	16.8x	16.8x	16.8x	16.8x
Enterprise Value	4,712	5,401	6,039	6,763	7,577
Net Debt at Exit	(1,494)	(1,250)	(963)	(629)	(242)
Sponsor Equity at Exit	3,218	4,150	5,076	6,134	7,335
Equity Invested	2,549	2,549	2,549	2,549	2,549
IRR	**26.2%**	**27.6%**	**25.8%**	**24.5%**	**23.5%**
CoC	**1.3x**	**1.6x**	**2.0x**	**2.4x**	**2.9x**

Table 13 - Returns

Source: own elaboration

We can conclude that the investment offers solid returns, with an **internal rate of return of 23.5% and a cash on cash of 2.9x**. It is important to understand the differences between these two measures. On the one hand, the IRR takes into account the time it takes to obtain the return, factoring in the time value of money. On the other hand, cash on cash only measures the amount of times you "multiply" the initial investment, without considering time.

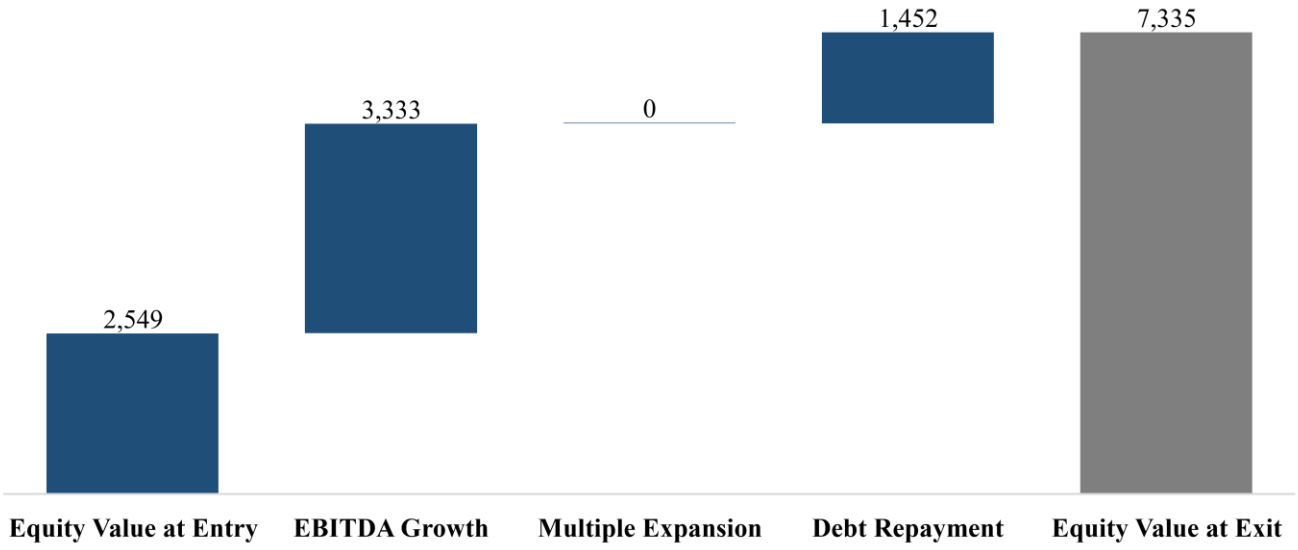

Figure 15 - Value Contribution Bridge (in £m)

Source: own elaboration

As we can see, most of the value contribution comes from operational improvement, accounting for c.70% of the value creation, while cash generation, that is, debt repayment, contributed with 30% of the value creation. Obviously, as no multiple expansion was assumed, it did not contribute to the value creation at all.

7.4 SENSITIVITYANALYSIS

Moreover, it is also useful to test how sensitive the returns are to: entry and exit multiples, leverage and Business Plan (EBITDA growth).

Entry Multiple \ Exit Multiple	12.0x	14.0x	16.8x	18.0x	20.0x
12.0x	31.1%	35.3%	40.6%	42.6%	45.7%
14.0x	22.9%	26.9%	31.8%	33.7%	36.7%
16.8x	15.2%	19.0%	**23.5%**	25.3%	28.1%
18.0x	12.6%	16.3%	20.8%	22.5%	25.2%
20.0x	9.0%	12.6%	16.9%	18.6%	21.2%

Table 14 - Sensitivity Analysis 1: IRR
Source: own elaboration

Entry Multiple \ Exit Multiple	12.0x	14.0x	16.8x	18.0x	20.0x
12.0x	3.9x	4.5x	5.5x	5.9x	6.6x
14.0x	2.8x	3.3x	4.0x	4.3x	4.8x
16.8x	2.0x	2.4x	**2.9x**	3.1x	3.4x
18.0x	1.8x	2.1x	2.6x	2.8x	3.1x
20.0x	1.5x	1.8x	2.2x	2.3x	2.6x

Table 15 - Sensitivity Analysis 1: CoC
Source: own elaboration

As we can see above, the investment is not highly sensitive to adverse changes in the exit multiple. Even in an extremely unlikely scenario of entering at a 20.0x multiple and exiting at 12.0x the investment would offer an IRR of 9.0%, above the 8.0% hurdle rate threshold usually set by private equity funds. Likewise, an exit multiple expansion to 20.0x would not largely increase IRR nor CoC.

