



Financial Analysis of IVECO Group

Group 7

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IVECO
GROUP

Cash Flow Analysis

For the Cash Flows Analysis, we have considered the evolution of the Net Free Operating Cash Flows (FCFO) among the 3 years, starting from the EBIT and considering the effect of taxes, the changes in Working Capital and the effects of capital expenditures.

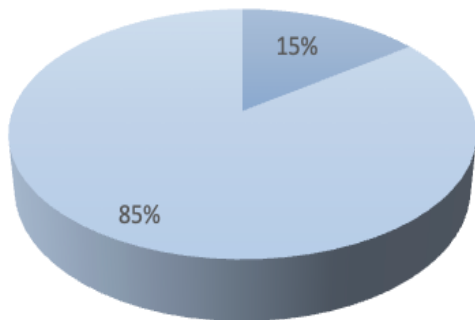
In the 2022, the FCFO is affected by the **highest amount of CapEx (€777M)** over the period, mainly due to the *energy transition and the Model Year '24 launches* across all the ranges. In 2020, **capital expenditures had the lowest impact (€401M) on the amount of FCFO**, but it was apparent effect as it was due to the *global pandemic situation*. In fact, by 2021, they are back up to €564M (+40.65%), close to standard levels. In 2021, 48% of capital expenditures were related to the *capitalization of R&D costs*.

We can easily assess that FCFOs they fluctuated over the years, and just in 2021 were of a positive amount. These results are strongly influenced by the capital expenditures and by the managing of the working capital. FCFOs increased over the three years from negative in 2020 to very positive in 2022. In 2020, FCFOs have a negative value very much affected by **negative EBIT**, caused by the outbreak of the *COVID-19 pandemic* and thus a sharp *decrease in consumption in the automotive industry*. However, in 2021, FCFOs have been negative again. This time, the increase in FCFO driven by an increase in EBIT has been **almost totally offset by worsening in the management of Working Capital and an increase in CapEx**. Finally, in 2022, FCFOs has reach a strong positive value, despite the increase in CapEx, mainly driven by **improvements in EBIT and in the management of Working Capital** (especially, in the management of supplies' conditions).

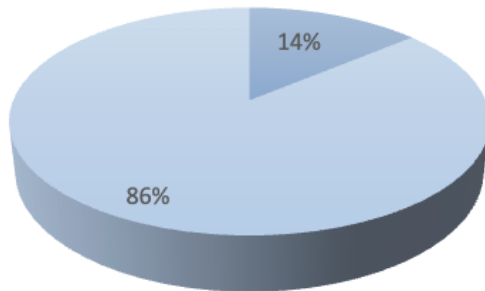
	2022	2021	2020
EBIT	€ 466,000,000	€ 295,000,000	€ -376,000,000
Depreciation & Amortization	€ 558,000,000	€ 565,000,000	€ 578,000,000
EBITDA	€ 1,024,000,000	€ 860,000,000	€ 202,000,000
Taxes	€ 101,000,000	€ 104,000,000	€ -116,000,000
CapEx	€ 777,000,000	€ 564,000,000	€ 401,000,000
Δ TOT. Working Capital	€ -507,000,000	€ 343,000,000	€ 187,000,000
Δ Trade Receivables	€ 35,000,000	€ -115,000,000	€ 107,000,000
Δ Inventories	€ 219,000,000	€ 496,000,000	€ -133,000,000
Δ Trade Payables	€ -555,000,000	€ -42,000,000	€ -102,000,000
Δ Other receivables/payables	€ -206,000,000	€ 4,000,000	€ -59,000,000
FCFO	€ 653,000,000	€ -151,000,000	€ -270,000,000

