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Equity Research on Ocado Group: On Track to Diversify from the UK

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A Project carried out on the Master's in Finance Program, under the supervision of:

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Abstract

This report is part of the Ocado Group Plc Report and has the aim of valuing our company at 31/12/2023. Our forecast approach is based on the analysis of the single Business Units – Ocado Retail, Ocado UK Solutions & Logistics, Ocado International Solutions – and our findings carried by a Discounted Cash-Flow model led our estimations to a target share price of £5.50. Hence, it would make the shareholders to benefit of a premium of 24.48% as we are confident that the company will exploit growth opportunities from the Online Grocery market expansion and the adoption of Automated Warehouses by traditional grocers. Therefore, our recommendation is to **BUY** Ocado Group Plc.

Keywords:

Financial Modeling
Valuation
Research
Financial Analysis
Stock Recommendation
Online Grocery
Ocado Group

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This report is part of the Ocado Group Plc Report (annexed) and should be read has an integral part of it.

OCADO GROUP

ONLINE GROCERY RETAIL

STUDENT: ALESSANDRO DETTI

COMPANY REPORT

17 MAY 2023

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Fee based long term value

On track to diversify from the UK

- We value Ocado Group Plc at £5,50 and we set 31.12.23 as reference window for our target price. We express a BUY recommendation as the target incorporates a 24,48% total shareholders' return compared to the trading price of £4.42.

- The "UK online grocer" and "UK modules" business will benefit of the UK customers being the most online-oriented ones in EU (23% online penetration in grocery market at 2030) and a geographical advantage around London.

- We are confident that the International "modules" business will deliver the 162 modules already signed at a 5.5% attractive fee, sustained by an increasing appetite from grocery retailers for automated solutions.

- Key upsides could arise from the signing of additional "modules" partnership, mainly internationally, and a deeper than expected online grocery penetration in UK.

- Main key downside could arise from a slower than agreed rollout of modules from frictions with international partners.

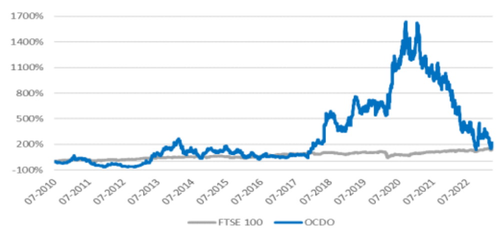
- All in all, we think that Ocado is on track to execute its business plan, turning FCF positive by 2026 and defeating its current stock price volatility.

Recommendation:	**BUY**
Price Target FY23:	**5.50 £**
Price (as of 13-Jun-23)	**4.42 £**

Refinitiv: OCDO.L, Bloomberg: OCDO

52-week range (£)	3.80-9.90
Market Cap (£B)	3.76
Outstanding Shares (m)	825.9

Source: Refinitiv



Source: Refinitiv

(Values in £ millions)	FY20	FY21	FY22
Revenues	2.332	2.498	2.514
EBITDA	73,1	61,0	(74,1)
Net Loss	129,6	236,4	386,8
Core ROIC	(5,0%)	(6,6%)	(15%)
Gross Margin	46,4%	49,0%	50,9%
Net Margin	(4,5%)	(7,7%)	(11,4%)
D/E	0,83	1,19	1,07
FCF	(578,3)	(720,6)	(738,9)

Source: Annual Reports and Own Calculations

Company description

Ocado Group is a British online grocery and retail technology company. Ocado has developed highly automated technological logistics centers with the purpose of supporting traditional grocers to efficiently develop their own online grocery operations. Ocado is organized into 3 business units and we estimate the long-term value to be into the 2 units responsible for the rollout of "modules", representing 84% of the EV. We think the contribution of the 3rd unit, a pure UK online grocer, is lower (11% of EV) even if it is the main exposure (70% of FY22 revenues).

Alessandro Detti - 48673

Table of Contents

Fiscal Year 2022 Analysis

Income Statement

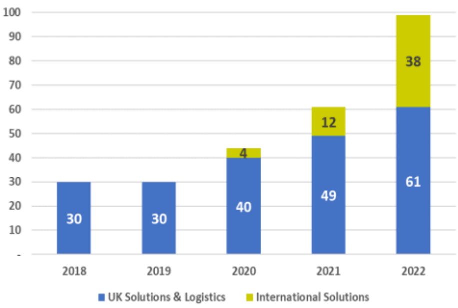


Figure 21: Historical Ocado's Modules Live

Ocado's core revenues experienced a slight increase of 2,8% from FY21, while they have maintained a CAGR of 12% in the last 5 years. During the past year, UK S&L and Ocado IS are the two segments that drove the raise in revenues (respectively +13% and +122%). Revenue at Ocado Retail fell by 4% to £2.2 billion despite active customers rose by 13% reaching 940k, leading to orders growing by 5,6%. Ocado IS growth has been driven by the rollout of OSP in FY22, with modules that increased from 12 to 38 (Figure 21), and it will continue in 2023 entering for the first time the APAC region by launching partner sites in Australia and Japan.

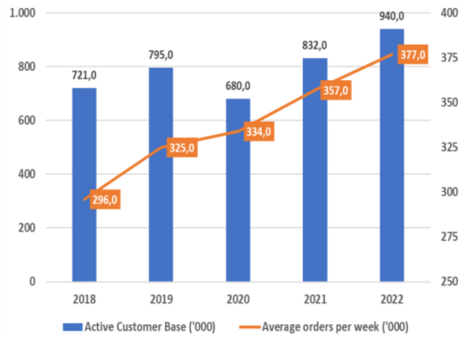


Figure 22: Ocado Active Customer Base and Average Orders per Week

Overall, because Ocado Group is still in a CAPEX-intensive phase, hence it has continued to report negative results, reaching this year an all-time lower value of £361 million of net loss (-53% from FY21) and reporting for the first time a negative EBITDA of £74 million. 74% of the net loss was reported by Ocado IS, mainly because of the huge investments the company is doing to deliver CFCs to partners. With the scalable solution of OSP, in fact, the company will increase its core ROIC considerably thanks to less investment required for developing and improving this platform because it could be used by new partners with lower costs for Ocado.

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Balance Sheet

Total equity increased by 15% from FY21, reaching £1,9bn during FY22 as a consequence of the capital raise executed during the year. Indeed, new ordinary shares were issued in June 2022 for total proceeds of £564mn(24)

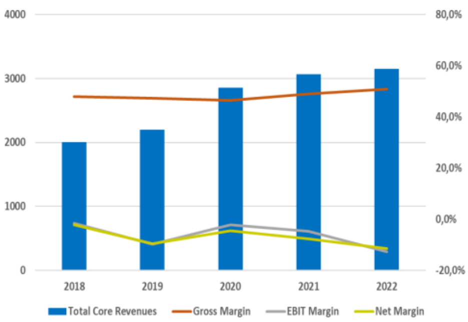

Figure 23: Ocado's Margins

D/E ratio increased considerably in FY20 and FY21 (+103% from FY19 to FY21). However, even if it remains slightly higher than the industry average (0,87[10]), this ratio has decreased by 11% during the past year, reaching a value of 1,07. This huge spike is the consequence of what we noted before: Ocado is still in its investment phase, it is currently not able to generate cash autonomously and hence it needed to raise external cash in order to execute its plan. This current phase that the company is experiencing is also confirmed by a fixed asset turnover ratio of 1,25 which decreased over time mainly due to a 261% increase of PPE and right-of-use assets in the past 4 years.

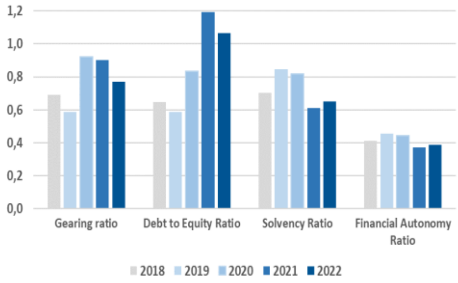

Figure 24: Ocado's Capital Structure Ratios

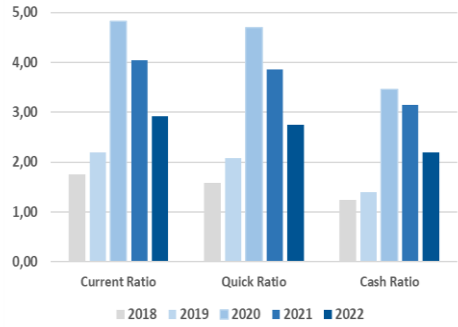

Figure 25: Ocado Liquidity Ratios

Liquidity ratios	2022
Gearing ratio	0,77
Debt to Equity Ratio	1,07
Solvency Ratio	0,65
Financial Autonomy Ratio	0,39
Current Ratio	2,92
Quick Ratio	2,75
Cash Ratio	2,19

Figure 26: Ocado 2022 Liquidity Ratios

Figure 27: CFC Map for Ocado UK S&L (question marks for future CFCs)

Ocado seems to have a sustainable amount of leverage to finance its activity in the long-term, with a strong autonomy from creditors as confirmed by a financial autonomy ratio equal to 0,39 (+5% vs FY21). The positive capital structure is confirmed also by a solvency ratio equal to 0,77. Although it decreased by 16% from FY20, it remains solid and demonstrates Ocado's capacity to pay more than three quarters of its obligations with the capital that has been invested or generated by the company.

From a liquidity perspective, looking at the ratios, Ocado seems to be solid at least in the short-term. Cash & cash equivalents now cover 219% of the current liabilities of the firm, with a current ratio equal to 2,92, higher than the industry average (0,80[10], with Tesco and Sainsbury's that have this ratio equal respectively to 0,71 and 0,68). However, we believe that this current strong cash position of £1.3bn is purely temporary and will be burnt through investments.

Value Drivers and Forecast

Ocado Retail

We build a top-down model starting from the UK population (which is the only market served by the Online Grocery unit) and looking at the location of the UK CFC sites currently in operation as well as the future ones under development. Indeed, we build and provide a location map in the model: it is evident that Ocado does have a geographical limit as regards the portion of UK population which it can serve. Specifically, 8 CFCs out of 14 (i.e.: 57%) are located around London Metropolitan area, with the rest being spread in areas from which it is possible to serve Bristol, Birmingham, Manchester, Leeds and Liverpool. Such conformation leaves uncovered a relevant part of the UK territory, namely the South-East, a good part of the Mid-East and the whole Northern corner. According to our view, Ocado Retail is able to serve 4 regions, amounting to roughly 43% of the whole UK population: West Midland, South East Region, London Metropolitan, North West England. Based on this, we make a historical analysis 2018 – 2022 as follows:

- We collect data on the aggregate UK population and singularly on the 4 regions previously identified (from now onwards "OR scope"). We do the same for the size of the UK Food Grocery Market and the relative online penetration.

- By combining the data with Ocado revenues, we see that Ocado market share is between 8-10% at a national level. Given that Ocado only serves 4 regions, we also estimate a market share on the OR scope, which ranges between 20% and 32%, historically.

Figure 28: Fulfilment Centre Map for Tesco (Red) and Sainsbury's (Blue)

- We choose to use Ocado implied market share as the reference input for our revenue model. We make this choice because the grocery industry is generally characterised by low switching costs for customers and fierce competition between grocers. Hence, the performance of a grocer does not only depend on internal factors (such as number of stores/locations, delivery vans, modules installed) but also on the competitive dynamics of the other players, which in Ocado Retail specific case are Tesco, Sainsbury's, Morrisons and Asda. Indeed, it's no surprise if "46.1% of Tesco shoppers said they also shop in Aldi, whilst 41.5% said they also shop in Lidl" (GlobalData 2021 How Britain Shops survey[7]). We think Ocado will be able to get back to the 32% market share on the OR scope that they achieved back in 2019 (we explain our thinking in the next section).

- Concerning cost drivers, we start by looking at historicals of the average basket value per order and we take as a proxy for the future the 2022 value, which is lower than the previous years. We make this choice as we agree that, post annulment of Covid restrictions, consumer habits are going back to a pre-pandemic lower basket size, as shoppers don't fear any longer a potential scarcity of goods, typical in pandemic times as consumers were used to stockpile.

- We underline once more that Ocado Retail is client intra-group of Ocado UK S&L. Consequently, we make sure that the revenues on one segment P&L exactly match the costs on the other. Ocado Retail pays to UK S&L recurring fees for the use of modules and a series of recharges involving trunking and delivery of products.

Ocado Retail: our thinking on its market share

As we pointed out before, our model estimates that Ocado market share in the OR scope, back in 2019, clocked in at 32.2%. Such percentage translates into a 13.2% at a national level. This market share is pretty high, but we find it reasonable and we think Ocado will be able to get back to it, thanks to its first mover advantage. Indeed, Ocado was the first player to enter the online grocery market and the first to build high-technology CFCs: this way it was able to pick the best locations, especially around London, from which to serve its customers at a lower cost. We also acknowledge that such geographical advantage benefits of higher entry costs for competitors as the rental prices in London industrial area have skyrocketed post pandemic, in the midst of a Real Estate Logistics boom currently ongoing[25]. Hence, the advantage is twofold: for competitors, tapping into the London market means facing Ocado direct cost advantage and also paying high rents. This thesis seems to hold if we give a look to the locations where Tesco and Sainsbury's have decided to establish their fulfilment centres. If we plot them in a graph (that we leave on the left), it is evident that they are trying to target secondary cities, leaving the wealthier and more promising market fully in the hands of Ocado. A reasonable question to ask us is why we model exactly a long term 32% when, as of 2022, it clocks in at 20.4%. We think the market share is temporarily squeezed by the way the online market grew in the last years, which was as follows:

- The pandemic biennium 2020-2021 was an emergency period during which online prone-customers got closer to online grocery (985'000 new regular customers in UK[1]).
- In this situation, the majority of the new demand was absorbed by traditional grocers thanks to their wider commercial power, even if their service was barely profitable. In such situation, players such as Sainsbury's and Tesco were able to build up their position.
- In 2022 Ocado Retail market share still drops, but we think the big reason is the slowdown in the UK economy, which puts under more pressure premium online services.

In the long term, Ocado will be able to re-gain market share as consumers who turned to online will recognize the superiority of its service. After the pandemic, around 60% of shoppers are more oriented to start switching again between different retailers[20], confirming this trend. This can be explained by having the best locations around the wealthy and online-prone London, which accounts for a great part of the total market share but that it seems not to be targeted that much by Tesco and Sainsbury's. Last, we adknowledge that Tesco and Sainsbury's are facing difficulties in their online strategy rollout (especially Tesco), which further paves the way for Ocado market share recovery. As of end of March 2023, Tesco was forced to raise up fees both upstream and downstream in an attempt to make its online structure more sustainable. First, it announced a fee charged on suppliers which would see their products sold through online channels. Secondly, they raised fees on clients: the free-delivery service is now available for baskets by £50 or higher (vs. £40 prior) and, in case of smaller purchase, the charged fee would be £5 (vs. £4 prior)[31]. The new commercial conditions are creating frictions along the supply chain, with discussions ongoing with the suppliers. All in all, Tesco has never reported their online business operating margin and the only market news is that the unit has not achieved yet a break-even point. Sainsbury's, conversely, has declared they "will not pursue an unprofitable business"[25], but with its FY22 financials (disclosed end of April 2023[26]), they admitted their online sales to be down 17% vs FY20, which in our opinion is a weakness of the overlapping with Tesco in the out-of-London areas. The drop in Sainsbury's customers would also sustain our thesis that, during the pandemic, traditional grocers benefitted mostly from an urgency situation of people and not from an efficient online grocery business proposition. Additional complications for the 2 competitors could arise from their higher reliance on traditional labor, skewed to become more expensive as the high inflation factors in, at a time where the UK unemployment rate runs at relatively low levels (3.8% as of April 2023). All in all, we do not think those competitors have strong momentum to avoid a recovery of Ocado.

