AGCO Corporation (AGCO)

BUY: $139.55 (+20,29%)

Equity Research Division | 24th November 2023

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Market Cap	8,694
Basic Shares O/S	74.9
52-Wk High	145.53
52-Wk Low	109.81
Fiscal Year End	31 Dec. 2023

($million)	2020	2021	2022	2023 (LTM)
Revenues	9,150	11,138	12,651	14,511
EBITDA	905	1,296	1,591	1,797
EBIT	633	1,014	1,322	1,501
Net Income	412	906	860	1,170

Key Executives	
Eric Hansotia	Chairman and CEO
Damon Audia	Vice-President and CFO

Basic Information	
Last Closing Price	$ 116.73
Target Price	$ 139.55
+/- Potential	+20.29%
Bloomberg Ticker	AGCO:US
GICS Sector	Industrials
GICS Sub-Industry	Construction & Farm Machinery

5Y Cumulative Returns

Company Description

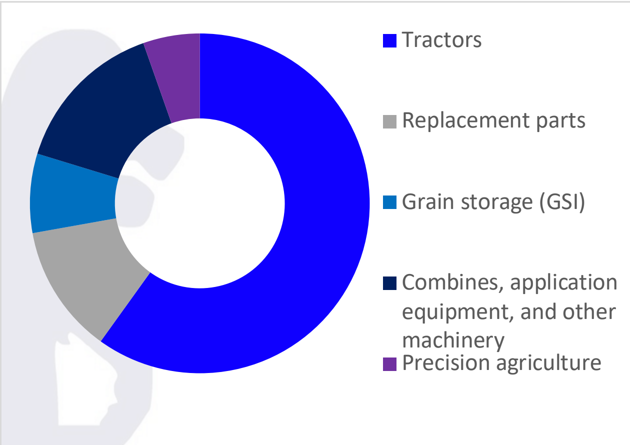
Founded in 1990 and headquartered in Duluth, Georgia, AGCO Corporation is a leading global manufacturer and distributor of agricultural equipment and related replacement parts. They offer a comprehensive range of products, including tractors, combines, self-propelled sprayers, hay tools, forage equipment, seeding and tillage machinery, implements, and grain storage and protein production systems. AGCO distributes its products through approximately 3,100 independent dealers and distributors in about 140 countries. The company also provides retail and wholesale financing through Rabobank. AGCO Corporation has established itself as a key player in the agricultural industry, delivering top-quality solutions to farmers worldwide.

Summary

The international positioning and product offerings of AGCO should strategically position the company to capitalize on the overall growth in the agricultural equipment and precision agriculture market, leading to sustained revenue increases in the medium-long term.

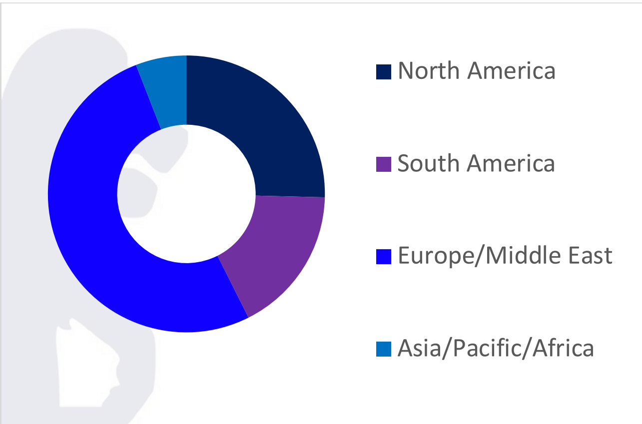
From a valuation standpoint, we conducted both intrinsic and relative valuations. For the intrinsic valuation, we utilized FCFF through 2033 plus Terminal Value, discounted at a WACC of 10.74% (estimated using a risk-free rate of 4.54%, a levered beta of 0.772, a cost of debt of 6.54% and a cost of equity of 11.22%). The DCF analysis yielded a resulting price per share of $139.55. Simultaneously, we performed a relative analysis using some trading multiples on a set of selected comparables and obtained a final price per share of $220.48. We decided, for the target price, to rely exclusively on the DCF valuation, which was based on conservative estimates; this results in a final price of $139.55, up 20.29% with respect to the last closing price (24/11).

Figure 1. Revenue Breakdown by Product



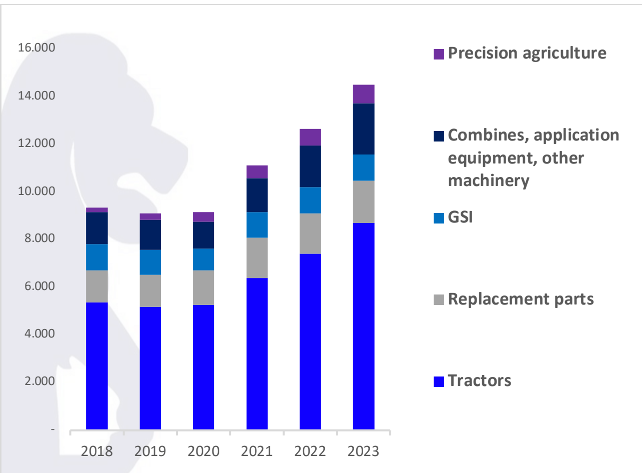
Source: Minerva Investment Society

Figure 2. Revenue Breakdown by Geographic reach



Source: Minerva Investment Society

Figure 3. Segment evolution (2018-2023)



Source: Minerva Investment Society

Company Overview

AGCO Corporation, a world-renowned designer, manufacturer, and distributor of agricultural machinery and solutions, holds a steadfast commitment to empowering farmers through a comprehensive range of products, including tractors, combines, hay tools, sprayers, forage, and tillage equipment. The company's global presence is maintained through a strong network of approximately 3,100 independent dealers and distributors, as well as through affiliates and licensees.

AGCO's product innovation is fueled by a deep understanding of the needs of the modern farmer, with technological advancements in precision agriculture that have led to a significant increase in sales, aiming to achieve $1 billion in revenue by 2025. The company's robust portfolio under renowned brands like Fendt, Massey Ferguson, and Valtra is complemented by a focus on digital solutions and smart farming technologies that promise increased efficiency and sustainable farming practices.

In 2022, AGCO reported substantial growth with net sales reaching approximately $12.7 billion, marking a 13.6% increase from the previous year. This growth is testament to AGCO's successful execution of a farmer-first strategy, delivering high-quality products and services that meet the sophisticated demands of today's agricultural industry.

AGCO Corporation's operations are strategically segmented to cater to the diverse needs of the global agricultural sector. The segmentation is primarily based on product categories and geographic regions:

- **Tractors** represent a significant segment, contributing $7,424 million to AGCO's 2022 net sales. This category includes a range of tractors for various agricultural needs.
- **Replacement Parts** turn out to be essential for maintaining and extending the life of agricultural machinery, this segment generated $1,687 million in sales.
- **Grain Storage and Protein Production Systems**. Generating $1,102 million, this segment focuses on post-harvest needs.
- **Combines, Application Equipment, and Other Machinery**: This diverse category contributed $2,438 million and includes combines, sprayers, and other specialized equipment.

