

FINANCIAL ANALYSIS

GROUP 25

VOLKSWAGEN
GROUP



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I. INTRODUCTION

I.1 Company overview

Volkswagen Group is a leading force in the automotive sector, renowned for its expertise in designing, producing, and distributing passenger and commercial vehicles. The brand is a symbol of innovation and progress, nowadays with a strong commitment to sustainability that guides its operations and shapes the identity of its diverse brands.

“Volkswagen AG is the world’s leading automotive manufacturer; it has the widest brand and product portfolio among all automotive companies...”

Volkswagen was founded in Berlin in 1937 by the German Labour Front, the national labour organization of the Nazi party. The name is derived from the German words, “Volks” and “Wagen”, which translates to “people’s car”. Since its founding, Volkswagen has expanded its portfolio significantly, now owning more than 10 automotive brands as depicted in Figure 1. The overarching company is well known today as Volkswagen Group.

With its brands, Volkswagen Group is present in all relevant markets around the world. The key sales markets include Western Europe, China, the USA, Brazil, Poland, Mexico, Turkey, and Czech Republic. The company currently operates in approximately 150 countries, with a network of 100 production facilities spread across 27 countries.

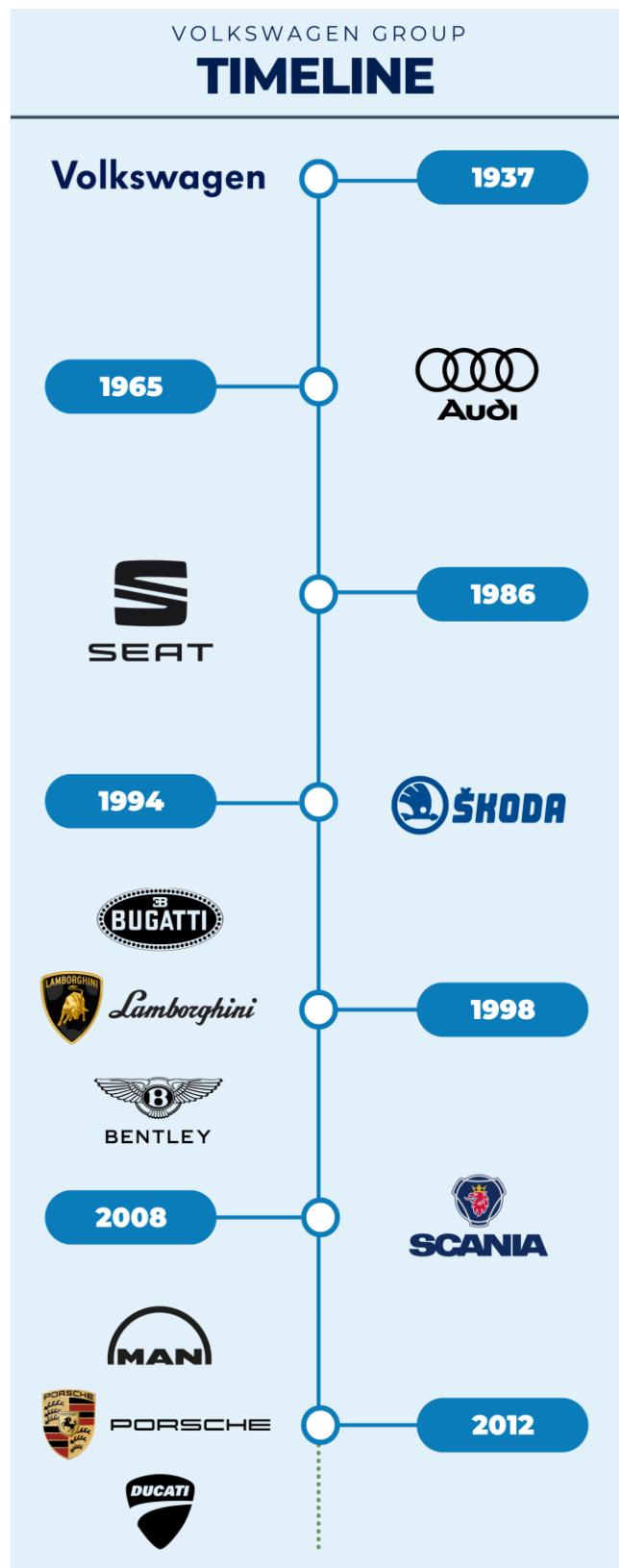


Figure 1: Timeline Volkswagen Group

1.2 External analysis: automotive industry

In 2022, the **revenue** in the automobile manufacturing industry worldwide was almost **2.52 trillion U.S. dollars**:

- Products sold in this sector include cars, SUVs, trucks, buses, and special vehicles.
- Target share concentration for the sector is less than 40%: **high competitiveness**.
- In the last years, the United States, Canada, and Europe have lowered the car sales.
- **COVID-19** has slowed the production of cars, driving up the prices in 2021 and 2022.
- In 2022, the vehicle market ranked sixth in the list of sectors with the highest annual revenue values, even though it experienced a **4.91% decrease compared to 2021**.

1.2.1 PESTEL analysis

A PESTEL analysis is used to evaluate the political, economic, sociocultural, technological, environmental, and legal factors impacting the automotive sector (Figure 2). It identifies the external forces that drive change and influence strategic decisions.

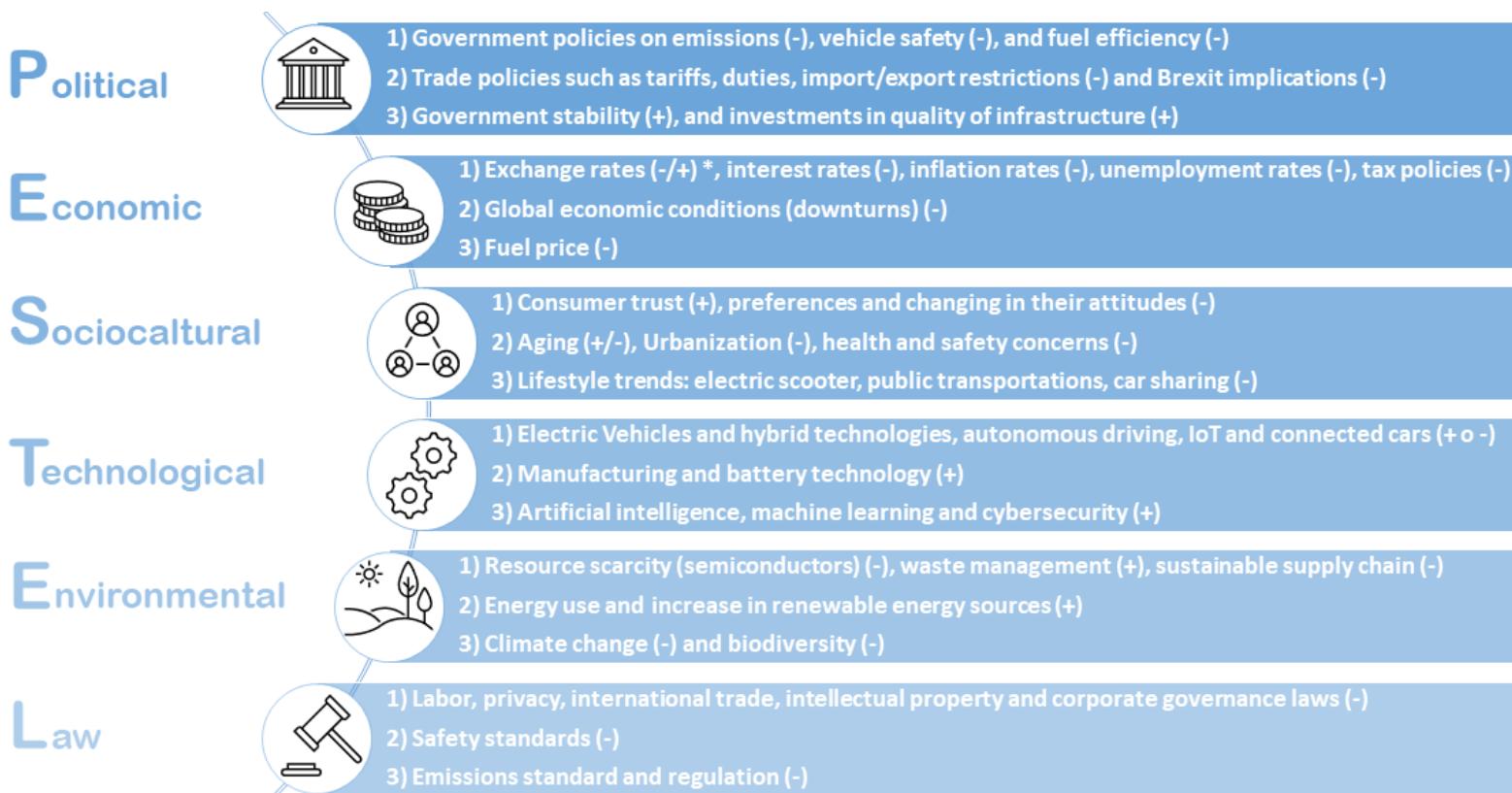


Figure 2: PESTEL Analysis of the car industry

1.2.2 SWOT analysis

In addition to the PESTEL analysis of the car industry, a **SWOT matrix** has been defined for Volkswagen Group to **support the external analysis** by considering some internal factors (Figure 3).

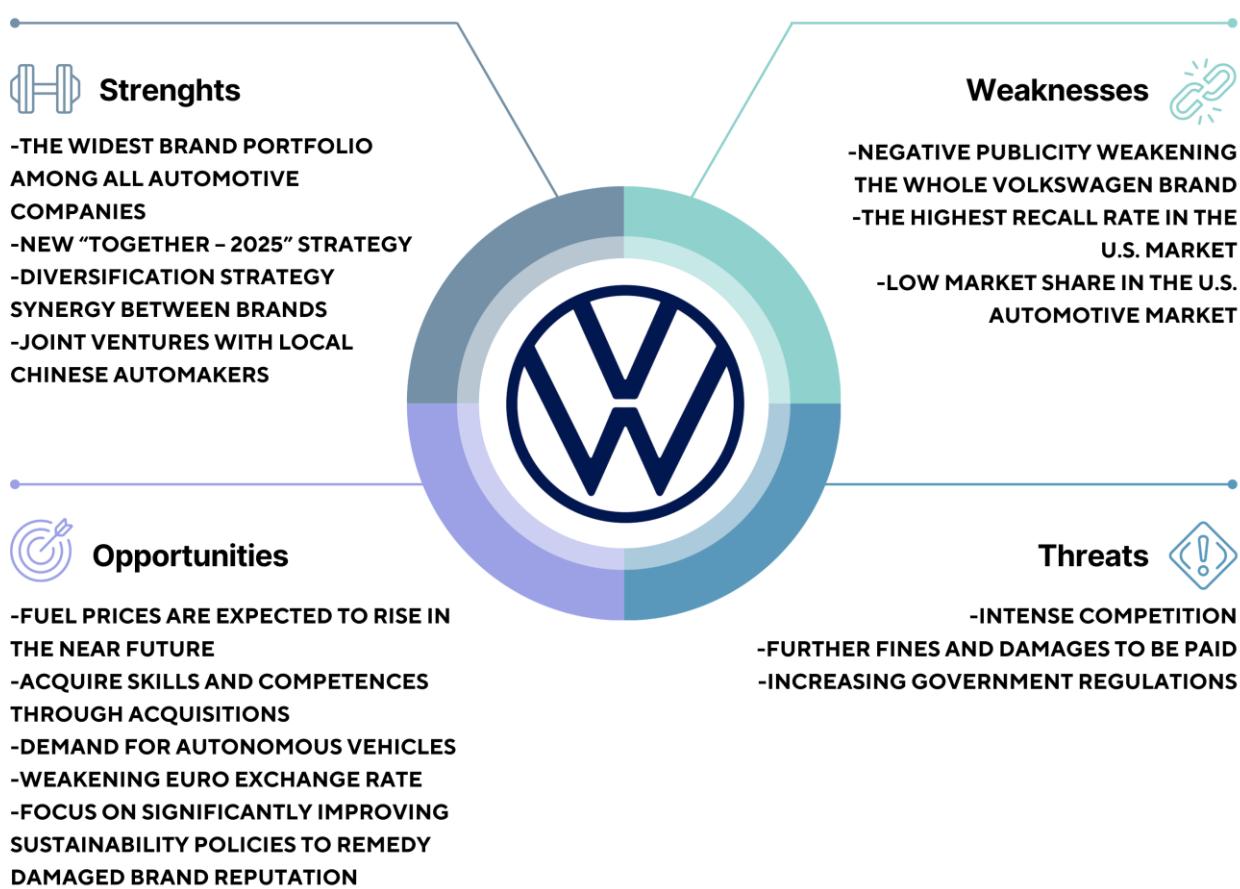


Figure 3: SWOT analysis of Volkswagen Group

2. BENCHMARKING ANALYSIS

2.1 Introduction to competitors

Volkswagen is the largest company in the automotive market, both in terms of revenues and number of employees, making it challenging to compare it with smaller companies.

In the benchmarking analysis, the first step is to identify the companies most suitable for comparison with Volkswagen.

This will be achieved by considering the following aspects:

1. Overall company's size
2. Company's **closing period**
3. Company's **accounting principles**
4. **Markets** in which the company operates
5. **Mission** and **vision** statements



Graph 1: graphic representation of the biggest companies in automotive industry

To begin, the largest players in the automotive market by looking at 2022 yearly revenues and number of employees are **Toyota**, **Stellantis**, **Ford**, **Mercedes-Benz**, **General Motors**, and **BMW** (Graph 1).

Figure 4 highlights the considered aspects per company.

							
	VOLKSWAGEN	TOYOTA	STELLANTIS	FORD	MERCEDES BÉNZ	GENERAL MOTORS	BMW
COUNTRY	Germany	Japan	Netherlands	US	Germany	US	Germany
2022 REVENUES	279,232m €	37,154,298m ¥	179,592m €	148,980m \$	150,017m €	156,735m \$	142,610m €
NUMBER OF EMPLOYEES	675,805	372,817	272,367	173,000	168,797	167,000	149,475
MISSION	“Mobility for generations to come”	“Producing happiness for all”	“Develop the best breakthroughs for sustainable mobility”	“Designing smart vehicles for a smart world”	“First Move The World”	“To earn customers for life by building brands that inspire passion and loyalty”	“To become the world's leading provider of premium products for individual mobility”
ACCOUNTING STANDARD	IAS/IFRS	IAS/IFRS	IAS/IFRS	U.S. GAAP	IAS/IFRS	U.S. GAAP	IAS/IFRS
END OF FISCAL YEAR	Dec. 31	March 31	Dec. 31	Dec. 31	Dec. 31	Dec. 31	Dec. 31

Figure 4: benchmarking of the first six companies

Out of these 6 competitors, Ford and General Motors were dismissed as their accounting standard is **U.S. GAAP**, which is not suitable with Volkswagen's IAS/IFRS.

Out of the remaining four, **Toyota**, **Stellantis** and **Mercedes-Benz** are the biggest. These are the companies that have been used for comparative analysis with Volkswagen in the remainder of this report.

2.1.1 TOYOTA

Starting with **Toyota Motor Corporation**, a Japanese company founded in 1933, it is a conglomerate controlling four other automotive companies: Daihatsu, Hino, Lexus, and Scion.

Toyota's closing period (**March 31**) differs from Volkswagen's (**December 31**): this time difference doesn't exceed **three months**, so it doesn't compromise the analysis. A benchmarking analysis would be incomplete without including Toyota, the second-largest company behind Volkswagen, as shown in Graph 1.



Figure 5: Toyota logo

2.1.2 Mercedes-Benz

The second company is **Mercedes-Benz**: it was founded in 1926 due to the merger of two companies: Daimler-Motoren-Gesellschaft and Benz & Co.

Mercedes shares the same closing period as Volkswagen and operates in similar markets. Both being German companies with headquarters in Germany, they share **similar visions and operate under the same legal framework**.



Mercedes-Benz

Figure 6: Mercedes-Benz logo

2.1.3 STELLANTIS

Stellantis N.V. is a Dutch company, and it is the result of a merger, started in 2019, between the Italian American Fiat-Chrysler Automobiles and the French group PSA.

Stellantis group controls 14 automotive brands: the most important are Fiat, Chrysler, Citroën, Maserati and Peugeot.

As the **third-largest automotive company** (Graph 1), Stellantis operates in similar geographical markets to Volkswagen's. However, it is not included in the immediate benchmarking analysis due to the **unreliability of its 2020 data post-merger**. A detailed analysis of Stellantis, utilizing data from 2021 and 2022, is presented in Chapter 6.