UK Solutions & Logistics

We employ a bottom-up methodology to identify the most significant revenue drivers for UK S&L. We consider sales capacity of CFCs as the main driver because recurring fees depend on it. We considered inflation as an additional driver for revenues, while for tracking efficiency we used the mature CFC efficiency expressed by Units per Hour (UPH), which reflects the average eaches (i.e. items) processed per labour hour. We considered this KPI for the forecast of administrative costs because higher efficiency inside CFCs would reduce them. By looking at historicals of sales capacity and fees collected, we came up with a 4% annual fee, which differs from the mid-single digit fee (5,5%) disclosed by the company for its international CFCs. We consider the difference as reasonable because from its UK operations the company receives pounds, while for the international operations it is exposed to the currency risk, which is a credible justification to require a higher fee. Considering that Ocado's business in UK is already at a mature stage and that between 2025 and 2027 the firm will have concluded its investment plan to arrive at its target levels, we assume that the growth of CFCs will stop once the modules already ordered (70) will be live (around 3 years). So, we estimate that the number of UK CFCs will reach 14 in 2025, considering around 3 years to fully develop these CFCs already ordered, and then it will remain stable in the future because we believe that to forecast additional CFCs not yet planned by the company would overvalue the business. With our model the growth of revenues would be slightly lower than the previous years (10% in 2023) as an additional confirmation to our belief that this segment has already reached if not a mature stage at least a good point in its growth path.

We forecast that Ocado's business will be very high capital intensive especially due to CFC expenditures. We estimate a depreciation rate of 7% based on useful life of PPE items disclosed by the company.

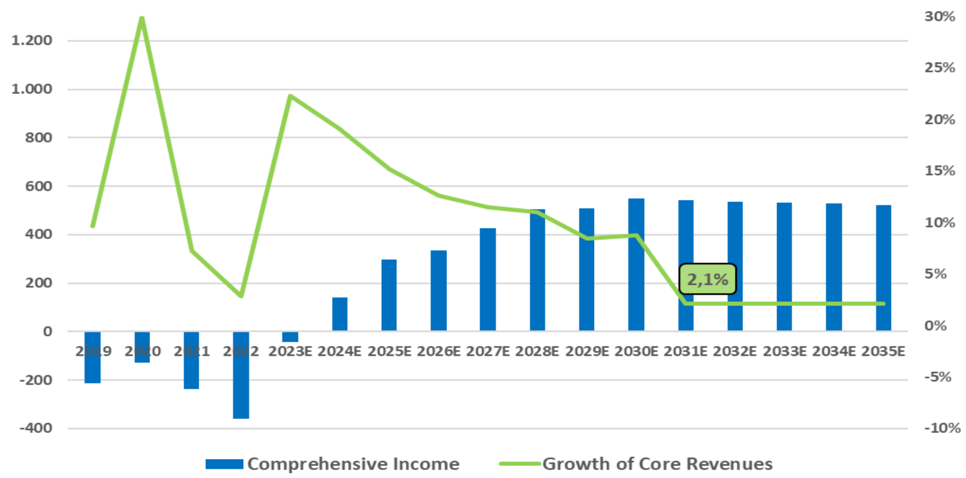

Figure 29: Comprehensive Income and Growth of Revenues Forecast

International Solutions

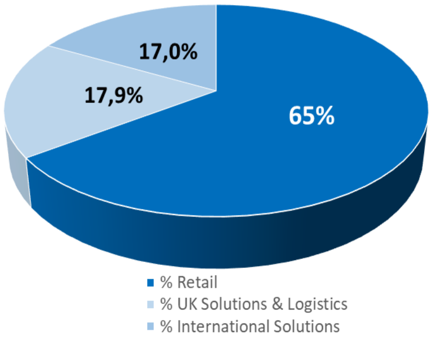

Figure 30: Ocado Long-Term Core Revenues Split - 2035

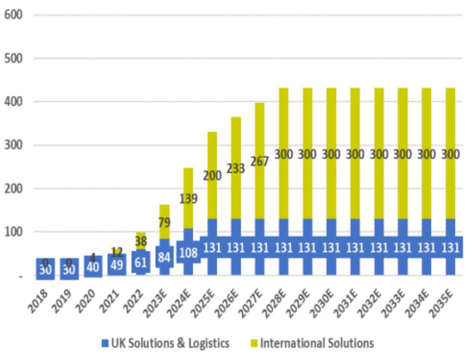

Figure 31: Forecast Number of Modules

In line with the logic applied for the UK S&L projection, we forecasted IS revenues based on the sales capacity of CFCs. This business unit is the one with the highest opportunities of growth in the next few years, as we value it still at the beginning of its growth path. Ocado plans to sign partnerships with new partners not only in countries where it is already present such as U.S., Canada, France and Sweden but also in other markets such as Australia and Japan, where it already has a few deals signed for building new CFCs. For this reason, Ocado's projection of having around 300 modules live in mid-term from the 38 live in 2022 seems reasonable to us and, to some extent, conservative. We forecast that Ocado IS will experience a double-digit growth until 2029 to reflect this considerable expansion. The markets that the company has not explored yet are numerous, from those ones where it has already signed partnerships for the next few years, such as Australia, Spain or Japan, to possible new ones where Ocado has not expanded yet such as Germany, Italy and Netherlands. The travel restrictions which were occasionally put in place during the pandemic were a real barrier for Ocado to signing new deals, because it was difficult for the company to showcase its existing facilities to potential new partners. Now that these have stopped to be an obstacle for the company's business, we estimate new deals coming in the next few years. Also, the management is considerably optimistic about signing new deals. The CEO on 21 July 2022 stated: *"there are a high number of detailed conversations going ... that hopefully will result in some piece of business at some point in the future that could be in one month, but it could also be in one year or in 18 months"*. Additionally, it is important to note CFO's comments from 25 May 2022 when he noted that *“I also feel quietly confident that we’re going to win additional orders from existing clients”.*

We estimate that this segment will be the major driver of growth in the next few years for the company, representing the real long-term value of Ocado. Indeed, we forecast that the revenues of this segment will represent 17% of total Ocado’s revenues (4,7% in FY22) and roughly 60% of the cash flows. From 2030 onwards, we estimate that the growth of this segment will slow down and will be in line with inflation, having the business unit reached its maturity (= the targeted 300 modules will be delivered). Our revenue model includes recurring fees and upfront fees (=fees that clients pay in advance to allow Ocado IS to partially cover construction costs). We forecast that in 2023 revenues will reach £509m, with a considerable spike from the previous year. This is a consequence of the increase in the number of modules live (+107%) and an accounting adjustment we do. Indeed, we consider upfront fees as revenues, while Ocado is forced to record them as contract liabilities as long as the modules are not delivered to clients. As we think there is no execution risk (the Ocado platform has proved to work), we cancel out contract liabilities and move them to revenues. For the recurring fee we use a mid-single digit fee at 5.5% of sales capacity as disclosed by the company, and our projections are in line with what Ocado estimates (around £1,1bn recurring fees in mid-term).

Valuation

As a path undertaken to estimate our target share price we adopt the following process: we estimate the unlevered Enterprise Value of each business unit separately from the others; we exclude the 50% minority interest held by M&S in Ocado Retail; we add 3 value-adding items, namely i) other operating assets ii) tax losses carry forwards (to date, Ocado Group has £973,9mn of accumulated losses) iii) interest tax shield; we deduct the net financial debt as of end 2023; we estimate our share price based on the diluted number of common shares outstanding.

For what concerns the Enterprise Value, we base our valuation on the APV model for a defined forecasted period which ranges from 2023 to 2035. As mentioned earlier, we expect each unit to stabilise in a different year (see bullets below for a wrap-up) and after all the segments have become steady, we let the model run until 2035 to prove the steady state. In that year, we compute the terminal value by unit through the WACC method assuming a targeted capital structure. The terminal values are then brought back to 2023 discounted at the unlevered cost of capital, which is a consistent bridge between the APV and WACC model.

We chose to adopt APV because Ocado Group, as of today, has collected £973.9mn of Tax Losses Carry forwards. As the company rolls out its business plan and turns out to be profitable, it will also be able to take advantage of the Carry. However, its use creates 2 effects that make us prefer the APV approach to the WACC approach:

- Ocado won't pay any tax for some years after becoming profitable (we estimate it fully shields taxes for 2023, 2024, 2025). Thus, the unlevered FCF traditionally used in WACC models, which consider that a firm regularly pays taxes, would need an upward correction to reflect the shield.
- If Ocado does not pay taxes, then the financial debt outstanding is not able to generate any tax shield, as the payments to the state as 0. This makes the after-tax WACC formula inadequate because its use indirectly considers the value of the interest tax shield. The UK government, however, allows to carry non-deducted interest expenses forwards the following years, for a period up to 5 years[(27)].

Thus, we think that APV is a better option because it allows to handle these complex effects in a smoother way and to underline their impact. Indeed, we start from the unlevered value so that we can value separately the unusual stream of interest tax shields and top up our estimations with the carry forward materialisation in an easier way.

Moreover, we also think the APV is better because we don't believe Ocado will target a capital structure in the coming years. The rising costs of debt are a sufficient signal to state that some companies could limit their efforts to refinance their maturities. We think Ocado belongs to this group, and we have a proof dating back June 2022, when the company preferred to secure further financing through a £578mn capital raise and the opening of a £300mn RCF. The issue was evidently equity-oriented with the management declaring *"this funding secures sufficient liquidity to deliver the requirements of Ocado's existing and expected customer commitments into the mid-term, with no additional Group financing as the business becomes cash flow positive".*

Forecasting Summary

We leave a quick wrap up of our modelled forecasts which bring to the use of the perpetuity formula in 2035, for each unit.

Ocado Retail: from 2030, the penetration of online into the UK grocery market reaches its peak. Consequently, the FCF growth of Retail stabilises at around 3% YoY.

Ocado UK L&S: we follow the guidelines of the management as regards the rollout of new modules and CFCs (131 modules in mid-term). We interpret mid-term as 2025-2027, with a module projected growth in line with historical data (15%). Afterwards, investments required are modelled as maintenance Capex, starting from 2027. From 2031 onwards, the FCF of the unit is around 3%.

Ocado IS: here the same logic as Ocado UK L&S applies. We model 300 modules to be built by 2030. long-term FCF growth is at around 3%.

Cost of Equity

The opinion of the market on Ocado Group has been changing over time rapidly. Indeed, we compute a 52-weeks rolling beta and we get values ranging between -0,13 and 2,15. We use weekly returns given that Ocado Group is not such an illiquid stock, with average weekly exchange of 0.7% of the company market cap.

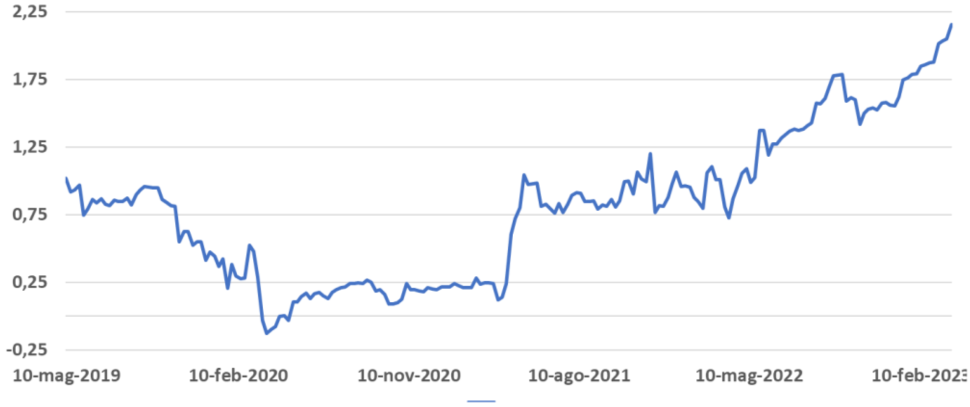

Figure 32: Rolling Beta – Previous 52 weeks

As we noted before, the stock price has been pretty volatile, due to moments of high faith in the company succeeded by times of scepticism. Ocado records a beta of 0,13 and absence of systematic risk in the company in the 52 weeks starting in March 2020. From that moment onwards, Ocado suffers several difficulties, namely concerns over the impact of inflation on its energy bills, the higher cost of grocery items and a deteriorating disposable income that impacts UK citizens more than any other EU peer country, as a result of the conservative bills approved after the 2022 financial storm. Indeed, even if we believe that Ocado will move to a stable fee-based skewed business model, as of today it still has the highest exposure to online grocery, influenced by the risks just mentioned and by actual bad results in their FY22 statements. In the last 52 weeks, the regressed beta lies at 2,15. If we regress the last 2 years of weekly

	Beta	*Lower 95%*	*Upper 95%*
Last 52 weeks	2,15	1,14	3,17
Last 2 years	1,7	1,05	2,35
Last 3 years	1,42	0,96	1,88
52 weeks between 1y and 2y	0,84	-0,02	1,69
52 weeks between 2y and 3y	0,13	-0,56	0,83

Figure 33: Beta Regressions on multiple time datasets

excess returns, we get 1,72 while if we regress the last 3 years we get 1,40. Note that in all cases the confidence interval is always large, as a consequence that the market has changed perspective of the company several times. All in all, we choose to adopt the beta regressed on the last 2 years, because it spins off the overconfidence in online players shown during the pandemic and it includes the current increasing distress risks connected to the exposure to the deteriorating UK market. Interpolating such beta with a current risk free rate at 3.49% and a 5.75% market risk premium, we end up with a current cost of equity at 13,27%. We also acknowledge that Ocado is a unique player in current public markets and as a consequence we choose not to rely on re-levering from competitors. If we look at the Online Retail, the main competitors (Asda, Sainsbury, Morrisons and Tesco), whose business models do involve online grocery, are also based on a strong physical retail model, essential-based oriented and with a different operating leverage and absence of recurring fee-based services. We also refrain from using instant grocery players, such as Deliveroo and DoorDash. Even if their business model appears more similar from the online retail unit point of view, they share an operational problem common to Ocado: they are currently not profitable and the cash available was probably raised to execute investments to be done soon. This implies that their marked-to-market Net Debt could be undervalued because it erroneously subtracts cash that is all but not in excess (DoorDash ND / EV is -17%, Deliveroo is -105%), as it may be used for investments.

Conversely, if we only look at automated logistics players, we think the only traded peer is Autostore, Norwegian-based logistics provider which operates not only in logistics for grocery but also for pharmaceuticals, industrials, and retail shipping. Since the company went public, it reported a levered beta of 1,33. This implies an unlevered value of 1.25, which is basically equivalent to what the market has assigned to Ocado. The similarity of the 2 players is proved also by the ongoing legal dispute between the 2 companies, which involves several patents and is brought forward in different courts all over the world. On March 31st, a London-based court has declared that Ocado has not infringed any of Autostore patents, gifting the stock price a 10% positive uplift[28].

Cost of Debt

We compute 2 different costs of debt, pre-refinancing and post-refinancing. As of today, Ocado shows a low cost of debt at around 2.9%, fruit of issues done when liquidity was cheaper and faith around the company more positive. A refinancing window will open between 2025 and 2027, that is when all the bonds issued will expire. The most likely scenario is a refinancing, as 2026 is the first year where the company generates a positive FCF. Today, the company has a BB rating and YTM on current bonds averaged at 12% (Figure 34).

Bonds	Coupon Rate (per annum)	Yield	Maturity Date	Conversion Price	Fitch Rating
Ocado 0.875% Fixed 09/12/25	0,875%	11,67%	09/12/2025	17,93	BB-
Ocado 0.75% fixed 18/06/27	0,075%	12,07%	18/01/2027	26,46	BB-
Ocado 3.875% fixed 10/08/26	3,875%	12,48%	10/08/2026	no	BB-

Figure 34: Ocado Traded Debt Securities

However, we expect a spread on the risk free rate in line with BB rated companies (3.50%) because i) we think Ocado will be able to regularly carry out its planned expansion and in 2026 it would be closer to positive cash generation, hence it will have a lower default risk, and ii) at a 12% rate it is unlikely that Ocado would refinance its debt rather than issuing new capital. This procedure generates an average cost of debt, from 2025 onwards, of 6.5% (for simplicity computation-wise, we just assume a change of the interest on all the borrowings and not a gradual one year by year). We also note that 2 bonds outstanding have a conversion option embedded, which we do not expect to be exercised as the conversion prices reflect older perceptions over Ocado performance.