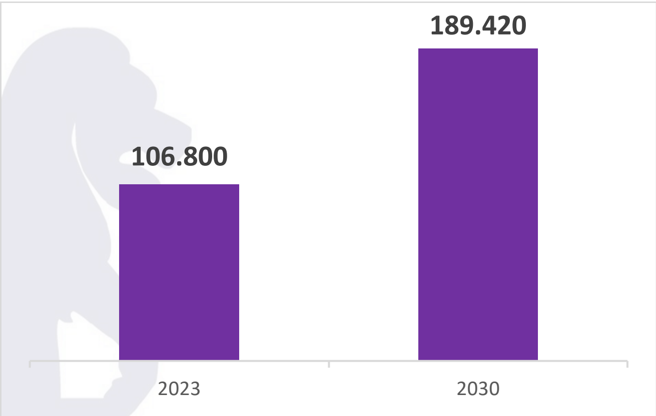
AGCO's financial services complement its equipment operations by offering retail financing, wholesale financing, and extended warranties to support its dealers and customers' needs, reinforcing its mission to provide comprehensive solutions in the agricultural sector.

With innovation at its core, AGCO's Smart Industrial vision is propelling investments in digital, automation, autonomy, and alternative propulsion technologies. These forward-thinking initiatives aim to enhance worksite efficiency, improve yields, lower input costs, and address labor constraints, positioning AGCO as a future-focused partner for the global farming community.

The United States represents a significant portion of AGCO's revenues, demonstrating the company's strong foothold in this market, followed by a substantial presence in Western Europe and LATAM. This geographical diversity underscores AGCO's resilience and adaptability across various market conditions.

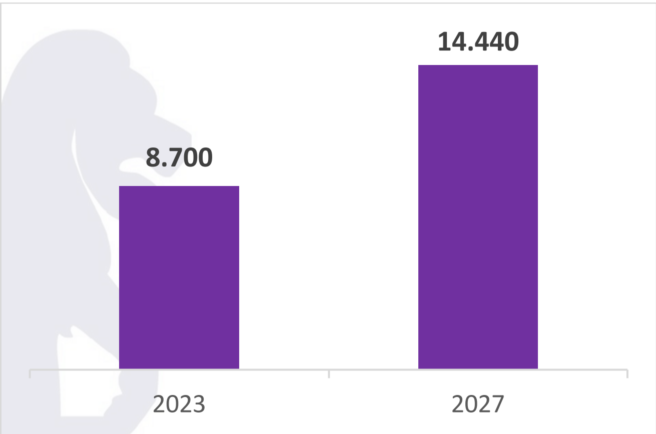
Finally, AGCO's strategic approach, underpinned by a commitment to sustainability and technological innovation, has established it as a key player in the agricultural sector, poised to meet the evolving demands of a growing population and the challenges of modern agriculture.

Figure 4. Agricultural Machinery Market Size in USD million



Source: Statista & Minerva estimates

Figure 5. Precision Agriculture Market Size in USD million



Source: Statista & Minerva estimates

Industry Outlook

The company mainly operates in the Agricultural Machinery Industry; a detailed description of such industry is provided below.

Agricultural Industry

Companies in the Agricultural Machinery industry produce a diverse range of agricultural equipment, including tractors, combines, harvesting equipment, seeding and application tools, and hay and forage machinery. These products are distributed through independent retail dealer networks and outlets, playing a pivotal role in diminishing manual labor requirements, reducing costs, and enhancing crop yields in farming. The market size for this industry reached USD 106.8 Billion in 2023 and is anticipated to reach USD 189.4 Billion by 2030, with a projected Compound Annual Growth Rate (CAGR) of 8.5%. The Asia Pacific region is poised to dominate the market share during the forecast period, followed by North America and Europe.

The industry has grappled with challenges such as low commodity prices, supply-chain disruptions, and elevated costs. Plummeting commodity prices and heightened production costs adversely impact farmers' income, compelling them to safeguard their earnings. Escalating raw material expenses and a shortage of labor and trucking resources contribute to supply-chain challenges, resulting in extended lead times for deliveries. Consequently, industry participants are diligently working to fortify their financial positions, preserve cash reserves, and enhance profitability. Implementation of pricing and cost-reduction strategies is underway, aimed at sustaining profit margins. Despite these challenges, the escalating global demand for food to sustain a growing population remains a driving force for the industry. In the U.S., larger farm sizes, coupled with labor shortages and increased labor costs, propel farmers towards adopting advanced farming equipment. Additionally, government subsidies worldwide further bolster the agriculture sector.

The industry's commitment to revolutionizing agriculture through technological advancements, including AI, autonomous tractors, drones, and precision agriculture, aligns with the increasing reliance of customers on sophisticated technology and mechanization to optimize their operations. Furthermore, stocks in this industry have exhibited a notable gain of 21.1% in the past 12 months, surpassing the S&P 500's growth of 8.4%. Assessing the forward 12-month EV/EBITDA ratio, a widely used metric for valuing farm equipment stocks, reveals that the industry currently trades at 11.23x compared to the S&P 500's 11.39x.

Key players, commanding a substantial market share, include AGCO Corporation, Deere and Co., CNH Industrial, Alamo, Kubota, Mahindra and Mahindra Limited, Iseki & Co. Ltd, JC Bamford Excavators Limited, and Lindsay Corporation.

Porter's 5 Forces

Buyer Power: moderate to high. The buyer power in the agricultural equipment industry has been consolidated significantly due to larger customers demanding lower prices and better services. The buyers, equipped with comprehensive information, are enabled to compare products and services, thereby heightening the price sensitivity, and posing brand loyalty challenges for AGCO. The availability of substitute items is another factor that gives consumers greater bargaining power. Some clients could choose to use leased options or refurbished or used equipment as AGCO product equivalents. Despite the pressures, AGCO counterbalances by focusing on product differentiation, ensuring that its goods have distinctive qualities and excellent standards to foster consumer brand loyalty, excelling in customer service and managing relationships effectively, and diversifying its global customer base to farmers, agricultural co-operatives, and government agencies, which collectively reduce the bargaining impact of buyers on profitability.

Supplier Power: moderate. AGCO collaborates with a multitude of suppliers, thereby reducing individual suppliers' bargaining power. However, unique, or specialized components from sole suppliers make the cost of switching relatively high and elevates some suppliers' bargaining position. AGCO actively manages and evaluates these relationships, ensuring supply chain stability through strategic, long-term collaborations, maintaining an equilibrium in supplier bargaining influence.

Substitutes: low. In the agricultural machinery industry, the substitution threat is relatively subdued as shifting towards alternative products or technologies is often capital and time-intensive for farmers. Moreover, modern agriculture relies on advanced machinery to improve efficiency and productivity and there are limited alternatives for the specialized equipment offered by AGCO. AGCO's continuous investment in research, development, and sustainability minimizes the allure of potential substitutes, maintaining a competitive presence in the marketplace.