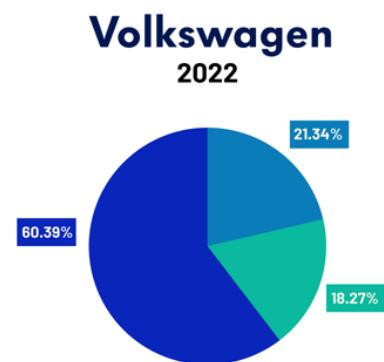
Figure 7: Stellantis logo

3. SEGMENTAL ANALYSIS

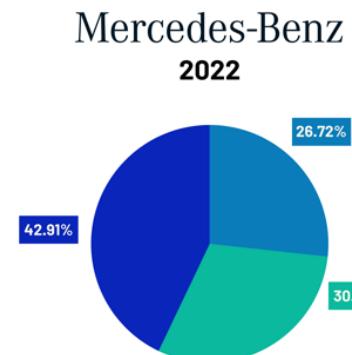
3.1 Geographical analysis

Volkswagen and Mercedes operate on similar markets. **Europe** makes up for half of their sales, while the rest is almost equally distributed between **North America** and **Asia Pacific**. Toyota's primary market is **Asia**, where **Japan** is the leading country, followed by **North America**.

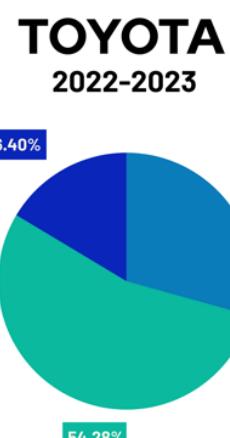
VOLKSWAGEN	2020	2021	2022	Δ (2021/2020)	Δ (2022/2021)
Asia Pacific	19.84%	19.42%	18.27%	+9.90%	+5.70%
North America	16.49%	18.08%	21.34%	+23.08%	+32.61%
Europe and Others (excl. Germany)	44.38%	44.76%	42.96%	+12.97%	+7.84%
Germany	19.19%	17.74%	17.42%	+12.26%	+12.35%



MERCEDES-BENZ	2020	2021	2022	Δ (2021/2020)	Δ (2022/2021)
Asia Pacific	25.89%	29.97%	30.37%	+0.46%	+13.54%
North America	27.83%	24.72%	26.72%	-22.90%	+21.10%
Europe (excl. Germany)	25.25%	22.64%	22.27%	-22.21%	+10.20%
Germany	16.37%	15.48%	15.39%	-17.93%	+11.34%
Others	4.67%	7.18%	5.25%	+33.55%	-18.06%



TOYOTA	2020-2021	2021-2022	2022-2023	Δ (2021/2020)	Δ (2022/2021)
Asia Pacific (Excl. Japan)	14.63%	16.13%	17.04%	+22.70%	+14.11%
Japan	43.34%	39.50%	37.24%	+1.40%	+1.85%
North America	27.52%	27.58%	29.32%	+11.52%	+14.84%
Europe	9.09%	9.55%	9.05%	+16.97%	+2.35%
Others	5.43%	7.23%	7.35%	+48.20%	+9.84%



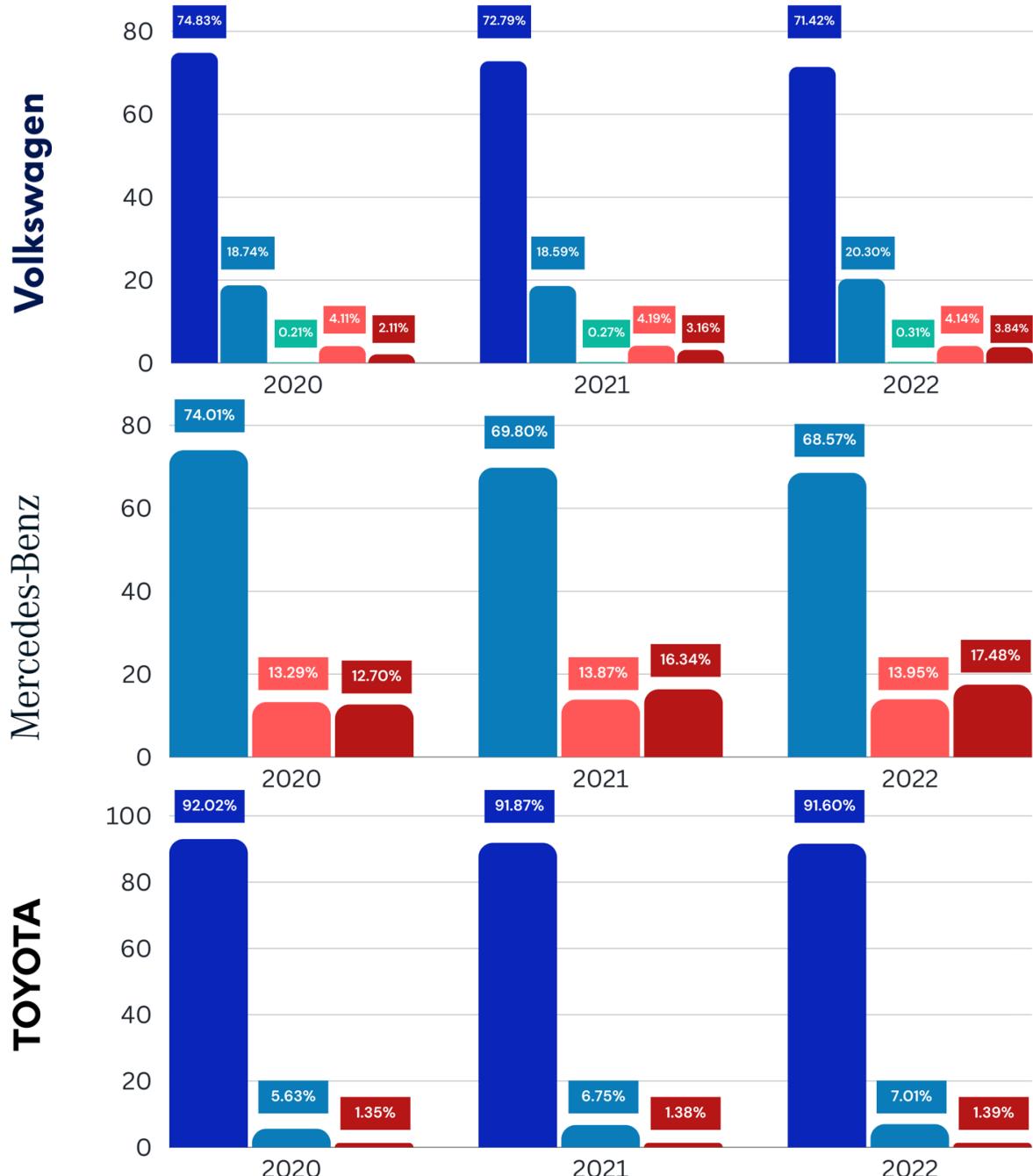
3.2 Product analysis

3.2.1 Types of Cars

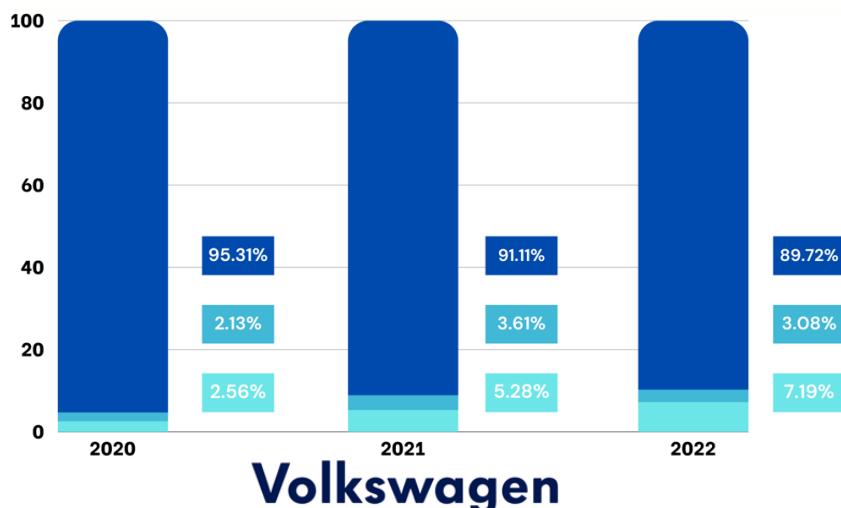
Volkswagen and Toyota predominantly sell **Volume Cars**, with Volkswagen offering a wider range of products with different prices.

Mercedes, on the contrary, sells no volume cars: their sales are primarily **Premium Cars**.

- █ Volume Cars
- █ Premium Cars
- █ Luxury Cars
- █ Small Commercial Vehicles
- █ Big Commercial Vehicles

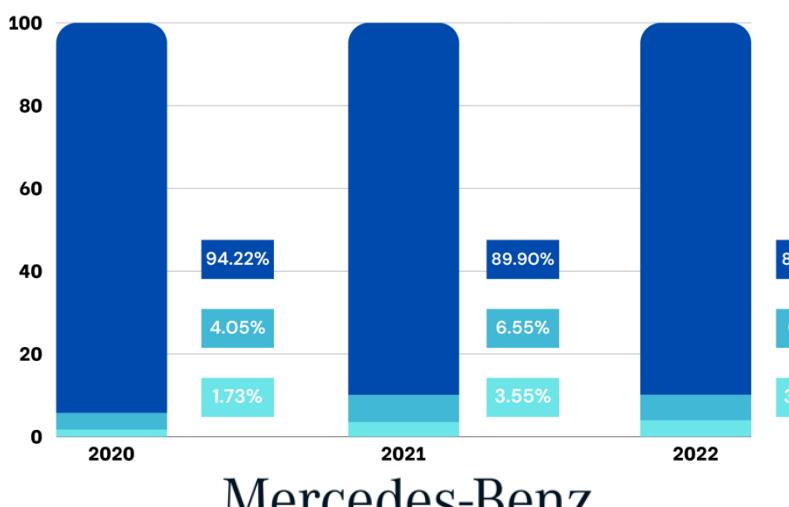


3.2.2 Focus on sustainable mobility

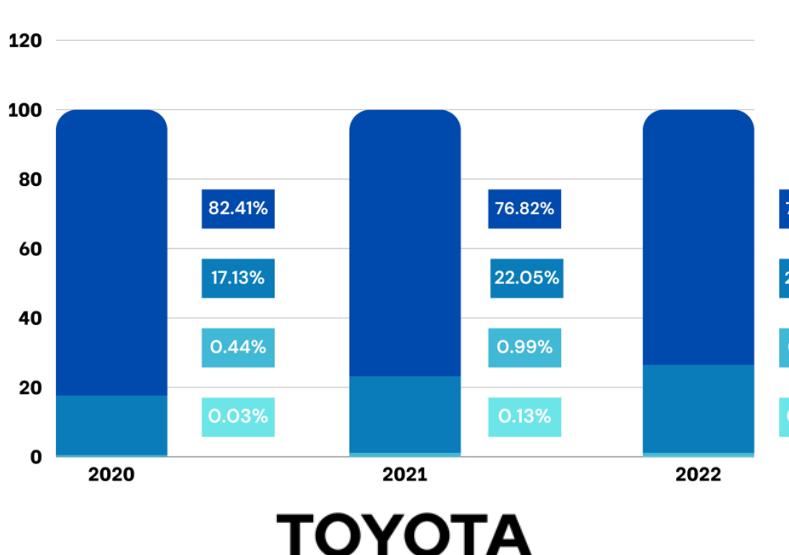


Electric (BEV)
Plug-in Hybrid (PHEV)
Hybrid (HEV)
Others

Volkswagen is increasingly investing in **electric vehicles**, with **diesel** and **fuel vehicles** being still the main focus of the company.



Mercedes operates in a similar way: almost 90% of the vehicles don't use sustainable energy sources. Unlike Volkswagen, which favors electric vehicles, Mercedes prioritizes **plug-in hybrid** vehicles.



Toyota's strategy is different: they have a very small percentage of **BEV** and **PHEV**, but more than a quarter of their vehicles are **hybrid**.

4. COMMON SIZE ANALYSIS

The common size analysis is an instrument to compare companies that have different sizes in a certain industry. This analysis oversees the composition and weight of the different items in the financial statements and their percentage variations over the years.

4.1 Vertical analysis of Assets

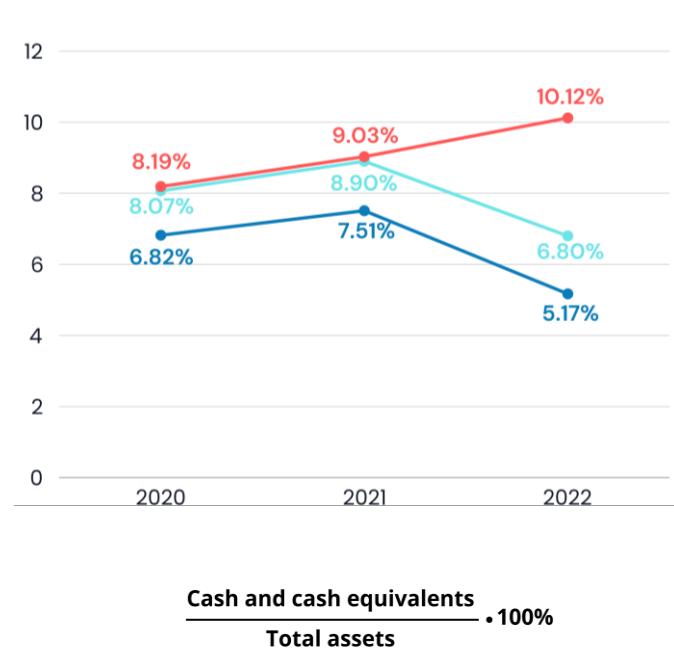
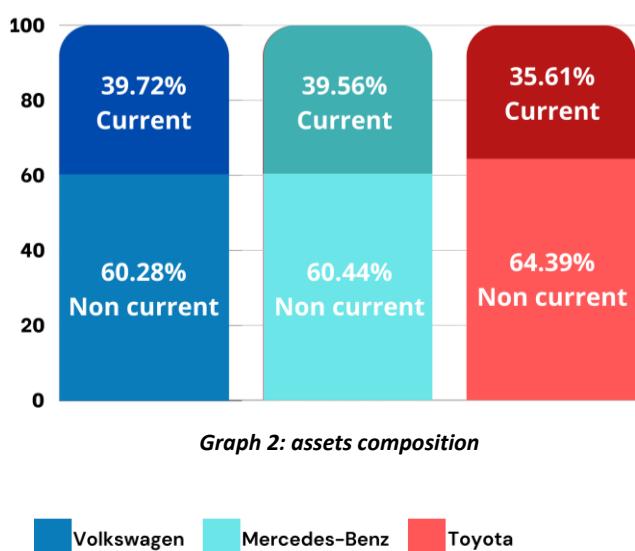
The vertical analysis of assets for 2022 reveals how all the three companies allocated their overall amount of resources between short and long period of time.

For Volkswagen, **Intangible assets** are a big part of non-current resources: in 2022 they represented almost 15% of the total assets. This is evident when considering Mercedes and Toyota where Intangible assets account for 6.10% and 1.68% of their total assets, respectively. This significant difference reflects the innovative power and the potential future competitiveness of Volkswagen.

Regarding Mercedes, this lack is compensated by a higher percentage of **Lease assets** (5% more than Volkswagen), while Toyota looks more focused on **Other financial assets**, which are equal to 14.21% of the total assets (for the two German companies, their values are around 2%).

Volkswagen's **liquidity** is a notable weakness, as it not only has the poorest liquidity situation among the companies analyzed but also experienced a drastic 26.56% decrease in cash and cash equivalents in 2022.

This could expose the company to **risky scenarios**.



