A Work Project, presented as part of the requirements for the Award of a Master Degree in Finance from the NOVA – School of Business and Economics.

Continental AG: An Equity Perspective on the Future of Mobility, Tires, and Beyond

ALEARDO CHITTO' 55739

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

Francisco Martins and Luís Barbosa

20/12/2023

Abstract

Continental AG is one of the world's largest automotive suppliers, employing over 199,000 workers at 519 locations across 5 continents. While its origins trace back to rubber manufacturing, its portfolio was expanded in the nineties with a new division focusing on advanced automotive technologies, which now drives the majority of sales. Moreover, through its ContiTech segment, it is also a leading industrial solutions provider, servicing a diversified range of industries including Energy Management and Material Handling. As such, the company is and will continue being sensitive to fluctuations in vehicle production volumes, industrial production, and related supply chain disruptions, which in recent years have contributed to a bearish stock performance. Even so, Conti is well positioned to benefit from the growing electric mobility trend, as well as from the monetization opportunities generated by mobility (and tires) as a service, and the increasing demand for industrial automation and digital advancement solutions (Internet-of-Things, predictive maintenance). Moreover, market share gains in the promising Asia-Pacific and North American regions are expected to further boost revenues.

Keywords

- Sustainable Mobility
- Mobility-as-a-Service
- Replacement Business
- ContiTech

This work used infrastructure and resources funded by Fundação para a Ciência e a Tecnologia (UID/ECO/00124/2013, UID/ECO/00124/2019 and Social Sciences DataLab, Project 22209), POR Lisboa (LISBOA-01-0145-FEDER-007722 and Social Sciences DataLab, Project 22209) and POR Norte (Social Sciences DataLab, Project 22209).

This report is part of the report “An Equity Perspective on the Future of Mobility” (annexed), developed by Chitto’ Aleardo and José Carlos R. Barros and should be read has an integral part of it.

Table of Contents

Introduction

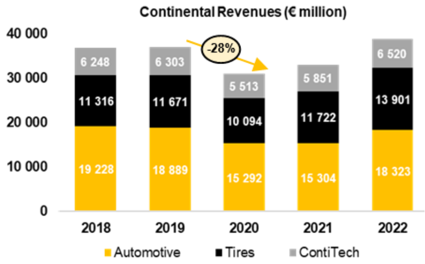
The objective of an Equity Research report is to provide investors with a recommended price and strategy (Sell, Hold, Buy) for a given stock, on the basis of a reasonable data gathering process. This holds true for the following, with reference to Continental AG (Conti), a leading automotive supplier headquartered in Germany.

Workload across the pair was organized along segments lines, and this individual report primarily focuses on Tires and ContiTech. Nevertheless, sizeable collaborative efforts were made to combine each division's contributions and determine the company's aggregate direction. This implies that some information about the automotive group sector, covered by my research partner, is also mentioned, particularly in the valuation section. Moreover, both reports share a piece on cost of capital determination, which matters for the main DCF model, but also for the use of leading multiples to assess Conti’s value from its peers.

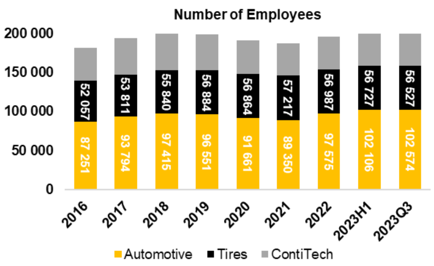
Following an overview of the product range and business structure for each targeted segment, the company’s performance was benchmarked with that of its main competitors through a set of KPIs (revenues growth rata, margins, market share), to allow a better understanding of its results on a comparative basis. The same applies for the other report, though on the side of automotive. Next, a brief description of the composition of its board of directors and stock fluctuation is presented, with similar illustrative purposes and to allow a final comparison between the current share price and its intrinsic value according to our evaluation. Both papers then proceed to analyse the megatrends which are anticipated to affect the future of mobility, each from the relevant perspective, and how these align the company’s growth strategy. For example, the implications for tires of ridesharing, of the growing adoption of electric vehicles, and of the increasing in car parc size are here scrutinized. However, considerations on the electronic architecture of next-generation vehicles and autonomous driving are intentionally omitted. Additionally, a thorough examination of the impact of costs and supply chains is presented, shedding light on Conti’s recent challenges, but also opportunities for improvement.