Threat of New Entrants: low. We can observe high entry barriers characterized by substantial capital requirements, technological advancements, and extensive distribution networks protect the industry from an influx of new competitors. AGCO's expansive global network, technological prowess, and scaled production volumes allow AGCO to offer its clients attractive prices, fortify its competitive position, making market entry challenging for newcomers. AGCO is also known for developing high-quality, innovative goods specifically customized to its target clients' needs. This product differentiation allows AGCO to stand out in a congested market and creates a brand identity that new entrants find difficult to imitate.

Rivalry among Existing Competitors: high. The industry's competitive landscape is densely populated with varied competitors, ranging from large multinational companies, such as Deere&Company, CNH Industrial, and Kubota, to small regional companies, fostering an environment of heightened rivalry. The encapsulating slow market growth in recent years further intensifies competitive pressures between AGCO and its competitors who already offer similar products. Additionally, the industry's high fixed costs and substantial R&D investment requirements make it difficult for companies to exit the industry. AGCO navigates through these challenges through continuous technological advancements to differentiate its products and coming up with tailored solutions to its clients.

SWOT Analysis

Strengths

AGCO has developed a *solid distribution network* over the years that covers most of its prospective market. Its global presence is ensured by its 2,600 independent dealers and distributors in over 140 countries.

AGCO has *strong free cash flows* that provide resources in the hands of the company to expand into new projects.

AGCO has made significant investments over the years to create a powerful brand and product line that are well known worldwide. If the company wishes to go into new product categories, this *brand portfolio* can be immensely helpful.

The company offers a *wide range of agricultural equipment*, including tractors, combines, and other farm machinery. This helps AGCO cater to the varying needs of farmers and agricultural operation.

By continuously investing in research and development, the company creates *cutting-edge technologies* that are intended to boost farming productivity and improve customer satisfaction. Additionally, automation of activities brought consistency of quality to AGCO products and has enabled the company to scale up and scale down based on the demand conditions in the market.

AGCO has an excellent *track record of implementing new projects* and producing strong returns on capital investments through the creation of new revenue streams. It has acquired experience breaking into and succeeding in new markets.

The company has *highly skilled and motivated workforce* achieved through successful training and learning programs.

Weaknesses

Despite being an industry leader, *diversification* beyond the core business presents a *challenge*, limiting AGCO's segment expansion. Furthermore, a company that focuses primarily on the agricultural market is also more susceptible to external factors that negatively impact the agricultural sector as a whole, such as downturns in the overall economy, unfavorable weather, rising input costs, and changes in commodity prices that can influence farmers' decisions to buy new machinery.

Geographical revenue dependence, primarily on North American and European markets, exposes AGCO to regional economic and political vulnerabilities.

AGCO competes in a *highly competitive market*, so to create innovative products and hold onto market share, the business must constantly invest in R&D. Given the scope of its planned expansion and the various regions it plans to enter, AGCO must also invest more in technology to integrate its processes throughout the board. As of right now, technological investment does not match the company's vision.

Opportunities

Consistent free cash flow allows for strategic investments in *new technologies and product segments*, fostering innovation.

Lower shipping costs can result in decreased transportation costs for AGCO's products, giving the company the option of increasing profitability or gaining market share by passing the benefits on to customers.

AGCO can now offer farmers *high-tech solutions* thanks to digital technologies in agriculture, such as data analytics and precision agriculture

Increasing agricultural activity in *developing countries* presents expansion opportunities.

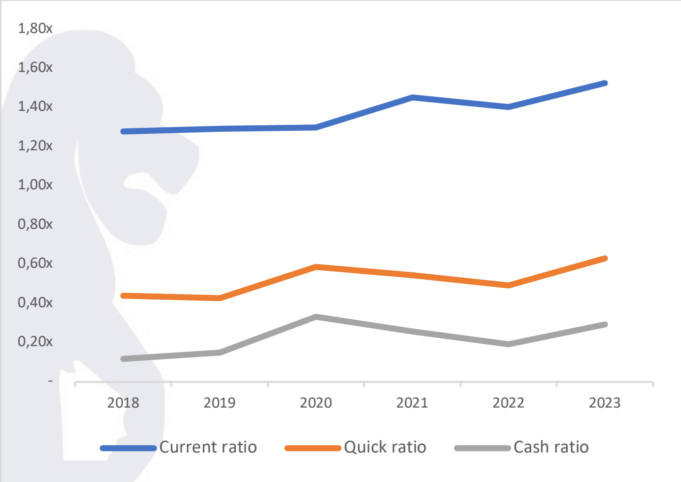
Threats

Operating across numerous global territories exposes AGCO to *currency volatility and geopolitical uncertainties*, influencing operational stability. They are also subject to risks associated with foreign laws, taxes, tariffs, trade restrictions, economic conditions, labor relations, political conditions, and governmental policies, as many of their sales involve goods that are produced in one country and sold in another. In particular, they sell a meaningful quantity of products in Ukraine, and the Russia-Ukraine war may have significant impacts on their business.

The demand for the extremely profitable products is *seasonal*, so any improbable event that occurs during the peak season could have a short- to medium-term negative effect on the company's profitability.

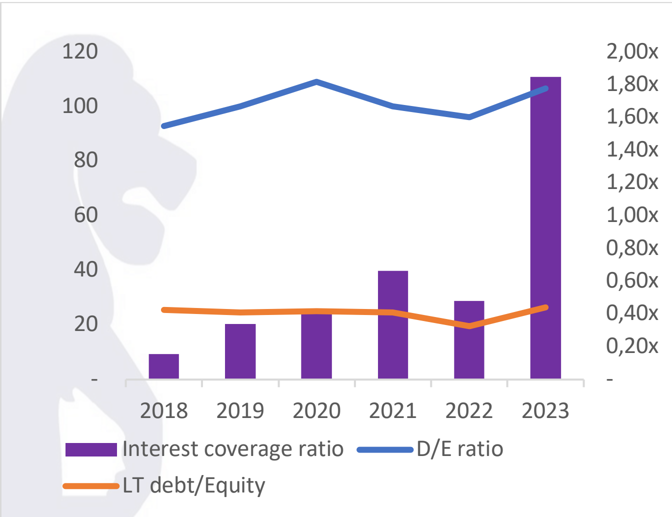
Growing strengths of *local distributors* also presents a threat in some markets as the competition is paying higher margins to the local distributors.