Capital structure

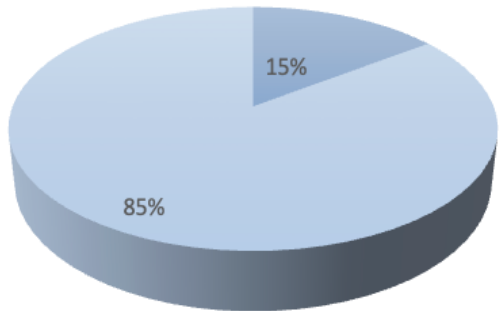
Capital structure in 2022



Capital structure in 2021



Capital structure in 2020



■ Equity in the capital structure ■ Liabilities in the capital structure

IVECO had a steady capital structure these past 3 years. The **equity represents around 15%**, meanwhile the **liabilities represent around 85%** of the capital structure. The 3 biggest liabilities in term of percentage are **debt, trade payables and other current liabilities**. Together, they represent between 83% to 85% of the total liabilities. Smaller liabilities such as provisions only represent 13% to 15% of the total liabilities.

Concerning the **Debt to Equity ratio**, between 2022 and 2021, the ratio decreased while between 2022 and 2020, the ratio remained the same. We can assume that the increase in the debt to equity ratio in 2021 was due to the increase in the total liabilities. This increase is mainly caused by the debt which **increased by 8.88%**, possibly as a consequence of the pandemic.

	2022	2021	2020
Equity	€2,391,000,000	€2,311,000,000	€2,336,000,000
Total Debt	€13,622,000,000	€14,249,000,000	€13,295,000,000
Debt to Equity ratio	5.7	6.17	5.69

Cost of Debt capital

Liabilities (€ million)	2020	2021	2022
ST Debt	0	0	0
LT Debt	719	783	1284

Interest Coverage Ratio	2020	2021	2022
EBITDA to Interest Expense	247	19.88	79.31
EBIT to Interest Expense	-333	6.38	36.23

Risk-Free Rate (EU 10y)	Fitch Rating
3.19%	BBB-

Method	Spread	Cost of Debt
Interest Coverage	0.40%	3.59%
Fitch Rating	1.80%	4.99%

Financial Expenses (€ million)	2022	2021
Bank interest expenses	8	3
Interest expenses related to lease liabilities	5	5
Commission expenses	3	5
Other interest cost and other financial expenses	159	82
<i>Total</i>	<i>175</i>	<i>95</i>

We ultimately decided to use the cost of debt obtained with **Fitch Rating** because the one with Interest Coverage does not take into account the "Other interest costs and financial expenses", which represent the majority of Iveco's financial expenses (see table above). This leads us to a **cost of debt of 4.99%**.

Source for accounting data and credit rating: Bloomberg

Source for EU risk free rate: ECB, 23rd April 2023 - https://sdw.ecb.europa.eu/quickview.do?SERIES_KEY=143.FM.M.U2.EUR.4F.BB.U2_10YYLD

Beta Calculation

How do we calculate Beta?

1) BETA LEVERED

We first computed the Beta using the weekly yields of IVECO Group stock title from 2022. We could not use data about previous years since IVECO was part of a larger group, CNH Industrial, until December 2021. We then calculated Beta using the formula shown on the right. Due to the very limited time-span available, for the purpose of Cost of Equity estimation we ultimately decided to compute the beta of IVECO based on **comparable companies**, as explained in the following steps.

	IVECO
	IVG
Reference MKT index	FTSEMIB
Corr. Coefficient with reference mkt	0,8861
Std. Dev. MKT	3,1218
Std. Dev. IVG	6,1321
Beta Levered	1,7404

2) BETA UNLEVERED

First of all, we have identified 7 comparables to calculate the average sector Beta:

- Ebusco Holdings
- Traton
- Daimler
- Jost Werke
- Autoneum
- Saf
- Volvo trucks

$$\beta_i = \frac{cov(R_i, R_{Mkt})}{var(R_{Mkt})} = \rho_{i,Mkt} \frac{\sigma_i}{\sigma_{Mkt}}$$

Beta Calculation

A) Delevering

Then we have computed the Beta Equity Unlevered for each peer by using the following formula:

$$\beta_{unl} = \beta_{equity} * E / (E + D * (1 - t)) + \beta_{debt} * D(1 - t) / (E + D * (1 - t))$$