In conclusion, the reliability of our assessment was tested with relative valuations (multiples), both through a SOP approach and at consolidated level, and a sensitivity analysis, though more on the latter can be found on my partner’s report. Overall, and despite facing headwinds in recent times, Continental is believed to represent a robust investment opportunity, thanks to a its superior technological know-how and commitment to innovation, to its credible leadership and a clear road map for its product portfolio, which position it favourably in the competitive automotive industry.

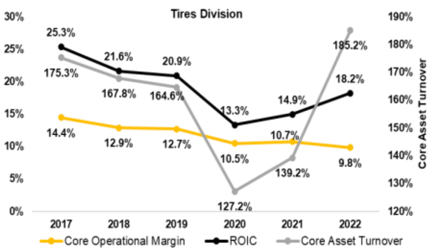
Company Overview



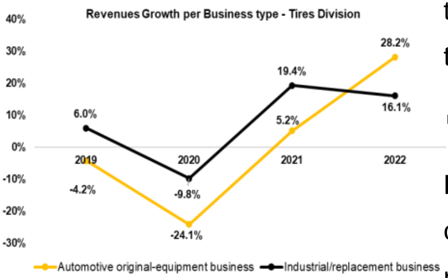
Source: Continental Financial Reports



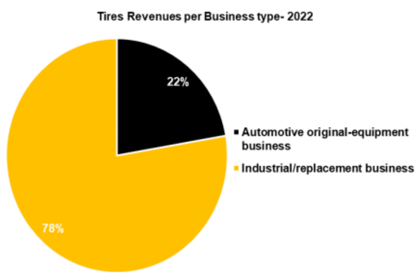
Source: Continental Financial Reports



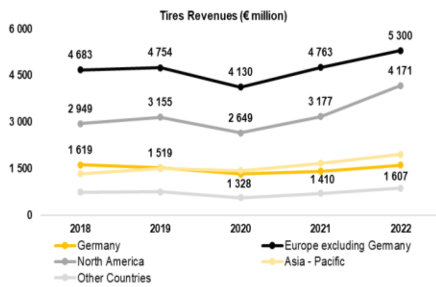
Source: Continental Financial Reports; Own Estimates



Source: Continental Financial Reports; Own Estimates



Source: Continental Financial Reports



Source: Continental Financial Reports

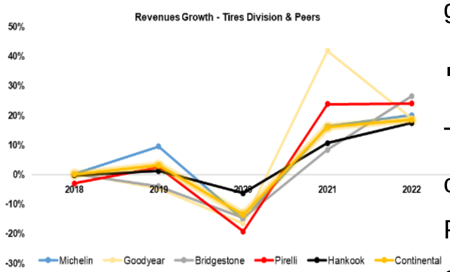
Continental AG (also known as Conti) was founded in 1871 in Hanover, Germany, where it is still headquartered. Initially established as a rubber manufacturer, Continental has always had transformation and change in its core, which turned it not only into one of the largest automotive suppliers but also a leading technology company worldwide. Besides its solid Tires division, Continental develops cutting-edge industrial solutions in the ContiTech segment and, since its creation in 1995, the Automotive division has been developing breakthrough technologies for the automotive industry. On this date, the company employs over 199,000 workers at 519 locations across 5 continents.

Tires Division

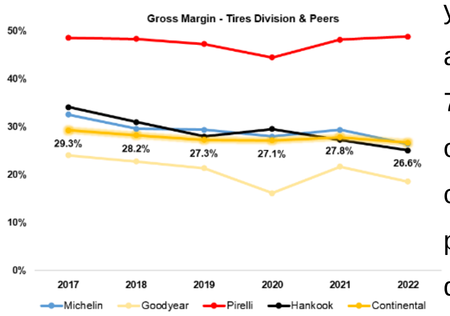
Leveraging its century-long expertise, the Tires division equips road and off-highway vehicles (farm, port, logistics and material handling use) with purpose made sets of pneumatics. In addition to its principal trademark, and to support its customer centric approach, Conti maintains a vast array of secondary brands, including Uniroyal (the inventor of the rain tire), Viking, Matador and Hooser Racing Tire. Besides, digital tire monitoring, hot and cold retreading for end-of-life tires, and management services for specialist dealers and fleet managers are also offered under the banner of Conti360°Solutions, following a reorganization in 2021. In this field, the company enjoys a clear competitive advantage granted by knowledge sharing on sensors and software technology from the Automotive division, which is reflected in its commitment to become the world's leading tire solutions provider by 2030 ("Vision 2030" plan).