4.2 Horizontal analysis of Assets

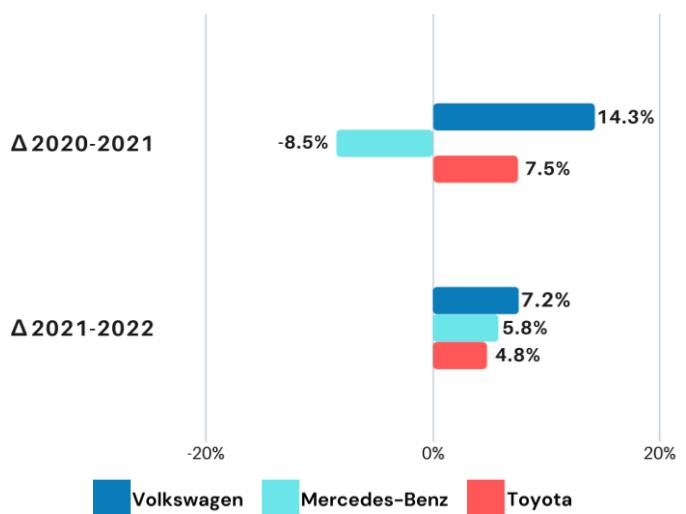
Intangible assets experienced a significant growth in 2021 (14.36%) and kept increasing in 2022. The capital expenditure has increased because of its new research and developments on three main topics:

- Product innovation
- Environmentally friendly solutions
- Adjusting in production capacities and improving production processes

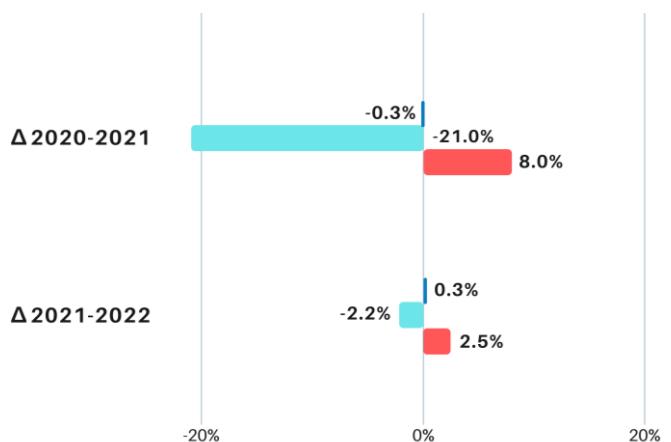
We forecast these assets to increase more in the future for further electrification of the product portfolio.

The Mercedes group, instead, follows a **fixed cost reduction** policy, aiming to decrease them by 2025 to a value at least 20% lower than the levels of 2019. As a strategic step towards 'Electric Only,' Mercedes-Benz is also reallocating its capital, observable in an increase in intangible assets, but with a reduction in PP&E.

In 2021, Toyota shared further updates regarding the global strategy for carbon neutrality, outlining plans for the introduction of 30 electric battery models by 2030. In addition to Toyota vehicles, the focus extends to the battery and hydrogen sectors, reaffirming the ongoing investment in advanced and sustainable technologies. Therefore, we see an increase in these two items in both 2021 and 2022.



Graph 4: horizontal analysis on intangible assets



Graph 5: horizontal analysis on PP&E

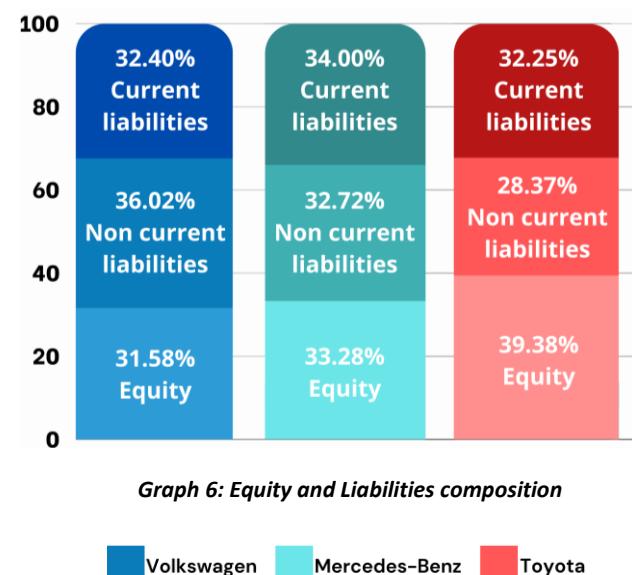
4.3 Vertical analysis of Equity and Liabilities

Graph 6 illustrates the 2022 financial structure ratios of Toyota, Mercedes, and Volkswagen Group, emphasizing **Liabilities and Shareholders' Equity**.

Volkswagen Group's higher proportion of non-current liabilities indicates a significant reliance on long-term financing options, primarily bonds, liabilities to banks and short-term debt classified as "**Commercial paper and notes**" [1]. This could suggest a strategic investment in long-term assets, which typically requires substantial capital outlays that are financed through such debt instruments.

On the other hand, Toyota's leading Shareholders' Equity ratio, translates into a strong equity base, reflecting robust **retained earnings** and a solid financial cushion. This could potentially be advantageous for weathering economic downturns and reducing dependency on external creditors.

Mercedes-Benz presents a balanced picture: this may suggest that Mercedes-Benz employs a moderate risk profile with the flexibility to pivot as opportunities or challenges arise, aiming to maintain **liquidity** while also investing in **future growth**.



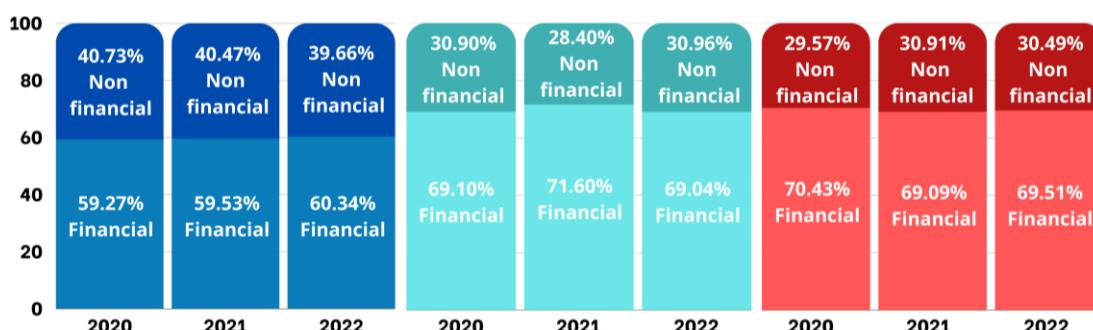
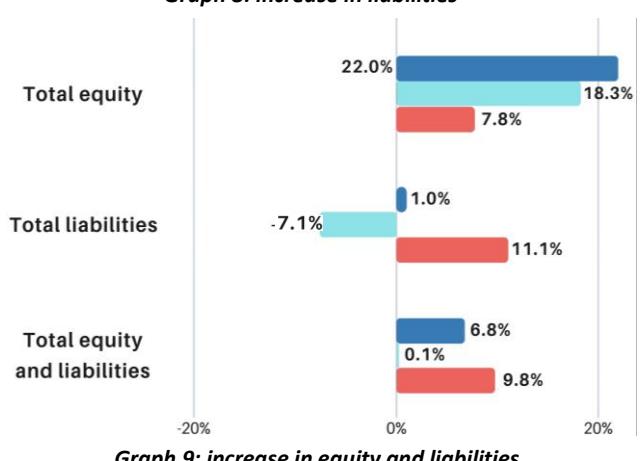
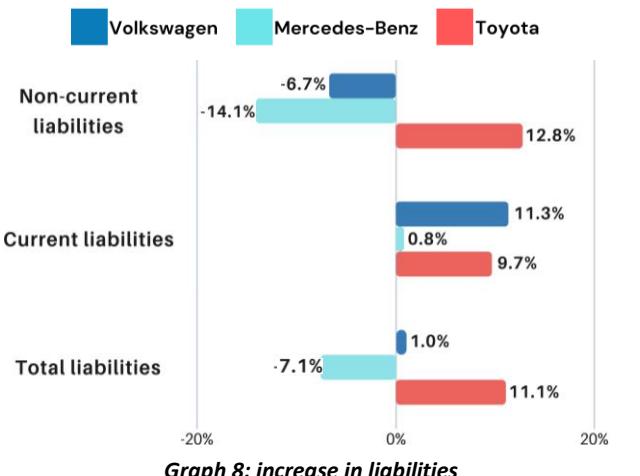
[1] Note 25: Noncurrent and current financial liabilities

4.4 Horizontal analysis of Equity and Liabilities

In the horizontal analysis of the Equity, we notice an anomalous growth of the “**Non-controlling interests**” for Volkswagen: it has increased by **659.53%**, while Mercedes has witnessed a decrease of -7.48% and Toyota a small gain of 1.83% in the same category.

This increase was due to the conduct of an **IPO** for Porsche subsidiary [2]: Volkswagen allowed other investors, different from the original shareholders with decisional power, to buy some shares of this subsidiary (they are mainly non-controlling interest shareholders of the Porsche AG Group and the Traton Group). This may be because Volkswagen noticed the recent rapid growth of Porsche (Porsche's Revenues increased by 23.5% and its Net Income doubled in 2022 [3]) and decided to put some of its shares on the stock market, in order to capitalize them.

For Volkswagen and Toyota, we can observe an increase in “**Trade Payables**” in 2022, that goes along with the growth of revenues (if more vehicles are sold, the company will buy more from the suppliers). For Mercedes, the reasoning is the same for 2022, but in 2021 there was a decrease in this voice: this is because it doesn't consider the trade payables from **Daimler commercial vehicles** business, that are instead counted in 2020 trade payables.



[2] Porsche AG annual report: income statement

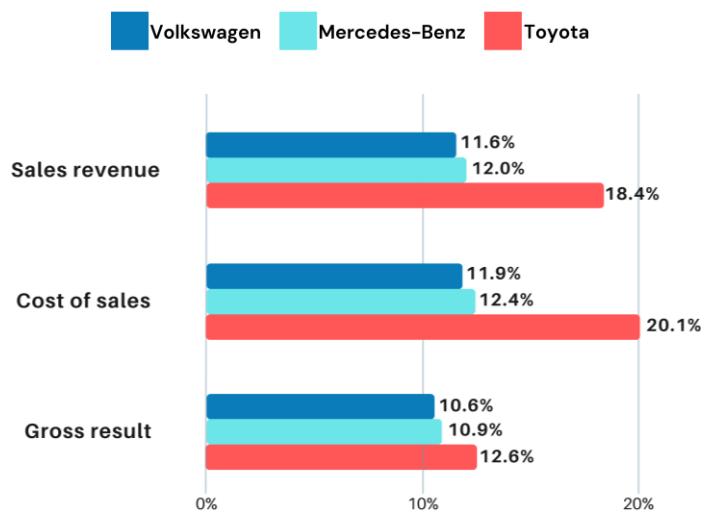
[3] Results of Operations, Financial Position & Net Assets

Graph 10: liabilities composition

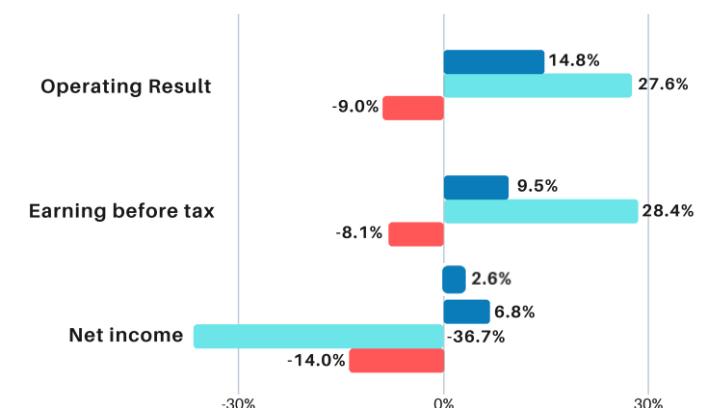
4.5 Horizontal analysis of the Income Statement

The horizontal analysis of the income statement shows how Volkswagen, in relation to its competitors, is the only one that in 2022 reported a growth in **net profit** compared to 2021. In 2021, Mercedes recorded a profit from the "**sale of discontinued operations**" equal to €9,998 million connected to the spin-off from the former Daimler Trucks & Buses sector; this led to a decrease in net profit in 2022 compared to 2021^[4].

Toyota, on the other hand, despite having a **higher percentage growth in revenues** in 2022, compared to the other two companies, has witnessed the biggest decrease in net profit among the three. This is because, in 2022, Toyota experienced a rise of 48 % on the "**Cost of financial service**" category: in the income statement section, these costs directly affected the EBIT, but also had repercussions up to the net profit.



Graph 11: horizontal analysis on income statement 1



Graph 12: horizontal analysis on income statement 2

[4] Note 3: Spin-off and hive-down of Daimler's commercial vehicle business.

5. INDICATORS

The **semiconductor crisis** has posed a critical challenge for the automotive industry, impacting production and, consequently, the revenues of major holdings. Volkswagen, Mercedes, and Toyota have experienced production delays that reduced vehicle availability and influenced sales volume. The increase in lead time made dealerships propose increasingly extended waiting times to new car buyers, inducing potential customers towards the used car market, to the detriment of the "new car market".

Furthermore, **material costs** have seen a significant increase due to growing demand and limited semiconductor availability. Therefore, companies were forced to seek alternative suppliers at higher costs or implement more complex supply chain management strategies. Volkswagen, unlike its competitors, may have benefited from its joint venture in China, gaining access to resources under more favourable conditions.

The **Covid-19 pandemic** has had a long-term impact on global demand, also causing disruptions in the supply chain and the need to adopt new safety measures. The additional burden on operating costs prompted these companies to adjust their distribution strategies and adapt to changes in consumer behaviours.

Finally, the **Russia-Ukraine war** has led to an increase in diesel and gasoline costs, posing an additional challenge for major automotive holdings. This has resulted in higher transportation and distribution expenses. Another aspect is the increase in direct production overheads such as energy consumption. This conflict has triggered an inflationary mechanism, with a rise in energy costs and consequently in almost all manufacturing productions. European production sites, especially those of Volkswagen and Mercedes, have been heavily affected, while Toyota, with production mainly concentrated in Asia and US, has suffered less this phenomenon.

In addition, consumers have been driven towards a higher demand for **energy-efficient vehicles**. This has required additional investments in research and development of more efficient technologies, further impacting costs: these challenges, though, have also stimulated innovation and diversification, opening new opportunities in the industry.

To mitigate financial impacts, companies had to adopt prudent financial management, focusing on operational efficiency, diversifying sources of supply, and technological innovation. Future outlooks will depend on the ability of major automotive holdings to adapt to a constantly evolving environment, maintaining the flexibility necessary to address unforeseen challenges. The analysis of indicators compares the three companies from the perspectives of profitability and liquidity. It allows us to evaluate the different strategies adopted by companies to respond to these recent challenges imposed by these contingent factors.

ROE

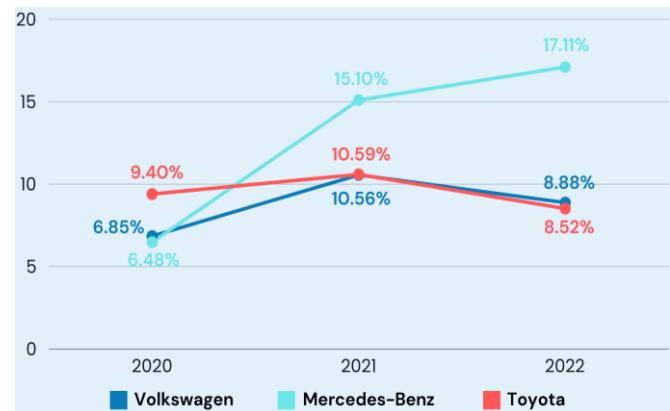
Volkswagen recorded low ROE in 2020, mainly due to the low revenues caused by the **Covid-19 pandemic**.

They managed to recover from it in 2021, when ROE value returned near the ones of the previous years, but there was another decrease in 2022: the growth of “Sales revenue” (+11.60%) was partially dampened by an 11.85% increase in the “Cost of sales”. That originated from the limited availability of parts and the disruptions in the logistic chain, the **Russia-Ukraine conflict** [5] and also from the higher Research & Development costs, caused by investments in the **electrification of Volkswagen’s portfolio** [6]. So, Volkswagen’s Equity rose more than proportionally compared to net profit, resulting in a diminished ROE.

Mercedes is the only one that kept a positive trend over the three years, since they recovered well from the pandemic (+174.13% in the net profit) and performed even better in 2022, with a significant improvement in “Revenues” (thanks to a higher price policy, supported by the brand’s name strength), that resulted in greater net profit (+34.02%) and ROE [7].

Toyota’s trend, instead, is similar to Volkswagen’s one, with a recovery in 2021 and a further decrease in 2022, when ROE went below the one of 2020.

$$\text{ROE} = \frac{\text{Net profit}}{\text{Shareholders' equity}}$$



Graph 13: ROE trend for the three companies

[5] Business development-Production

[6] Results of Operations, Financial Position and Net Assets-Results in operations in the automotive division.

[7] Profitability, liquidity and Capital Resources, Financial Position-Profitability.