APV model: details and conclusions

As our valuation reference is the APV, we followed the additional steps to put it into action:

- We compute the unlevered cost of capital at 10.8%, which becomes our reference discount for any FCF of the 3 business units, as such rate does not automatically create any interest tax shield at the numerator.
- We assume targeting only in perpetuity, for which we compute a WACC at 10.25. We precise that the perpetuity formula, which contains the value of the tax shield in perpetuity, is then fully discounted back at the unlevered cost of capital.
- Our approach, in the base case, generates a value of £5,88 per share. Again, we expect the number of diluted shares to be equivalent to the number of outstanding shares, given that the conversion prices linked to the bonds are realistically unachievable.
- 79% of the company value comes from the 2 Ocado Solutions emerging units, split up into 24% for UK S&L and 55% for IS. Conversely, Ocado Online Retail contributes with a weak 11% vs. a FY22 contribution to revenues which is equal to 70%. It is clear that the high risk linked to Ocado equity is partially attributable to the fact that the majority of the value comes from business units that are not yet fully operational, allowing the market to

incorporate the uncertainty as long as the execution plan is not a concrete reality.

- All the other components have a 13% weight on company value. We acknowledge that the value of tax loss carryforwards is minimal at 3%, while the tax shield contributes 4%. Other non-operating assets weigh 2% and comprise the value of their JVs, the hedging portfolio and the financial assets. From the value of the latter we exclude earn-outs which M&S could pay in 2024 depending on the performance of Ocado Retail, in relation to the 2019 acquisition of the 50% stake. Even if conditions on the payment are not disclosed, we do not think it will occur as this is the most recent belief of Ocado itself, which passes from reporting the fair value of the earn-out at £170.3mn to £98.3mn (the company is required to estimate a fair value reflecting the likelihood of the payment).
- The current estimation constitutes a 24,48% upside to the current stock price.

Sensitivity Analysis

We perform two different sensitivity analyses to assess possible risks which can influence the valuation. We execute the first one on the number of international modules that the company will rollout in the long term and the market share that Ocado Retail will have in the long-term, while the second one on the WACC.

Ocado Retail Market Share & International Modules

We perform a sensitivity analysis on the international modules delivered as of 2028. As the IS division accounts for 60% of the long-term cash flows, a slow-down in its roll-out could impact negatively Ocado target price. We assess the possibility that the modules which have already been ordered as of 2022 (162) will take more than expected to go live. According to the company's projections, modules need an average of 3 years to ramp up to full capacity. However, there is a risk that this time horizon could increase by 1 or 2 years, due to either inflationary pressures on clients or willingness of partners to take a "test and learn" approach, as done for example by Tesco in its strategy. However, we consider that it is highly improbable that the go-live date could be pushed more than 2 years with a contract already signed. Two reasons for this are that these partnerships with Ocado usually guarantee the clients also an exclusivity for OSP technology inside those countries. For this reason, risking letting the deal collapse could cause, in addition to paying high fines, to lose this technology solutions to their competitors. We believe that in a sector such as online grocery where the switching costs are low, this aspect could be of extreme importance for the partners. So, we decided to consider the bad scenario less likely to happen than the good one, with the lower and upper bounds for the number of modules being respectively 225 and 400, instead of 200 (equal to actual number of modules (38) plus the modules already ordered (162)) and 400, as shown in Figure 20.

Market Share & International Modules Sensitivity - Ocado Stock Price										
		2028 International Modules Live								
		225	**244**	**263**	**281**	**300**	**325**	**350**	**375**	**400**
2030 Ocado Retail implied market share	**24,2%**	4,43	4,62	4,82	5,02	5,22	5,48	5,75	6,02	6,28
	26,2%	4,49	4,69	4,89	5,09	5,29	5,55	5,82	6,08	6,35
	28,2%	4,56	4,76	4,96	5,16	5,36	5,62	5,89	6,15	6,42
	30,2%	4,64	4,83	5,03	5,23	5,43	5,69	5,96	6,22	6,49
	32,2%	4,71	4,91	5,11	5,30	5,50	5,77	6,03	6,30	6,57
	34,2%	4,78	4,98	5,18	5,38	5,57	5,84	6,11	6,37	6,64
	36,2%	4,86	5,06	5,25	5,45	5,65	5,91	6,18	6,45	6,71
	38,2%	4,93	5,13	5,33	5,53	5,73	5,99	6,26	6,52	6,79
	40,2%	5,01	5,21	5,41	5,60	5,80	6,07	6,33	6,60	6,87

Figure 35: Sensitivity Analysis on Ocado Retail Market Share and Number of International Modules

Market Share & Int. Modules Sensitivity	
Average	£5,58
Median	£5,53
Lower quartile	£5,04
Upper quartile	£6,09
Final price	£5,50

Figure 36: Ocado Retail Market Share & International Modules Sensitivity Measures – Ocado Stock Price

On the other hand, the company could deliver more modules than planned, considering the already developed partnership with some of these clients and additional contracts in other geographies. This could be caused also by the future trend which sees grocery players building high ecosystem activity in the near future, as described in the Section “Future Trends (p.10), increasing loyalty and their revenues via different streamlines. Considering a base scenario for Ocado Retail market share (32%), the stock price will range between £4,43 and £6,87 for all the possible number of international modules that will go live before 2028.

Regarding Ocado Retail market share, we consider 40% as upper bound mainly due to three reasons. The trend described above in Ocado Retail section (p.19) underlines higher loyalty in consumers after the pandemic. The company could benefit from this thanks to its first mover advantage and the good scenario would see Ocado Retail market share increasing by incorporating a portion of the share assigned today to minor players, with a sector that would become slightly more concentrated. The second reason is the consolidation that is likely to happen within the sector. Indeed, we estimate that with acquisitions of immediacy grocers made by existing grocers and mergers between immediacy grocers, the biggest players in the market such as Ocado will increase their share if this scenario will prove to be true. The third one regards a quicker than expected bounce back to pre-pandemic levels primarily due to customers understanding with time the excellence of Ocado’s service and to the recovery of the UK economy. Furthermore, we rate 24% as the lower bound for Ocado Retail market share. One of the main risks for this bad scenario is a slower than expected change in customer habits and preferences between different online retailers. This could cause customers to not change the first option they chose during the pandemic, or at least to not change it in the short-term. This sensitivity analysis provides a wide range of prices for Ocado's stock price, with the median value equal to £5,53, in line with our valuation, as shown in Figure 36.

WACC

For what concerns the cost of equity, we use different values for the beta levered, which we make vary in the interval of 2 standard errors, because of the rapid changes in prices of Ocado's stock, as explained in Section "Cost of Equity" (p.24). For the cost of debt, we use the risk-free rate (3,5%) as the lower bound and the value we estimated as the upper bound as we believe that is probable that the company will have a lower default risk than today, for the reasons explained above in Section "Cost of Debt" (p. 26). Moreover, the company is unlikely to refinance its debt at the current 12% YTM rather than issuing new capital.

WACC Sensitivity	
Average	£6,58
Median	£6,06
Lower quartile	£4,58
Upper quartile	£8,31
Final price	£5,50

Figure 37: WACC Sensitivity Measures

Ocado Stock Price - WACC Sensitivity										
		Cost of Equity								
		9,5%	10,5%	11,4%	12,3%	13,3%	14,2%	15,2%	16,1%	17,0%
Cost of Debt	3,5%	12,28	10,34	8,84	7,65	6,69	5,89	5,21	4,64	4,14
	3,9%	11,89	10,04	8,60	7,46	6,52	5,75	5,09	4,53	4,05
	4,2%	11,52	9,75	8,37	7,27	6,36	5,61	4,97	4,43	3,95
	4,6%	11,17	9,48	8,15	7,09	6,21	5,48	4,86	4,33	3,87
	5,0%	10,83	9,21	7,94	6,91	6,06	5,35	4,75	4,23	3,78
	5,4%	10,51	8,96	7,73	6,74	5,91	5,22	4,64	4,13	3,69
	5,7%	10,20	8,71	7,53	6,57	5,77	5,10	4,53	4,04	3,61
	6,1%	9,90	8,48	7,34	6,41	5,64	4,98	4,43	3,95	3,53
	6,5%	9,62	8,25	7,15	6,25	5,50	4,87	4,33	3,86	3,45

Figure 38: Sensitivity Analysis on WACC

We find ourselves comfortable with our current overweight recommendation given that our target price remains slightly aligned upward also in the more conservative cases of our model, leaving margin for potential upsides for any scenario marginally more positive than the worst case.

Recommendation

We value Ocado Group Plc at **£5,50** and we set 31.12.23 as the reference window for our target price. We make a **BUY** recommendation as the target incorporates a 24,48% total shareholders' return compared to the trading price of £4.42 (as of 14.05.23). We estimate that Ocado's long-term value is included mainly in UK S&L and Ocado IS business units, which are responsible for the rollout of modules, and which represent 84% of the EV. We think the contribution of the 3rd unit (Ocado Retail), a pure UK online grocer, is lower (11% of EV) even if it is the main exposure (70% of FY22 revenues). Ocado Retail and UK S&L business will benefit of the UK customers being the most online-oriented ones in

EU (23% online penetration in grocery market at 2030) and a geographical advantage around London.

We are confident that the International modules business will deliver the 162 modules already signed for the medium term at a 5.5% attractive fee, sustained by an increasing appetite from grocery retailers for automated solutions. A good scenario could emerge with the increase in the number of deals signed for additional modules and with online grocery penetration in the UK deeper than expected. On the other hand, a bad scenario could arise from a slower than agreed rollout of modules, for the reasons explained in the “Sensitivity Analysis” section (p.27).

All in all, we think that Ocado is on track to execute with success its business plan, turning FCF positive by 2026 and defeating its current stock price volatility.

Appendix - Joint Report – Giulio Ciabatta 45330 – Alessandro Detti 48673

Table of Contents

Company Overview

Company description

Ocado Group is a British online grocery and retail technology company that has transformed the way consumers shop for groceries. Founded in 2000 by three former Goldman Sachs bankers (Tim Steiner, Jonathan Faiman, and Jason Gissing) and headquartered in Hatfield (England), Ocado has been at the forefront of digital innovation in the retail sector and has successfully positioned itself as a leader in the online grocery market. Initially, the company started as an online grocery retailer, but over the years, it has evolved also into a B2B technology business with almost 20.000 workers employed as of today. Indeed, Ocado has developed highly automated technological logistics centers (the so called "Customer Fulfilment Centers", or CFCs) with the purpose of supporting traditional grocers to efficiently develop their own online grocery operations. Inside those CFCs, backed by a sound portfolio of patents and proprietary robotic technology, Ocado installs modular robotic-based platforms (so called "modules") which allow to store grocery products, pick them at convenience and pack grocery orders in a way faster than human labor. Additionally, thanks to automation, the model targets to store more SKUs than a physical store and minimize picking errors so that customers receive what was ordered. In simple terms, Ocado, through the management and fulfilment of orders for third-party grocers, tries to be the alternative to physical in-store fulfilment of online orders. Hence, as of today, Ocado operates its own online grocery service and builds automated warehouses for third parties. The intent is to serve both types of consumer spending, namely traditional grocery ("the weekly grocery") and instant grocery (small top-up purchases). For instant grocery, Ocado develops smaller CFCs, called "Zooms": they have a reduced selection range (10k items vs c50k[18]), slightly higher prices and they serve a small-delivery catchment area with a smaller size (between 5k and 25k square feet) compared to standard CFCs, which are larger than 200k square feet. As of April 2023, the company operates 6 standard CFCs and 3 Zooms in the UK, plus 12 standard CFCs built for international partners (we invite to watch the following video to understand the functioning of Ocado modular platforms: https://www.youtube.com/watch?v=4DKrcpa8Z_E).

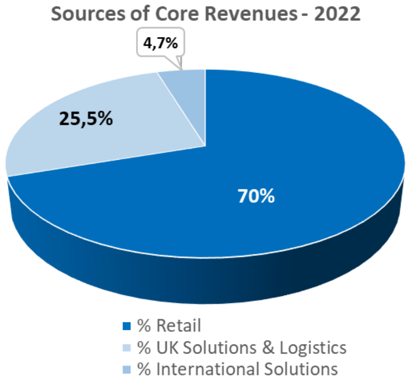

Figure 1: Ocado Core Revenues Split FY22

Module	Primary mission	size (sq ft)
Standard CFC	Full basket shop; large direct and spoked catchment	200k+
Mini CFC	Full grocery shop; shorter lead times or to connect lower density areas to network	50-160k
MFC	Immediacy	5-25k
Store pick software	Best fulfilment in remote areas	n/a

Figure 2: Different Ocado CFC Types

The proprietary technology on which modules and CFCs rely on is called Ocado Smart Platform (OSP), developed internally and in use since 2015. This platform can be customized to meet the specific needs of different retail partners, in terms of size, picking solutions and catchment area to serve, securing a competitive advantage for the company. In all the situations, it is proving to be efficient, combining its 99% order accuracy (98% during Covid-19[1]), with very large items selection, same-day service (delivery usually within a few hours) and precise delivery windows. For the CFCs, Ocado has partnerships with several major retailers in the UK and internationally, that have been crucial to the company's commercial expansion.

Business Units

	Ocado Retail	UK S&L	Int. Sol.
Revenue	2.203,0	802,7	147,8
EBITDA	(0,2)	63,6	(113,4)
Net loss	(38,6)	(17,0)	(267,2)
Revenue growth	-4%	13%	122%

Figure 3: Ocado Business Units FY22

Ocado's business model is divided into three different units. **Ocado Retail** is the business unit responsible for the online grocery system, while **Ocado UK Solutions & Logistics** (from now on we refer to it as "UK S&L") and **International Solutions** (will be mentioned as "IS") are responsible for the modules rollout in UK and internationally. In FY22, a major part of revenues came from the Retail segment (70%), while residual was the contribution of Ocado IS and UK S&L (respectively 5% and 25%).

Ocado Retail offers a wide range of products, including fresh produce, meat, dairy, bakery items, and household essentials to 940.000 regular customers in the UK (+13% vs FY21). As of now, it is the largest online-only supermarket in the world[1] and it is now a 50:50 joint venture with Marks & Spencer Group. Indeed, Ocado Group sold a 50% stake in 2019, for a total consideration of £750mn (plus earn outs to be paid depending on performance[(21)]). Ocado's online grocery store operates on a membership model, where customers can sign up for a delivery pass, which gives them unlimited free deliveries for a set period. Customers can choose from a variety of delivery options, including same-day delivery, next-day delivery, and delivery within a specific time slot. The growth of the segment was boosted by the pandemic outbreak, with FY21 revenues being 41% above their 2019 levels. Due to its pretty premium selection, however, its 2022 revenue performance was blocked by an uncertain UK macro environment and inflationary pressure, stopping revenue levels at £2,2bn.

The UK S&L segment is the owner of the proprietary platforms located into the CFCs located in the UK territory. It serves exclusively the online operations of 2 grocers: Ocado Retail and Morrisons. Its business model is based on collecting recurring fees from the two just mentioned grocers. Indeed, Ocado stores items on behalf of clients and prepares efficiently customer groceries as the orders arrive, by using their modules. The recurring fees are based on the total installed capacity, as each module is equivalent to c.£70mn of sales capacity. Additionally, it generates revenues as a recharge of costs attributable to Ocado Retail and Morrisons but that are anticipated by UK S&L. In the last 4 years, this segment has registered a 10% revenue CAGR, reporting revenue of £803mn in FY22. The growth of such division was accomplished side by side with the one of Ocado Retail, as the latter accounts for ¾ of the total revenues of UK S&L. Said in other words, Ocado UK&L is the underlying provider of the capacity exploited by Ocado Retail to generate online grocery revenues. For this reason, at a consolidated level, Ocado Group cancels out these intra-group transactions, given that what is revenues for UK S&L is also a cost for Ocado Retail.

The third segment, Ocado IS, is responsible for creating and licensing the company's proprietary technology and solutions to businesses outside of the UK. Despite it represents only 5% of Ocado Group's revenues, this division has experienced a considerable growth in revenues from the previous year (+122%, reaching £147mn), with partnerships signed in several countries, including the United States (Kroger), Canada (Sobeys), France (Casino), and Sweden (ICA), for a total of 9 international partnerships and 12 international CFCs as of today. The possibility to efficiently serve customers online generated hope in many players that will receive CFC capacity to transition towards a world with more click-based groceries. IS is the segment with the highest opportunity of growth and from which Ocado will derive most of its future revenues, according to our view. In FY22, the IS segment operated only 38 modules in front of a pipeline of 138 modules already ordered, within the scope of the 9 international partnerships today existing.