- ### Business Performance

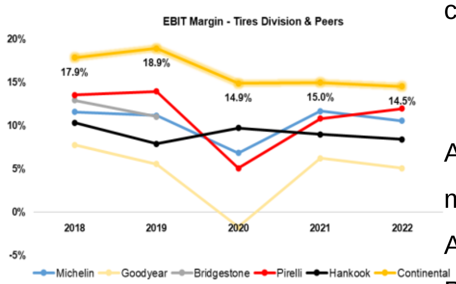
Historically, Tires have generated above 40% of the Group's EBIT, despite an average contribution to sales of around 30% and a 28% share of total employees. The division's remarkable operating profitability is underscored by its track record of achieving ROIC above 20%. In fact, it is often perceived as Continental's cash cow, generating profits for reinvestments in high-growth capital-intensive branches. Even in "tougher" years, such as 2020 and 2021, the declines in invested capital returns and operational margin were less pronounced compared to the Automotive segment, which is in great part due to the higher share of sales from the Replacement units (78% of the division turnover). These segments refurbish passenger cars, trucks, and commercial vehicles already in circulation, as opposed to selling directly to automotive manufacturers; and so, the headwinds in vehicles production had a smaller impact in revenues. Note that ROIC was also sustained by a quick recovery in asset turnover, with customers payment terms reverting to pre pandemic levels already in 2021 and the average payable period on the rise, although this is not anticipated to continue in the future. On the matter of sales balance, Europe as a whole still generates most of Tires revenues, to which the German market, where the company holds a robust market share, gives a significant contribution (12.5% of the 2018-2022 total turnover, on average). To this day, the largest hurdle for Conti's international expansion has been the highly consolidated nature of the industry in Asia, with local players like Yokohama, Toyo Tires, Sumitomo Rubber, Hankook and Bridgestone sharing most of the available revenue pool. In response to this, substantial investments amounting €1.6 billion have been made since 2018 in supply chain set up (i.e. factories) in APAC/America, as the division aims for



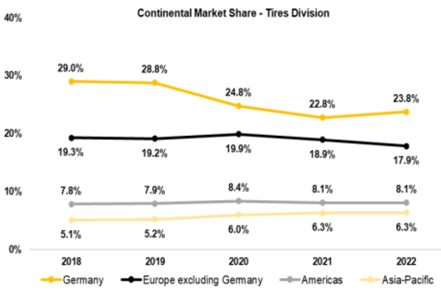
Source: Continental & Peers Financial Reports



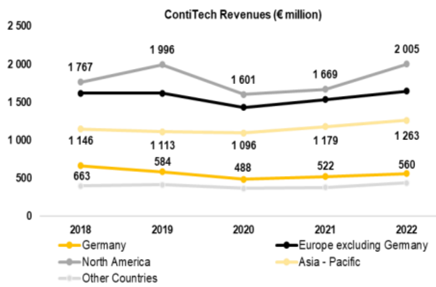
Source: Continental & Peers Financial Reports



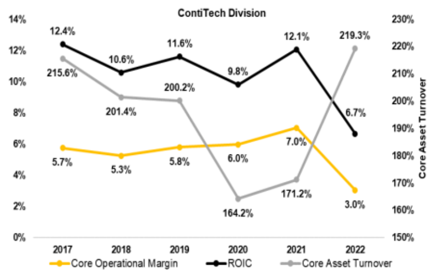
Source: Continental & Peers Financial Reports



Source: Continental & Peers Financial Reports; Own Estimates



Source: Continental & Peers Financial Reports



Source: Continental Financial Reports

greater regional manufacturing responsiveness and solutions tailored to local markets.

- Competitors

The technological sophistication and materials complexity reached by Continental's cutting-edge tires limits the list of close competitors to Michelin, Goodyear, Bridgestone, Pirelli, and Hankook, namely the largest manufacturers worldwide. In recent years, these companies' growth rates and cost margins have moved in synchronous, deteriorating immediately after the pandemic hit and quickly recovering ground within the following two years. It should be noted that the stabilizing effect of replacement tires held industry wide, as most tire makers share the same customer structure (e.g. Goodyear 78%, Michelin 75%). Note also how different gross margins converge to a narrow EBIT range when other operating expenses are included, suggesting that higher effectiveness in manufacturing costs handling alone does not guarantee industry leadership. Looking ahead, increased pressure on overall profitability is anticipated, as established manufacturers pursue a differentiating strategy relying on high value-added segments, like EV and Ultra-high performance tires (UHP), whose growth prospects are strong and where competition from cost-effective Asian competitors is lower.