- E = actual market capitalization
- D = Net Financial Position 2023
- Beta debt = assumption equals to 0.2

	IVECO	EBUSCO HOLDINGS	TRATON	DAIMLER	JOST WERKE	AUTONEUM	SAF	VOLVO
Currency	EUR	EUR	EUR	EUR	EUR	CHF	EUR	SEK
Exch. Rate	1	1	1	1	1	1,02	1	0,088
Equity (MKT CAP)	26017,42	521,91	10440	24630	742,02	631,7	563,34	431490
Equity (MKT CAP) EUR	26017,42	521,91	10440	24630	742,02	644,334	563,34	37971,12
PFN	11308	-48054	45840	36295	594	942	817	-36931
PFN EUR	11308	-48054	45840	36295	594	960,84	817	-3249,928
Tax rate	0,24	0,25	0,15	0,15	0,15	0,085	0,15	0,206
E/(E+D*(1-T))	0,751698713	-0,014693995	0,211318922	0,443937762	0,595082283	0,422929373	0,447880807	1,072913067
D*(1-T)/(E+D*(1-T))	0,248301287	1,014693995	0,788681078	0,556062238	0,404917717	0,577070627	0,552119193	-0,072913067
Beta Debt	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2
Beta Unlevered	1,357916697	0,194453017	0,473974982	0,775565309	0,978724675	-0,03641752	0,786096824	1,514425799

B) Relevering

Then we have calculated the average Beta Unlevered, which is **0.76**, and an average D/E of the competitors, which is **0.44**.

We obtain a **Beta Equity of IVECO Group of 0.93** by using the following formula:

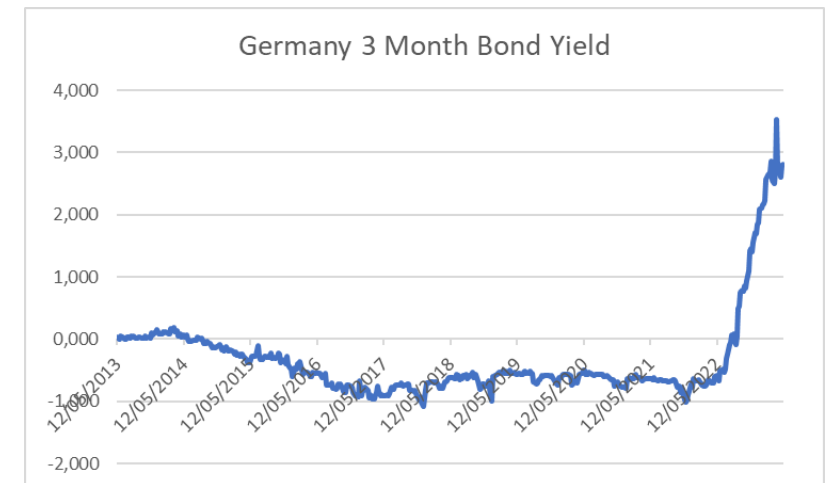
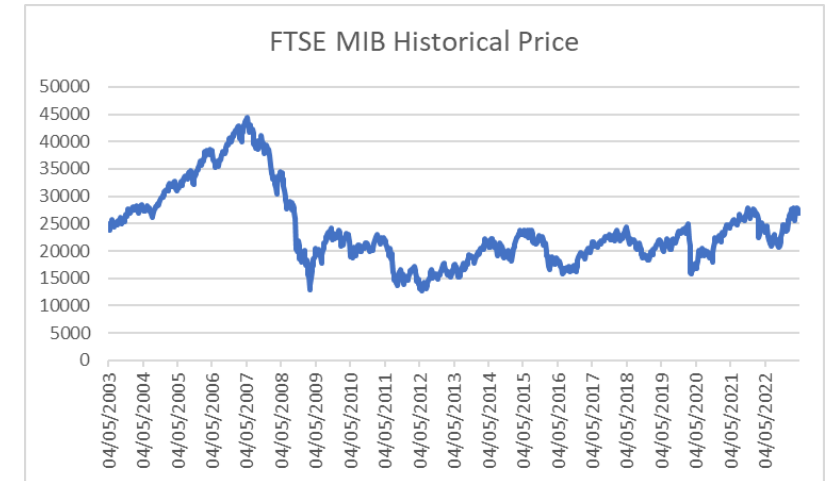
$$\beta_{equity} = \beta_{unl} + (\beta_{unl} - \beta_{debt}) * (D * (1 - t)) / E$$