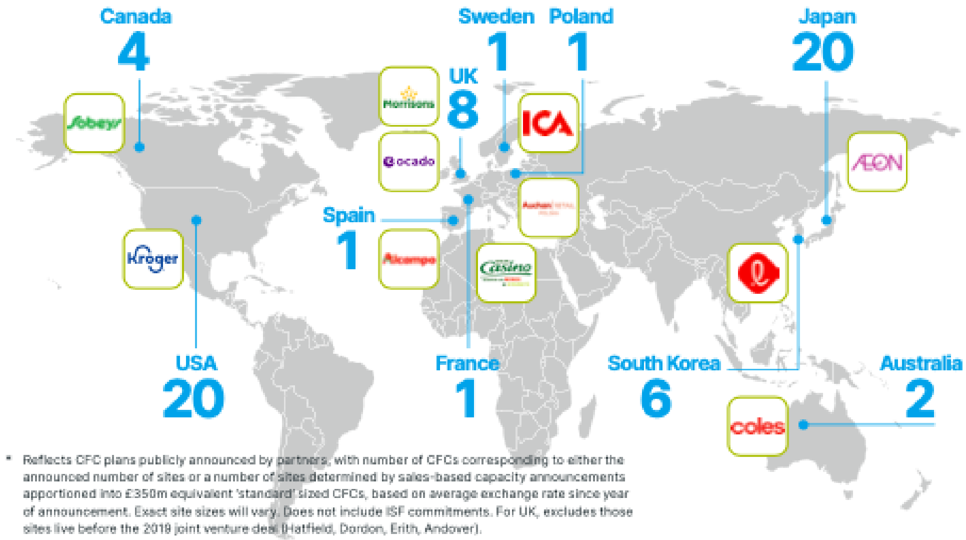

Figure 4: Ocado Partnerships around the world and CFC plans

Furthermore, the OSP technology allowed Ocado to introduce new onsite monetization opportunities with an increased retail media income for the company, which is equal to 4% of total Ocado Retail sales[18]. According to McKinsey[1], if a company exploits retail media networks in the correct way, it can unlock a positive EBIT contribution of 2-4% of online sales.

In addition to its technology and logistics solutions, Ocado also offers a range of support services to its partners, including marketing and branding support, customer service, and training and development. One of the key advantages of Ocado's technology is that it allows the company to optimize its inventory management and reduce food waste. The company uses algorithms to monitor inventory levels and predict demand, allowing it to order only the necessary number of products and reduce the amount of food that goes to waste. Overall, Ocado aims at convincing grocers that its facilities offer the following advantages: i) faster delivery times and higher order accuracy thanks to faster and automated item picking ii) greater SKUs selection as automated facilities can use more efficiently their space (no need of aisles for human-driven machines) iii) higher energy efficiency thanks to the rationalisation of spaces.

From a top-line perspective, Ocado has consistently demonstrated its ability to generate significant revenue growth. In FY22, the company reported consolidated revenues of £2,5bn, equivalent to a 12% CAGR between 2018 and 2022. However, Ocado Group is still cash-burning as it is still in a CAPEX-intensive and early-stage period, with Ocado IS and UK S&L requiring huge amounts of investments in order to deliver to partners the contracted CFCs and modules.

Ocado Group's share performance

Ocado went public on the LSE as of 21st July 2010, under the ticker OCDO. Today, it is part of the FTSE 100 Index. Since inception, its stock has experienced significant volatility. Its price reached a first peak of £11,46 in July 2018 thanks to the partnership with US retailer Kroger, which was seen as a major win for Ocado Group. However, in the months that followed, the stock price started a decline, dropping to £7,70 by December 2018, due to concerns about the potential impact of Brexit on its business. Still today, in fact, Ocado is highly exposed mainly to UK (89,5% of revenues).

On the wave of the COVID-19 pandemic and the considerable faith for the e-commerce explosion, the stock price reached an all-time high value of £28,95 in September 2020, when lockdowns and stay-at-home regulations helped boosting grocery revenues by 8,4% in the UK and 11% in the U.S.

Since then, Ocado shares have lost more than three-quarters of their value and as of May 2023, the stock price is trading at around £4,42 per share, for a total market capitalisation of £3,76bn. It declined considerably after the announcement of FY22 Earnings, due to the poor performance of Ocado Retail. The negative performance was the opportunity to shed light also on other operating question marks, namely i) to what extent the rising rates could potentially affect refinancing costs for Ocado and ii) to what extent inflation could slow down grocery spending and inflate CAPEX expenditures on its CFCs to deliver.

Such high volatility obviously affects the beta of Ocado, which we discuss later (Section "Cost of Equity", p.24). A rolling beta analysis shows how the perceived systematic risk of the stock has changed over time, with rolling values ranging from -0,13 to 2,15.

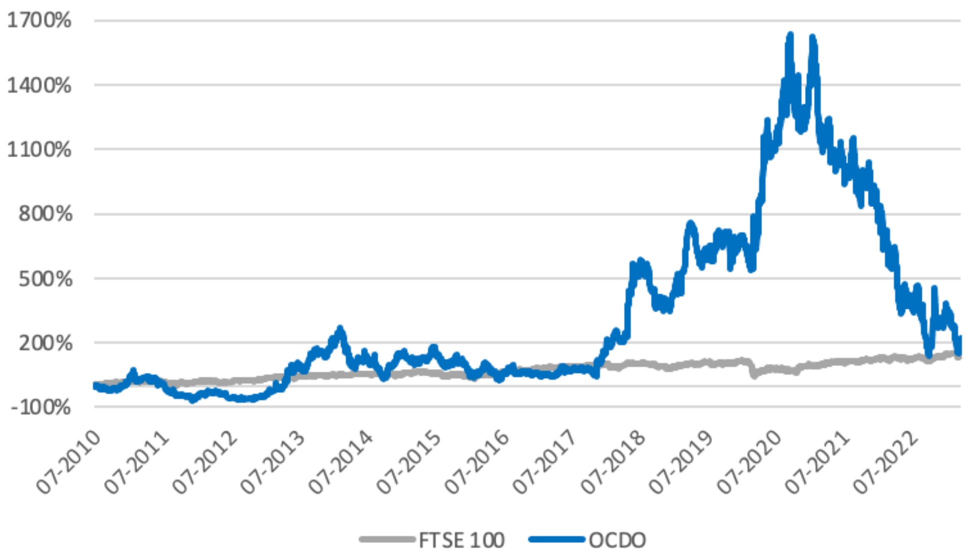

Figure 5: Ocado Group Cumulative Stock Performance vs FTSE 100

Ocado's stock price rose recently thanks to a legal win in court against Autostore, a Norwegian-based automated logistics provider (it is its closest peer, even if it operates also in pharmaceuticals, industrials, and retail shipping). Ocado and Autostore have been arguing on several legal fronts and the share price has always responded to the developments. In 2020, the Norwegian company filed a claim against Ocado, accusing the former of having replicated its patents. Nevertheless, at the end of March 2023, it was ruled that the company did not infringe any of Autostore's patents[11].

Top 5 Institutional/Corporation Investors		
Rank	**Investor**	**% O/S**
1	London & Amsterdam Trust Company, Ltd.	14,5%
2	Baillie Gifford & Co.	12,0%
3	Capital Research Global Investors	11,1%
4	Generation Investment Management LLP	4,7%
5	The Vanguard Group, Inc.	2,3%

Figure 6: Ocado top 5 stakeholders

Regarding Ocado's shareholder structure, the majority is represented by institutions and corporations, accounting for 62,8% of the total stake, mitigating potential agency issues. The three biggest owners represent 37,5% of total outstanding shares. 69,7% of the 826,4mn outstanding shares are free float, while the remaining shares (30,3%) are held by strategic entities and are unlikely to be traded. The geographic segmentation underlines UK and North America (mainly USA with 28%) as the two major regions where the ownership is situated, accounting for 96,5% out of total outstanding shares, as shown in Figure 5.

Industry Overview

Macroeconomic Analysis

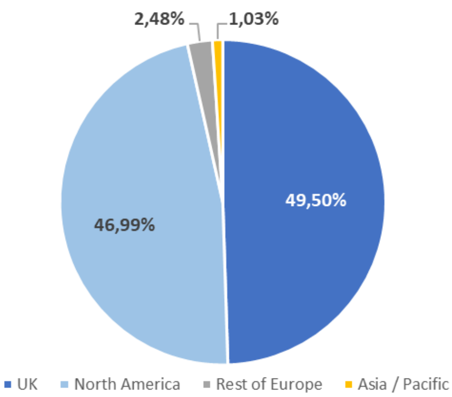

Figure 7: Ocado geographical split of investors

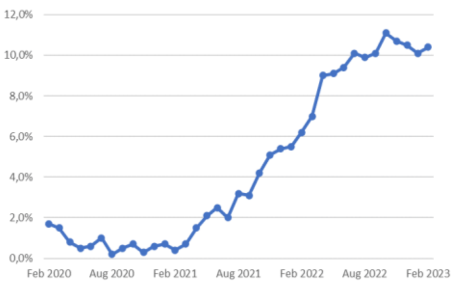

Figure 8: UK CPI YY 2023

During 2022, some countries bounced back considerably from the pandemic crisis in terms of GDP, such as Australia (+3,6%), Italy (+3,7%), UK (+4%), Turkey (+5,6%) and India (+6,7%)[2]. Among the economies which experienced more difficulties there are Germany and United States (respectively +1,8% and +2,1%). Rising inflation has put pressure on central banks to raise rates. The Bank of England has increased interest rates to 4,25% in March 2023[5]. For both families and businesses, the cost of borrowing has increased due to these rate rises and the anticipation that they will increase even more, causing a higher level of uncertainty. Although the difficult economic situation is making it harder for households, firms, and governments to pay down their debt, they are better positioned to overcome this negative outlook compared to previous recessions, according to Bank of England, with UK unemployment rate remaining at low levels (3,8% in April 2023[12]), even though it is projected to rise. The UK economy, in fact, can withstand a significantly worse economic downturn than the one that is approaching[13]. This can be interpreted as a positive factor for the future revenues of Ocado in the UK, and for this reason, we estimate that the average basket value will revert to pre-pandemic levels around 2025.

In September 2022, foreign investors' perception of UK assets significantly deteriorated due to the higher uncertainty around the UK's economic projections, including its fiscal outlook after Liz Truss' fiscal policy proposals. The £45bn tax cuts and spending measures put in place for driving growth caused the pound to fall to its lowest-ever level against the dollar, resulting in an intervention by the Bank of England to stabilize markets. Moreover, an additional consequence of this programme will be an average increase in annual mortgage payment of £5.100 between now and the end of 2024[14]. Aside rising rates, consumers will be hit by higher taxes, as a cascade effect of a jump in corporation tax rate from 19% to 25% for companies with annual profits of more than £250k. These fiscal measures were announced by the former UK Prime Minister Liz Truss and they will become effective from April 2023 in the UK. However, this effect will be partially offset by a 100% tax discount on capital expenditures intended to boost investments[15], that Ocado will be able to benefit from.

Furthermore, the UK GDP is expected to contract slightly by -0,3% in 2023 according to IMF, with the Bank of England projecting a slight growth only in the second quarter after a small contraction during the first three months. Every other developed country and major emerging market is expected to rise this year, according to the IMF, even Russia, despite its wartime sanctions. Some possible reasons explaining this trend refer to high Britain dependency on gas, which surged in price last year as a result of Russia's invasion of Ukraine and its tight labour market, which caused the aggressive policy of Bank of England summarized above.

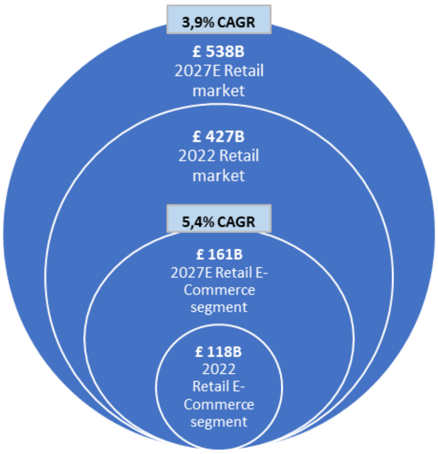

Figure 9: UK Retail and retail Ecommerce Segment 2022 - 2027

Retail Market Growth - 2022	
UK	1,1%
Germany	0,8%
France	0,7%
Denmark	-0,3%
Switzerland	-1,2%
Norway	-3,1%
Europe	3,7%

Figure 10: Retail Market Growth 2022

Retail Ecommerce Market Growth - 2022	
UK	-4,5%
Germany	-4,8%
Ireland	-6,4%
Sweden	-8,1%
France	-8,9%
Europe	-0,4%

Figure 11: Retail E-Commerce Market Growth 2022

Market Analysis

UK Retail market in 2022 marginally rose by 1,1%[17], reaching a value of £427bn, while the European retail market grew by 3,7%. On the other hand, the UK retail e-commerce segment declined by 4,5% for the first time in the last 6 years, mainly due to post-pandemic behaviours of customers and a squeezed real income. Even in this case the UK underperformed compared to Europe, whose retail e-commerce sector slightly declined by 0,4%. Moreover, the UK retail e-commerce segment is expected to lower considerably its annual growth, moving from a CAGR of 12% between 2018 and 2022 to 5,4% from 2022 to 2027.

Valued at over £160bn in 2022, UK grocery retail sector is one of Europe's largest and by far its most innovative[6]. In 2021, grocery retail sector decreased by 0,6% in Europe, with a 2,1% decrease in volumes partially offset by 1,3% food inflation and 0,2% of uptrading. UK online grocery segment is forecasted to remain the biggest in Europe in terms of market share, growing from the 12% in 2021 to 23% in 2030[1]. Ocado can benefit from this size advantage, considering the substantial exposure that the company has to the UK market, with more than 60% of total Ocado modules being live in the UK.

During 2023, several factors are going to plague the grocery stores, causing disruption in the supply and accessibility of goods, such as labour shortages, rising energy and production costs, and Brexit border regulations. Although the next year will undoubtedly be tough for the sector, consumer demand is unlikely to collapse completely and with high inflation sales value will continue to grow despite volumes will go down marginally. Considering how much difficult might be the market environment in the next 12 to 18 months due to inflation which will increase costs and shrink consumers' disposable income, grocery retailers must be well prepared to take bold actions and keep investing heavily in key areas such as online, new profit pools, analytics, technology and sustainability. In the UK in 2022, the consumers willing to buy groceries online rose by 5%, according to a McKinsey survey[1], the highest increase among all Europe. This is an additional confirmation that UK online grocery retail segment has successfully bounced back from the pandemic and is one of the most promising compared to other European countries.

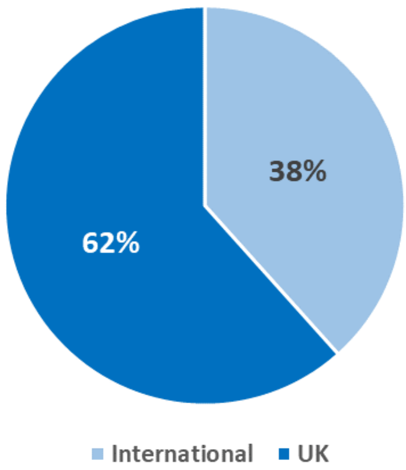

Figure 12: Ocado Modules Split 2022

2022 growth	
UK	5%
Netherlands	4%
France	2%
Italy	0%
Spain	-1%
Switzerland	-7%
Germany	-9%

Figure 13: 2022 growth of consumers willing to buy groceries online

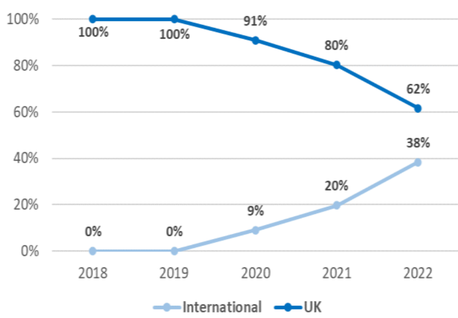

Figure 15: Historical Ocado Modules Split

This sector had indeed an important role during the Covid-19 pandemic, when it experienced a surge in demand, as consumers stockpiled essential goods and shifted towards online grocery shopping. This led to a significant increase in sales for grocery retailers in the UK (+8,4% vs 3,6% CAGR during 2015-2020)[7]. As shown in Figure 14, in fact, both FTSE 350 General Retailers (which represents the overall performance of UK Retail stocks) and FTSE 350 Food & Drugs Retailers (which includes also Ocado Group, as it contains all the top UK food retailers) Indexes outperformed the market (FTSE 100) since the beginning of the pandemic until Q1 2022.