ContiTech Division

Aiming to be a technological leader for material-driven solutions, ContiTech develops and manufactures future oriented products/solutions for diverse industries such as Automotive, Agriculture, Aerospace, Railway, Construction, Energy Management, Food Chain Processing and Material Handling. These products are generally made of rubber and plastic combined with metal or fabric and integrated with electronic components. The services provided in ContiTech's Industrial/replacement business are an exception within Continental as they are not focused on road vehicles. Besides being a world leader in manufacturing technical and decorative surface materials from plastic, the main bulk of Conti's services in this unit are related to conveyor belts installation, maintenance, and refurbishment, granting technological upgrades to such pieces of equipment. Hence, Continental sees in this segment the potential to expand its technological expertise to less tech heavy areas while diversifying its portfolio.

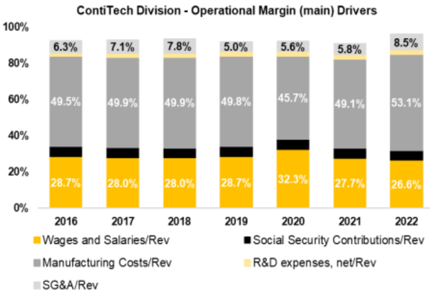
- Business Performance

ContiTech division employs around 21% of Continental workers and accounts for almost 17% of the Groups' sales. Similarly to Tires, ContiTech also proved its resilience with a stable ROIC and growing operational margin before 2022. This is mainly due to the fact that only around 48% of its revenues are derived from the sale of automotive original equipment and that industrial production had a boom in 2021, as countries restarted production after the pandemic. Consequently, the Industrial/replacement business generates over 50% of the division revenues since 2020. Naturally, industrial production slowed down in 2022 and, even though 2019 sales level was overtaken, supply chain shortages negatively impacted ContiTech's operational margin and ROIC.

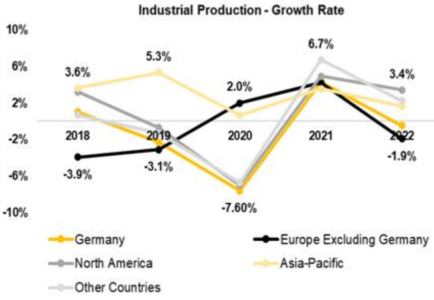
- Business Reorganization

Despite its profitability, in order to solidify its brand and strengthen the pathway towards electric mobility, Continental has decided that the automotive unit (Original Equipment

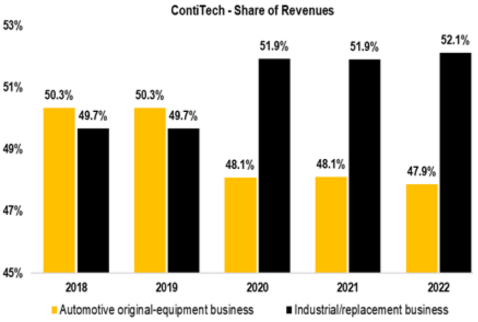
Solutions) currently bundled within ContiTech will become fully independent by 2025. Therefore, the Board will be analysing whether the best solution is the entry of a strategic investor, a joint venture, or the sale of this unit. This follows last May structural reorganization which segmented the ContiTech division into the current five business units. According to Philip Nelles, CEO of the ContiTech group sector, the rationale of this restructuring is seizing new growth opportunities within the industrial business, which grants broader revenue streams and longer product life cycles, while the automotive business is consolidated to create synergies. In fact, Conti's ambition is that the industrial units of ContiTech achieve a share of division sales of around 60% in the medium-term and 80% in the long-term. All in all, similarly to what occurred to the Powertrain division, Continental is on the verge of prioritizing specialization to focus on improving the efficiency of its industrial business while reducing exposure to the procyclical Automotive industry.