Leverage \ Exit Multiple	12.0x	14.0x	16.8x	18.0x	20.0x
2.7x	12.3%	15.3%	19.0%	20.5%	22.8%
3.7x	12.8%	16.0%	20.0%	21.5%	23.9%
4.7x	13.5%	16.9%	21.0%	22.6%	25.1%
5.7x	14.3%	17.8%	22.2%	23.9%	26.5%
6.7x	15.2%	19.0%	**23.5%**	25.3%	28.1%

Table 16 - Sensitivity Analysis 2: IRR
Source: own elaboration

Leverage \ Exit Multiple	12.0x	14.0x	16.8x	18.0x	20.0x
2.7x	1.8x	2.0x	2.4x	2.5x	2.8x
3.7x	1.8x	2.1x	2.5x	2.6x	2.9x
4.7x	1.9x	2.2x	2.6x	2.8x	3.1x
5.7x	2.0x	2.3x	2.7x	2.9x	3.2x
6.7x	2.0x	2.4x	**2.9x**	3.1x	3.4x

Table 17 - Sensitivity Analysis 2: CoC
Source: own elaboration

Furthermore, we can see how returns are not too sensitive to leverage decreases either. If the transaction were to be executed with only 2.7x leverage, assuming no multiple contraction/expansion, the investment would still yield solid returns of 19.0% IRR and 2.4x CoC.

BP Achievement	Exit Multiple				
	12.0x	14.0x	16.8x	18.0x	20.0x
50%	-8.7%	-4.1%	1.1%	3.1%	6.0%
70%	3.6%	7.5%	12.3%	14.1%	16.9%
100%	15.2%	19.0%	**23.5%**	25.3%	28.1%
130%	23.4%	27.2%	31.7%	33.5%	36.3%
150%	27.9%	31.6%	36.3%	38.1%	40.9%

Table 18 - Sensitivity Analysis 3: IRR
Source: own elaboration

BP Achievement	Exit Multiple				
	12.0x	14.0x	16.8x	18.0x	20.0x
50%	0.6x	0.8x	1.1x	1.2x	1.3x
70%	1.2x	1.4x	1.8x	1.9x	2.2x
100%	2.0x	2.4x	**2.9x**	3.1x	3.4x
130%	2.9x	3.3x	4.0x	4.2x	4.7x
150%	3.4x	4.0x	4.7x	5.0x	5.5x

Table 19 - Sensitivity Analysis 3: CoC
Source: own elaboration

Last, the tables above show the sensitivity of the returns to the level of EBITDA achieved. That is, 100% represents the actual Business Plan (100% of expected EBITDA is achieved), while 70% and 50% are more pessimistic scenarios in which only 70% and 50% of envisaged EBITDA is achieved. Conversely, 130% and 150% are more optimistic scenarios. As mentioned before, EBITDA growth accounts for c.70% of the value creation and, thus, the investment is more sensitive to changes in EBITDA. However, these tables evidence that even if only 70% of the expected EBITDA was achieved, the investment would still offer returns of 12.3% IRR and 1.8x CoC. In other words, we have a 30% margin of error to still make acceptable returns. Likewise, in a bull case scenario returns would boost up to 4.7x money invested and 36.3% IRR (150% scenario with no multiple expansion/contraction).

8. FINAL DECISION

After a thorough analysis of the Company´s past, present and future, I have concluded the following.

Auto Trader is a best in class company with most of the market share in the UK (70% of desktop traffic and 76% of minutes spent on automotive portals). Its top line growth has been lower than the market´s in the recent years but it has been able to outperform the EBITDA growth of the market thanks to its EBITDA margin superiority (70.4% average vs 29.4% market average) derived from its fixed cost structure, which allows for operational leverage. On top of that, the Company has strong cash conversion rates considerably above those of its competitors, backed by low CAPEX requirements and good working capital management.

As regards to macro factors, there seems to be headwinds coming in the near future as a result of a decline in the number of Used Car Transactions due to a slowdown in economic growth and increasing carbon-emission regulations. This will most likely cause used car advertisements to go down.

The Company´s business model is sustained by a network effect which has led the Company to become the clear market leader. This, in turn, has resulted in a strong brand establishment that enables Auto Trader to charge premium prices due to a low price-elasticity of its customers (retailers). The used cars advertisements downturn derived from macroeconomic headwinds could therefore be offset by an increase in price, as it has happened in previous years. These two competitive advantages make Auto Trader unique in the industry and reassure its market leading position, creating strong barriers to entry.

The Company is trading at a discount versus the peer universe, which is explained by the market uncertainty, macro headwinds and the new CEO designation. Thus, this represents an opportunity to buy cheaper. However, for conservative reasons no multiple expansion is assumed upon exit.

Furthermore, the strong cash conversion track record allows for high leverage (6.7x FY2018EBITDA), boosting returns while at the same time increasing the default risk.

Together with the above and a Business Plan expecting EBITDA growth at a $CAGR_{FY19E-FY23E}$ of +12.6% (in line with that seen in the historical period), this investment would yield an IRR of 23.5% and a CoC of 2.9x. These returns are resilient to changes in entry/exit multiples and leverage, while sensible to EBITDA growth.

All in all, I consider that the returns obtained by the investment are attractive enough to assume the risks entailed in the transaction. Hence**, my recommendation is a solid YES, the private equity fund should proceed with the investment.**

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10. FIGURES INDEX

11. TABLES INDEX