EBITDA - EBIT Margin

Profitability

Comparing the EBIT margin of the three companies, we can see a growth for Volkswagen and Mercedes, while Toyota faced a more unstable performance, with an increase in 2021 and a further reduction in 2022, when the value is the lowest over the three years. Therefore, Mercedes kept **the best outcomes from operational** activities in the last two years, but since they are manufacturing companies competing in a **capital-intensive industry**, an analysis of the EBTDA margin could be useful to explain the fixed assets management in terms of depreciation and amortization.

Volkswagen holds the **pole position on EBITDA margin** and showed a accounting loss for impairments on its assets, likely due to significant weight of Intangible assets and PP&E. Mercedes has managed the situation differently, thanks to their policies regarding the reduction of fixed assets. They reached a lower EBITDA margin among all the years compared to Volkswagen and they keep lowering the figurative loss for D&A.

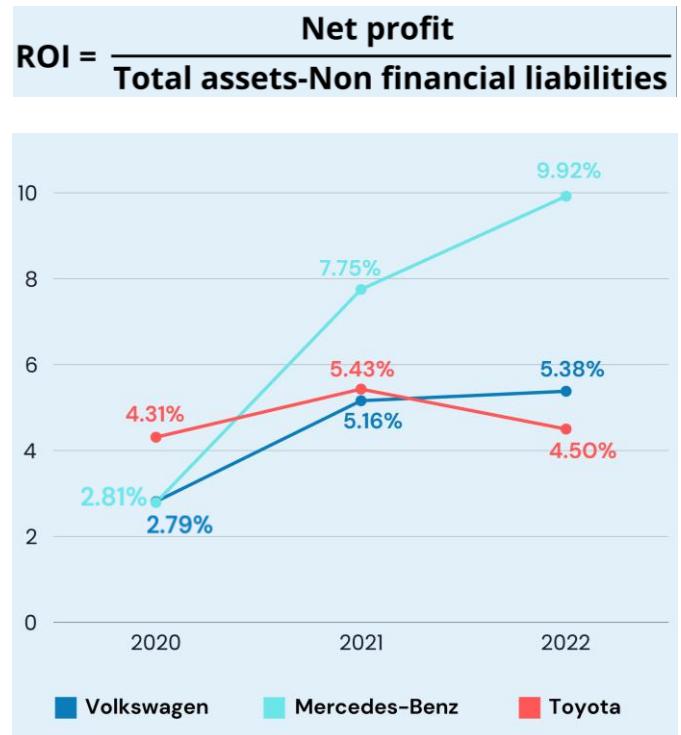
Although D&A of Toyota's assets has increased, the two dotted lines are slowly getting closer during the years. This convergence indicates that Toyota is **effectively managing its assets**, with revenues increasing at a faster rate than depreciation, amortization, and impairment losses.



ROI

Examining the ROI values, it's worth underlining that Volkswagen surpassed Toyota in 2022, when their respective indicators were 5.38% and 4.50%. Volkswagen has consistently increased its net profit beyond its invested capital year after year. However, a closer examination reveals that in 2019, the ROI was 4.98%. Therefore, surely Volkswagen has got **greater return compared to the invested capital**, but we cannot assume that they are necessarily establishing a growing trend on the ROI. Rather it's more clear the effect of the pandemic on Volkswagen's operating profit, almost halved by the lower demand and higher operational costs.

Profitability



Graph 15: ROI trends for the three companies

Mercedes has significantly increased its ROI in the three years (+7.11%). However, it must be noted that the high growth in 2021 is due to a **lower invested capital**, that made the denominator diminish. So this impressive result should not be considered as part of a trend and this performance might not be sustainable in the future. On the contrary, in 2022 the growth is mostly credited to the increase of EBIT, since the reduction of invested capital is negligible.

Toyota, which has chosen to increase their investments as Volkswagen, hasn't been able to keep raising their EBIT in 2022 compared to 2021. Overall they enhanced ROI, despite the drop in 2021.

Payout Ratio

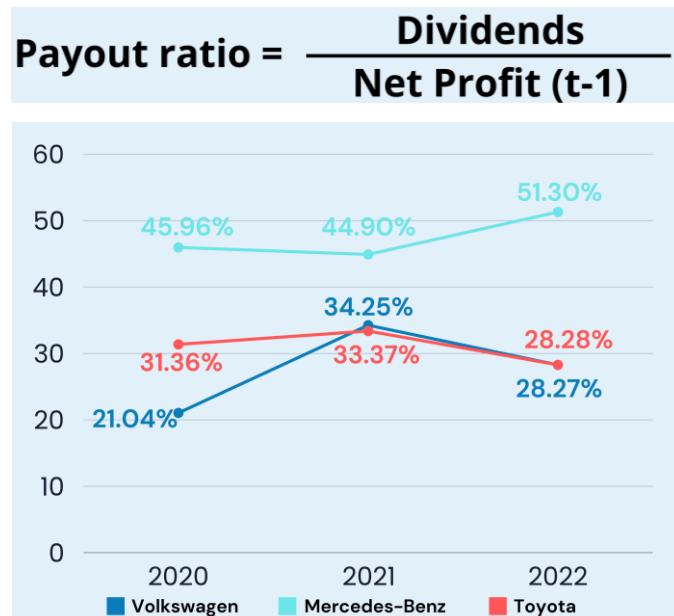
All three companies commit to maintaining a constant dividend percentage every year, demonstrating their commitment to their shareholders.

We can see how the pandemic and the wars have not influenced the profitability of shareholders in any way. However, this has allowed all three companies to present themselves favorably on international markets.

Among the three companies, however, we can see that Volkswagen increased the payout ratio by almost 63%, thus increasing the percentage of dividends in 2020 compared to 2021 and managed to increase dividends by almost 45% in 2022, since the net profit has practically doubled from 2021 to 2022.

We can see how Mercedes managed to divide more than half of its net profit among its shareholders in 2022, thus satisfying its shareholders.

Profitability



Graph 16: Payout Ratio trend

Financial Structure

Profitability

From the **financial leverage indicator**, we can do some considerations about the risk level of a company and it can give us an idea of how they are using their debts in order to raise the value of ROE.

$$ROE = s \cdot (ROA + \frac{D}{E} \cdot (ROA - r))$$

In the following chart, we used the average ROA of automotive industry for the last quarter of 2022 (3.36%) to determine whether the leverage is influencing ROE in a positive or in a negative way.



Graph 17: DuPont analysis map

For the three companies we selected, 2020 was the worst year, since ROA was the lowest of all the three years:

-Volkswagen has been exploiting its assets in a better way in 2021, since ROA has been growing. In 2022, the company witnessed a decrease of the leverage, so they moved towards a less risky and more profitable area, but they are still in a quite risky situation (**thunder area**).

-Mercedes has been decreasing its reliance on debts too and has grown its ROA consistently. Its situation is now looking brighter compared to 2020, having moved closer to the **smile area**.

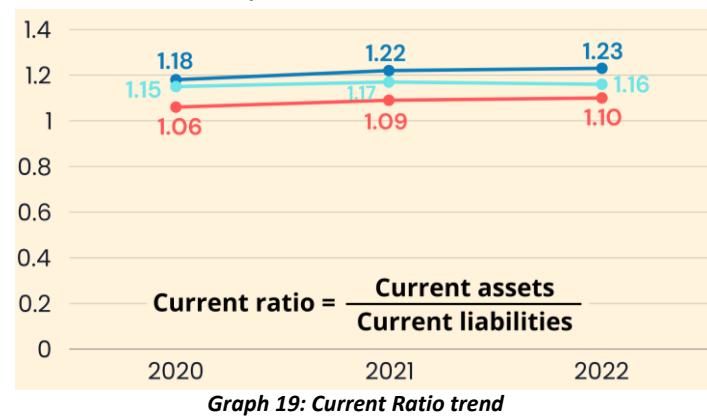
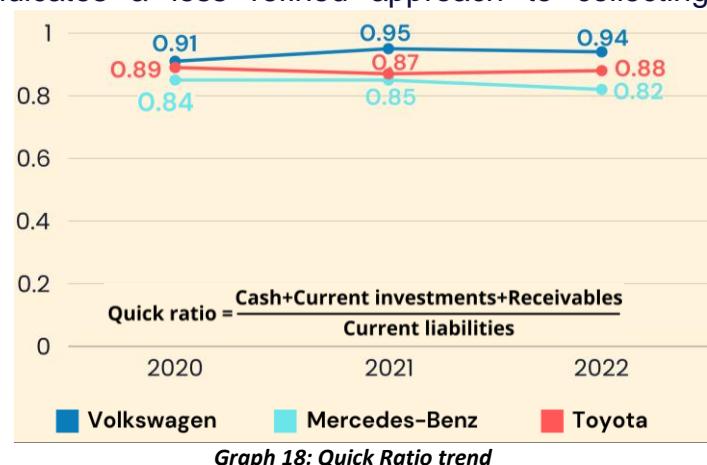
-Toyota, on the other hand, has been in a safer position, even during the Covid-19 pandemic, but it's also the only one that didn't have a continuous improvement, since in 2022 they assumed a worse position compared to 2021. Toyota's higher equity, compared to the other two, allowed them to rely more on it, since they are more efficiently used and converted into revenues, that's why it's in a **lower point of the graph**.

Quick Ratio, Current Ratio, DSO, DPO

Liquidity

All three companies present a **Current Ratio** higher than 1, which indicates that they have enough current assets to cover their current liabilities. Volkswagen has the highest Current Ratio in 2022, thanks to their ability to manage the liquidity risks safeguarded through **retained earnings**, by drawing down on credit lines and by issuing financial instruments on money and capital markets [liquidity risks-VW annual report]. The **Quick Ratio** shows that Mercedes and Toyota rely more on inventories than Volkswagen. Volkswagen's strategy on managing the liquidity confirms the effectiveness of their plan.

Volkswagen's latest **DSO** increase indicates a less refined approach to collecting receivables efficiently. Mercedes-Benz's significantly lower DSO suggested a robust system for managing receivables, reflecting an optimized credit policy or an effective collections process. Toyota's consistent DSO indicated a steady management of credit terms and collections. Conversely, the **DPO** figures revealed how these companies manage their cash outflow. Volkswagen's increase of DPO reflected an increase in working capital. Mercedes's lower DPO indicated a shift towards quicker supplier payments, possibly aiming for favorable credit terms or stronger supplier relations. Toyota's higher DPO demonstrated a strategic approach to maintaining liquidity, which can be crucial for operational flexibility and investment opportunities.

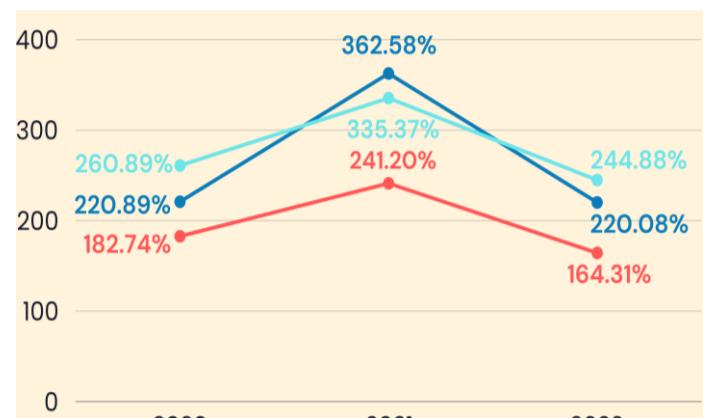


CAPEX Coverage

During the three-year period considered in our analysis, the **Capital Expenditure Coverage** had an almost identical trend for all 3 companies.

From 2020 to 2021, Volkswagen's Capex coverage followed a growth trend (+64%), this is because Volkswagen had a great recovery from a liquidity point of view in the post-pandemic period with a 55% increase in cash compared to 2020. Mercedes and Toyota witnessed positive trends too, but much smaller compared to Volkswagen's (+10% and +29%). After the recovery year from pandemic, in 2022 the Capex Coverage for all three companies returned to a level almost equal to 2020. Volkswagen was the company that increased its investments in **Tangible and Intangible assets** the most with an increase of 21% compared to 2021, although reporting a decrease (-26%) in the **cash flow from operating activities**.

$$\text{Capex Coverage} = \frac{\text{CFFO}}{\text{CAPEX}}$$



Graph 22: CAPEX coverage trend

Liquidity

6. STELLANTIS COMPARISON

6.1 Focus on Stellantis

Although **Stellantis** is a company that was formed recently, It is interesting to compare it to Volkswagen for the years 2021 and 2022, as seen in Graph 24. As it is Volkswagen's third biggest competitor in revenue and number of employees (Graph 1).

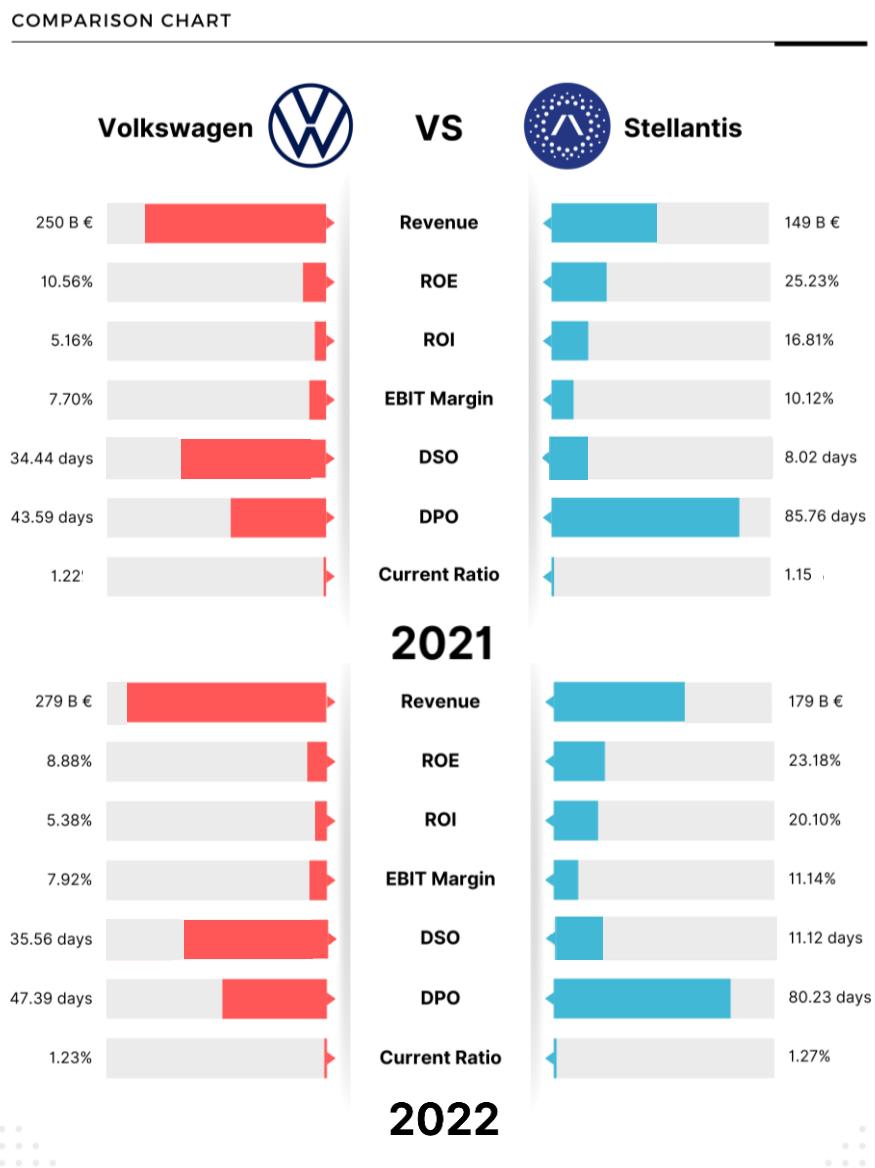


Figure 8: Volkswagen-Stellantis comparison charts

We can notice how the most important indicators are better than Volkswagen's counterparts, so Stellantis could definitely be a **threat for our company in the near future**.



SUM UP TABLE

Indicator	Category	Three years trend	Comment
ROE	Profitability: Shareholders' perspective		Overall positive trend, despite 2022 decrease
EBIT Margin	Profitability: Overall company's perspective		Highest margin of the three, with a slight decrease
ROI	Profitability: Overall company's perspective		Positive trend and great recovery from the pandemic
Payout Ratio	Profitability: Shareholders' perspective		Positive trend with a considerable decrease in 2022
Quick Ratio	Liquidity		Highest value of the three, near 1
Current Ratio	Liquidity		Steady value (>1)
CAPEX Coverage	Liquidity		Solid value (>100%). Significant decrease in 2022

7. CONCLUSIONS

Concluding the analysis, having examined Volkswagen, Mercedes, and Toyota's responses to industry challenges, focusing on profitability and liquidity. Key issues included the semiconductor crisis, impacting production and revenues, and the COVID-19 pandemic, disrupting global demand and supply chains. Additionally, the Russia-Ukraine conflict raised fuel costs, notably affecting European operations.