Figure 6. Liquidity Ratios



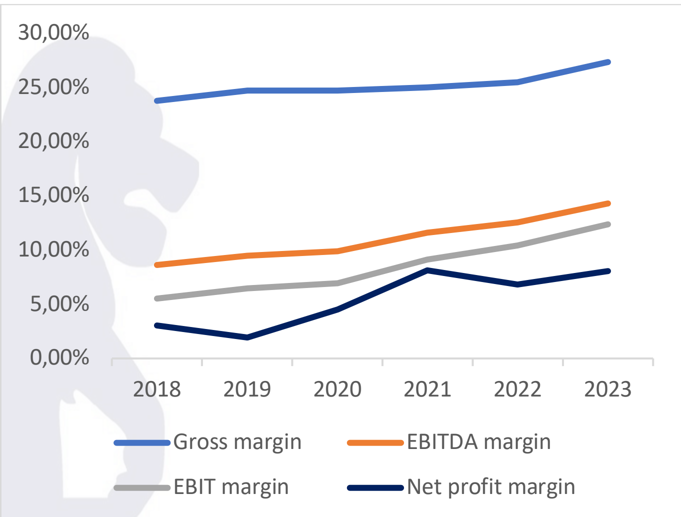
Source: Minerva Investment Society

Figure 7: Solvency ratios



Source: Minerva Investment Society

Figure 8: Profitability ratios



Source: Minerva Investment Society

Financial Analysis

Liquidity

Analyzing the liquidity position of AGCO Corporation, we took into consideration the current and quick ratio. Concerning the former, the ratio has only slightly changed, from a low of 1.28 in 2018 to a high of 1.53 in 2023 (LTM). With a value above 1, such as the one in 2023, the business may simply use its current assets to pay off its short-term debt. Over the course of the five years, the quick ratio (from 0.43 to 0.63) stayed largely constant. The significant disparity between the quick and current ratios suggests that inventory has a significant influence on the computation of current assets. In conclusion, the company's liquidity position is favourable and it has been able to sustain consistent levels of cash over time. It is noteworthy to highlight that the current ratio is more variable than the quick ratio, signaling a higher variability in inventories.

Solvency

Examining solvency data for the period from 2018 to 2023 (LTM) provides a nuanced view of the company's financial health and strategies over time. The debt-to-equity (D/E) ratio showed a slight fluctuation, peaking in 2020 at 1.82 before dropping to 1.60 in 2022, indicating a marginal decrease in the reliance on debt financing relative to equity. Focusing solely on long-term debt, there is a steady downward trend, from 0.43 in 2018 to 0.33 in 2022, suggesting a strategic shift toward reducing long-term obligations. The cost of debt declined significantly, from 4.22 percent in 2018 to a low of 0.47 percent in 2021, before rising slightly to 1.03 percent in 2022. This decline reflects positively on the company's solvency and interest cost management. Leverage, which provides an indication of the extent to which the company relies on debt to finance its operations, has remained relatively stable, declining slightly from 2.82 in 2020 to 2.60 in 2022.

However, in 2023, AGCO has increased its reliance on debt. While keeping all other non-current liabilities fairly constant, it borrowed an additional $700m to increase its D/E ratio to 1.78 and its long-term debt to equity back to 0.44. The decision to raise more debt probably reflects a more favorable outlook and a cost of debt that is fairly low for them to rely on.

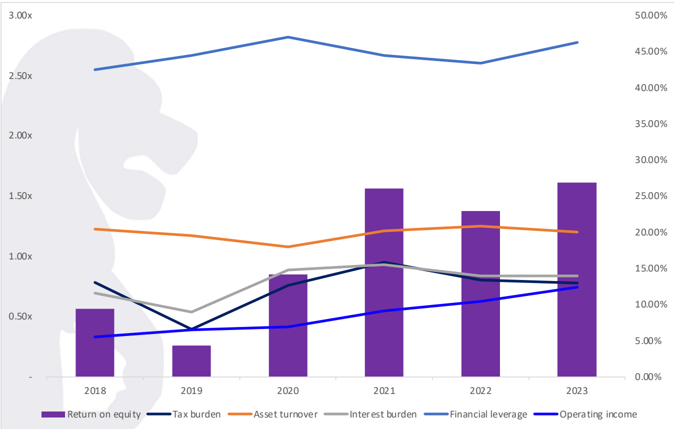
Overall, these indicators show that AGCO is carefully managing its debt levels while maintaining a strong equity base. Reducing the cost of debt and controlling leverage indicate that the company is improving its financial stability and investment attractiveness. The data show a strategic approach to solvency that balances growth with a sound financial structure.

Profitability and DuPont Analysis

To evaluate the profitability of AGCO Corporation, we have examined the company's performance in generating returns concerning its assets and equity throughout the years 2018-2023 (LTM).

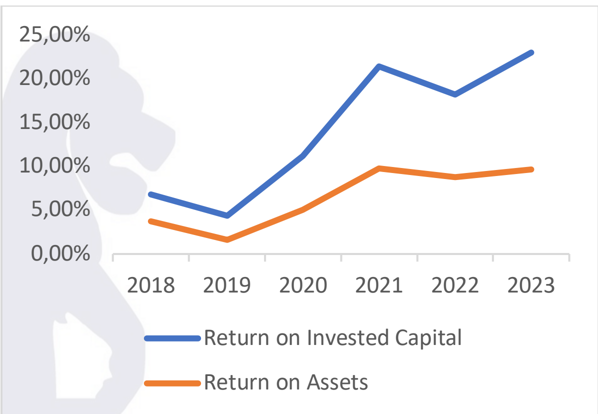
Overall, ROA had an upward trend, going from 4% in 2018 to 9.67% in 2023. The 100% increase in 2021 (from 5% to 10%) is mainly due to the huge increase in Net Sales (+21.70%), and in turn Net Income (+110.02%). Indeed, Net Sales increased

Figure 9: 5-steps DuPont analysis



Source: Minerva Investment Society

Figure 10: ROA and ROIC



Source: Minerva Investment Society

primarily due to the improved market demand, although in 2020 they were impacted by extended COVID-related production shutdowns in both Europe and South America. Furthermore, Income from operations ($1,001.4 million in 2021 compared to $599.7 million in 2020) skyrocketed thanks to higher margins, which benefited from positive pricing impacts and a favorable sales mix that offset substantial inflationary cost pressures.

ROE experienced an upward trend as well, rising from 9.54% in 2018 to 16.85% in the last twelve month. During 2021, the ratio rose from 14.15% to 26.05% for the same reason as the ROA: reliefs from COVID restrictions, positive pricing impacts and a favorable sales mix. The main drivers of this upward trend can be investigated through a 5-steps DuPont analysis, which calculates the return on equity as the product of the following 5 ratios:

- Tax burden: Net income/Pretax income
- Asset turnover: Revenues/Total assets
- Financial leverage: Total assets/Total equity
- Interest burden: Pretax income/EBIT
- Operating income: EBIT/Revenues

For what concerns the Asset Turnover, its value is fairly stable around 1.20 over the period taken into consideration, with the exception of 2020, where the ratio was around 1.08. This decline is attributable to a huge increase in cash and cash equivalents (from $433 million to $1,119 million, +158.43%). The same trend can be observed in the tax burden, which increased from 0.76 to 0.95. This is because of very low income taxes in 2021, which were due to the reversal of a portion of the valuation allowance. Financial leverage slightly decreased as well, while the interest burden moved in the opposite direction, rising from 0.89 to 0.93.

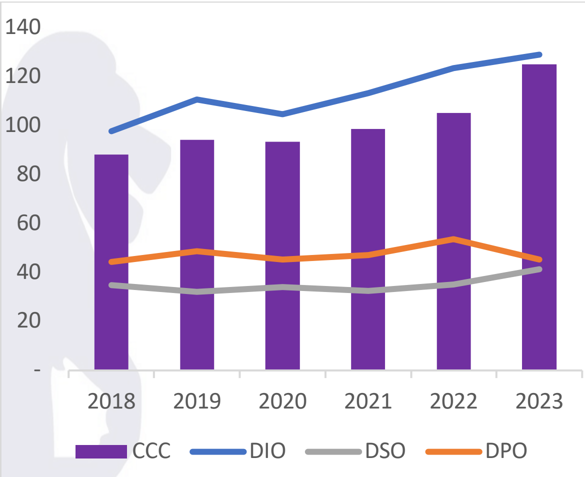
Therefore, the key driver of this increase in ROE is the operating income. It surged from 5.53% to 12.38% between 2018 and 2023, with a surge from 6.92% to 9.10% between 2020 and 2021: indeed, the company managed to increase their profitability by boosting revenues while having a less than proportional increase in costs.