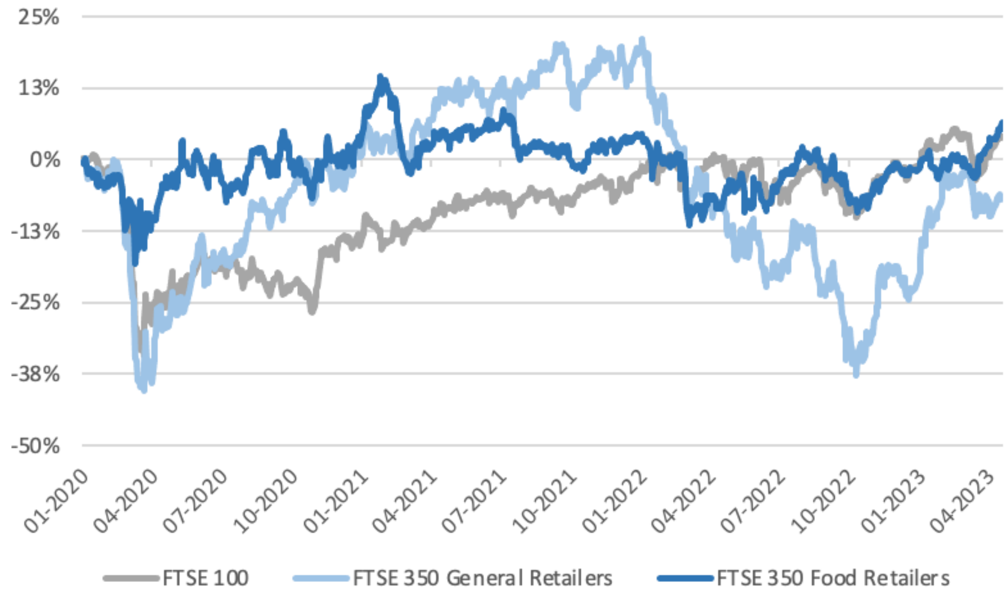

Figure 14: Cumulative Performance FTSE 100 vs FTSE 350 General Retailers vs FTSE 350 Food & Drugs Retailers

However, when the economic situation started to slowly return to the normal after the pandemic, FTSE 100 and Retailers' Indexes performances diverged completely (with FTSE 350 General Retailer Index which considerably underperformed the market during the last year) for the reasons expressed above. These factors have put pressure on profit margins and forced retailers to adjust to shifting consumer preferences. For all these reasons explained in this section, Ocado is expected to benefit from the fact that the UK customers willing to buy grocery online are the ones that have increased the most in 2022 across Europe. On the other hand, we estimate highly probable that the current market conditions will not help the company to become cash flow positive until 2026.

Future trends in the online grocery industry

In 2023 and beyond, European grocery retail will likely be shaped by 3 main trends: 1) a technology shift and future generations more incline to online orders than older ones; 2) increase in Q-Commerce segment; and 3) possible growth opportunities as ecosystems.

E-grocery in the UK will account for more than 20% of the market by 2030[1]. To favour the transition, the pandemic played a vital role: as the lockdowns forced people to shop more online, the share of online grocery orders over the overall UK grocery market for 2021 clocked in at 15% vs. a 7.7% share recorded for 2019. This change has proved resiliency also after the end of the restrictions, with analysts forecasting a further uplift in the coming years[7]. In facts, with hindsight, UK data had already signalled that the country, grocery-wise, was ready for a structural change thanks to the tech-orientation of its citizens. For example, at year end 2019 and 2020, 47.4% and 48.7% of UK grocery shoppers made some purchases online[1], marking an increase by only 985'000 new shoppers (corresponding to a 3% increase): in the same timeframe, the overall online grocery market increased in size by 70%. Hence, the huge uplift was driven mainly by consumers shopping more and becoming regular online purchasers rather than a huge mass of completely new customers. This trend is becoming more visible after the pandemic, especially in younger generations.

Technology shift & future generations

The younger the grocery shopper, the higher is the percentage of their household budget spent ordering shopping online and the less they spend in-store[6]. This is another factor that should worry supermarkets that rely primarily on in-store custom because, although 72.4% of 55-65-year-olds' food spending still happens in-store, this figure drops markedly in younger age groups: the 35-44 age bracket spends only 61.6% of their food budget in-store, the lowest out of all age groups. 60% of UK consumers are already doing some food shopping online. Additionally, almost 20% have switched to ordering most or all of their groceries on the internet.

Q-Commerce

Even in a post-lockdown environment where consumers are potentially less reliant on online delivery to meet their basic grocery needs, the major players in the UK grocery market have recognized Q-commerce ("Quick Commerce") as a way to further satisfy consumers' desire for convenience. In a manner comparable to what convenience formats provide in the offline channel, it offers the quickest and most convenient delivery of a smaller assortment at a higher price per item. The market opportunity for immediacy grocery has been identified of being around £3,3bn in 2026, a 136% increase from the actual £1,4bn market size in the UK, according to IGD[18]. Moreover, a different research[18] estimates that the market size in 2026 will range between £5bn and £10bn, representing 2,2-4,4% of the overall industry's sales. Being aware that it is still too early in the growth of the channel to draw any conclusive judgements, we can state that immediacy players could gain grocery market share among consumers who value freshness, are less well-organized, time-squeezed and are not particularly price-sensitive. In 2021, 38,3% of UK customers already use an instant delivery service and 73,1% of them used it to buy groceries rather than merely food service or takeaways[7]. Additionally, in the UK more than 75% of consumers are planning to continue using this service even after the pandemic will be completely over[1]. Although these percentages can still be considered low, for Ocado this can be interpreted as a crucial opportunity to rollout its Zoom concept more widely. This could also benefit the retail media income of the company because clients would be more attractive due to a younger, more urban and tech-savvy target. Furthermore, because grocery immediacy is most likely to work in areas with very dense population and flexible labour laws (so UK and US more than Scandinavia for example), the retailers that are particularly at risk are those that have a large exposure to convenience chains in dense urban areas, such as Tesco and Sainsbury's, which derive respectively 10,4% and 10,6% of UK sales from their convenience stores. So, if Ocado will be able to do implement Zoom concept broadly and if it will turn out that consumers are happy to accept 'moderately fast' delivery (c60 minutes for Zooms rather than c15 minutes of other immediacy grocers) in exchange for a wider selection (on average 4x wider than other immediacy grocers and with a basket size 4x bigger than competitors[19], it could gain a good portion of this segment by increasing the number of deals signed with partners.

Ecosystems

Grocery retailers will continue to expand beyond their core business by building ecosystems that generate additional value for stakeholders, especially in Asia and in the U.S. where this business model is already well established[1]. In this way, customers may satisfy a variety of needs in a single integrated experience thanks to an interconnected collection of products and services. This would entail the possibility to buy also household items and pharmaceuticals, or to bank at the store. According to a McKinsey research[1], grocery players with some ecosystem activity in their network have, on average, an EV/EBITDA multiple 5x higher than the overall average for grocery companies. This can be explained by increased sales opportunities driven by monetizing increased loyalty and new fee-based services. However, to succeed in pursuing an ecosystem strategy, retailers need i) a vision and strategy with strict prioritization ii) ambitious risk-tolerant senior leadership iii) an organizational model that supports the necessary cooperation and agility iv) to improve technology capabilities through automated and scalable tools v) to develop an appropriate and varied portfolio of partners. These are all characteristics that Ocado already has and that they can guarantee a crucial competitive advantage in the future and more partnerships signed with clients for international CFCs, as showed in the Section "Sensitivity Analysis" (p. 27).

A thesis supporting warehouse automation

The pandemic has not only accelerated adoption of online solutions by customers, but has also paved the way for a transformation about how grocery retailers will serve those new customers, which we believe will be based on more automated warehouses. The warehouse-automation market for the broad retail world is forecast to reach $51 billion by 2030 (a 23% CAGR)[29], with the trend supported by 4 justifications that we see as very solid.

Rising labor costs (being this the strongest driver): the ongoing inflationary pressures have just exacerbated further the pressure on labor costs started with the pandemic, and employees inside warehouses and groceries were not exempt. For example, if we look at the US as a proxy, we observe the average hourly wage achieving record peaks of $24 and $22.5 (Figures 16-17), respectively for the retail and warehousing/storage sectors. On the grocer perspective, the increase in wages can be the right catalyst towards a change. Indeed, serving online customers through in-store fulfilment shows limitations in terms of scalability and, combined with increasing wages, makes it harder to turn such practice into a profitable operation. Moreover, if we argue for a shift to warehouses, existing fulfilment centres which do not use the most up-to-date technologies could become obsolete very soon. Indeed, according to BCG, traditional warehouses could have labor amounting up to 60%-65% of fulfilment costs[(30)], with the trend of rising wages not likely to stop as many old warehouse workers retire and younger generations are less attracted by such career or see it as temporary work (which is not efficient). Inevitably, the new choice can't be either in-store fulfilments or traditional warehouses, making new automation more and more attractive.

Figure 16: Average Hourly Wage ($) – Warehousing and Storage US. *Source: National Bureau of Statistics – March 2023*

Stronger appetite for network solutions: according to McKinsey[30], grocers have hesitated on committing to big automation projects due to the high CAPEX and the inability to serve households in efficient ways, namely serving both top-up immediate purchases and full weekly groceries. With tech providers having refined their offerings, such services start to be more compelling than before. Ocado itself has rolled out a system (Ocado Re:Imagined) that is able to cover a broad offer range (by size and by time delivery) by exploiting CFCs of different sizes (so Ocado zooms and standard CFCs) working in sinergy, but only since early 2022[32]. We believe this trend can catch up and favor further the transition.

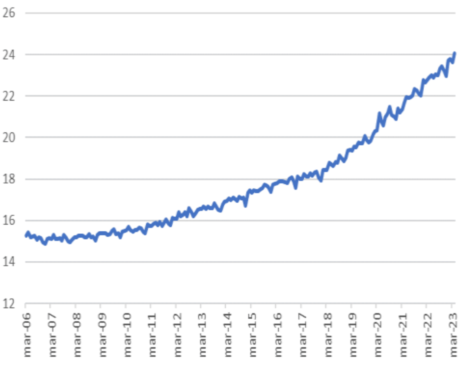

Figure 17: Average Hourly Wage ($) – Retail Trade US. *Source: FRED St.Louis Fed – March 2023*

Cash buffer: using excess cash accumulated during the pandemic to invest today can help to manage cost pressures tomorrow. This is especially true for grocers worldwide, who have benefitted of stable performances vs. other categories such as restaurants and leisure, in the last years. Combining this with the opportunity cost of cutting down labor expenses, the required CAPEX could appear softer as never before.

In a recent McKinsey survey of 50 retailers across apparel, grocery, and other key sectors, more than 80% of respondents indicated they intend to increase automation investments over the next two to three years[30]. As a proof, several retailers have publicly committed significant capital toward their automation strategies. In the last 5 years, Ocado alone was able to sign contracts with 12 international players, for an amount of modules equivalent to £22bn of annual sales. Additionally, Walmart plans to allocate nearly $14bn for warehouse automation and other business areas[30], and other players such as Albertson, FreshDirect and Edeka[30] are funnelling their transition, although relying on small players other than Ocado.

Higher accuracy: finally, automated warehouses can work on the technological advantage brought in by picking robots. Thanks to them, a grocer can achieve faster delivery times and higher order accuracy thanks to faster and automated item picking, as well as greater SKUs selection because automated facilities can use more efficiently their space (no need of aisles for human-driven machines).

UK Online Grocery Competitive Landscape

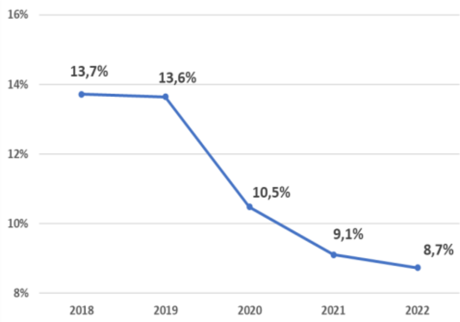

Figure 18: Ocado Historical UK Market Share

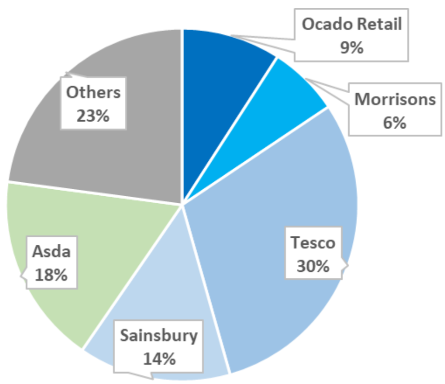

Figure 19: UK market share split 2022

As the demand for online groceries is expected to grow in the years to come, the space of Ocado Retail competitors is getting more and more crowded, as a reflection of the attractiveness of the segment. As relevant competitors, we identify the following names: Tesco, Asda, Sainsbury and Morrisons. Market share data from BoardBia[22] show that the aforementioned players, including Ocado Retail, made up 77.1% of the online grocery market, as of 2021. This statistic makes it clear that they are likely to be the names contending for the dominance in the industry. Each player relies on a different business model to shape its online offering but with a common denominator: the use of fulfilment centers, be them the single pillar of the plan or be them in combination with third-party click-and-collect services and in-store fulfilment.

Tesco

With revenues amounting to £61bn during FY22, Tesco is the biggest UK grocer. Thanks to its historical presence and its 3478 stores only in the UK mainland, Tesco is able to achieve and serve 99% of UK postcodes. Over the years, they have articulated an online offering based on 3 pillars: i) “Tesco Whoosh”, rapid 60-minutes delivery or click-and-collect service, reliant on 1000 Tesco stores ii) 9mn regular users in the app of “Clubcard”, Tesco customer card owned by 20mn UK households, from where potential buyers are exposed to the whole online offering iii) 6 "Urban Fulfilment Centers" of which none is located in London metropolitan area.

Such action plan made Tesco able to collect £5.6bn of sales through its online channels during FY22, with its management claiming to have a 35% market share in the online domain: BoardBia estimations[22], included in the model, confirm Tesco as the 1st online player in UK. Tesco fulfilment centers are located in the following locations: West Bromwich, Lakeside, Bradford, Horwich, Rutherglen, Cambridgeshire. The initial plan involved the opening of 25 centers; however, the company has recently declared to slow down the rollout in order to take a "test and learn approach".

Sainsbury's

With a £30bn annual sales firepower, Sainsbury's is another player who has committed to fight into the online grocery war. Its long-lasting presence allows the chain to serve 99% of the population, thanks to 1408 stores as of September 2022. BoardBia[22] assigned to Sainsbury's a 14% market share, dragged up by many initiatives: i) click-and-collect initiative in 316 stores ii) rapid 30-min delivery carried out thanks to "Chop Chop", proprietary service backed by 86 Sainsbury's stores, as well as partnerships with Deliveroo and Uber Eats iii) transformation of Argos towards an online player through 11 "Local Fulfilment Centers", dedicated to ship Argos products (which do not include grocery). The catalogue retailer Argos, bought by Sainsbury's in 2016, is becoming pivotal in Sainsbury's online development. Indeed, the opening of 11 LFCs was backed by a reduction in the number of Argos standalone stores, which passed from 570 end of 2019 to estimated 280 as of April 2023. Thanks to this shift, 40% of Argos sales are originated online. Moreover, the clients gained through online delivery are offered the possibility to click and collect their order at Argos stores. And here the synergies with Sainsbury's kick in: Argos counts an increasing number of stores inside Sainsbury's locations (which passed from 306 to 430 in the same timeframe of the standalone closures). The intention is to bring in clients thanks to Argos and make them do the grocery at Sainsbury's. Argos currently operates through 11 LFCs, 10 of which are located in the following towns: Beeston, Belvedere, Eastleigh, Speke, Gelderd RD, Stretford, Sheffield, Croydon, Stoke-on-Trent, Barton.