The current indicators suggest that contingent factors have slowed the potential growth of the company. In this period, still devoid of a clear defined trend, a turning point could be reached with the emergence of the effects of critical mass in research and development investments. We believe that, once the situation stabilizes, the company could assert itself more decisively in the market. In conclusion, we argue that by pursuing the set objectives, the group could expand its stakeholder network, previously challenged by the Dieselgate scandal, to become a reference point in sustainable mobility in the near future.



Even being the biggest automotive company in the world, Volkswagen still has high margins of growth. The North American segment would represent a big opportunity for Volkswagen's development: they are aiming, indeed, to get bigger in this market (which is the second biggest in the world, after China) by betting on electric mobility, which is steadily increasing in the US. This will allow Volkswagen to become an important actor in a market dominated by General Motors, Toyota and Ford.



Our financial analysis confirms the sentence quoted at the beginning of the report: Volkswagen reaffirms itself as a global leader in the automotive sector.



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9. ATTACHMENTS



BALANCE SHEET:

€ million	2020	2021	2022	
Non current assets				
Intangible assets	67.968	77.689	83.241	Fixed Assets
Property, plant and equipment	63.884	63.695	63.890	Fixed Assets
Lease assets	50.686	59.699	59.380	Fixed Assets
Investment property	558	615	610	Fixed Assets
Equity-accounted investments	10.080	12.531	12.668	Fixed Assets
Other equity investments	1.865	3.000	3.489	Fixed Assets
Financial services receivables	82.565	84.954	86.944	Fixed Assets
Other financial assets	7.834	9.156	13.832	Fixed Assets
Other receivables	2.867	2.895	3.095	Fixed Assets
Tax receivables	376	635	394	Fixed Assets
Deferred tax assets	13.486	13.393	12.921	Fixed Assets
	302.170	328.261	340.464	
Current assets				
Inventories	43.823	43.725	52.274	Net Working Capital
Trade receivables	16.243	15.521	18.581	Net Working Capital
Financial services receivables	58.006	56.498	61.549	Net Financial Debt
Other financial assets	13.234	12.584	15.167	Net Financial Debt
Other receivables	7.381	7.473	7.896	Net Working Capital
Tax receivables	1.186	1.618	1.732	Net Working Capital
Marketable securities and time deposits ¹	21.162	22.532	37.206	Net Financial Debt
Cash and cash equivalents ¹	33.909	39.723	29.172	Net Financial Debt
Assets held for sale	0	674	733	Asset classified as held for sale
	194.944	200.348	224.310	
TOTAL ASSETS	497.114	528.609	564.772	
Equity				
Subscribed capital	1.283	1.283	1.283	Equity
Capital reserve	14.551	14.551	14.551	Equity
Retained earnings	100.772	117.342	137.267	Equity
Other reserves	-5.270	-3.167	-1.845	Equity
Equity attributable to Volkswagen AG hybrid capital investors	15.713	14.439	14.121	Equity
Equity attributable to Volkswagen AG shareholders and hybrid capital investors	127.049	144.449	165.378	Equity
Noncontrolling interests	1.734	1.705	12.950	Equity
	128.783	146.154	178.327	
Non current liabilities				
Financial liabilities	114.809	131.618	121.737	
Other financial liabilities	4.257	4.466	8.188	Net Financial Debt
Other liabilities	7.905	8.430	9.020	Net Financial Debt
Deferred tax liabilities	4.890	5.131	10.734	Net Working Capital
Provisions for pensions	45.081	41.550	27.553	Net Working Capital
Provisions for taxes	3.292	3.392	4.320	Provisions
Other provisions	22.688	23.474	21.900	Provisions
	202.921	218.062	203.453	Provisions
Current liabilities				
Financial liabilities	88.648	78.584	83.448	Net Financial Debt
Trade payables	22.677	23.624	28.748	Net Working Capital
Tax payables	340	614	726	Net Working Capital
Other financial liabilities	10.590	13.002	19.820	Net Financial Debt
Other liabilities	17.979	19.890	22.655	Net Working Capital
Provisions for taxes	2.213	2.863	2.586	Provisions
Other provisions	22.964	25.578	24.851	Provisions
Liabilities associated with assets held for sale	0	238	158	Asset classified as held for sale
	165.410	164.393	182.992	
TOTAL LIABILITIES AND EQUITY	497.114	528.609	564.772	



RECLASSIFIED BALANCE SHEET:

€ million	2020	2021	2022
Fixed Asset/Non current Assets			
property, plan and equipment	63.884	63.695	63.890
lease assets	50.686	59.699	59.380
intangible assets	67.968	77.689	83.241
equity investments and other investments	12.503	16.146	16.767
financial services receivables and other receivables	85.432	87.849	90.039
other non-current financial assets	7.834	9.156	13.832
tax receivables and deferred tax assets	13.862	14.028	13.315
Total Fixed Assets	302.169	328.262	340.464
Net Working Capital			
trade receivables and other receivables	23.624	22.994	26.477
inventories	43.823	43.725	52.274
income tax receivables	1.186	1.618	1.732
trade payables	22.677	23.624	28.748
other current liabilities	17.979	19.890	22.655
other non-current liabilities	7.905	8.430	9.020
deferred tax liabilities	4.890	5.131	10.734
income tax payables	340	614	726
Total Net Working Capital	14.842	10.648	8.600
Provisions			
noncurrent provisions	71.061	68.416	53.773
current provisions	25.177	28.441	27.437
Total Provision	96.238	96.857	81.210
net assets associated with assets held for sale	0	436	575
INVESTED CAPITAL	220.773	242.489	268.429
Net Financial Debts/ Net Financial Position			
non-current financial liabilities ad other liabilities	119.066	136.084	129.925
current financial liabilities and other liabilities	99.238	91.586	103.268
other current financial assets	13.234	12.584	15.167
current financial service receivables	58.006	56.498	61.549
marketable securities and time deposits	21.162	22.532	37.206
cash and cash equivalents	33.909	39.723	29.172
Total Net Financial Debt	91.993	96.333	90.099
Equity			
Subscribed capital	1.283	1.283	1.283
Capital reserve	14.551	14.551	14.551
Retained earnings	137.267	117.342	100.772
Other reserves	-1.845	-3.167	-5.270
Equity attributable to Volkswagen AG hybrid capital investors	14.121	14.439	15.713
Equity attributable to Volkswagen AG shareholders and hybrid capital investors	165.378	144.449	127.049
Noncontrolling interests	12.950	1.705	1.734
Total Equity	128.783	146.154	178.327
TOTAL COVERAGE	220.776	242.487	268.426



CASH FLOW STATEMENT:

€ million	2020	2021	2022
Cash and cash equivalents at beginning of period	24.329	33.432	39.123
Earnings before tax	11.667	20.126	22.044
Income taxes paid	-2.646	-4.216	-4.415
Depreciation and amortization of, and impairment losses on, intangible assets, property, plant and equipment, and investment property ¹	12.765	12.947	13.364
Amortization of and impairment losses on capitalized development costs ¹	4.637	5.050	5.144
Impairment losses on equity investments ¹	454	137	2.185
Depreciation and impairment losses on lease assets ¹	9.214	9.339	9.977
Gain/loss on disposal of noncurrent assets and equity investments	-889	180	300
Share of the result of equity-accounted investments	536	787	575
Other noncash expense/income	-1.572	-1.652	-542
Change in inventories	1.334	2.110	-8.385
Change in receivables (excluding financial services)	712	1.888	-3.207
Change in liabilities (excluding financial liabilities)	540	1.856	8.586
Change in provisions	803	1.943	-1.856
Change in lease assets	-12.914	-16.205	-8.711
Change in financial services receivables	260	4.345	-6.294
Cash flows from operating activities	24.901	38.633	28.496
Investments in intangible assets (excluding development costs), property, plant and equipment, and investment property	-11.273	-10.655	-12.948
Additions to capitalized development costs	6.473	-7.843	-9.723
Acquisition of subsidiaries	26	-3.158	-1.122
Acquisition of other equity investments	-1.660	-2.741	-2.504
Disposal of subsidiaries	402	-304	372
Disposal of other equity investments	195	52	35
Proceeds from disposal of intangible assets, property, plant and equipment, and investment property	411	469	437
Change in investments in securities and time deposits ²	-4.462	-1.281	-14.885
Change in loans ²	143	-667	-1.483
Cash flows from investing activities	-22.690	-26.128	-41.822
Capital contributions/capital redemptions	2.984	-1.071	-235
Dividends paid	-2.952	-3.022	-4.362
Capital transactions with noncontrolling interest shareholders	-238	-590	16.198
Proceeds from issuance of bonds	25.181	32.659	23.876
Repayments of bonds	-19.815	-30.557	-25.638
Changes in other financial liabilities	3.577	-3.928	-4.366
Repayments of lease liabilities	-1.100	-1.246	-1.248
Cash flows from financing activities	7.637	-7.540	4.225
Effect of exchange rate changes on cash and cash equivalents	-745	942	-285
Change of loss allowance within cash and cash equivalents	0	-1	1
Net change in cash and cash equivalents	9.103	5.691	-9.385
Cash and cash equivalents at end of period	33.432	39.123	29.738
Cash and cash equivalents at end of period	33.432	39.123	29.738
Securities and time deposits and loans	32.645	34.515	49.771
Gross liquidity	66.078	73.637	79.509
Total third-party borrowings	-203.457	-210.213	-205.312
Net liquidity	-137.380	-136.576	-125.803



INCOME STATEMENT:

€ million	2020	2021	2022
Sales revenue	222.884	250.200	279.232
Cost of sales	-183.937	-202.959	-227.005
Gross result	38.947	47.241	52.228
Distribution expenses	-18.407	-19.228	-19.840
Administrative expenses	-9.399	-10.420	-11.689
Other operating income	12.438	14.731	19.238
Other operating expenses	-13.904	-13.049	-17.812
Operating result	9.675	19.275	22.124
Share of the result of equity-accounted investments	2.756	2.321	2.395
Interest income	793	810	1.325
Interest expenses	-2.291	-1.818	-442
Other financial result	733	-463	-3.359
Financial result	1.991	851	-81
Earnings before tax	11.667	20.126	22.044
Income tax income/expense	-2.843	-4.698	-6.208
Current	-3.150	-4.612	-5.262
Deferred	307	-86	-946
Earnings after tax	8.824	15.428	15.836
of which attributable to			
Noncontrolling interests	-43	46	393
Volkswagen AG hybrid capital investors	533	539	576
Volkswagen AG shareholders	8.334	14.843	14.867
Basic/diluted earnings per ordinary share in €	16,60	29,59	29,63
Basic/diluted earnings per preferred share in €	16,66	29,65	29,69



BALANCE SHEET VERTICAL ANALYSIS (PARTIAL AND TOTAL):

BALANCE SHEET	TOTAL			PARTIAL		
	2020	2021	2022	2020	2021	2022
Assets						
Noncurrent assets						
Intangible assets	13,67%	14,70%	14,74%	22,49%	23,67%	24,45%
Property, plant and equipment	12,85%	12,05%	11,31%	21,14%	19,40%	18,77%
Lease assets	10,20%	11,29%	10,51%	16,77%	18,19%	17,44%
Investment property	0,11%	0,12%	0,11%	0,18%	0,19%	0,18%
Equity-accounted investments	2,03%	2,37%	2,24%	3,34%	3,82%	3,72%
Other equity investments	0,38%	0,57%	0,62%	0,62%	0,91%	1,02%
Financial services receivables	16,61%	16,07%	15,39%	27,32%	25,88%	25,54%
Other financial assets	1,58%	1,73%	2,45%	2,59%	2,79%	4,06%
Other receivables	0,58%	0,55%	0,55%	0,95%	0,88%	0,91%
Tax receivables	0,08%	0,12%	0,07%	0,12%	0,19%	0,12%
Deferred tax assets	2,71%	2,53%	2,29%	4,46%	4,08%	3,80%
total noncurrent assets	60,78%	62,10%	60,28%	100,00%	100,00%	100,00%
Current assets						
Inventories	8,82%	8,27%	9,26%	22,48%	21,82%	23,30%
Trade receivables	3,27%	2,94%	3,29%	8,33%	7,75%	8,28%
Financial services receivables	11,67%	10,69%	10,90%	29,76%	28,20%	27,44%
Other financial assets	2,66%	2,38%	2,69%	6,79%	6,28%	6,76%
Other receivables	1,48%	1,41%	1,40%	3,79%	3,73%	3,52%
Tax receivables	0,24%	0,31%	0,31%	0,61%	0,81%	0,77%
Marketable securities and time deposits ¹	4,26%	4,26%	6,59%	10,86%	11,25%	16,59%
Cash and cash equivalents ¹	6,82%	7,51%	5,17%	17,39%	19,83%	13,01%
Assets held for sale	0,00%	0,13%	0,13%	0,00%	0,34%	0,33%
Total Current assets	39,22%	37,90%	39,72%	100%	100%	100%
TOTAL ASSETS	100%	100%	100%			
Equity						
Subscribed capital	0,26%	0,24%	0,23%	1,00%	0,88%	0,72%
Capital reserve	2,93%	2,75%	2,58%	11,30%	9,96%	8,16%
Retained earnings	20,27%	22,20%	24,30%	78,25%	80,29%	76,97%
Other reserves	-1,06%	-0,60%	-0,33%	-4,09%	-2,17%	-1,03%
Equity attributable to Volkswagen AG hybrid capital investors	3,16%	2,73%	2,50%	12,20%	9,88%	7,92%
Equity attributable to Volkswagen AG shareholders and hybrid capital in	25,56%	27,33%	29,28%	98,65%	98,83%	92,74%
Noncontrolling interests	0,35%	0,32%	2,29%	1,35%	1,17%	7,26%
Total equity	25,91%	27,65%	31,58%	100%	100%	100%
Noncurrent liabilities						
Financial liabilities	23,10%	24,90%	21,56%	56,58%	60,36%	59,84%
Other financial liabilities	0,86%	0,84%	1,45%	2,10%	2,05%	4,02%
Other liabilities	1,59%	1,59%	1,60%	3,90%	3,87%	4,43%
Deferred tax liabilities	0,98%	0,97%	1,90%	2,41%	2,35%	5,28%
Provisions for pensions	9,07%	7,86%	4,88%	22,22%	19,05%	13,54%
Provisions for taxes	0,66%	0,64%	0,76%	1,62%	1,56%	2,12%
Other provisions	4,56%	4,44%	3,88%	11,18%	10,76%	10,76%
total noncurrent liabilities	40,82%	41,25%	36,02%	100%	100%	100%
Current liabilities						
Financial liabilities	17,83%	14,87%	14,78%	53,59%	47,80%	45,60%
Trade payables	4,56%	4,47%	5,09%	13,71%	14,37%	15,71%
Tax payables	0,07%	0,12%	0,13%	0,21%	0,37%	0,40%
Other financial liabilities	2,13%	2,46%	3,51%	6,40%	7,91%	10,83%
Other liabilities	3,62%	3,76%	4,01%	10,87%	12,10%	12,38%
Provisions for taxes	0,45%	0,54%	0,46%	1,34%	1,74%	1,41%
Other provisions	4,62%	4,84%	4,40%	13,88%	15,56%	13,58%
Liabilities associated with assets held for sale	0,00%	0,05%	0,03%	0,00%	0,14%	0,09%
total current liabilities	33,27%	31,10%	32,40%	100%	100%	100%
TOTAL LIABILITIES AND EQUITY	100%	100%	100%			



BALANCE SHEET HORIZONTAL ANALYSIS:

BALANCE SHEET	Percentage increase of 2021 compared to 2020	Percentage increase of 2022 compared to 2021
Assets		
Noncurrent assets		
Intangible assets	14,30%	7,15%
Property, plant and equipment	-0,30%	0,31%
Lease assets	17,78%	-0,53%
Investment property	10,22%	-0,81%
Equity-accounted investments	24,32%	1,09%
Other equity investments	60,86%	16,30%
Financial services receivables	2,89%	2,34%
Other financial assets	16,88%	51,07%
Other receivables	0,98%	6,91%
Tax receivables	68,88%	-37,95%
Deferred tax assets	-0,69%	-3,52%
total noncurrent assets	8,63%	3,72%
Current assets		
Inventories	-0,22%	19,55%
Trade receivables	-4,44%	19,72%
Financial services receivables	-2,60%	8,94%
Other financial assets	-4,91%	20,53%
Other receivables	1,25%	5,66%
Tax receivables	36,42%	7,05%
Marketable securities and time deposits ¹	6,47%	65,13%
Cash and cash equivalents ¹	17,15%	-26,56%
Assets held for sale	0,00%	8,75%
Total Current assets	2,77%	11,96%
TOTAL ASSETS	6,34%	6,84%
Equity		
Subscribed capital	0,00%	0,00%
Capital reserve	0,00%	0,00%
Retained earnings	16,44%	16,98%
Other reserves	-39,91%	-41,74%
Equity attributable to Volkswagen AG hybrid capital investors	-8,11%	-2,20%
Equity attributable to Volkswagen AG shareholders and hybrid capital investors	13,70%	14,49%
Noncontrolling interests	-1,67%	659,53%
Total equity	13,49%	22,01%
Noncurrent liabilities		
Financial liabilities	14,64%	-7,51%
Other financial liabilities	4,91%	83,34%
Other liabilities	6,64%	7,00%
Deferred tax liabilities	4,93%	109,20%
Provisions for pensions	-7,83%	-33,69%
Provisions for taxes	3,04%	27,36%
Other provisions	3,46%	-6,71%
total noncurrent liabilities	7,46%	-6,70%
Current liabilities		
Financial liabilities	-11,35%	6,19%
Trade payables	4,18%	21,69%
Tax payables	80,59%	18,24%
Other financial liabilities	22,78%	52,44%
Other liabilities	10,63%	13,90%
Provisions for taxes	29,37%	-9,68%
Other provisions	11,38%	-2,84%
Liabilities associated with assets held for sale		-33,61%
total current liabilities	-0,61%	11,31%
TOTAL LIABILITIES AND EQUITY	6,34%	6,84%



INCOME STATEMENT VERTICAL ANALYSIS:

€ million	2020	2021	2022
Sales revenue	100%	100%	100%
Cost of sales	-82,53%	-81,12%	-81,30%
Gross result	17,47%	18,88%	18,70%
Distribution expenses	-8,26%	-7,69%	-7,11%
Administrative expenses	-4,22%	-4,16%	-4,19%
Other operating income	5,58%	5,89%	6,89%
Other operating expenses	-6,24%	-5,22%	-6,38%
Operating result	4,34%	7,70%	7,92%
Share of the result of equity-accounted investments	1,24%	0,93%	0,86%
Interest income	0,36%	0,32%	0,47%
Interest expenses	-1,03%	-0,73%	-0,16%
Other financial result	0,33%	-0,19%	-1,20%
Financial result	0,89%	0,34%	-0,03%
Earnings before tax	5,23%	8,04%	7,89%
Income tax income/expense	-1,28%	-1,88%	-2,22%
Current	-1,41%	-1,84%	-1,88%
Deferred	0,14%	-0,03%	-0,34%
Earnings after tax	3,96%	6,17%	5,67%
of which attributable to			
Noncontrolling interests	-0,02%	0,02%	0,14%
Volkswagen AG hybrid capital investors	0,24%	0,22%	0,21%
Volkswagen AG shareholders	3,74%	5,93%	5,32%



INCOME STATEMENT HORIZONTAL ANALYSIS:

INCOME STATEMENT	Percentage increase of 2021 copared to 2020	Percentage increase of 2022 copared to 2021
Sales revenue	12,26%	11,60%
Cost of sales	10,34%	11,85%
Gross result	21,30%	10,56%
Distribution expenses	4,46%	3,18%
Administrative expenses	10,86%	12,18%
Other operating income	18,44%	30,60%
Other operating expenses	-6,15%	36,50%
Operating result	99,22%	14,78%
Share of the result of equity-accounted investments	-15,78%	3,19%
Interest income	2,14%	63,58%
Interest expenses	-20,65%	-75,69%
Other financial result	-163,17%	625,49%
Financial result	-57,26%	-109,52%
Earnings before tax	72,50%	9,53%
Income tax income/expense	65,25%	32,14%
Current	46,41%	14,09%
Deferred	-128,01%	1000,00%
Earnings after tax	74,84%	2,64%
of which attributable to		
Noncontrolling interests	-206,98%	754,35%
Volkswagen AG hybrid capital investors	1,13%	6,86%
Volkswagen AG shareholders	78,10%	0,16%
Basic/diluted earnings per ordinary share in €	78,25%	0,14%
Basic/diluted earnings per preferred share in €	77,97%	0,13%



BALANCE SHEET:

In millions of euros	2020	2021	2022	
Non current assets				
Intangible assets	16.399	15.005	15.869	Fixed Assets
Property, plant and equipment	35.246	27.859	27.250	Fixed Assets
Equipment on operating leases	47.552	44.471	41.552	Fixed Assets
Equity-method investments	5.189	13.588	13.530	Fixed Assets
Receivables from financial services	53.709	46.955	48.237	Fixed Assets
Marketable debt securities and similar investments	1.041	873	823	Fixed Assets
Other financial assets	4.167	3.181	4.478	Fixed Assets
Deferred tax assets	6.259	3.434	3.725	Fixed Assets
Other assets	911	1.536	1.677	Fixed Assets
	170.473	156.902	157.141	
Current assets				
Inventories	26.444	21.466	25.621	Net Working Capital
Trade receivables	10.649	7.673	8.100	Net Working Capital
Receivables from financial services	42.476	33.670	37.312	Net Financial Debt
Cash and cash equivalents	23.048	23.120	17.679	Net Financial Debt
Marketable debt securities and similar investments	5.356	6.706	6.237	Net Financial Debt
Other financial assets	2.757	3.079	3.453	Net Financial Debt
Other assets	4.534	4.073	4.472	Net Working Capital
Assets held for sale		3.142		Asset classified as held for sale
	115.264	102.929	102.874	
TOTAL ASSETS	285.737	259.831	260.015	
Equity				
Share capital	3.070	3.070	3.070	Equity
Capital reserves	11.551	11.723	11.718	Equity
Retained earning (restated, 2021 report= 56190)	47.111	55.926	67.695	Equity
Other reserves (restated, 2021 report= 968)	-1.041	1.232	2.932	Equity
Treasury shares				Equity
Equity attributable to shareholders of Mercedes-Benz Group AG	60.691	71.951	85.415	Equity
Non-controlling interests	1.557	1.216	1.125	Equity
	62.248	73.167	86.540	
Non current liabilities				
Provisions for pensions and similar obligations	12.070	5.359	1.021	Provisions
Provisions for other risks	11.116	7.909	6.438	Provisions
Financial liabilities	86.539	73.543	62.051	Net Financial Debt
Other financial liabilities	1.971	1.808	2.524	Net Financial Debt
Deferred tax Liabilities	3.649	4.488	6.910	Net Working Capital
Deffered income	1.567	1.175	1.234	Net Working Capital
Contract and refund liabilities	5.787	3.980	3.656	Net Working Capital
Other liabilities	981	727	1.238	Net Working Capital
	123.680	98.989	85.072	
Current liabilities				
Trade payables	12.386	10.655	12.204	Net Working Capital
Provisions for other risks	9.334	8.053	9.585	Provisions
Financing liabilities	59.303	52.300	49.786	Net Financial Debt
Other financial liabilites	6.627	5.997	5.404	Net Financial Debt
Deffered income	1.594	1.486	1.391	Net Working Capital
Contract and refund liabilities	7.169	5.929	6.898	Net Working Capital
Other liabilities	3.404	3.086	3.135	Net Working Capital
Liabilities held for sale		169		Asset classified as held for sale
	99.809	87.675	88.403	
TOTAL LIABILITIES AND EQUITY	285.737	259.831	260.015	



RECLASSIFIED BALANCE SHEET:

€ million	2020	2021	2022
Fixed Asset/ Non current Asset			
Intangible assets	16.399	15.005	15.869
Property, plant and equipment	35.246	27.859	27.250
Equipment on operating leases	47.552	44.471	41.552
Equity-method investments	5.189	13.588	13.530
Receivables from financial services	53.709	46.955	48.237
Marketable debt securities and similar investments	1.041	873	823
Other financial assets	4.167	3.181	4.478
Deferred tax assets	6.259	3.434	3.725
Other assets	911	1.536	1.677
Total Fixed Asset	170.473	156.902	157.141
Net Working Capital			
Trade and other receivables	10.649	7.673	8.100
Inventories	26.444	21.466	25.621
Other current assets and prepaid expenses	4.534	4.073	4.472
Payables (including deferred tax liabilities and current tax liabilities)	36.537	31.526	36.666
Total Net Working Capital	5.090	1.686	1.527
Provisions			
Non current liabilities	23.186	13.268	7.459
current liabilities	9.334	8.053	9.585
Total Prevision	32.520	21.321	17.044
Net assets classified as held for sale			
Assets held for sale	0	3.142	0
Liabilities held for sale	0	169	0
Total net assets classified as held for sale	0	2.973	0
INVESTED CAPITAL	143.043	140.240	141.624
Net Financial Debts/ Net Financial Position			
Long-term debt	86.539	73.543	62.051
Other non-current financial liabilities	1.971	1.808	2.524
Short-term debt and current portion of long-term debt	59.303	52.300	49.786
Other current financial liabilities	6.627	5.997	5.404
Current financial assets	50.589	43.455	47.002
Cash and cash equivalents	23.048	23.120	17.679
Total Net Financial Debt	80.803	67.073	55.084
Equity			
Equity attributable to shareholders of Mercedes-Benz Group AG	60.691	71.951	85.415
Non-controlling interests	1.557	1.216	1.125
Total Equity	62.248	73.167	86.540
TOTAL COVERAGE	143.051	140.240	141.624



CASH FLOW STATEMENT:

	2020	2021	2022
In millions of euros			
Profit from continuing operations before taxes	6.339	28.775	20.304
Depreciation and amortisation/impairments	8.957	6.980	6.521
Other non-cash expense and liabilities	-836	-11.503	-1.296
Gains(-)/losses(+) from disposals of assets	131	-695	-990
Change in operating assets and liabilities			
Inventories	2.039	-2.561	-4.111
Trade receivables and trade payables	1.040	1.694	1.029
Receivables from financial services	2.397	3.879	-5.327
Vehicles on operating assets and liabilities	1.822	1.428	3.810
Other operating assets and liabilities	653	-1.261	358
Dividends received from equity-method investments	1.783	1.625	1.605
Income taxes paid	-1.993	-3.812	-5.009
Cash flow from operating activities	22.332	24.549	16.894
Additions to property, plant and equipment	-5741	-4.579	-3.481
Additions to intangible assets	-2.819	-2.741	-3.418
Proceeds from disposals of property, plant and equipment and intangible assets	365	826	469
Investments in shareholdings	-661	-573	-849
Proceeds from disposals of shareholdings and other business operations	259	793	3.337
Acquisition of marketable debt securities and similar investments	-3.792	-5.694	-2.622
Proceeds from sales of marketable debt securities and similar investments	5.941	4.385	3.084
Repayment of financing of Daimler's commercial vehicles business		6.853	
Cash and cash equivalents disposed of from the deconsolidation of Daimler's commercial vehicles business		-5.489	
Other	27	-7	27
Cash flow from investing activities	-6.421	-6.226	-3.453
Change in short-term financing liabilities	-3.263	1.463	172
Additions to long-term financing liabilities	53.713	42.196	38.429
Repayment of long-term financing liabilities	-59.953	-60.859	-51.945
Dividend paid to shareholders of Mercedes-Benz Group AG	-963	-1.444	-5.349
Dividends paid to non-controlling interests	-282	-366	-320
Other	1	-49	-19
Cash flow from financial activities	-10.747	-19.059	-19.032
Effect of foreign exchange rate changes on cash and cash equivalents	-999	870	88
Net increase/decrease in cash and cash equivalents	4.165	134	-5.503
Cash and cash equivalents at beginning of period	18.883	23.048	23.182
Cash and cash equivalents at end of period	23.048	23.182	17.679
Less cash and cash equivalents classified as assets held for sale at end of year		62	
Cash and cash equivalents at end of period (Consolidated Statement of Financial Position)	23.048	23.120	17.679



INCOME STATEMENT:

	2020	2021	2022
In millions of euros			
Revenue	121.778	133.893	150.017
Cost of sale	-101.592	-103.218	-115.997
Gross profit	20.186	30.675	34.020
Selling expenses	-8.966	-9.194	-9.482
General administrative expenses	-2.507	-2.808	-2.584
Research and non-capitalised development costs	-4.839	-5.467	-5.602
Other operating income	2.384	2.888	3.323
Other operating expense	-591	-1.735	-1.289
Gains/losses on equity-method investments,net	747	1.352	-1.732
Other financial income/expense,net	-323	317	340
Earnings before interest and taxes (EBIT)	6.091	16.028	20.458
Interest income	224	212	273
Interest expense	-358	-429	-427
Profit from continuing operations before taxes	5.957	15.811	20.304
Income taxes	-1.926	-4.761	-5.495
Profit from continuing operations	4.031	11.050	14.809
Profit /loss from discontinued operations after taxes	-22	12.346	
Net profit	4.009	23.396	14.809
thereof profit attributable to non-controlling interests	382	390	308
thereof profit attributable to shareholders of Mercedes-Benz Group AG	3.627	23.006	14.501
thereof from continuing operations	3.656	10.695	14.501
thereof from discontinued operations	-29	12.311	
Earning per share(in euros)			
For profit attributable to shareholders of Mercedes-Benz Group AG			
Basic	3,39	21,5	13,55
thereof from continuing operations	3,42	10	13,55
thereof from discontinued operations	-0,03	11,5	
Diluted	3,39	21,5	13,55
thereof from continuing operations	3,42	10	13,55
thereof from discontinued operations	-0,03	11,5	



BALANCE SHEET VERTICAL ANALYSIS (PARTIAL AND TOTAL):

	TOTAL			PARTIAL		
	2020	2021	2022	2020	2021	2022
Assets						
Non-current assets						
Intangible assets	5,74%	5,77%	6,10%	9,62%	9,56%	10,10%
Property, plant and equipment	12,34%	10,72%	10,48%	20,68%	17,76%	17,34%
Equipment on operating leases	16,64%	17,12%	15,98%	27,89%	28,34%	26,44%
Equity-method investments	1,82%	5,23%	5,20%	3,04%	8,66%	8,61%
Receivables from financial services	18,80%	18,07%	18,55%	31,51%	29,93%	30,70%
Marketable debt securities and similar investments	0,36%	0,34%	0,32%	0,61%	0,56%	0,52%
Other financial assets	1,46%	1,22%	1,72%	2,44%	2,03%	2,85%
Deferred tax assets	2,19%	1,32%	1,43%	3,67%	2,19%	2,37%
Other assets	0,32%	0,59%	0,64%	0,53%	0,98%	1,07%
Total non-current assets	59,66%	60,39%	60,44%	100,00%	100,00%	100,00%
Current assets						
Inventories	9,25%	8,26%	9,85%	22,94%	20,86%	24,91%
Trade receivables	3,73%	2,95%	3,12%	9,24%	7,45%	7,87%
Receivables from financial services	14,87%	12,96%	14,35%	36,85%	32,71%	36,27%
Cash and cash equivalents	8,07%	8,90%	6,80%	20,00%	22,46%	17,19%
Marketable debt securities and similar investments	1,87%	2,58%	2,40%	4,65%	6,52%	6,06%
Other financial assets	0,96%	1,19%	1,33%	2,39%	2,99%	3,36%
Other assets	1,59%	1,57%	1,72%	3,93%	3,96%	4,35%
Assets held for sale	0,00%	1,21%	0,00%	0,00%	3,05%	0,00%
Total current assets	40,34%	39,61%	39,56%	100,00%	100,00%	100,00%
TOTAL ASSETS	100,00%	100,00%	100,00%			
Equity						
Share capital	1,07%	1,18%	1,18%	4,93%	4,20%	3,55%
Capital reserves	4,04%	4,51%	4,51%	18,56%	16,02%	13,54%
Retained earning (restated, 2021 report= 56190)	16,49%	21,52%	26,04%	75,68%	76,44%	78,22%
Other reserves (restated, 2021 report= 968)	-0,36%	0,47%	1,13%	-1,67%	1,68%	3,39%
Treasury shares						
Equity attributable to shareholders of Mercedes-Benz Group AG	21,24%	27,69%	32,85%	97,50%	98,34%	98,70%
Non-controlling interests	0,54%	0,47%	0,43%	2,50%	1,66%	1,30%
Total equity	21,79%	28,16%	33,28%	100,00%	100,00%	100,00%
Non-current liabilities						
Provisions for pensions and similar obligations	4,22%	2,06%	0,39%	9,76%	5,41%	1,20%
Provisions for other risks	3,89%	3,04%	2,48%	8,99%	7,99%	7,57%
Financial liabilities	30,29%	28,30%	23,86%	69,97%	74,29%	72,94%
Other financial liabilities	0,69%	0,70%	0,97%	1,59%	1,83%	2,97%
Deferred tax Liabilities	1,28%	1,73%	2,66%	2,95%	4,53%	8,12%
Deferred income	0,55%	0,45%	0,47%	1,27%	1,19%	1,45%
Contract and refund liabilities	2,03%	1,53%	1,41%	4,68%	4,02%	4,30%
Other liabilities	0,34%	0,28%	0,48%	0,79%	0,73%	1,46%
Total non-current liabilities	43,28%	38,10%	32,72%	100,00%	100,00%	100,00%
Current liabilities						
Trade payables	4,33%	4,10%	4,69%	12,41%	12,15%	13,80%
Provisions for other risks	3,27%	3,10%	3,69%	9,35%	9,19%	10,84%
Financing liabilities	20,75%	20,13%	19,15%	59,42%	59,65%	56,32%
Other financial liabilites	2,32%	2,31%	2,08%	6,64%	6,84%	6,11%
Deferred income	0,56%	0,57%	0,53%	1,60%	1,69%	1,57%
Contract and refund liabilities	2,51%	2,28%	2,65%	7,18%	6,76%	7,80%
Other liabilities	1,19%	1,19%	1,21%	3,41%	3,52%	3,55%
Liabilities held for sale	0,00%	0,07%	0,00%	0,00%	0,19%	0,00%
Total current liabilities	34,93%	33,74%	34,00%	100,00%	100,00%	100,00%
TOTAL LIABILITIES AND EQUITY	100,00%	100,00%	100,00%			