Regarding AGCO Corporation's recent exceptional profitability, the prospect of maintaining such elevated levels in the coming years is uncertain. Three primary factors pose potential threats to the company's profits: environmental risks, substantial fixed costs, and the influence of exchange rate fluctuations.

AGCO is subject to environmental laws and regulations concerning emissions to the air, discharges of processed or other types of wastewater, and the generation, storage and disposal of waste materials. These laws and regulations are constantly changing, and the effects that they may have on the firm in the future are impossible to accurately predict. Furthermore, the company's operations are characterized by a significant fixed cost structure. In situations where adverse conditions emerge, such as decreased demand or heightened competition, the company may be compelled to reduce prices. However, aligning reductions in total costs with reductions in prices can prove to be very difficult. This misalignment may result in unabsorbed costs, leading to unused capacity charges, increased average unit costs, and diminished gross margins. The demand has been strong up to now; however, when it will face a decline, the effects of the highly dependence on fixed costs will be significant.

In addition to these concerns, the impact of currency exchange rate fluctuations plays a key role in AGCO Corporation's financial outcomes. The company's primary reporting currency is the US dollar, accounting for a significant portion of its revenues. Meanwhile, the bulk of its costs are incurred in various currencies, notably the Brazilian real and the euro. For instance, since February 2022, the US dollar strengthened against the euro, which led to an increase in the company's profits. However, a future depreciation of the dollar with respect to the euro will drive down profits.

Figure 11: Cash conversion cycle



Source: Minerva Investment Society

Cash Conversion Cycle

Days Sales Outstanding (DSO), Days of Inventory Outstanding (DIO), and Days Payables Outstanding (DPO) are the metrics used to calculate AGCO's Cash Conversion Cycle (CCC). The CCC formula helps determine how effectively a business is managing its working capital; the shorter the cash conversion cycle, the more adept the business is at selling inventory and making money while making supplier payments. Additionally, a short CCC improves the company's investment flows because of the quicker and easier access to funds. Between 2018 and 2022, AGCO had rising DIO and DSO, rising from 98 to 129 for the former and 35 to 41 for the latter On the other hand, the DPO remained fairly constant, experiencing a peak of 54 in 2022, but overall remaining stable at around 48.

As a result, the CCC went up (from 88 to 125), which made the company's liquidity less available. The results of the analysis of the cash conversion cycle demonstrate the increase in working capital, net of cash and cash equivalents, rising by a yearly compounded growth rate of 20.5% (from \$444.6 million to \$1,131.7 million between 2018 and 2023 LTM).

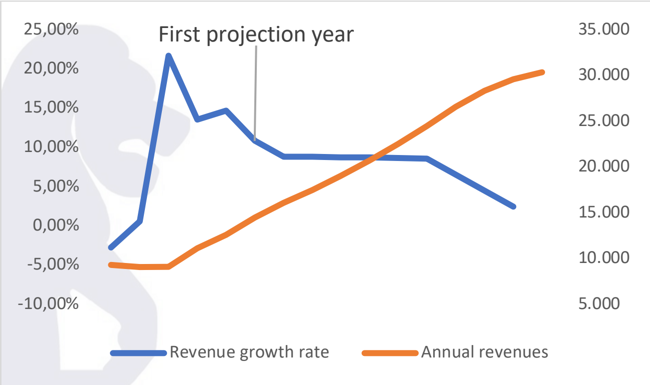
We must note that the company transfers on an ongoing basis a majority of its wholesale receivables to its finance joint venture, in which it has a 49% interest. As the joint venture is not consolidated in the company financial statements, the receivables transferred disappear from the balance sheet. This has a positive effect on DSO and thus should be considered when looking at the historical CCC.

Figure 12: WACC assumptions summary

WACC assumptions	
Riskfree rate	4.54%
Unlevered beta (industry median)	0.727
D/E ratio (AGCO)	8.28%
Tax rate	25.00%
Levered beta	0.772
Weighted average market risk premium	8.65%
Levered cost of equity	**11.22%**
Debt rating	BBB-
Debt spread	2.00%
Pre-tax cost of debt	**6.54%**
WACC	**10.74%**

Source: Minerva Investment Society

Figure 13: Revenue growth and growth rate



Source: Minerva Investment Society

Figure 14: DCF assumptions

DCF assumptions	
Terminal growth rate	2.50%
Unlevered cost of equity	11.26%
Levered cost of equity	11.22%
Pre-tax cost of debt	6.54%
Tax rate	25.00%
WACC	10.74%
Valuation date	01/10/23
Final valuation year	2033

Source: Minerva Investment Society

Valuation

Our analysis followed two main approaches:

- Intrinsic valuation regarding the DCF model (FCFF).
- Relative valuation using comparable company analysis

Cost of Capital

Throughout the whole analysis, we used a constant cost of capital. We can therefore start looking at how we computed it through its different components.

Risk-free rate

The risk-free rate has been assumed to be equal to the 10-year Treasury bond yield (4.54%).

ERP

To compute the ERP, we followed a bottom-up approach. Differently from the computations carried out to get the measurement of beta, we used, instead of a business-segment division, a geographic division of revenues, as we concluded that this would be a better proxy of risk premium. We divided AGCO's revenues into seven main geographic sources: the United States, Canada, Latin America, Western Europe, Central Europe, Central Asia, and the rest of the world. By computing the weighted average of the single ERPs (Damodaran) with the proportional share of revenues, the ERP resulted to be equal to 8.65%.

$$ERP = \sum_{i=1}^{n} \frac{Rev_i}{Total\ Rev} \cdot ERP_i$$

Beta

To compute the beta of AGCO, we followed a bottom-up approach. We first selected a set of comparable companies, which are the same ones that would be later used in the valuation by multiples. Those companies were selected according to different criteria: in particular, they had to be similar to AGCO in terms of business, size, and capital structure.

We first obtained the raw levered beta by applying a three-year weekly regression between the prices of such companies and their respective reference index. Then, we computed the adjusted levered beta using the Blume adjustment:

$$\beta_{adj} = \beta_{raw} \cdot 2/3 + 1/3$$

Then, using the Hamada formula and the respective marginal tax rate for each company's country of incorporation, we calculated the unlevered betas. We then obtained the median unlevered beta from the set of comparables, and re-levered it for AGCO.

To compute the levered beta, we used the Hamada formula, with a marginal tax rate of 25% and AGCO's D/E ratio, and the levered beta is therefore equal to 0.772.