Figure 20: Fulfilment Centre Map for Tesco (Red) and Sainsbury's (Blue)

Morrison's

With a low 4.5% market share, we do not think Morrison's will play a relevant role in the battle, for 2 main reasons. First, the company online operations entirely rely on agreements with Ocado UK&L and they are limited to Erith and

Dordon CFCs (located respectively close to London metropolitan area and Birmingham) as well as a dependency on Ocado In-Store Fulfilment platform present in 450 Morrisons stores. Given the huge reliance on stores and limited scalability, the company cannot grow drastically online-wise. Secondly, the company is currently experiencing difficulties in managing its £6.6bn debt pile, which was raised in 2020 during the pushed leveraged buyout carried out by current owner CD&R (transaction EV was £10bn). With higher rates and a downgrade of its debt to B by Fitch in December 2022, the company is not focused on investing further but rather on disposing real estate properties to de-risk its staggering capital structure.

ASDA

Although ASDA has a relevant 17% market share according to BoardBia, we do not include the grocer in the analysis due to little press coverage and absence of public information, as the company is PE owned.

Fiscal Year 2022 Analysis

Income Statement

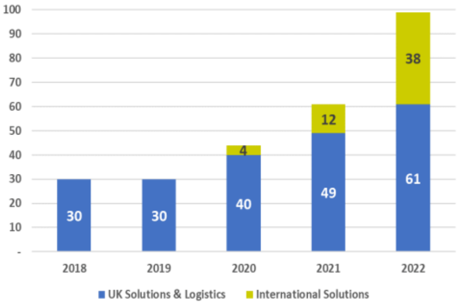

Figure 21: Historical Ocado's Modules Live

Ocado's core revenues experienced a slight increase of 2,8% from FY21, while they have maintained a CAGR of 12% in the last 5 years. During the past year, UK S&L and Ocado IS are the two segments that drove the raise in revenues (respectively +13% and +122%). Revenue at Ocado Retail fell by 4% to £2.2 billion despite active customers rose by 13% reaching 940k, leading to orders growing by 5,6%. Ocado IS growth has been driven by the rollout of OSP in FY22, with modules that increased from 12 to 38 (Figure 21), and it will continue in 2023 entering for the first time the APAC region by launching partner sites in Australia and Japan.

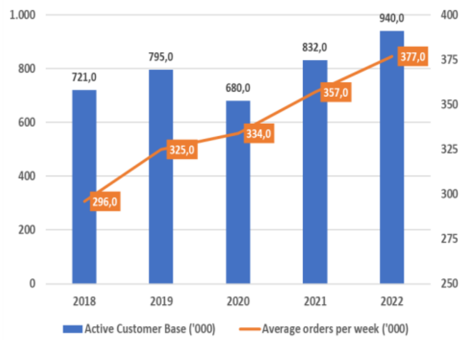

Figure 22: Ocado Active Customer Base and Average Orders per Week

Overall, because Ocado Group is still in a CAPEX-intensive phase, hence-it has continued to report negative results, reaching this year an all-time lower value of £361 million of net loss (-53% from FY21) and reporting for the first time a negative EBITDA of £74 million. 74% of the net loss was reported by Ocado IS, mainly because of the huge investments the company is doing to deliver CFCs to partners. With the scalable solution of OSP, in fact, the company will increase its core ROIC considerably thanks to less investment required for developing and improving this platform because it could be used by new partners with lower costs for Ocado.

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Balance Sheet

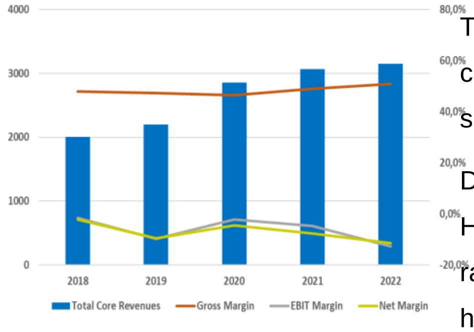

Figure 23: Ocado's Margins

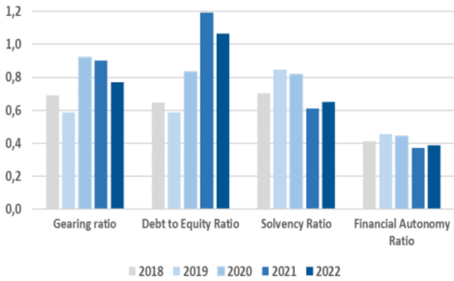

Figure 24: Ocado's Capital Structure Ratios

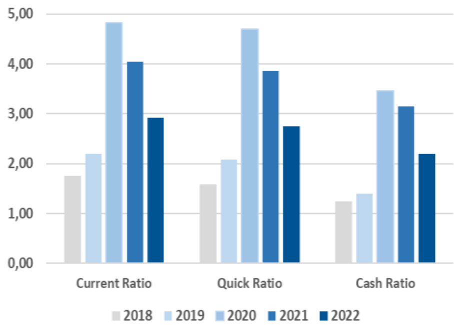

Figure 25: Ocado Liquidity Ratios

Liquidity ratios	2022
Gearing ratio	0,77
Debt to Equity Ratio	1,07
Solvency Ratio	0,65
Financial Autonomy Ratio	0,39
Current Ratio	2,92
Quick Ratio	2,75
Cash Ratio	2,19

Figure 26: Ocado 2022 Liquidity Ratios

Total equity increased by 15% from FY21, reaching £1,9bn during FY22 as a consequence of the capital raise executed during the year. Indeed, new ordinary shares were issued in June 2022 for total proceeds of £564mn[(24)]

D/E ratio increased considerably in FY20 and FY21 (+103% from FY19 to FY21). However, even if it remains slightly higher than the industry average (0,87[10]), this ratio has decreased by 11% during the past year, reaching a value of 1,07. This huge spike is the consequence of what we noted before: Ocado is still in its investment phase, it is currently not able to generate cash autonomously and hence it needed to raise external cash in order to execute its plan. This current phase that the company is experiencing is also confirmed by a fixed asset turnover ratio of 1,25 which decreased over time mainly due to a 261% increase of PPE and right-of-use assets in the past 4 years.

Ocado seems to have a sustainable amount of leverage to finance its activity in the long-term, with a strong autonomy from creditors as confirmed by a financial autonomy ratio equal to 0,39 (+5% vs FY21). The positive capital structure is confirmed also by a solvency ratio equal to 0,77. Although it decreased by 16% from FY20, it remains solid and demonstrates Ocado's capacity to pay more than three quarters of its obligations with the capital that has been invested or generated by the company.

From a liquidity perspective, looking at the ratios, Ocado seems to be solid at least in the short-term. Cash & cash equivalents now cover 219% of the current liabilities of the firm, with a current ratio equal to 2,92, higher than the industry average (0,80[10], with Tesco and Sainsbury's that have this ratio equal respectively to 0,71 and 0,68). However, we believe that this current strong cash position of £1.3bn is purely temporary and will be burnt through investments.

Value Drivers and Forecast

Ocado Retail

We build a top-down model starting from the UK population (which is the only market served by the Online Grocery unit) and looking at the location of the UK CFC sites currently in operation as well as the future ones under development. Indeed, we build and provide a location map in the model: it is evident that Ocado does have a geographical limit as regards the portion of UK population which it can serve. Specifically, 8 CFCs out of 14 (i.e.: 57%) are located around London Metropolitan area, with the rest being spread in areas from which it is possible to serve Bristol, Birmingham, Manchester, Leeds and Liverpool. Such conformation leaves uncovered a relevant part of the UK territory, namely the South-East, a good part of the Mid-East and the whole Northern corner. According to our view, Ocado Retail is able to serve 4 regions, amounting to roughly 43% of the whole UK population: West Midland, South East Region, London Metropolitan, North West England. Based on this, we make a historical analysis 2018 – 2022 as follows:

Figure 27: CFC Map for Ocado UK S&L (question marks for future CFCs)

- We collect data on the aggregate UK population and singularly on the 4 regions previously identified (from now onwards "OR scope"). We do the same for the size of the UK Food Grocery Market and the relative online penetration.

- By combining the data with Ocado revenues, we see that Ocado market share is between 8-10% at a national level. Given that Ocado only serves 4 regions, we also estimate a market share on the OR scope, which ranges between 20% and 32%, historically.

Figure 28: Fulfilment Centre Map for Tesco (Red) and Sainsbury's (Blue)

- We choose to use Ocado implied market share as the reference input for our revenue model. We make this choice because the grocery industry is generally characterised by low switching costs for customers and fierce competition between grocers. Hence, the performance of a grocer does not only depend on internal factors (such as number of stores/locations, delivery vans, modules installed) but also on the competitive dynamics of the other players, which in Ocado Retail specific case are Tesco, Sainsbury's, Morrisons and Asda. Indeed, it's no surprise if "46.1% of Tesco shoppers said they also shop in Aldi, whilst 41.5% said they also shop in Lidl" (GlobalData 2021 How Britain Shops survey[7]). We think Ocado will be able to get back to the 32% market share on the OR scope that they achieved back in 2019 (we explain our thinking in the next section).

- Concerning cost drivers, we start by looking at historicals of the average basket value per order and we take as a proxy for the future the 2022 value, which is lower than the previous years. We make this choice as we agree that, post annulment of Covid restrictions, consumer habits are going back to a pre-pandemic lower basket size, as shoppers don't fear any longer a potential scarcity of goods, typical in pandemic times as consumers were used to stockpile.

- We underline once more that Ocado Retail is client intra-group of Ocado UK S&L. Consequently, we make sure that the revenues on one segment P&L exactly match the costs on the other. Ocado Retail pays to UK S&L recurring fees for the use of modules and a series of recharges involving trunking and delivery of products.

Ocado Retail: our thinking on its market share

As we pointed out before, our model estimates that Ocado market share in the OR scope, back in 2019, clocked in at 32.2%. Such percentage translates into a 13.2% at a national level. This market share is pretty high, but we find it reasonable and we think Ocado will be able to get back to it, thanks to its first mover advantage. Indeed, Ocado was the first player to enter the online grocery market and the first to build high-technology CFCs: this way it was able to pick the best locations, especially around London, from which to serve its customers at a lower cost. We also acknowledge that such geographical advantage benefits of higher entry costs for competitors as the rental prices in London industrial area have skyrocketed post pandemic, in the midst of a Real Estate Logistics boom currently ongoing[(25)]. Hence, the advantage is twofold: for competitors, tapping into the London market means facing Ocado direct cost advantage and also paying high rents. This thesis seems to hold if we give a look to the locations where Tesco and Sainsbury's have decided to establish their fulfilment centres. If we plot them in a graph (that we leave on the left), it is evident that they are trying to target secondary cities, leaving the wealthier and more promising market fully in the hands of Ocado. A reasonable question to ask us is why we model exactly a long term 32% when, as of 2022, it clocks in at 20.4%. We think the market share is temporarily squeezed by the way the online market grew in the last years, which was as follows:

- The pandemic biennium 2020-2021 was an emergency period during which online prone-customers got closer to online grocery (985'000 new regular customers in UK[1]).
- In this situation, the majority of the new demand was absorbed by traditional grocers thanks to their wider commercial power, even if their service was barely profitable. In such situation, players such as Sainsbury's and Tesco were able to build up their position.
- In 2022 Ocado Retail market share still drops, but we think the big reason is the slowdown in the UK economy, which puts under more pressure premium online services.

In the long term, Ocado will be able to re-gain market share as consumers who turned to online will recognize the superiority of its service. After the pandemic, around 60% of shoppers are more oriented to start switching again between different retailers[20], confirming this trend. This can be explained by having the best locations around the wealthy and online-prone London, which accounts for a great part of the total market share but that it seems not to be targeted that much by Tesco and Sainsbury's. Last, we adknowledge that Tesco and Sainsbury's are facing difficulties in their online strategy rollout (especially Tesco), which further paves the way for Ocado market share recovery. As of end of March 2023, Tesco was forced to raise up fees both upstream and downstream in an attempt to make its online structure more sustainable. First, it announced a fee charged on suppliers which would see their products sold through online channels. Secondly, they raised fees on clients: the free-delivery service is now available for baskets by £50 or higher (vs. £40 prior) and, in case of smaller purchase, the charged fee would be £5 (vs. £4 prior)[31]. The new commercial conditions are creating frictions along the supply chain, with discussions ongoing with the suppliers. All in all, Tesco has never reported their online business operating margin and the only market news is that the unit has not achieved yet a break-even point. Sainsbury's, conversely, has declared they "will not pursue an unprofitable business"[25], but with its FY22 financials (disclosed end of April 2023[26]), they admitted their online sales to be down 17% vs FY20, which in our opinion is a weakness of the overlapping with Tesco in the out-of-London areas. The drop in Sainsbury's customers would also sustain our thesis that, during the pandemic, traditional grocers benefitted mostly from an urgency situation of people and not from an efficient online grocery business proposition. Additional complications for the 2 competitors could arise from their higher reliance on traditional labor, skewed to become more expensive as the high inflation factors in, at a time where the UK unemployment rate runs at relatively low levels (3.8% as of April 2023). All in all, we do not think those competitors have strong momentum to avoid a recovery of Ocado.

UK Solutions & Logistics

We employ a bottom-up methodology to identify the most significant revenue drivers for UK S&L. We consider sales capacity of CFCs as the main driver because recurring fees depend on it. We considered inflation as an additional driver for revenues, while for tracking efficiency we used the mature CFC efficiency expressed by Units per Hour (UPH), which reflects the average eaches (i.e. items) processed per labour hour. We considered this KPI for the forecast of administrative costs because higher efficiency inside CFCs would reduce them. By looking at historicals of sales capacity and fees collected, we came up with a 4% annual fee, which differs from the mid-single digit fee (5,5%) disclosed by the company for its international CFCs. We consider the difference as reasonable because from its UK operations the company receives pounds, while for the international operations it is exposed to the currency risk, which is a credible justification to require a higher fee. Considering that Ocado's business in UK is already at a mature stage and that between 2025 and 2027 the firm will have concluded its investment plan to arrive at its target levels, we assume that the growth of CFCs will stop once the modules already ordered (70) will be live (around 3 years). So, we estimate that the number of UK CFCs will reach 14 in 2025, considering around 3 years to fully develop these CFCs already ordered, and then it will remain stable in the future because we believe that to forecast additional CFCs not yet planned by the company would overvalue the business. With our model the growth of revenues would be slightly lower than the previous years (10% in 2023) as an additional confirmation to our belief that this segment has already reached if not a mature stage at least a good point in its growth path.

We forecast that Ocado's business will be very high capital intensive especially due to CFC expenditures. We estimate a depreciation rate of 7% based on useful life of PPE items disclosed by the company.