Source: Continental Financial Reports

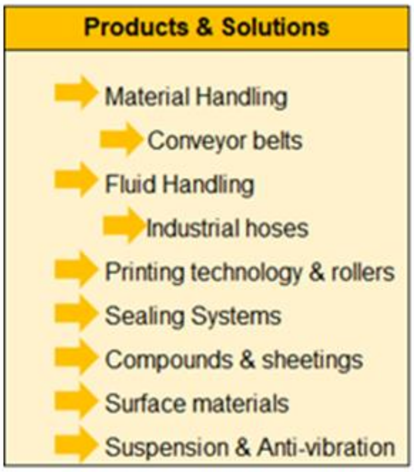


Source: Bloomberg



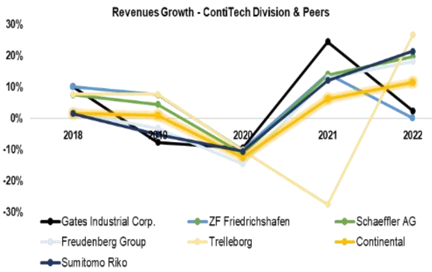
Source: Continental Financial Reports

Source: Realignment ContiTech to increase customer and market proximity. (2023, February 2). Continental AG



- Competitors

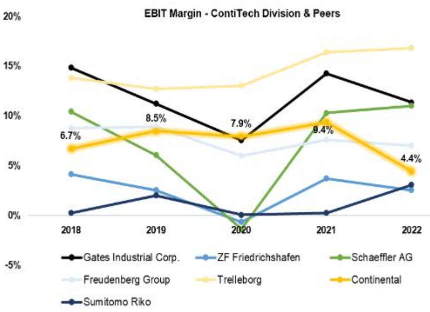
Due to the wide range of products and services provided within ContiTech, it is nearly impossible to find actual comparable companies. Therefore, a set of industrial focused peers was gathered to cover the main industries targeted by Continental. Even though the market reaction is alike, with similar sales evolution, the diversity of structures creates a large variation in EBIT margin between companies. Nevertheless, it is clear the efficiency of ContiTech business reflected by its stable margins (except in 2022).



Source: Continental & Peers Financial Reports

Board of Directors

In April 2023, the Supervisory Board of Continental AG extended the appointment of CEO and chairman of the Executive Board Nikolai Setzer for five more years, until 2029. In charge as CEO since 2020, Nikolai Setzer joined the company in 1997 and held important roles in the last decade while the firm crossed times of great market change and structural reshaping. This extension is a clear sign that the ongoing reorganization plan will continue in the long term for the company to achieve a leading position in the electric mobility industry. Another proof that the ambition and expertise of the company will be maintained was the appointment of Philipp von Hirschheydt to the Executive Board as Head of the Automotive division, after performing several roles in the firm since 2007. Regarding the remaining members, Katja Dürrfeld, Christian Kötz and Philip Nelles have carried out many functions at Continental for more than 20 years, while Dr. Ariane Reinhart joined almost 10 years ago. Finally, even though Olaf Schick only joined the company last May, he grants



Source: Continental & Peers Financial Reports

Nikolai Setzer

Katja Dürrfeld

Philipp von Hirschheydt

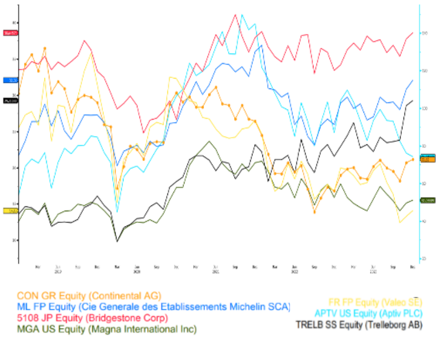
Christian Kötz

Philip Nelles

Dr. Ariane Reinhart

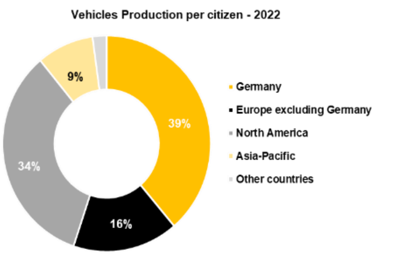
Olaf Schick

Source: Continental Website



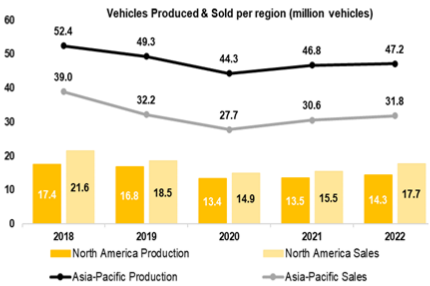
Note: Share price evolution since March 2019

Source: Bloomberg



Note: Number of vehicles manufactured divided by population density

Source: Statista; United Nations



Source: Statista

full expertise after 19 years at Daimler AG, performing duties as CFO of different subsidiaries of the Group.