Cost of Equity

The levered cost of equity, therefore, is equal to:

$$Cost\ of\ equity = k_e = r_f + \beta_L \cdot ERP = 11.22\%$$

Figure 15: DCF Output

DCF output	
Sum of PV of FCFF	6,187
PV of TV	5,672
Enterprise value	**11,858**
Net debt	(729)
Surplus assets	(529)
Non-controlling interests	(0.1)
Equity value	**10,600**
Number of shares (diluted)	75.96
Implied equity value per share	**139.55**

Source: Minerva Investment Society

Figure 16: Sensitivity analysis

TGR	WACC						
	9.24%	9.74%	10.24%	10.74%	11.24%	11.74%	12.24%
1.00%	11,743	10,965	10,274	9,656	9,099	8,596	8,139
1.50%	12,191	11,346	10,600	9,936	9,342	8,808	8,324
2.00%	12,700	11,776	10,965	10,249	9,612	9,041	8,528
2.50%	13,285	12,265	11,378	10,600	9,912	9,300	8,752
3.00%	13,964	12,826	11,847	10,996	10,249	9,589	9,001
3.50%	14,762	13,478	12,386	11,446	10,629	9,912	9,278
4.00%	15,712	14,243	13,012	11,964	11,062	10,277	9,588

Source: Minerva Investment Society

Cost of Debt

To compute the cost of debt, we added the risk-free rate to the spread of AGCO's debt:

$$Pre - tax\ cost\ of\ debt = r_f + debt\ spread$$

To compute AGCO's debt spread, we retrieved the debt rating S&P assigned to the company (BBB-); this corresponds to a spread of 2.00%. Using a marginal tax rate of 25%, the cost of debt is equal to:

$$k_d = (r_f + debt\ spread) * (1 - t) = 6.54\%$$

WACC

We estimated the WACC using the following formula:

$$WACC = \frac{E}{D+E} * Cost\ of\ Equity + \frac{D}{D+E} * Cost\ of\ Debt$$

The value of WACC came out to be 10.74%.

Terminal Value

The Terminal Value was computed by applying Gordon's growth model, assuming a long-term growth rate slightly higher than the projected inflation rate, to imply some degree of real growth for the company in perpetuity (2.5%).

$$Terminal\ value = \frac{Terminal\ CF}{WACC - r_f}$$

DCF and sensitivity analysis

We calculated the estimated value per share by summing the present value of FCFF over the next 10 years and the present value of the terminal value:

$$Enterprise\ value = PV(Terminal\ value) + PV(FCFF)$$

We then subtracted net debt (gross debt less cash and cash equivalents), added back net surplus assets (the sum of non-operating assets and liabilities), and subtracted non-controlling interests, in order to obtain an equity value of $10,500m.

The target price we derived is therefore equal to $139.55, with a downside of ca. +20.29% compared to the last closing price of $116.01 (24/11).

According to our sensitivity analysis, which we carried out by estimating the equity value by varying the terminal growth rate (range 1-4 %) and the WACC (range 9.24-12.24%), the target price is more heavily influenced by changes in the cost of capital compared to changes in the TGR. This reflects the fact that the valuation output is more heavily reliant on the present value of free cash flows rather than on the present value of the terminal value.

Figure 17: Comparables' multiples

	EV / Sales($M)	EV / EBITDA($M)	EV / EBIT($M)	P / E($)
Deere & Co	2.70x	9.85x	11.16x	12.89x
CNH Industrial NV	1.42x	6.73x	7.55x	6.61x
Titan International Inc	0.46x	4.05x	4.94x	5.54x
Alamo Group Inc	1.35x	9.23x	11.94x	15.33x
Lindsay Corp	2.01x	11.13x	13.23x	21.76x
Ag Growth International Inc	1.10x	14.84x	37.35x	7.83x
Bucher Industries AG	0.85x	5.73x	6.79x	16.77x
Exel Industries SA	0.44x	6.00x	9.19x	9.74x
TYM Corp	0.43x	3.82x	4.40x	2.47x
Iseki&Co Ltd	0.50x	8.98x	22.95x	5.18x
First Tractor Co Ltd	0.69x	9.45x	15.18x	4.25x
Daedong Corp	0.77x	9.63x	13.52x	2.70x
Gifore Agricultural Science	0.84x	15.70x	18.43x	163.96x
Buhler Indsutries Inc	0.36x	16.75x	31.90x	3.40x
Escorts Kubota Ltd	3.62x	35.02x	42.30x	221.29x
Kubota corp	1.38x	10.66x	14.20x	23.00x
PACCAR Inc	1.56x	8.95x	9.60x	13.12x
Plasson Industries Ltd.	1.16x	7.24x	11.41x	2.99x
TOMRA Systems ASA	2.18x	12.45x	21.04x	17.45x
Average	**1.25x**	**10.85x**	**16.16x**	**29.28x**
Median	**1.10x**	**9.45x**	**13.23x**	**9.74x**

Source: Minerva Investment Society

Figure 18: Multiples valuation

	EV / Sales		EV / EBITDA	
	Average	Median	Average	Median
Multiple	1.25x	1.10x	10.85x	9.45x
AGCO metric	14,510	14,510	2,076	2,076
Enterprise Value	18,180	15,970	22,537	19,629
(Net debt)	729	729	729	729
(Minorities)	0	0	0	0
Surplus Assets	(529)	(529)	(529)	(529)
Equity value	**16,922**	**14,711**	**21,279**	**18,371**
Number of shares (diluted)	75.96	75.96	75.96	75.96
Equity value per share	**223**	**194**	**280**	**242**
	EV / EBIT		**P / E**	
	Average	Median	Average	Median
Multiple	16.16x	13.23x	29.28x	9.74x
AGCO metric	1,797	1,797	15	15
Enterprise Value	29,040	23,779	-	-
(Net debt)	729	729	-	-
(Minorities)	0	0	-	-
Surplus Assets	(529)	(529)	-	-
Equity value	**27,782**	**22,520**	**34,241**	**11,385**
Number of shares (diluted)	75.96	75.96	75.96	75.96
Equity value per share	**366**	**296**	**451**	**150**
Weighted average (median)				220.48
Potential Upside				90%

Source: Minerva Investment Society

Multiples Analysis

In order to obtain a more comprehensive result, we carry out a different valuation approach performing a multiple analysis and further compare the results with the forecasts obtained through the DCF analysis. In this phase, we are considering the multiples arising from the data obtained from the set of comparables used in the composition of the weighted average cost of capital.

Trading Multiples

We defined the same pool of comparables as the one used to obtain the levered beta in the WACC calculation process. As previously stated, those companies were selected according to their similarity with respect to AGCO in terms of capital structure, business units, and size. In total, the set of comparables is made of 19 companies, with many of them having an international presence, just as AGCO.

We used both asset-side and equity-side multiples to better understand the full picture from this valuation process. The peer group under consideration is represented by well-established mature businesses, for which we believed it was sensible to use ratios such as EV/Sales, EV/EBITDA, and EV/EBIT, all with TTM data. The calculations gave a result of a median EV/Sales of 1.10x, a median EV/EBITDA of 9.45x, and a median EV/EBIT of 13.23x. As an equity-side multiple, again with TTM data, we decided to use P/E, with a median multiple of 9.74x for the group of peers. We then proceeded to build the bridge to calculate the equity value from the enterprise value implied by the asset-side multiples; we also obtained the equity value directly from the P/E ratio. We performed an average of the four outputs, and the implied Equity Value resulted to be ca. $16.7bn, with an implied share price of $220.48, corresponding to an upside of ca.90% from the closing price of $116.01.