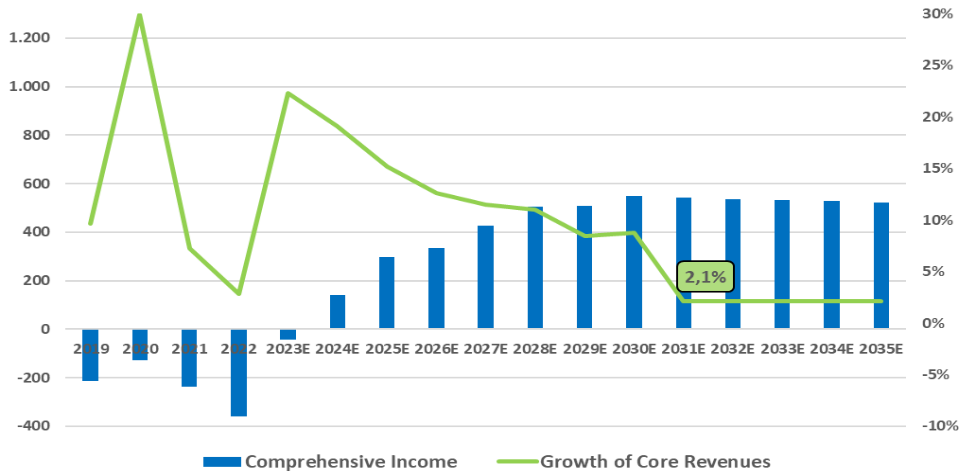

Figure 29: Comprehensive Income and Growth of Revenues Forecast

International Solutions

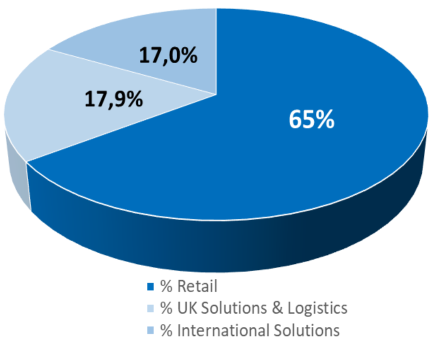

Figure 30: Ocado Long-Term Core Revenues Split - 2035

In line with the logic applied for the UK S&L projection, we forecasted IS revenues based on the sales capacity of CFCs. This business unit is the one with the highest opportunities of growth in the next few years, as we value it still at the beginning of its growth path. Ocado plans to sign partnerships with new partners not only in countries where it is already present such as U.S., Canada, France and Sweden but also in other markets such as Australia and Japan, where it already has a few deals signed for building new CFCs. For this reason, Ocado's projection of having around 300 modules live in mid-term from the 38 live in 2022 seems reasonable to us and, to some extent, conservative. We forecast that Ocado IS will experience a double-digit growth until 2029 to reflect this

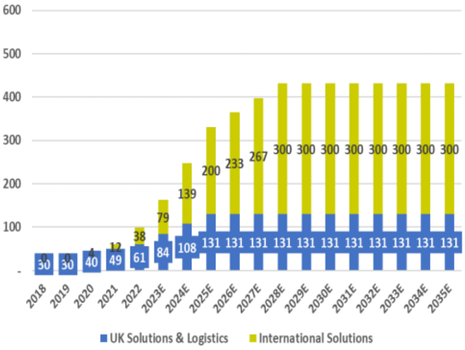

Figure 31: Forecast Number of Modules

considerable expansion. The markets that the company has not explored yet are numerous, from those ones where it has already signed partnerships for the next few years, such as Australia, Spain or Japan, to possible new ones where Ocado has not expanded yet such as Germany, Italy and Netherlands. The travel restrictions which were occasionally put in place during the pandemic were a real barrier for Ocado to signing new deals, because it was difficult for the company to showcase its existing facilities to potential new partners. Now that these have stopped to be an obstacle for the company's business, we estimate new deals coming in the next few years. Also, the management is considerably optimistic about signing new deals. The CEO on 21 July 2022 stated: *"there are a high number of detailed conversations going ... that hopefully will result in some piece of business at some point in the future that could be in one month, but it could also be in one year or in 18 months"*. Additionally, it is important to note CFO's comments from 25 May 2022 when he noted that *"I also feel quietly confident that we're going to win additional orders from existing clients".*

We estimate that this segment will be the major driver of growth in the next few years for the company, representing the real long-term value of Ocado. Indeed, we forecast that the revenues of this segment will represent 17% of total Ocado's revenues (4,7% in FY22) and roughly 60% of the cash flows. From 2030 onwards, we estimate that the growth of this segment will slow down and will be in line with inflation, having the business unit reached its maturity (= the targeted 300 modules will be delivered). Our revenue model includes recurring fees and upfront fees (=fees that clients pay in advance to allow Ocado IS to partially cover construction costs). We forecast that in 2023 revenues will reach £509m, with a considerable spike from the previous year. This is a consequence of the increase in the number of modules live (+107%) and an accounting adjustment we do. Indeed, we consider upfront fees as revenues, while Ocado is forced to record them as contract liabilities as long as the modules are not delivered to clients. As we think there is no execution risk (the Ocado platform has proved to work), we cancel out contract liabilities and move them to revenues. For the recurring fee we use a mid-single digit fee at 5.5% of sales capacity as disclosed by the company, and our projections are in line with what Ocado estimates (around £1,1bn recurring fees in mid-term).

Valuation

As a path undertaken to estimate our target share price we adopt the following process: we estimate the unlevered Enterprise Value of each business unit separately from the others; we exclude the 50% minority interest held by M&S in Ocado Retail; we add 3 value-adding items, namely i) other operating assets ii) tax losses carry forwards (to date, Ocado Group has £973,9mn of accumulated losses) iii) interest tax shield; we deduct the net financial debt as of end 2023; we estimate our share price based on the diluted number of common shares outstanding.

For what concerns the Enterprise Value, we base our valuation on the APV model for a defined forecasted period which ranges from 2023 to 2035. As mentioned earlier, we expect each unit to stabilise in a different year (see bullets below for a wrap-up) and after all the segments have become steady, we let the model run until 2035 to prove the steady state. In that year, we compute the terminal value by unit through the WACC method assuming a targeted capital structure. The terminal values are then brought back to 2023 discounted at the unlevered cost of capital, which is a consistent bridge between the APV and WACC model.

We chose to adopt APV because Ocado Group, as of today, has collected £973.9mn of Tax Losses Carry forwards. As the company rolls out its business plan and turns out to be profitable, it will also be able to take advantage of the Carry. However, its use creates 2 effects that make us prefer the APV approach to the WACC approach:

- Ocado won't pay any tax for some years after becoming profitable (we estimate it fully shields taxes for 2023, 2024, 2025). Thus, the unlevered FCF traditionally used in WACC models, which consider that a firm regularly pays taxes, would need an upward correction to reflect the shield.
- If Ocado does not pay taxes, then the financial debt outstanding is not able to generate any tax shield, as the payments to the state as 0. This makes the after-tax WACC formula inadequate because its use indirectly considers the value of the interest tax shield. The UK government, however, allows to carry non-deducted interest expenses forwards the following years, for a period up to 5 years[27].

Thus, we think that APV is a better option because it allows to handle these complex effects in a smoother way and to underline their impact. Indeed, we start from the unlevered value so that we can value separately the unusual stream of interest tax shields and top up our estimations with the carry forward materialisation in an easier way.

Moreover, we also think the APV is better because we don't believe Ocado will target a capital structure in the coming years. The rising costs of debt are a sufficient signal to state that some companies could limit their efforts to refinance their maturities. We think Ocado belongs to this group, and we have a proof dating back June 2022, when the company preferred to secure further financing through a £578mn capital raise and the opening of a £300mn RCF. The issue was evidently equity-oriented with the management declaring *"this funding secures sufficient liquidity to deliver the requirements of Ocado's existing and expected customer commitments into the mid-term, with no additional Group financing as the business becomes cash flow positive".*

Forecasting Summary

We leave a quick wrap up of our modelled forecasts which bring to the use of the perpetuity formula in 2035, for each unit.

Ocado Retail: from 2030, the penetration of online into the UK grocery market reaches its peak. Consequently, the FCF growth of Retail stabilises at around 3% YoY.

Ocado UK L&S: we follow the guidelines of the management as regards the rollout of new modules and CFCs (131 modules in mid-term). We interpret mid-term as 2025-2027, with a module projected growth in line with historical data (15%). Afterwards, investments required are modelled as maintenance Capex, starting from 2027. From 2031 onwards, the FCF of the unit is around 3%.

Ocado IS: here the same logic as Ocado UK L&S applies. We model 300 modules to be built by 2030. long-term FCF growth is at around 3%.

Cost of Equity

The opinion of the market on Ocado Group has been changing over time rapidly. Indeed, we compute a 52-weeks rolling beta and we get values ranging between -0,13 and 2,15. We use weekly returns given that Ocado Group is not such an illiquid stock, with average weekly exchange of 0.7% of the company market cap.

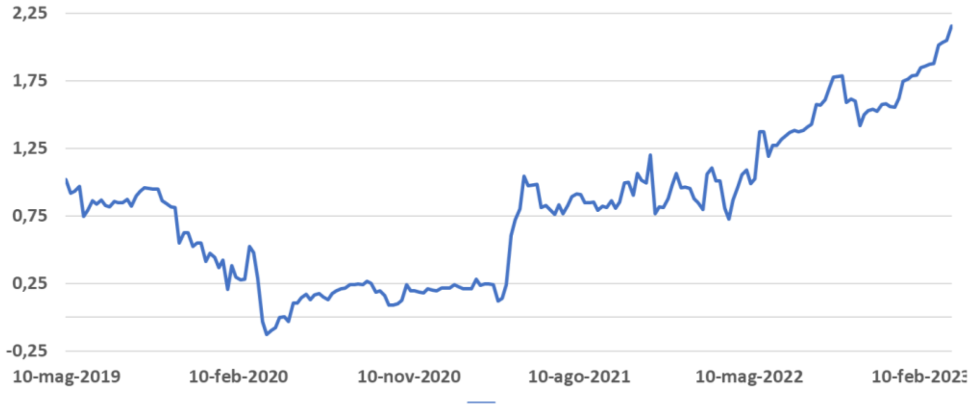

Figure 32: Rolling Beta – Previous 52 weeks

As we noted before, the stock price has been pretty volatile, due to moments of high faith in the company succeeded by times of scepticism. Ocado records a beta of 0,13 and absence of systematic risk in the company in the 52 weeks starting in March 2020. From that moment onwards, Ocado suffers several difficulties, namely concerns over the impact of inflation on its energy bills, the higher cost of grocery items and a deteriorating disposable income that impacts UK citizens more than any other EU peer country, as a result of the conservative bills approved after the 2022 financial storm. Indeed, even if we believe that Ocado will move to a stable fee-based skewed business model, as of today it still has the highest exposure to online grocery, influenced by the risks just mentioned and by actual bad results in their FY22 statements. In the last 52 weeks, the regressed beta lies at 2,15. If we regress the last 2 years of weekly excess returns, we get 1,72 while if we regress the last 3 years we get 1,40. Note that in all cases the confidence interval is always large, as a consequence that the market has changed perspective of the company several times. All in all, we choose to adopt the beta regressed on the last 2 years, because it spins off the overconfidence in online players shown during the pandemic and it includes the current increasing distress risks connected to the exposure to the deteriorating UK market. Interpolating such beta with a current risk free rate at 3.49% and a 5.75% market risk premium, we end up with a current cost of equity at 13,27%. We also acknowledge that Ocado is a unique player in current public markets and as a consequence we choose not to rely on re-levering from competitors. If we look at the Online Retail, the main competitors (Asda, Sainsbury, Morrisons and Tesco), whose business models do involve online grocery, are also based on a strong physical retail model, essential-based oriented and with a different operating leverage and absence of recurring fee-based services. We also refrain from using instant grocery players, such as Deliveroo and DoorDash. Even if their business model appears more similar from the online retail unit point of view, they share an operational problem common to Ocado: they are currently not profitable and the cash available was probably raised to execute investments to be done soon. This implies that their marked-to-market Net Debt could be undervalued because it erroneously subtracts cash that is all but not in excess (DoorDash ND / EV is -17%, Deliveroo is -105%), as it may be used for investments.

	Beta	*Lower 95%*	*Upper 95%*
Last 52 weeks	2,15	1,14	3,17
Last 2 years	1,7	1,05	2,35
Last 3 years	1,42	0,96	1,88
52 weeks between 1y and 2y	0,84	-0,02	1,69
52 weeks between 2y and 3y	0,13	-0,56	0,83

Figure 33: Beta Regressions on multiple time datasets

Conversely, if we only look at automated logistics players, we think the only traded peer is Autostore, Norwegian-based logistics provider which operates not only in logistics for grocery but also for pharmaceuticals, industrials, and retail shipping. Since the company went public, it reported a levered beta of 1,33. This implies an unlevered value of 1.25, which is basically equivalent to what the market has assigned to Ocado. The similarity of the 2 players is proved also by the ongoing legal dispute between the 2 companies, which involves several patents and is brought forward in different courts all over the world. On March 31st, a London-based court has declared that Ocado has not infringed any of Autostore patents, gifting the stock price a 10% positive uplift(28).

Cost of Debt

We compute 2 different costs of debt, pre-refinancing and post-refinancing. As of today, Ocado shows a low cost of debt at around 2.9%, fruit of issues done when liquidity was cheaper and faith around the company more positive. A refinancing window will open between 2025 and 2027, that is when all the bonds issued will expire. The most likely scenario is a refinancing, as 2026 is the first year where the company generates a positive FCF. Today, the company has a BB rating and YTM on current bonds averaged at 12% (Figure 34).

Bonds	Coupon Rate (per annum)	Yield	Maturity Date	Conversion Price	Fitch Rating
Ocado 0.875% Fixed 09/12/25	0,875%	11,67%	09/12/2025	17,93	BB-
Ocado 0.75% fixed 18/06/27	0,075%	12,07%	18/01/2027	26,46	BB-
Ocado 3.875% fixed 10/08/26	3,875%	12,48%	10/08/2026	no	BB-

Figure 34: Ocado Traded Debt Securities

However, we expect a spread on the risk free rate in line with BB rated companies (3.50%) because i) we think Ocado will be able to regularly carry out its planned expansion and in 2026 it would be closer to positive cash generation, hence it will have a lower default risk, and ii) at a 12% rate it is unlikely that Ocado would refinance its debt rather than issuing new capital. This procedure generates an average cost of debt, from 2025 onwards, of 6.5% (for simplicity computation-wise, we just assume a change of the interest on all the borrowings and not a gradual one year by year). We also note that 2 bonds outstanding have a conversion option embedded, which we do not expect to be exercised as the conversion prices reflect older perceptions over Ocado performance.

APV model: details and conclusions

As our valuation reference is the APV, we followed the additional steps to put it into action:

- We compute the unlevered cost of capital at 10.8%, which becomes our reference discount for any FCF of the 3 business units, as such rate does not automatically create any interest tax shield at the numerator.
- We assume targeting only in perpetuity, for which we compute a WACC at 10.25. We precise that the perpetuity formula, which contains the value of

the tax shield in perpetuity, is then fully discounted back at the unlevered cost of capital.

- Our approach, in the base case, generates a value of £5,88 per share. Again, we expect the number of diluted shares to be equivalent to the number of outstanding shares, given that the conversion prices linked to the bonds are realistically unachievable.
- 79% of the company value comes from the 2 Ocado Solutions emerging units, split up into 24% for UK S&L and 55% for IS. Conversely, Ocado Online Retail contributes with a weak 11% vs. a FY22 contribution to revenues which is equal to 70%. It is clear that the high risk linked to Ocado equity is partially attributable to the fact that the majority of the value comes from business units that are not yet fully operational, allowing the market to incorporate the uncertainty as long as the execution plan is not a concrete reality.
- All the other components have a 13% weight on company value. We acknowledge that the value of tax loss carryforwards is minimal at 3%, while the tax shield contributes 4%. Other non-operating assets weigh 2% and comprise the value of their JVs, the hedging portfolio and the financial assets. From the value of the latter we exclude earn-outs which M&S could pay in 2024 depending on the performance of Ocado Retail, in relation to the 2019 acquisition of the 50% stake. Even if conditions on the payment are not disclosed, we do not think it will occur as this is the most recent belief of Ocado itself, which passes from reporting the fair value of the earn-out at £170.3mn to £98.3mn (the company is required to estimate a fair value reflecting the likelihood of the payment).
- The current estimation constitutes a 24,48% upside to the current stock price.

Sensitivity Analysis

We perform two different sensitivity analyses to assess possible risks which can influence the valuation. We execute the first one on the number of international modules that the company will rollout in the long term and the market share that Ocado Retail will have in the long-term, while the second one on the WACC.

Ocado Retail Market Share & International Modules

We perform a sensitivity analysis on the international modules delivered as of 2028. As the IS division accounts for 60% of the long-term cash flows, a slow-down in its roll-out could impact negatively Ocado target price. We assess the possibility that the modules which have already been ordered as of 2022 (162) will take more than expected to go live. According to the company's projections, modules need an average of 3 years to ramp up to full capacity. However, there is a risk that this time horizon could increase by 1 or 2 years, due to either inflationary pressures on clients or willingness of partners to take a "test and learn" approach, as done for example by Tesco in its strategy. However, we consider that it is highly improbable that the go-live date could be pushed more than 2 years with a contract already signed. Two reasons for this are that these partnerships with Ocado usually guarantee the clients also an exclusivity for OSP technology inside those countries. For this reason, risking letting the deal collapse could cause, in addition to paying high fines, to lose this technology solutions to their competitors. We believe that in a sector such as online grocery where the switching costs are low, this aspect could be of extreme importance for the partners. So, we decided to consider the bad scenario less likely to happen than the good one, with the lower and upper bounds for the number of modules being respectively 225 and 400, instead of 200 (equal to actual number of modules (38) plus the modules already ordered (162)) and 400, as shown in Figure 20.