Stock Performance

Following the unforgettable 2008 stock market crash, Continental shares price plummeted to merely €12.18 in the beginning of 2009 from a peak of over €104.00 per share in July 2007. After touching the bottom, shares followed an upward trajectory to reach an all-time high of €224.71 in January 2018. The turning point came in late 2013 with a full recovery of the automotive industry and a surge of assisted and automated driving, as well as electric mobility. Indeed, even though revenues were mainly sustained by the mature Tires division, Continental was already regarded as a top and highly promising player in the arising market for technological auto parts. Right after peaking in 2018, Conti's share price took a downward trend declining to as low as €44.77 in September 2022. This evolution reflected some major negative events affecting the company and the industry. For example, a shortage in the supply of natural rubber caused by floods in Asia affected the Tires division and soared the alarms to find a replacement for this key raw material. The remaining divisions, as well as Continental's main rivals (Valeo, Michelin, Pirelli, etc), were similarly affected by rising material costs and the beginning of a sharp decline in vehicles demand. In 2019, Continental was also particularly affected by impairment charges worth approximately €2.5 billion after writing down more than 100 acquisitions made over the previous 30 years, whose book value was recalculated based on the gloomy outlook for the automotive industry[1]. To worsen the already poor projections, Covid-19 hit the global economy. Even though the biggest impact in sales had been felt in 2020 (28.36% drop), Conti bearish stock performance has been exacerbated since late-2021 due to the global semiconductors' shortage and weak macroeconomic environment. Since falling below €100.00 in November 2021, share price was never able to recover to the same mark, averaging roughly €70.00 in the last 25 months. Reflecting this downward trend, dividends per share and the payout ratio declined in the last years. However, the Board recently announced a 30 to 40% payout target in the coming years.

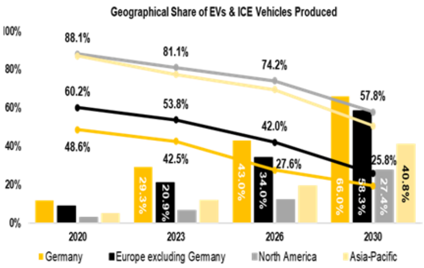
Automotive Industry

After many years of steep growth in vehicles' production (passenger cars used as proxy), the peak was reached in 2017 with almost 97 million vehicles produced worldwide in a single year. It followed a quick decline to roughly 78 million vehicles manufactured in 2020 before an upward trend restarted, being expected to reach 2017 production levels no sooner than 2029. Geographically, Asia-Pacific is the region with the highest production and sales of vehicles (followed by far by North America and Europe), to which China gives a major contribution with over 32% of global production in 2022. Thus, it is no surprise that expanding into this region is Conti's main goal, which occupies first place in Automotive division sales already.

Electric Vehicles

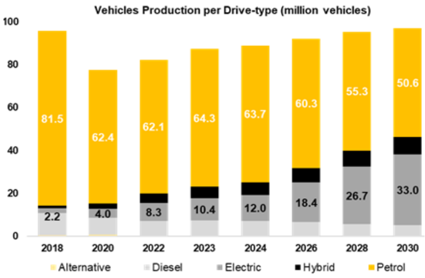
Another reason for the low demand in the industry is its own technological advancement, driven by sustainability and changing consumer behaviour. The rapid evolution of the

[1] Global car slowdown hits German industrial groups. (n.d.). Financial Times. https://www.ft.com/content/331a363a-0551-11ea-a984-fbbacad9e7dd

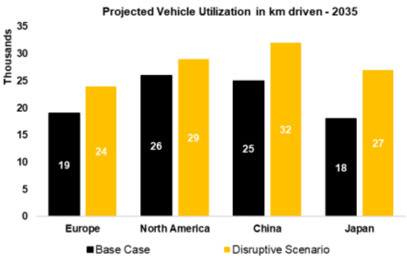


Note: Columns represent EVs

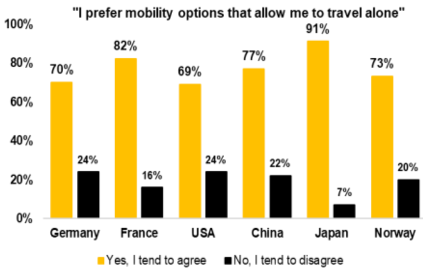
Source: Statista; Own Estimates



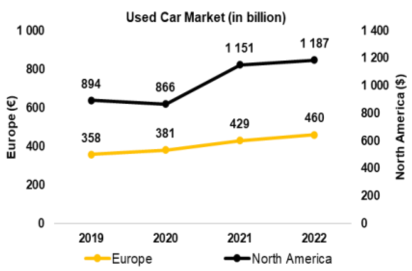
Source: Statista; Own Estimates



Source: Deloitte Future of Automotive Sales and Aftersales. Impact of current industry trends on OEM revenues and profits until 2035.