BALANCE SHEET HORIZONTAL ANALYSIS:

BALANCE SHEET	Percentage increase of 2021 compared to 2020	Percentage increase of 2022 compared to 2021
Assets		
Non-current assets		
Intangible assets	-8,5%	5,76%
Property, plant and equipment	-21,0%	-2,19%
Equipment on operating leases	-6,5%	-6,56%
Equity-method investments	161,9%	-0,43%
Receivables from financial services	-12,6%	2,73%
Marketable debt securities and similar investments	-16,1%	-5,73%
Other financial assets	-23,7%	40,77%
Deffered tax assets	-45,1%	8,47%
Other assets	68,6%	9,18%
Total non-current assets	-8,0%	0,15%
Current assets		
Inventories	-18,8%	19,36%
Trade receivables	-27,9%	5,56%
Receivables from financial services	-20,7%	10,82%
Cash and cash equivalents	0,3%	-23,53%
Marketable debt securities and similar investments	25,2%	-6,99%
Other financial assets	11,7%	12,15%
Other assets	-10,2%	9,80%
Assets held for sale	0,0%	-100,00%
Total current assets	-10,7%	-0,05%
TOTAL ASSETS	-9,1%	0,07%
Equity		
Share capital	0,0%	0,00%
Capital reserves	1,5%	-0,04%
Retained earning (restated, 2021 report= 56190)	18,7%	21,04%
Other reserves (restated, 2021 report= 968)	-218,3%	137,99%
Treasury shares		
Equity attributable to shareholders of Mercedes-Benz Group AG	18,6%	18,71%
Non-controlling interests	-21,9%	-7,48%
Total equity	17,5%	18,28%
Non-current liabilities		
Provisions for pensions and similar obligations	-55,6%	-80,95%
Provisions for other risks	-28,9%	-18,60%
Financial liabilities	-15,0%	-15,63%
Other financial liabilities	-8,3%	39,60%
Deffered tax Liabilities	23,0%	53,97%
Deffered income	-25,0%	5,02%
Contract and refund liabilities	-31,2%	-8,14%
Other liabilities	-25,9%	70,29%
Total non-current liabilities	-20,0%	-14,06%
Current liabilities		
Trade payables	-14,0%	14,54%
Provisions for other risks	-13,7%	19,02%
Financing liabilities	-11,8%	-4,81%
Other financial liabilites	-9,5%	-9,89%
Deferred income	-6,8%	-6,39%
Contract and refund liabilities	-17,3%	16,34%
Other liabilities	-9,3%	1,59%
Liabilities held for sale	0,0%	-100,00%
Total current liabilities	-12,2%	0,83%
TOTAL LIABILITIES AND EQUITY	-9,1%	0,07%



INCOME STATEMENT VERTICAL ANALYSIS:

	2020	2021	2022
Revenue	100,00%	100,00%	100,00%
Cost of sale	-83,42%	-77,09%	-77,32%
Gross profit	16,58%	22,91%	22,68%
Selling expenses	-7,36%	-6,87%	-6,32%
General administrative expenses	-2,06%	-2,10%	-1,72%
Resarch and non-capitalised development costs	-3,97%	-4,08%	-3,73%
Other operating income	1,96%	2,16%	2,22%
Other operating expense	-0,49%	-1,30%	-0,86%
Gains/losses on equity-method investments,net	0,61%	1,01%	-1,15%
Other financial income/expense,net	-0,27%	0,24%	0,23%
Earnings before interest and taxes (EBIT)	5,00%	11,97%	13,64%
Interest income	0,18%	0,16%	0,18%
Interest expense	-0,29%	-0,32%	-0,28%
Profit from continuing operations before taxes	4,89%	11,81%	13,53%
Income taxes	-1,58%	-3,56%	-3,66%
Profit from continuing operations	3,31%	8,25%	9,87%
Profit /loss from discontinued operations after taxes	-0,02%	9,22%	0,00%
Net profit	3,29%	17,47%	9,87%
thereof profit attributable to non-controlling interests	0,31%	0,29%	0,21%
thereof profit attributable to shareholders of Mercedes-Benz Group AG	2,98%	17,18%	9,67%
thereof from continuing operations	3,00%	7,99%	9,67%
thereof from discontinued operations	-0,02%	9,19%	0,00%



INCOME STATEMENT HORIZONTAL ANALYSIS:

	Percentage increase of 2021 compared to 2020	Percentage increase of 2022 compared to 2021
Revenue	9,95%	12,04%
Cost of sale	1,60%	12,38%
Gross profit	51,96%	10,90%
Selling expenses	2,54%	3,13%
General administrative expenses	12,01%	-7,98%
Resarch and non-capitalised development costs	12,98%	2,47%
Other operating income	21,14%	15,06%
Other operating expense	193,57%	-25,71%
Gains/losses on equity-method investments,net	80,99%	-228,11%
Other financial income/expense,net	-198,14%	7,26%
Earnings before interest and taxes (EBIT)	163,14%	27,64%
Interest income	-5,36%	28,77%
Interest expense	19,83%	-0,47%
Profit from continuing operations before taxes	165,42%	28,42%
Income taxes	147,20%	15,42%
Profit from continuing operations	174,13%	34,02%
Profit /loss from discontinued operations after taxes	-56218,18%	-100,00%
Net profit	483,59%	-36,70%
thereof profit attributable to non-controlling interests	2,09%	-21,03%
thereof profit attributable to shareholders of Mercedes-Benz Group AG	534,30%	-36,97%
thereof from continuing operations	192,53%	35,59%
thereof from discontinued operations	-42551,72%	-100,00%



BALANCE SHEET:

€ million	2020	2021	2022	
Non current assets				
Investments accounted for using the equity method	33.629	37.065	37.097	Fixed Assets
Receivables related to financial services	100.621	111.726	117.032	Fixed Assets
Other financial assets	73.419	72.915	74.916	Fixed Assets
Property, plant and equipment	92.229	94.438	89.660	Fixed Assets
Right of use assets	3.153	3.435	3.487	Fixed Assets
Intangible assets	8.960	9.132	8.865	Fixed Assets
Deferred tax assets	2.717	2.622	2.749	Fixed Assets
Other non-current assets	4.445	5.508	5.725	Fixed Assets
	319.175	336.842	339.530	
Current assets				
Cash and cash equivalents	41.227	46.839	53.346	Net Financial Debt
Trade accounts and other receivables	23.914	24.078	25.450	Net Working Capital
Receivables related to financial services	54.606	55.018	58.759	Net Financial Debt
Other financial assets	34.071	19.209	12.176	Net Financial Debt
Inventories	23.342	29.277	30.201	Net Working Capital
Income tax receivables	909	1.256	1.552	Net Working Capital
Other current assets	6.022	6.067	6.294	Net Working Capital
	184.090	181.744	187.777	
TOTAL ASSETS	503.265	518.586	527.307	
Equity				
Common stock	3.209	3.042	2.818	Equity
Additional paid-in capital	4.019	3.820	3.539	Equity
Retained earnings	194.818	202.666	201.144	Equity
Other components of equity	10.569	16.880	20.128	Equity
Treasury stock	-	23.452	-	Equity
TOTAL TOYOTA MOTOR CORPORATION SHAREHOLDER'S EQUITY	189.164	201.079	201.111	Equity
Non controlling interests	7.143	6.963	6.568	Equity
	196.307	208.042	207.679	
Non current liabilities				
Long-term dept	108.688	117.284	121.174	Net Financial Debt
Other financial liabilities	2.614	3.536	3.788	Net Financial Debt
Retirement benefit liabilities	8.366	7.836	7.562	Provisions
Deferred tax liabilities	10.080	10.380	12.791	Net Working Capital
Other non current liabilities	3.758	4.169	4.280	Net Working Capital
	133.507	143.204	149.593	
Current liabilities				
Trade accounts and other payables	32.701	32.883	35.386	Net Working Capital
Short-term and current portion of long-term debt	98.702	85.714	87.329	Net Financial Debt
Accrued expenses	11.292	11.649	11.017	Net Working Capital
Other financial liabilities	6.174	8.014	9.881	Net Financial Debt
Income taxes payable	2.836	6.334	2.871	Net Working Capital
Liabilities for quality assurance	11.985	11.919	11.968	Net Working Capital
Other current liabilities	9.761	10.827	11.582	Net Working Capital
	173.451	167.340	170.035	
TOTAL LIABILITIES AND EQUITY	503.265	518.586	527.307	

Even if in the horizontal analysis we used values in Yen, these are the conversion rates.

	2020	2021	2022
EXCHANGE RATES YEARLY AVERAGE	123,7264	130,5257	140,9106



RECLASSIFIED BALANCE SHEET:

€ million	2020	2021	2022
Fixed Asset/Non current Assets			
Investments accounted for using the equity method	33.629	37.065	37.097
Receivables related to financial services	100.621	111.726	117.032
Other financial assets	73.419	72.915	74.916
Property, plant and equipment	92.229	94.438	89.660
Right of use assets	3.153	3.435	3.487
Intangible assets	8.960	9.132	8.865
Deferred tax assets	2.717	2.622	2.749
Other non-current assets	4.445	5.508	5.725
Total Fixed Assets	319.175	336.842	339.530
Net Working Capital			
Trade accounts and other receivables	23.914	24.078	25.450
Inventories	23.342	29.277	30.201
Income tax receivables	909	1.256	1.552
Other current assets	6.022	6.067	6.294
Trade accounts and other payables	32.701	32.883	35.386
Accrued expenses	11.292	11.649	11.017
Income taxes payable	2.836	6.334	2.871
Liabilities for quality assurance	11.985	11.919	11.968
Other current liabilities	9.761	10.827	11.582
Deferred tax liabilities	10.080	10.380	12.791
Other non current liabilities	3.758	4.169	4.280
Total Net Working Capital	- 28.227	- 27.482	- 26.398
Provisions			
Retirement benefit liabilities	8.366	7.836	7.562
Total Provision	8.366	7.836	7.562
net assets associated with assets held for sale			
INVESTED CAPITAL	282.581	301.524	305.571
Net Financial Debts/ Net Financial Position			
Long-term debt	108.688	117.284	121.174
Other financial liabilities	2.614	3.536	3.788
Short-term and current portion of long-term debt	98.702	85.714	87.329
Other financial liabilities	6.174	8.014	9.881
Cash and cash equivalents	41.227	46.839	53.346
Receivables related to financial services	54.606	55.018	58.759
Other financial assets	34.071	19.209	12.176
Total Net Financial Debt	86.274	93.482	97.891
Equity			
Common stock	3.209	3.042	2.818
Additional paid-in capital	4.019	3.820	3.539
Retained earnings	194.818	202.666	201.144
Other components of equity	10.569	16.880	20.128
Treasury stock	- 23.452	- 25.329	- 26.517
TOTAL TOYOTA MOTOR CORPORATION SHAREHOLDER	189.164	201.079	201.111
Non controlling interests	7.143	6.963	6.568
Total Equity	196.307	208.042	207.679
TOTAL COVERAGE	282.581	301.524	305.571



CASH FLOW STATEMENT:

€ million	2020	2021	2022
Cash flows from operating activities			
Net income	18.447	22.023	17.692
Depreciation and amortization	13.290	13.958	14.477
Interest income and interest costs related to financial services, net	- 1.914	- 2.713	- 4.927
Share of profit (loss) of investments accounted for using the equity method	- 2.837	- 4.293	- 4.564
Income tax expense	5.253	8.549	8.344
Change in operating assets and liabilities, and other	- 8.596	- 8.662	- 10.663
(Increase) decrease in trade accounts and other receivables	41	909	- 3.779
(Increase) decrease in receivables related to financial services	- 9.979	- 9.295	- 12.492
(Increase) decrease in inventories	- 1.962	- 5.557	- 2.488
(Increase) decrease in other current assets	- 1.321	546	- 437
Increase (decrease) in trade accounts and other payables	3.105	1.168	5.056
Increase (decrease) in other current liabilities	2.281	3.145	3.872
Increase (decrease) in retirement benefit liabilities	447	463	151
Other, net	- 1.134	- 42	- 546
Interest received	6.278	6.403	10.761
Dividends received	2.380	2.661	3.267
Interest paid	- 3.711	- 3.203	- 4.210
Income taxes paid, net of refund	- 6.548	- 6.204	- 9.206
Net cash provided by (used in) operating activities	22.042	28.520	20.971
Cash flows from investing activities			
Additions to fixed assets excluding equipment leased to others	- 9.811	- 9.173	- 10.292
Additions to equipment leased to others	- 18.392	- 17.521	- 13.536
Proceeds from sales of fixed assets excluding equipment leased to others	328	289	401
Proceeds from sales of equipment leased to others	11.087	11.815	11.775
Additions to intangible assets	- 2.251	- 2.651	- 2.472
Additions to public and corporate bonds and stocks	- 22.058	- 18.601	- 8.163
Proceeds from sales of public and corporate bonds and stocks	8.248	2.164	2.796
Proceeds upon maturity of public and corporate bonds	8.417	14.711	6.669
Other, net	- 13.427	14.542	1.475
Net cash provided by (used in) investing activities	- 37.859	- 4.424	- 11.347
Cash flows from financing activities			
Increase (decrease) in short-term debt	- 8.393	- 4.438	1.701
Proceeds from long-term debt	78.045	62.230	65.835
Payments of long-term debt	- 43.777	- 67.754	- 59.279
Dividends paid to Toyota Motor Corporation common shareholders	5.056	5.439	5.166
Dividends paid to non-controlling interests	- 296	- 396	- 603
Reissuance (repurchase) of treasury stock	1.616	- 3.101	- 3.059
other,net			173
Net cash provided by (used in) financing activities	22.139	- 18.897	- 399
Effect of exchange rate changes on cash and cash equivalents	1.780	2.560	733
Net increase (decrease) in cash and cash equivalents	8.102	7.759	9.959
Cash and cash equivalents at beginning of year	33.125	39.079	43.387
Cash and cash equivalents at end of year	41.227	46.839	53.346



INCOME STATEMENT:

	2020	2021	2022
Sales of products	202.684	222.741	243.897
Financial services	17.274	17.668	19.776
SALES REVENUE	219.958	240.409	263.673
Cost of products sold	171.345	185.793	206.717
GROSS RESULT	48.613	54.615	56.956
Cost of financial services	9.556	8.865	12.155
Selling, general and administrative	21.294	22.800	25.463
COST AND EXPENSES	202.195	217.458	244.334
OPERATING INCOME	17.763	22.951	19.339
SHARE OF PROFIT (loss) OF INVESTMENTS ACCOUNTED FOR USING THE EQUITY METHOD	2.837	4.293	4.564
other finance income	3.518	2.565	2.692
Other finance costs	384	337	888
Foreign exchange gain (loss) net	122	1.656	884
Other income (loss), net	156	555	554
INCOME BEFORE INCOME TAXES	23.700	30.573	26.036
Income tax expense	5.253	8.549	8.344
NET INCOME ATTRIBUTABLE TO TOYOTA MOTOR CORP.	18.147	21.836	17.396
NON CONTROLLING INTEREST	300	188	296
NET INCOME	18.447	22.023	17.692



BALANCE SHEET VERTICAL ANALYSIS (PARTIAL AND TOTAL):