Final Valuation Methodology

Considering that the DCF above performed followed a logic of "conservative values", and the implied reasoning to not merge a DCF valuation, based on fundamentals of the target company, and the relative valuation, which implied logic is to find a pricing of the shares, basing on how similar assets trade, we therefore derived a final valuation of $139.55, in coherence with the DCF valuation.

Investment Risks

Supply Chain and Sales challenges

AGCO Corporation, being an agricultural machinery manufacturer, heavily depends on suppliers for raw materials, components, and parts for its products, and any failure by its suppliers to provide products as needed, or by the company to promptly address supplier issues, will adversely impact its ability to timely and efficiently manufacture and sell products. Recently, AGCO has experienced significant supply chain issues with respect to a wide range of parts and components, with a notable portion attributed to the global semiconductor shortage. Moreover, the company is exposed to a wide range of risks which may delay or reduce its realization of value from international operations. Among these risks are the uncertain consequences of Russia's invasion of Ukraine and tariffs imposed on exports to and imports from China. In particular, the company sells a meaningful quantity of products in Ukraine (which is a significant grain producer), and while it is clear that the Russian invasion has and will impact its business, the extent of that impact currently is unclear.

Foreign exchange and Regulatory challenges

A great part of the company's sales and manufacturing occurs outside the United States, involving products that are manufactured in one country and sold in a different country. This global presence exposes AGCO to various risks related to foreign laws, taxes and tariffs, trade restrictions, economic conditions, labor supply and relations, political conditions, and governmental policies. Particularly, the Company is subject to the risk of the imposition of limitations by governments on international fund transfers. For example, the Argentine government has recently restricted companies' ability to transfer funds out of the country. Consequently, the spread between the official government exchange rate and the exchange rates resulting implicitly from certain capital market operations, usually effected to obtain U.S. dollars, has broadened significantly. Future impairments and charges are possible in connection with these exposures, as AGCO has monetary assets in Argentina, denominated in pesos at the official government exchange rate, and an obligation to reimburse one of its finance joint ventures with Rabobank in Argentina.

AGCO's financials

AGCO uses floating rate and fixed rate debt to finance its operations. The floating rate debt obligations expose the company to variability in interest payments due to changes in the ERIBOR, SOFR or other applicable benchmark interest rates. Moreover, the Company is exposed to commodity risk from steel and other raw material purchases where a portion of the contractual purchase price is linked to a variable rate.

Most of the company's sales depend on retail customers obtaining financing, and any disruption in their ability to obtain financing, whether influenced by economic downturns or other factors, would lead to a reduction in product sales. Notably, the majority of AGCO's retail sales are financed through joint ventures with Rabobank. Any interruption or decrease in Rabobank's funding for these ventures would have adverse implications for the company's net sales.

Appendix

	Price($/share)	EV($M)	Market Cap.($M)	Sales($M)	EBITDA($M)	EBIT($M)	EPS($)
Deere & Co	368	165,813	111,263	61,376	16,831	14,852	29
CNH Industrial NV	11	35,136	13,925	24,733	5,221	4,656	2
Titan International Inc	11	950	706	2,070	235	192	2
Alamo Group Inc	160	2,173	1,921	1,608	236	182	10
Lindsay Corp	126	1,353	1,383	674	122	102	6
Ag Growth International Inc	35	1,244	648	1,130	84	33	4
Bucher Industries AG	354	3,396	3,627	4,008	593	500	21
Exel Industries SA	47	514	322	1,158	86	56	5
TYM Corp	4	307	165	723	81	70	1
Iseki&Co Ltd	7	629	166	1,256	70	27	1
First Tractor Co Ltd	1	1,216	1,357	1,771	129	80	0
Daedong Corp	9	868	231	1,124	90	64	3
Gifore Agricultural Science	1	339	263	403	22	18	0
Buhler Indsutries Inc	2	67	41	187	4	2	0
Escorts Kubota Ltd	38	3,887	4,157	1,073	111	92	0
Kubota corp	13	29,468	15,759	21,420	2,763	2,076	1
PACCAR Inc	86	53,256	47,980	34,180	5,949	5,548	7
Plasson Industries Ltd.	39	533	371	460	74	47	13
TOMRA Systems ASA	9	2,954	2,532	1,358	237	140	0
AGCO	116	9,871	8,811	14,510	2,076	1,797	15

Company	Country	Currency	Market cap	Cash & equivalents	Debt	Minorities	Pensions	Preferred shares	EV	Leverage	Raw levered beta	Adj. levered beta	Tax rate	Unlevered beta
Deere & Co	US	USD	108,593	7,417	63,697	104	-	-	164,977	58.60%	1.032	1.021	25.0%	0.710
CNH Industrial NV	US	USD	13,737	3,685	24,958	130	285	-	35,425	179.98%	1.170	1.113	25.0%	0.474
Titan International Inc	US	USD	839	212	427	-	4	-	1,059	50.92%	1.097	1.065	25.0%	0.770
Alamo Group Inc	US	USD	2,297	114	324	-	9	-	2,516	14.10%	0.953	0.969	25.0%	0.876
Lindsay Corp	US	USD	1,429	166	115	-	5	-	1,383	8.08%	0.872	0.915	25.0%	0.862
Ag Growth International Inc	CA	USD	803	68	676	-	-	-	1,411	84.26%	1.300	1.200	25.0%	0.735
Bucher Industries AG	CH	USD	3,497	353	133	22	23	-	3,323	3.77%	1.073	1.049	18.0%	1.017
Exel Industries SA	FR	USD	317	48	222	-	13	-	503	69.98%	0.332	0.555	25.0%	0.364
TYM Corp	KR	USD	165	52	185	(1)	25	-	323	112.55%	0.846	0.897	25.0%	0.487
Iseki&Co Ltd	JP	USD	162	62	492	32	19	-	643	253.87%	1.267	1.178	23.2%	0.399
First Tractor Co Ltd	CN	USD	1,385	662	377	74	-	-	1,174	25.87%	0.648	0.765	25.0%	0.641
Daedong Corp	KR	USD	250	42	563	94	50	-	915	163.73%	1.044	1.029	23.2%	0.456
Gifore Agricultural Science	CN	USD	331	61	82	46	-	-	399	21.63%	0.102	0.401	25.0%	0.345
Buhler Indsutries Inc	CA	USD	41	-	38	-	-	-	80	92.96%	0.101	0.401	25.0%	0.236
Escorts Kubota Ltd	IN	USD	4,099	331	-	(1)	1	-	3,770	0.00%	0.668	0.779	30.0%	0.779
Kubota corp	JP	USD	16,918	331	13,741	1,610	12	-	31,949	74.16%	1.330	1.220	23.2%	0.777
PACCAR Inc	US	USD	47,616	7,649	14,690	-	-	-	54,656	30.85%	0.842	0.895	25.0%	0.727
Plasson Industries Ltd.	IL	USD	371	64	152	20	-	-	479	38.69%	1.022	1.015	23.0%	0.782
TOMRA Systems ASA	NO	USD	2,797	47	312	20	22	-	3,104	11.08%	0.750	0.833	22.0%	0.767
									Average	68.16%			Average	0.642
									Median	50.92%			Median	0.727