Source: Continental 2022 Mobility Report



Source: Bain & Company, Outlook for the European Used Car Market, Statista

industry is clearly reflected in the market penetration of electric vehicles (EVs), whose share of annual vehicles sold rose from less than 1% to over 10% within the last decade. This shift is expected to be strengthened in the coming years as governments become more aware of the urge to reduce pollution. Even though similar concerns are shared across the world, governments aid through subsidies and incentive schemes were not yet enough to make the price for EVs more affordable and so targets are for now falling short. In the next years, internal-combustion engine (ICE) vehicles will still represent the majority of vehicles produced, even though EVs are prone to a sustained growth YoY, especially in Europe.

Ridesharing

Continental should also be aware of a new trend in the industry: Ridesharing. Driven by EVs' low operating costs and rising awareness of the need to reduce pollution, a growing number of people will avoid owning a car. Ride-hailing (one is not really sharing a ride or reducing traffic congestion) with companies like Uber, Lyft, etc or shared micro mobility (electric bicycles or scooters) have been the most popular solutions, but OEMs are developing alternatives such as subscription-based vehicles. Besides finding a new revenue stream, OEMs can attract customers who are completely new to the brand by giving them the right to use a vehicle in exchange for a recurring fee. By now, this business model has only been implemented by a small number of brands (Porsche, Cadillac, BMW, etc) in a few cities, but the greater the level of automatization the faster will be the growth of ridesharing. In the long run, the best fit for ridesharing are robotaxis, which will autonomously drive around a city picking up people. Nevertheless, while the ridesharing trend will benefit from Continental technologies, it is not certain whether Conti will gain from this advancement. In part, replacement businesses such as tire sales benefit from an increased utilization rate per vehicle, since more kilometres will be driven by registered cars, implying a higher frequency for tires substitution. However, this upside is completely offset by the direct consequence of shared mobility: reduced automotive sales, which, as it was already shown, negatively impacts all segments turnover. Even though this trend poses a risk to the company, it is important to note that ridesharing is not expected to gain significant market share in the next two decades (or even more), as it requires a big change of consumers' behaviour, and it is simply not feasible in rural areas and certain locations of the world.

Replacement Business

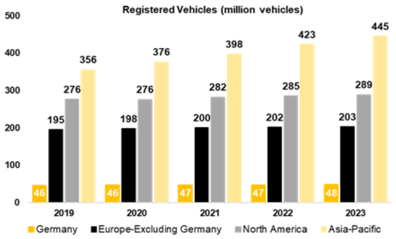
The development of automotive replacement businesses (78% of Continental's tire business by customer split) will be impacted by sales and aftersales marketplaces maturities, which are mainly captured by average vehicle age and parc size growth rates (i.e. yearly variation in the number of registered/circulating passenger cars and commercial vehicles). For replacement sales purposes, larger car parc sizes are translated into bigger revenue pools, as more and more automobiles may need to be refurbished, including with winter tyres, which are often sold at higher prices. Emerging countries in the APAC region clearly stand out with skyrocketing increases in car ownership, though most of the growth is attributable to China (YoY increases in the 8-12% range from 2016 to 2022). In comparison, South Korea followed as a faraway runner-up growing stably around 2.6% per year, whereas European, North, and South American total in use vehicles increased on average 1% during the same period. The remaining expansion in global registered vehicles stems from the ageing of cars in circulation. In Western Europe, for example, the share of vehicles older than eight years (known as segment 3 vehicles) jumped from 50% in 2011 to 65% in 2019, and it is projected to reach 75% by 2030. Similarly, volumes of cars aged 6-14 in America will grow by another 10 million units by 2028, enlarging the regional aftermarket target range. Even in Asia – where passenger cars (PC) and light commercial vehicles (LCV) are half the age of their Western counterparts – used cars are being substituted less often, implying that more auto parts, like tire sets, will be required per vehicle over its lifetime. This tendency is driven by the fact that automobiles' prices have and are expected to continue rising, while families have less disposable income for non-priority goods, especially in the current years of economic downturn. Governmental interventions penalizing older motorcars, such as impossibility of circulation in the city centre or on specific weekdays and subsidies granted to incentivize vehicle substitution are not expected to revert the direction in the short term. All in all, car parc sizes worldwide are not expected to recess in the future and even a deceleration will be mild (no significant change in mobility habits), yielding positive prospects to auto parts replacement businesses.