Cost of Equity capital

Cost of equity capital has been determined by considering:

- FTSE MIB average weekly return over the past 10 years as the reference market return;
- 3 month-German bond average 10-year historical yield as the backward risk-free interest rate
- Annual Euro area 10-year Government Benchmark bond yield as a forward-looking risk-free rate. This has been chosen to offset the upward trend in German bond yields that is not aligned with the historical performance and linked to the current macroeconomic environment. The trend is to reverse in the foreseeable future.

Average weekly FTSE MIB return	0,001469905
Historical 3 month-German Bond Yield	-0,003416628
Current risk-free Euro Rate	0,031929
BETA	0,930787701
Cost of equity	0,110321748



Cost of Capital: WACC

To calculate the WACC we have used the following formula:

$$WACC = E/V * k_e + D/V * (1-t) * k_d$$



$$WACC = 69.7\% * 11.03\% + 30.3\% * (1-24\%) * 4.99\% = \mathbf{8.84\%}$$

- $E/V = 69.7\%$

We decided to use the actual market capitalization (E). $V = E+D$, with D = Net Financial Position. From the calculation we obtain 69.7%

- $K_e = 11.03\%$

Previously calculated

- $D/V = 30.3\%$

We obtain it by doing $1 - (E/V)$

- $(1-t) = (1- 24\%) = 76\%$

We consider tax rate equal to 24%

- $K_d = 4.99\%$

Previously calculated

$\mathbf{= WACC = 8.84\%}$

From these calculations we obtain a **WACC** which is equal to **8.84%**.

Cost of Capital: EV Valuation

To calculate the EV we took in consideration the FCFO of 2022 of the company and its growth rate **g = 11.79%**.

We have assumed that **g would decrease**. The actual value is high as a consequence of the recovery of the industry after **Covid-19**.

We are expecting that **g** will decrease due to *macroeconomic indicators*, such as rising inflation, local currency devaluation, strengthening of government protectionism policies across countries and stricter regulations on this industry.

We assumed that **g** would decrease at an exponential rate over **7 years**, reaching a **final rate of 2%** (equal to the *ECB long-term inflation target*).

	2022	2023	2024	2025	2026	2027	2028	2029
t		1	2	3	4	5	6	7
g	11,79%	9,15%	7,10%	5,51%	4,28%	3,32%	2,58%	2,00%
FCFO	653,00 €	729,99 €	796,79 €	853,37 €	900,41 €	938,93 €	970,10 €	995,10 €
FCFO discounted	653,00 €	670,70 €	672,61 €	661,87 €	641,63 €	614,74 €	583,56 €	549,98 €

We have then calculated the **terminal value (TV)** with the following formula:

$$\text{FCFO}_{\text{net},2029} \cdot (1+g) / (WACC-g)$$

In that way we found the **Enterprise Value (EV)**.

By subtracting the Net Financial Position we obtained the **equity value** which is quite similar to the actual market price of the company.



FCFO 2029	1.015,01 €
WACC	0,0884
g 2029	0,02
TV in 2029	11.481,95 €
TV discounted	6.345,94 €
EV	10.741,04 €
NFP	7.598,00 €
Equity	3.143,04 €

Dividend Discount Model Valuation – long term equilibrium

To evaluate the dividend discount model, we decided to do 2 scenarios:

- 1. assuming that **the ROE will be equal to the K_e** in the long term
- 2. assuming that in the long-term **ROE will not be equal to K_e** .