	Base year	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Terminal year
	0	1	2	3	4	5	6	7	8	9	10	
Revenues	14,511	16,086	17,505	19,050	20,726	22,537	24,495	26,609	28,361	29,650	30,391	
Revenues growth rate	*14.70%*	*10.86%*	*8.82%*	*8.83%*	*8.80%*	*8.74%*	*8.69%*	*8.63%*	*6.59%*	*4.54%*	*2.50%*	
COGS	(10,540)	(11,760)	(12,881)	(14,108)	(15,447)	(16,903)	(18,371)	(19,957)	(21,271)	(22,237)	(22,793)	
COGS as a % of revenues	*72.64%*	*73.11%*	*73.58%*	*74.05%*	*74.53%*	*75.00%*	*75.00%*	*75.00%*	*75.00%*	*75.00%*	*75.00%*	
R&D	(530)	(599)	(664)	(736)	(815)	(901)	(980)	(1,064)	(1,134)	(1,186)	(1,216)	
R&D as a % of revenues	*3.65%*	*3.72%*	*3.79%*	*3.86%*	*3.93%*	*4.00%*	*4.00%*	*4.00%*	*4.00%*	*4.00%*	*4.00%*	
Other SG&A	(1,364)	(1,564)	(1,757)	(1,974)	(2,214)	(2,479)	(2,694)	(2,927)	(3,120)	(3,261)	(3,343)	
SG%A as a % of revenues	*9.40%*	*9.72%*	*10.04%*	*10.36%*	*10.68%*	*11.00%*	*11.00%*	*11.00%*	*11.00%*	*11.00%*	*11.00%*	
EBITDA	2,076	2,163	2,203	2,233	2,251	2,254	2,450	2,661	2,836	2,965	3,039	
EBITDA margin	14.31%	13.45%	12.59%	11.72%	10.86%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	
Depreciation	(221)	(264)	(276)	(289)	(305)	(324)	(344)	(368)	(393)	(418)	(442)	
Amortization	(58)	(122)	(142)	(162)	(183)	(206)	(229)	(254)	(280)	(305)	(329)	
EBIT	1,797	1,777	1,786	1,782	1,763	1,724	1,876	2,039	2,163	2,242	2,268	
EBIT margin	*12.38%*	*11.04%*	*10.20%*	*9.35%*	*8.50%*	*7.65%*	*7.66%*	*7.66%*	*7.63%*	*7.56%*	*7.46%*	
Operating taxes	(449)	(444)	(446)	(446)	(441)	(431)	(469)	(510)	(541)	(560)	(567)	
D&A	280	387	417	451	489	529	574	622	673	723	771	
Gross cash flows	1,627	1,719	1,757	1,788	1,811	1,823	1,981	2,151	2,295	2,404	2,472	
Change in non-cash working capital	(137)	287	(145)	(125)	(137)	(149)	(138)	(146)	(121)	(89)	(50)	
CAPEX	(553)	(613)	(667)	(726)	(790)	(859)	(934)	(1,014)	(1,081)	(1,130)	(1,158)	
FCFF	937	**1,393**	**945**	**937**	**884**	**815**	**909**	**991**	**1,093**	**1,186**	**1,264**	**1,295**
WACC		11.16%	11.16%	11.16%	11.16%	11.16%	11.16%	11.16%	11.16%	11.16%	11.16%	
Discount factor		0.900	0.809	0.728	0.655	0.589	0.530	0.477	0.429	0.386	0.347	
Present value of FCFF		**1,253**	**765**	**682**	**579**	**480**	**482**	**472**	**469**	**458**	**439**	
Terminal growth rate											2.50%	
Terminal value											**14,958**	

Category	Base year value	Phase 1	Phase 2	Phase 3	Long-term prospects	Final year value	Assumptions
Tractors + GSI revenues	9,787	2024-2030: same growth as overall agricultural machinery market growth		2030-2033: Gradual decrease in growth to TGR = 2.5%	TGR = 2.5%	19,808	After obtaining the overall expected market growth from statista, we assumed that AGCO will retain its current market share, which means that the growth in revenues from this segment will match the growth of the overall market
Replacement parts revenues	1,781	2024-2030: same growth as overall agricultural machinery market growth		2030-2033: Gradual decrease in growth to TGR = 2.5%	TGR = 2.5%	4,160	In the previous years, it was possible to observe a trend of a somewhat constant proportion of replacement part revenues compared to tractors+GSI revenues; therefore, we assumed a constant proportion of 21% of Tractors + GSI revenues, which means that the growth in replacement parts revenues will match the one from Tractors + GSI
Combines, application equipment, and other machinery revenues (except precision agriculture)	2,159	2024-2030: same growth as overall agricultural machinery market growth		2030-2033: Gradual decrease in growth to TGR = 2.5%	TGR = 2.5%	4,369	We assumed that this segment will follow closely the growth in revenues of the Agricultural Machinery overall market.
Precision agriculture	783	2024-2027: same growth as overall Precision Agriculture market	2027-2030: gradual phase down to 10% growth	2030-2033: gradual phase down to TGR = 2.5%	TGR = 2.5%	2,054	The precision agriculture business, which is reported by AGCO under the section above, is expected to grow at a faster rate than the agricultural machineries sector. Therefore, we implied a constant market share up to 2027, matching the overall market growth in that period; a gradual phase down to 10% is then expected up to 2030, and a further decrease in the revenues' growth rate towards the TGR has been assumed up to 2033.
COGS	72.64% of revenues	2024-2028: 5-year gradual increase up to 75% of revenues	75% of revenues			75% of revenues	We assumed that COGS will stabilize at an historical average of around 75% of total revenues, a figure that the company has floated for the past years.
R&D	3.65% of revneues	2024-2028: 5-year gradual increase up to 4% of revenues	4% of revenues			4% of revenues	As reported by the company itself, they are planning to increase R&D expenses up to 4% of revenues in the next 5 years. This is probably due to the higher degree of innovation that the company will need to pursue in order to become and stay a relevant player in the precision agriculture business.
SG&A	9.40% of revenues	2024-2028: 5-year gradual increase up to 11% of revenues	11% of revenues			11% of revenues	Following a steep increase in revenues in the past few years, the percentage of SG&A expenses compared to revenues has decreased; however, as the company will need to expand and adapt its current structure, we expect that SG&A will gradually increase and go back to the average historical level of 11% it had before the past two years.
CAPEX	3.81% of revenues	3.81% of revenues				3.81% of revenues	CAPEX expenditures for AGCO do not only involve investments in physical assets: rather, they comprehend investments in other businesses, which happen every few years and allow the company to expand to other sub-segments. Taking this factor into account, we decided to keep CAPEX as a constant percentage of revenues to the level of 2023, which is close to peak historical CAPEX spending, reflecting a need to invest for further expansion during the plan's duration.

Disclaimer