	TOTAL			PARTIAL		
	2020	2021	2022	2020	2021	2022
Assets						
Non-current assets						
Investments accounted for using the equity method	6,68%	7,15%	7,04%	10,54%	11,00%	10,93%
Receivables related to financial services	19,99%	21,54%	22,19%	31,53%	33,17%	34,47%
Other financial assets	14,59%	14,06%	14,21%	23,00%	21,65%	22,06%
Property, plant and equipment	18,33%	18,21%	17,00%	28,90%	28,04%	26,41%
Right of use assets	0,63%	0,66%	0,66%	0,99%	1,02%	1,03%
Intangible assets	1,78%	1,76%	1,68%	2,81%	2,71%	2,61%
Deferred tax assets	0,54%	0,51%	0,52%	0,85%	0,78%	0,81%
Other non-current assets	0,88%	1,06%	1,09%	1,39%	1,64%	1,69%
Total non current assets	63,42%	64,95%	64,39%	100,00%	100,00%	100,00%
Current assets						
Cash and cash equivalents	8,19%	9,03%	10,12%	22,40%	25,77%	28,41%
Trade accounts and other receivables	4,75%	4,64%	4,83%	12,99%	13,25%	13,55%
Receivables related to financial services	10,85%	10,61%	11,14%	29,66%	30,27%	31,29%
Other financial assets	6,77%	3,70%	2,31%	18,51%	10,57%	6,48%
Inventories	4,64%	5,65%	5,73%	12,68%	16,11%	16,08%
Income tax receivables	0,18%	0,24%	0,29%	0,49%	0,69%	0,83%
Other current assets	1,20%	1,17%	1,19%	3,27%	3,34%	3,35%
Total current assets	36,58%	35,05%	35,61%	100,00%	100,00%	100,00%
TOTAL ASSETS	100%	100%	100%			
Equity						
Common stock	0,64%	0,59%	0,53%	1,63%	1,46%	1,36%
Additional paid-in capital	0,80%	0,74%	0,67%	2,05%	1,84%	1,70%
Retained earnings	38,71%	39,08%	38,15%	99,24%	97,42%	96,85%
Other components of equity	2,10%	3,25%	3,82%	5,38%	8,11%	9,69%
Treasury stock	-4,66%	-4,88%	-5,03%	-11,95%	-12,17%	-12,77%
TOTAL TOYOTA MOTOR CORPORATION SHAREHOLDER'S EQUITY	37,59%	38,77%	38,14%	96,36%	96,65%	96,84%
Non controlling interests	1,42%	1,34%	1,25%	3,64%	3,35%	3,16%
Total Equity	39,01%	40,12%	39,38%	100,00%	100,00%	100,00%
Non current liabilities						
Long-term dept	21,60%	22,62%	22,98%	81,41%	81,90%	81,00%
Other financial liabilities	0,52%	0,68%	0,72%	1,96%	2,47%	2,53%
Retirement benefit liabilities	1,66%	1,51%	1,43%	6,27%	5,47%	5,05%
Deferred tax liabilities	2,00%	2,00%	2,43%	7,55%	7,25%	8,55%
Other non current liabilities	0,75%	0,80%	0,81%	2,82%	2,91%	2,86%
Total non current liabilities	26,53%	27,61%	28,37%	100,00%	100,00%	100,00%
Current liabilities						
Trade accounts and other payables	6,50%	6,34%	6,71%	18,85%	19,65%	20,81%
Short-term and current portion of long-term debt	19,61%	16,53%	16,56%	56,90%	51,22%	51,36%
Accrued expenses	2,24%	2,25%	2,09%	6,51%	6,96%	6,48%
Other financial liabilities	1,23%	1,55%	1,87%	3,56%	4,79%	5,81%
Income taxes payable	0,56%	1,22%	0,54%	1,64%	3,79%	1,69%
Liabilities for quality assurance	2,38%	2,30%	2,27%	6,91%	7,12%	7,04%
Other current liabilities	1,94%	2,09%	2,20%	5,63%	6,47%	6,81%
Total current liabilities	34,47%	32,27%	32,25%	100,00%	100,00%	100,00%
TOTAL LIABILITIES AND EQUITY	100%	100%	100%			



BALANCE SHEET HORIZONTAL ANALYSIS:

BALANCE SHEET	Percentage increase of 2021 compared to 2020	Percentage increase of 2022 compared to 2021
Non-current assets		
Investments accounted for using the equity method	16,27%	8,05%
Receivables related to financial services	17,14%	13,08%
Other financial assets	4,77%	10,92%
Property, plant and equipment	8,02%	2,49%
Right of use assets	14,93%	9,58%
Intangible assets	7,52%	4,80%
Deferred tax assets	1,78%	13,22%
Other non-current assets	30,74%	12,20%
Total non current assets	11,33%	8,82%
Current assets		
Cash and cash equivalents	19,86%	22,95%
Trade accounts and other receivables	6,22%	14,11%
Receivables related to financial services	6,29%	15,30%
Other financial assets	-40,52%	-31,57%
Inventories	32,32%	11,36%
Income tax receivables	45,77%	33,42%
Other current assets	6,29%	11,99%
Total current assets	4,15%	11,54%
TOTAL ASSETS	8,7%	9,8%
Equity		
Common stock	0,00%	0,00%
Additional paid-in capital	0,26%	0,03%
Retained earnings	9,74%	7,15%
Other components of equity	68,48%	28,73%
Treasury stock	13,94%	13,02%
TOTAL TOYOTA MOTOR CORPORATION SHAREHOLDER'S EQUITY	12,14%	7,97%
Non controlling interests	2,84%	1,83%
Total Equity	11,80%	7,77%
Non current liabilities		
Long-term dept	13,84%	11,54%
Other financial liabilities	42,71%	15,63%
Retirement benefit liabilities	-1,19%	4,18%
Deferred tax liabilities	8,63%	33,03%
Other non current liabilities	17,02%	10,83%
Total non current liabilities	13,16%	12,77%
Current liabilities		
Trade accounts and other payables	6,08%	16,17%
Short-term and current portion of long-term debt	-8,39%	9,99%
Accrued expenses	8,83%	2,10%
Other financial liabilities	36,94%	33,11%
Income taxes payable	135,64%	-51,06%
Liabilities for quality assurance	4,91%	8,40%
Other current liabilities	17,02%	15,49%
Total current liabilities	1,78%	9,69%
TOTAL LIABILITIES AND EQUITY	8,7%	9,8%



INCOME STATEMENT VERTICAL ANALYSIS:

	2020	2021	2022
Sales of products	92,15%	92,65%	92,50%
Financial services	7,85%	7,35%	7,50%
SALES REVENUE	100,00%	100,00%	100,00%
Cost of products sold	77,90%	77,28%	78,40%
GROSS RESULT	22,10%	22,72%	21,60%
Cost of financial services	4,34%	3,69%	4,61%
Selling, general and administrative	9,68%	9,48%	9,66%
COST AND EXPENSES	91,92%	90,45%	92,67%
OPERATING INCOME	8,08%	9,55%	7,33%
SHARE OF PROFIT (loss) OF INVESTMENTS ACCOUNTED FOR USING THE EQUITY METHOD			
other finance income	1,29%	1,79%	1,73%
Other finance costs	1,60%	1,07%	1,02%
Foreign exchange gain (loss) net	0,17%	0,14%	0,34%
Other income (loss), net	0,06%	0,69%	0,34%
INCOME BEFORE INCOME TAXES	0,07%	0,23%	0,21%
Income tax expense	10,77%	12,72%	9,87%
NET INCOME ATTRIBUTABLE TO TOYOTA MOTOR CORP	2,39%	3,56%	3,16%
NON CONTROLLING INTEREST	8,25%	9,08%	6,60%
NET INCOME	0,14%	0,08%	0,11%
	8,39%	9,16%	6,71%



INCOME STATEMENT HORIZONTAL ANALYSIS:

	Percentage increase of 2021 compared to 2020	Percentage increase of 2022 compared to 2021
Sales of products	15,93%	18,21%
Financial services	7,90%	20,84%
SALES REVENUE	15,30%	18,40%
Cost of products sold	14,39%	20,11%
GROSS RESULT	18,52%	12,58%
Cost of financial services	-2,14%	48,02%
Selling, general and administrative	12,96%	20,57%
COST AND EXPENSES	13,46%	21,30%
OPERATING INCOME	36,31%	-9,04%
SHARE OF PROFIT (loss) OF INVESTMENTS ACCOUNTED FOR USING THE EQUITY METHOD	59,63%	14,76%
other finance income	-23,08%	13,32%
Other finance costs	-7,45%	184,37%
Foreign exchange gain (loss) net	1327,73%	-42,40%
Other income (loss), net	276,28%	7,79%
INCOME BEFORE INCOME TAXES	36,09%	-8,06%
Income tax expense	71,69%	5,36%
NET INCOME ATTRIBUTABLE TO TOYOTA MOTOR CORP	26,94%	-13,99%
NON CONTROLLING INTEREST	-33,98%	69,97%
NET INCOME	25,95%	-13,28%



STELLANTIS INDICATORS:

	STELLANTIS	
	2021	2022
<i>Revenues</i>	149.419	179.592
ROE%	25,23%	23,18%
<i>Net Profit</i>	14208	16779
<i>Shareholders' equity</i>	56.307	72.382
ROI %	16,81%	20,10%
<i>Operating profit (EBIT)</i>	15.126	20.012
<i>Invested Capital (total asset - non financial liabilities)</i>	89.984	99.553
<i>Non financial liabilities</i>	81.782	86.603
EBIT Margin %	10,12%	11,14%
<i>EBIT</i>	15126	20012
<i>Revenues</i>	149419	179592
Days sales outstanding (DSO)	8,02	11,12
<i>Receivables</i>	3283	5471
<i>Revenues</i>	149419	179592
Days payable outstanding (DPO)	85,76	80,23
<i>Payables</i>	28.181	31.726
<i>Cost of goods sold (Purchases)</i>	119.943	144.327
Current Ratio	1,15	1,27
<i>Current Assets</i>	74.795	84.776
<i>Current Liabilities</i>	64.857	66.825

INDICATORS:

	Volkswagen			Mercedes			TOYOTA		
SHAREHOLDERS' PERSPECTIVE	PROFITABILITY			Accrual basis					
	2020	2021	2022	2020	2021	2022	2020	2021	2022
ROE%	6,85%	10,56%	8,88%	6,48%	15,10%	17,11%	9,40%	10,59%	8,52%
Net Profit	8.824	15.428	15.836	4.031	11.050	14.809	18.447	22.023	17.692
Shareholders' equity	128.783	146.154	178.327	62.248	73.167	86.540	196.307	208.042	207.679
Earning per share (€/share)	16,60	29,59	29,63	3,39	21,50	13,55	12,64	16,62	12,22
Net profit margin %	3,96%	6,17%	5,67%	3,31%	8,25%	9,87%	8,39%	9,16%	6,71%
PAYOUT RATIO %	21,04%	34,25%	28,27%	45,96%	44,90%	51,30%	31,36%	33,37%	28,28%
Dividends	2.952	3.022	4.362	1.245	1.810	5.669	662.112	761.595	812.966
Net profit(t-1)	14.029	8.824	15.428	2.709	4.031	11.050	2.111.125	2.282.378	2.874.614
SUSTAINABLE GROWTH RATE %	5,41%	6,94%	6,37%	3,50%	8,32%	8,33%	6,45%	7,05%	6,11%
OVERALL COMPANY PERSPECTIVE		PROFITABILITY			Accrual basis				
ROI %	2,79%	5,16%	5,38%	2,81%	7,75%	9,92%	4,31%	5,43%	4,50%
Operating profit (EBIT)	9.675	19.275	22.124	6.091	16.028	20.458	17.763	22.951	19.339
Invested Capital (total asset - non financial liabilities)	347.087	373.824	411.520	216.688	206.815	206.305	412.485	422.590	429.851
Non financial liabilities	150.027	154.785	153.252	69.049	53.016	53.710	90.780	95.996	97.456
ROA %	1,95%	3,65%	3,92%	2,13%	6,17%	7,87%	3,53%	4,43%	3,67%
ROCE (Return On Capital Employed) %	3,90%	6,83%	7,18%	4,04%	10,79%	13,54%	5,77%	6,98%	5,81%
ROACE %	3,95%	7,27%	7,49%		10,71%	13,66%		7,21%	5,85%
EBIT Margin %	4,34%	7,70%	7,92%	5,00%	11,97%	13,64%	8,08%	9,55%	7,33%
EBIT	9.675	19.275	22.124	6.091	16.028	20.458	17.763	22.951	19.339
Revenues	222.884	250.200	279.232	121.778	133.893	150.017	219.958	240.409	263.673
EBITDA Margin %	16,09%	18,76%	19,01%	12,36%	17,18%	17,98%	14,12%	15,35%	12,82%
EBITDA=EBIT+depreciation & Amortization	35.856	46.928	53.094	15.048	23.008	26.979	31.053	36.909	33.815
Revenues	222.884	250.200	279.232	121.778	133.893	150.017	219.958	240.409	263.673
Asset Turnover Ratio %	44,84%	47,33%	49,44%	42,62%	51,53%	57,70%	43,71%	46,36%	50,00%
STAKEHOLDERS' PERSPECTIVE		PROFITABILITY			Accrual basis				
Debt to Equity Ratio (D/E) (financial Leverage)	2,86	2,62	2,17	3,59	2,55	2,00	1,56	1,49	1,54
Equity	128.783	146.154	178.327	62.248	73.167	86.540	196.307	208.042	207.679
Debt= Total liabilities	368.331	382.455	386.445	223.489	186.664	173.475	306.958	310.544	319.628
Interest Covarage Ratio (ICR) %	4,22	10,60	50,05	17,01	37,36	47,91	46,23	68,09	21,78
Cost of debt %	2,49%	1,89%	0,49%	0,23%	0,32%	0,36%	0,18%	0,16%	0,40%
Effective tax rate %	24,37%	23,34%	28,16%	32,33%	30,11%	27,06%	22,17%	27,96%	32,05%
ALL ACTORS		LIQUIDITY			Accrual basis				
Current Ratio	1,18	1,22	1,23	1,15	1,17	1,16	1,06	1,09	1,10
Current Assets	194.944	200.347	224.309	115.264	102.929	102.874	184.090	181.744	187.777
Current Liabilities	165.410	164.393	182.992	99.809	87.675	88.403	173.451	167.340	170.035
Quick Ratio (acid test) (more severe)	0,91	0,95	0,94	0,84	0,85	0,82	0,89	0,87	0,88
Cash	55.071	62.255	66.378	28.404	29.826	23.916	41.227	46.839	53.346
Short Term Investments	13.234	12.584	15.167	2.757	3.079	3.453	34.071	19.209	12.176
Receivables	82.816	81.110	89.758	53.125	41.343	45.412	78.519	79.097	84.209
Current Liabilities	165.410	164.393	182.992	99.809	87.675	88.403	173.451	167.340	170.035
Quick Ratio (acid test) (intermediate)	0,91	0,95	0,94	0,89	0,89	0,87	0,92	0,90	0,92
Quick Ratio (acid test) (less severe)	0,91	0,95	0,94	0,89	0,93	0,87	0,93	0,91	0,93
Inventory turnover ratio	5,09	5,72	5,34	4,61	6,24	5,86	9,42	8,21	8,73
Days sales outstanding (DSO)	38,69	33,54	34,61	31,92	20,92	19,71	39,68	36,56	35,23
Receivables	23.624	22.994	26.477	10.649	7.673	8.100	23.914	24.078	25.450
Revenues	222.884	250.200	279.232	121.778	133.893	150.017	219.958	240.409	263.673
Days payable outstanding (DPO)	45,67	43,59	47,39	44,50	37,68	38,40	75,70	77,04	67,55
Payables	23.017	24.238	29.474	12.386	10.655	12.204	35.537	39.218	38.258
Cost of goods sold (Purchases)	183.937	202.959	227.005	101.592	103.218	115.997	171.345	185.793	206.717
ALL ACTORS		LIQUIDITY			Cash basis				
Cash flow to debt %	27,07%	40,10%	31,63%	14,46%	18,37%	14,11%	10,20%	13,29%	9,44%
Short term debt %	25,09%	42,18%	27,59%	33,87%	42,11%	30,61%	21,02%	30,43%	21,57%
Capex Coverage %	220,89%	362,58%	220,08%	260,89%	335,37%	244,88%	182,74%	241,20%	164,31%
CFFO	24.901	38.633	28.496	22.332	24.549	16.894	22.042	28.520	20.971
CAPEX	11.273	10.655	12.948	8.560	7.320	6.899	12.062	11.824	12.763