For both scenarios, we started by calculating the dividend as forecast **DPS * Shares outstanding**. Then, we computed plowback ratio using the formula: **1 – Dividend / Net income**. *Data have been taken from Bloomberg.*

For the first scenario, since the ROE will be equal to the cost of equity, we will assume that the plowback is 0.00% as if we were in a steady-state scenario.

Thus, the terminal value in 2026 has been computed simply by dividing the forecast net income in 2027 by the cost of equity. To estimate the 2027 net income, we assumed a **growth rate of 8.75% in 2027** (Plowback of 2026 * cost of equity).

To find the **equity in steady state** we took the net income of 2023 divided by the cost of equity. The PVGO is the difference between the equity value and the equity value in steady state while the relative PVGO is PVGO divided by Equity Value.

	2023	2024	2025	2026	2027
T	1	2	3	4	
DPS	0.22	0.30	0.29	0.26	
Shares outstanding	271.22	271.22	271.22	271.22	
Dividend	60.97 €	80.23 €	77.80 €	69.99 €	368.51 €

	2023	2024	2025	2026	2027
Net income (in million)	214.43 €	292.11 €	292.59 €	338.85 €	368.51 €
Plowback	71.57%	72.53%	73.41%	79.35%	0.00%
Cost of equity (K_e)	11.03%	11.03%	11.03%	11.03%	11.03%
Terminal Value					3341 €
Present Value	55 €	65 €	57 €	2244 €	

LONG TERM GROWTH RATE	EQUITY VALUE	EQUITY VALUE AT STEADY STATE	PVGO	RELATIVE PVGO
8.75%	2421 €	1944 €	477 €	20%

Dividend Discount Model Valuation – disequilibrium

In this scenario, we assume that in the long-term **ROE will not be equal to K_e** . Thus, the long-term growth rate has been assumed to be 8.54% (average plowback * ROE 2026). The terminal value in 2026 has been computed using the classic Gordon Growth formula, dividing the forecast dividend in 2027 by the difference between the cost of equity and the long-term growth.

The equity value is different in the two scenarios. If ROE is equal to K_e , the equity value is 2421€ while in the second scenario the equity value is equal to 2681€. **This difference** can be explained by the assumed **ROE in the second case being higher: 11.50%** compared to a cost of equity of 11.03%. Because the ROE is higher than the K_e , IVECO is assumed to be generating more value. This translates into a **positive impact** on both the PVGO and relative PVGO.

	2023	2024	2025	2026	2027
T	1	2	3	4	
DPS	0.22	0.30	0.29	0.26	
Shares outstanding	271.22	271.22	271.22	271.22	
Dividend	60.97 €	80.23 €	77.80 €	69.99 €	94.84 €

	2023	2024	2025	2026	2027
Net income (in million)	214.43 €	292.11 €	292.59 €	338.85 €	367.78 €
Plowback	71.57%	72.53%	73.41%	79.35%	74.21%
ROE	8.97%	11.21%	10.33%	11.50%	
Terminal Value	3805€				
Present Value	55 €	65 €	57 €	2504 €	

LONG TERM GROWTH RATE	EQUITY VALUE	EQUITY VALUE AT STEADY STATE	PVGO	RELATIVE PVGO
8.54%	2681 €	1944 €	737 €	27%

Conclusions

Key metrics	Our result
K_d	4.99%
Beta	0.93
K_e	11.03%
WACC	8.84%
EV	10,741€ Mln €
Equity Value - DCF	3,143€ Mln €
Equity Value - DDM	2,681€ Mln €
NFP/NIC	30.3%
E/NIC	69.7%

VS.



Distance between the actual market capitalization and the calculated value of the firm can be justified in various ways. The main criticalities we have stumbled ourselves across are related to the absence of a track record of distributed dividends (Iveco has been publicly traded for a short amount of time), to the high expected growth in the reference market, which is expected to adjust in the coming years, and to the current inflationary dynamic of bond yields (linked to the contingent macro situation). The firm is however solid, highly correlated with market returns, and expected to deliver sound financial results with an attractive perspective return on equity invested.