Market Share & International Modules Sensitivity - Ocado Stock Price

		2028 International Modules Live								
		225	**244**	**263**	**281**	**300**	**325**	**350**	**375**	**400**
2030 Ocado Retail implied market share	**24,2%**	4,43	4,62	4,82	5,02	5,22	5,48	5,75	6,02	6,28
	26,2%	4,49	4,69	4,89	5,09	5,29	5,55	5,82	6,08	6,35
	28,2%	4,56	4,76	4,96	5,16	5,36	5,62	5,89	6,15	6,42
	30,2%	4,64	4,83	5,03	5,23	5,43	5,69	5,96	6,22	6,49
	32,2%	4,71	4,91	5,11	5,30	5,50	5,77	6,03	6,30	6,57
	34,2%	4,78	4,98	5,18	5,38	5,57	5,84	6,11	6,37	6,64
	36,2%	4,86	5,06	5,25	5,45	5,65	5,91	6,18	6,45	6,71
	38,2%	4,93	5,13	5,33	5,53	5,73	5,99	6,26	6,52	6,79
	40,2%	5,01	5,21	5,41	5,60	5,80	6,07	6,33	6,60	6,87

Figure 35: Sensitivity Analysis on Ocado Retail Market Share and Number of International Modules

On the other hand, the company could deliver more modules than planned, considering the already developed partnership with some of these clients and additional contracts in other geographies. This could be caused also by the future trend which sees grocery players building high ecosystem activity in the near future, as described in the Section "Future Trends (p.10), increasing loyalty and their revenues via different streamlines. Considering a base scenario for Ocado Retail market share (32%), the stock price will range between £4,43 and £6,87 for all the possible number of international modules that will go live before 2028.

Market Share & Int. Modules Sensitivity	
Average	£5,58
Median	£5,53
Lower quartile	£5,04
Upper quartile	£6,09
Final price	£5,50

Figure 36: Ocado Retail Market Share & International Modules Sensitivity Measures – Ocado Stock Price

Regarding Ocado Retail market share, we consider 40% as upper bound mainly due to three reasons. The trend described above in Ocado Retail section (p.19) underlines higher loyalty in consumers after the pandemic. The company could benefit from this thanks to its first mover advantage and the good scenario would see Ocado Retail market share increasing by incorporating a portion of the share assigned today to minor players, with a sector that would become slightly more concentrated. The second reason is the consolidation that is likely to happen within the sector. Indeed, we estimate that with acquisitions of immediacy grocers made by existing grocers and mergers between immediacy grocers, the biggest players in the market such as Ocado will increase their share if this scenario will prove to be true. The third one regards a quicker than expected bounce back to pre-pandemic levels primarily due to customers understanding with time the excellence of Ocado's service and to the recovery of the UK economy. Furthermore, we rate 24% as the lower bound for Ocado Retail market share. One of the main risks for this bad scenario is a slower than expected change in customer habits and preferences between different online retailers. This could cause customers to not change the first option they chose during the pandemic, or at least to not change it in the short-term. This sensitivity analysis provides a wide range of prices for Ocado's stock price, with the median value equal to £5,53, in line with our valuation, as shown in Figure 36.

WACC

WACC Sensitivity	
Average	£6,58
Median	£6,06
Lower quartile	£4,58
Upper quartile	£8,31
Final price	£5,50

Figure 37: WACC Sensitivity Measures

For what concerns the cost of equity, we use different values for the beta levered, which we make vary in the interval of 2 standard errors, because of the rapid changes in prices of Ocado's stock, as explained in Section "Cost of Equity" (p.24). For the cost of debt, we use the risk-free rate (3,5%) as the lower bound and the value we estimated as the upper bound as we believe that is probable that the company will have a lower default risk than today, for the reasons explained above in Section "Cost of Debt" (p. 26). Moreover, the company is unlikely to refinance its debt at the current 12% YTM rather than issuing new capital.

Ocado Stock Price - WACC Sensitivity										
	Cost of Equity									
		9,5%	10,5%	11,4%	12,3%	13,3%	14,2%	15,2%	16,1%	17,0%
Cost of Debt	3,5%	12,28	10,34	8,84	7,65	6,69	5,89	5,21	4,64	4,14
	3,9%	11,89	10,04	8,60	7,46	6,52	5,75	5,09	4,53	4,05
	4,2%	11,52	9,75	8,37	7,27	6,36	5,61	4,97	4,43	3,95
	4,6%	11,17	9,48	8,15	7,09	6,21	5,48	4,86	4,33	3,87
	5,0%	10,83	9,21	7,94	6,91	6,06	5,35	4,75	4,23	3,78
	5,4%	10,51	8,96	7,73	6,74	5,91	5,22	4,64	4,13	3,69
	5,7%	10,20	8,71	7,53	6,57	5,77	5,10	4,53	4,04	3,61
	6,1%	9,90	8,48	7,34	6,41	5,64	4,98	4,43	3,95	3,53
	6,5%	9,62	8,25	7,15	6,25	5,50	4,87	4,33	3,86	3,45

Figure 38: Sensitivity Analysis on WACC

We find ourselves comfortable with our current overweight recommendation given that our target price remains slightly aligned upward also in the more conservative cases of our model, leaving margin for potential upsides for any scenario marginally more positive than the worst case.

Recommendation

We value Ocado Group Plc at **£5,50** and we set 31.12.23 as the reference window for our target price. We make a **BUY** recommendation as the target incorporates a 24,48% total shareholders' return compared to the trading price of £4.42 (as of 14.05.23). We estimate that Ocado's long-term value is included mainly in UK S&L and Ocado IS business units, which are responsible for the rollout of modules, and which represent 84% of the EV. We think the contribution of the 3rd unit (Ocado Retail), a pure UK online grocer, is lower (11% of EV) even if it is the main exposure (70% of FY22 revenues). Ocado Retail and UK S&L business will benefit of the UK customers being the most online-oriented ones in EU (23% online penetration in grocery market at 2030) and a geographical advantage around London.

We are confident that the International modules business will deliver the 162 modules already signed for the medium term at a 5.5% attractive fee, sustained by an increasing appetite from grocery retailers for automated solutions. A good scenario could emerge with the increase in the number of deals signed for additional modules and with online grocery penetration in the UK deeper than expected. On the other hand, a bad scenario could arise from a slower than agreed rollout of modules, for the reasons explained in the "Sensitivity Analysis" section (p.27).

All in all, we think that Ocado is on track to execute with success its business plan, turning FCF positive by 2026 and defeating its current stock price volatility.

Appendix

Financial Statements

Consolidated Income Statement

Forecasted Consolidated Income Statement (in M of £)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
Core Business															
Ocado Retail															
Total Revenues	1525,1	1688,1	2263,0	2380,7	2290,3	2878,1	3044,8	3168,1	3402,7	3631,3	3867,9	4113,0	4366,6	4461,8	4558,8
Gross Profit	482,1	537,0	738,1	823,7	743,7	938,9	993,3	1033,5	1110,0	1184,6	1261,8	1341,7	1424,4	1455,5	1487,1
EBITDA	28,8	25,2	151,5	151,8	-0,2	101,1	71,0	29,7	60,1	90,9	123,6	158,4	195,3	200,2	205,2
EBIT	28,8	-23,3	120,2	110,0	-47,7	64,5	26,2	-21,4	2,6	28,8	56,6	86,2	117,6	116,7	115,6
Ocado Retail Result	23,3	-18,8	97,4	89,1	-38,6	48,3	19,6	-16,0	2,0	21,6	42,5	64,7	88,2	87,5	86,7
Ocado UK Logistics and Solutions															
Total Revenues	541,1	583,2	654,3	710,4	802,7	883,3	979,8	1075,7	1118,7	1159,1	1199,6	1240,5	1281,6	1308,7	1336,3
EBITDA	66,6	69,6	41,0	65,0	63,6	134,4	209,1	282,1	288,0	294,3	299,0	302,9	306,9	312,8	318,9
EBIT	16,7	-3,6	-7,4	0,1	-21,0	90,0	157,1	224,3	225,8	236,4	240,7	241,5	241,0	242,3	243,4
Ocado UK Result	13,5	-2,9	-6,0	0,1	-17,0	67,5	117,8	168,2	169,3	177,3	180,6	181,2	180,7	181,7	182,5
Ocado International Solutions															
Total Revenues	0,5	0,5	16,6	66,6	147,8	508,8	782,0	1037,5	1181,9	1375,1	1528,0	1736,5	1743,3	1772,3	1807,7
EBITDA	-36,7	-75,7	-83,3	-119,3	-113,4	113,7	286,5	497,6	583,6	714,3	813,8	949,1	940,9	956,2	977,0
EBIT	-78,2	-189,2	-172,5	-252,1	-329,9	8,5	133,7	286,7	327,4	441,3	526,5	638,6	590,1	576,3	570,3
Core Result	-63,4	-153,2	-139,8	-204,2	-267,2	6,4	100,3	215,0	245,5	331,0	394,9	479,0	442,5	432,2	427,7
Core Result after taxes	**-26,5**	**-175,0**	**-48,4**	**-115,0**	**-322,9**	**122,3**	**237,7**	**367,3**	**416,8**	**529,9**	**617,9**	**724,8**	**711,5**	**701,4**	**697,0**
Non Core Business															
Non Core Result	-5,8	-11,2	22,4	-41,5	9,0	-26,5	-26,5	-	-	-	-	-	-	-	-
Financing Result															
Finance Costs	-8,2	-10,3	-41,2	-53,6	-61,7	-65,2	-53,6	-73,7	-80,2	-64,8	-64,0	-68,4	-75,3	-71,8	-72,3
Leasing Costs	-6,5	-20,6	-14,7	-18,0	-28,3	-28,5	-24,2	-33,3	-36,2	-29,2	-28,9	-30,9	-34,0	-32,4	-32,6
Financing Result before Taxes	-14,7	-30,9	-58,3	-52,3	-90,0	-93,7	-77,8	-107,0	-116,4	-94,0	-92,9	-99,3	-109,4	-104,3	-104,9
Financing Result	-11,9	-26,3	-103,6	-79,9	-47,1	-94,4	-68,2	-72,2	-88,3	-81,3	-90,9	-106,8	-126,1	-121,9	-122,0
Total Comprehensive Income for the owners of the parent	**-44,2**	**-212,5**	**-129,6**	**-236,4**	**-361,0**	**1,4**	**143,0**	**295,0**	**328,6**	**448,6**	**527,0**	**618,0**	**585,4**	**579,5**	**574,9**

Consolidated Balance Sheet

Forecasted Consolidated Balance Sheet (in M of £)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
Core Business															
Ocado Retail															
Fixed Assets	70,0	217,8	308,5	464,1	519,9	599,1	642,9	682,8	690,4	697,7	704,7	711,1	716,9	718,6	716,1
Trade and other receivables	74,1	110,0	156,3	242,1	228,4	287,1	303,8	316,1	339,5	362,3	385,9	410,3	435,6	445,1	454,8
Inventories	56,5	52,3	61,6	86,7	106,8	191,2	202,3	210,5	226,1	241,3	257,0	273,3	290,1	296,4	302,9
Operating cash	12,0	18,2	45,3	39,2	27,7	99,1	104,8	109,1	117,2	125,0	133,2	141,6	150,4	153,6	157,0
Trade and other payables	-212,5	-257,6	-323,7	-293,6	-355,0	-410,3	-434,1	-451,7	-485,1	-517,7	-551,4	-586,4	-622,5	-636,1	-649,9
Provisions	-16,8	-11,6	-32,5	-42,7	-18,7	-24,5	-24,5	-24,5	-24,5	-24,5	-24,5	-24,5	-24,5	-24,5	-24,5
Total Retail Invested Capital	-16,8	129,2	215,4	495,8	509,1	741,8	795,3	842,4	863,5	884,2	904,9	925,5	946,0	953,2	956,4
Ocado UK Logistics and Solutions															
Fixed Assets	342,7	446,5	426,6	585,4	629,0	694,1	722,7	728,1	604,1	552,9	537,6	541,1	541,1	541,1	541,1
Trade and other receivables	27,3	39,7	46,7	75,1	83,2	91,6	101,6	111,5	116,0	120,2	124,4	128,6	132,9	135,7	138,6
Contract assets	0,0	0,4	0,4	0,3	0,0	0,3	0,3	0,4	0,4	0,4	0,4	0,4	0,4	0,5	0,5
Costs to obtain contracts	0,8	0,8	0,8	0,8	0,0	0,9	1,0	1,1	1,2	1,2	1,2	1,3	1,3	1,4	1,4
Operating cash	4,4	6,6	13,5	12,2	10,1	31,6	35,1	38,5	40,0	41,5	42,9	44,4	45,9	46,8	47,8
Trade and other payables	-78,4	-92,9	-96,8	-91,1	-129,4	-131,0	-145,3	-159,5	-165,9	-171,9	-177,9	-183,9	-190,0	-194,1	-198,2
Provisions	0,0	-7,1	-3,4	-3,9	-3,2	-4,8	-5,3	-5,8	-6,0	-6,2	-6,5	-6,7	-6,9	-7,0	-7,2
Total UK Invested Capital	296,8	394,0	387,9	578,8	589,8	682,8	710,1	714,3	589,7	538,0	522,2	525,2	524,7	524,3	524,0
Ocado International Solutions															
Fixed Assets	285,3	356,9	661,2	1040,8	1492,0	2063,4	2733,6	3165,9	3147,1	3077,3	3119,6	3381,0	3443,1	3443,1	3443,1
Trade and other receivables	0,0	0,0	1,2	7,0	15,3	52,8	81,1	107,6	122,6	142,6	158,4	180,1	180,8	183,8	187,4
Operating cash	0,0	0,0	0,3	1,1	1,9	18,2	28,0	37,1	42,3	49,2	54,7	62,1	62,4	63,4	64,7
Contract liabilities	-115,2	-191,8	-299,3	-378,5	-422,9	-422,9	-422,9	-422,9	-422,9	-422,9	-422,9	-422,9	-422,9	-422,9	-422,9
Trade and other payables	-0,1	-0,1	-2,5	-8,5	-23,8	-82,0	-126,0	-167,2	-190,5	-221,6	-246,2	-279,8	-280,9	-285,6	-291,3
Provisions	0,0	0,0	-2,3	-2,6	-3,9	-2,1	-2,3	-2,6	-2,7	-2,8	-2,9	-3,0	-3,1	-3,1	-3,2
Total International Solutions Invest	**170,0**	**165,0**	**358,7**	**659,3**	**1058,5**	**1627,3**	**2291,4**	**2718,0**	**2695,9**	**2621,8**	**2660,8**	**2917,5**	**2979,3**	**2978,6**	**2977,8**
Total Core Invested Capital	**450,0**	**688,2**	**962,1**	**1733,9**	**2157,4**	**3052,0**	**3796,8**	**4274,6**	**4149,2**	**4044,0**	**4087,8**	**4368,3**	**4450,0**	**4456,2**	**4458,2**
Non Core Business															
Total Non-core Invested Capital	**72,8**	**361,5**	**640,0**	**432,3**	**433,7**	**433,7**	**433,7**	**433,7**	**433,7**	**433,7**	**433,7**	**433,7**	**433,7**	**433,7**	**433,7**
Financing Result															
Net financial assets	**33,8**	**-1,8**	**171,0**	**-533,5**	**-713,2**	**-1582,1**	**-2174,2**	**-2365,0**	**-1910,0**	**-1887,6**	**-2018,3**	**-2222,5**	**-2119,1**	**-2131,8**	**-2210,8**
Total Equity	**556,6**	**1047,9**	**1773,1**	**1632,7**	**1878,0**	**1903,5**	**2056,3**	**2343,4**	**2672,9**	**2590,1**	**2503,3**	**2579,5**	**2764,6**	**2758,1**	**2681,1**
Total Funds	**522,8**	**1049,7**	**1602,1**	**2166,2**	**2591,2**	**3485,7**	**4230,6**	**4708,3**	**4582,9**	**4477,7**	**4521,6**	**4802,0**	**4883,7**	**4889,9**	**4891,9**

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Hold	Expected total return (including expected capital gains and expected dividend yield) between 0% and 10% over a 12-month period.
Sell	Expected negative total return (including expected capital gains and expected dividend yield) over a 12-month period.

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