Tires Industry

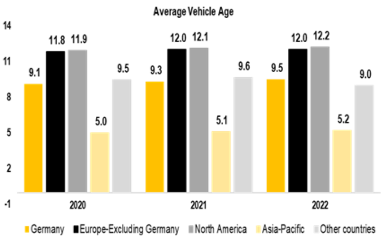
It is important to understand that for most pneumatics more than one size is available, depending on rim, height, width, and vehicle speed. Generally, the higher the rubber content the higher the price companies can charge, with production costs rising less than proportionally (economies of scale), which explains why Continental's product mix has gradually started trending in favour of >18" inches wheels. In fact, since 2010, Ultra-performance tires (UHP i.e. above 18" inches) have showcased an average 3.9% growth vs 1.6% for narrow tires, and this pattern is expected to persist. The underlying driver of this development is the growing popularity of SUVs, which are equipped with oversized braking disks and require higher tires for aesthetic concerns, helping suppliers in their premiumisation strategy by democratizing larger tires. Moreover, a strategy built on this price differential is broadly applicable across geographies and customers, which helps overcoming the diverse nature of the industry. Asia-Pacific, despite being the region with the highest shares of both circulating and produced vehicles, and consequently of tires sold/replaced, presents the lowest ratio of tires replaced/sold per circulating/manufactured vehicle. Also, while APAC accounts for almost half of global OEM tires sold, it represents only 24% of replacement units. This proportion completely differs from Europe and America's, which present a larger replacement business, resulting in higher replaced tires per circulating car, usually at least 1 per year.

Innovative Tires

In response to governments' pressure for improved sustainability, tire makers have increasingly directed R&D efforts and production towards low rolling resistance pneumatics (i.e. the force resisting the motion when a tyre rolls on a surface). Indeed, given the high contribution of wheels to the average vehicle's fuel consumption (30% when properly inflated), it is estimated that low-friction tires can lower CO_2 emissions by 2g per km (6%



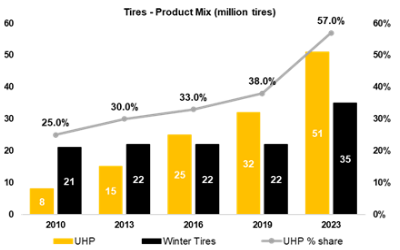
Source: CEIC, Global Economic Data, Indicators, Charts & Forecasts; Statista; Deutsche Bank.



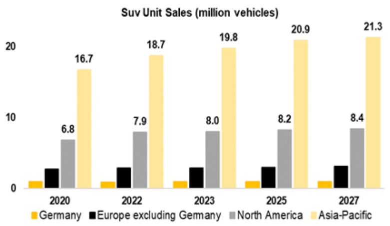
Source: Boston Consulting Group, At the Crossroads: The European Aftermarket in 2030; S&P Global Mobility

Prices by rim size for Summer and All seasons replacement tires	<17" inches	>18" inches
Germany	91.2 €	148.7 €
Europe-Excluding Germany	46.9 €	133.5 €
North America	111.7 €	168.4 €
Asia-Pacific	47.7 €	89.8 €
Other countries	93.7 €	155.6 €

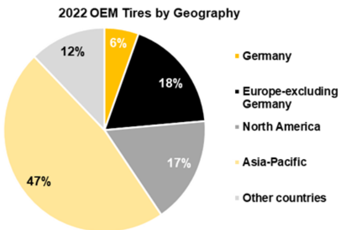
Source: Own Estimates; Reifendirekt for Germany, Allopneus for Europe, ATD's Tirebuyer.com for North America, Tirenavi and Cantustore for Asia and South America (Other Countries), respectively. Later to be used also for forecasting purposes.

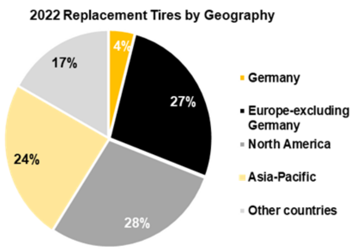


Source: Continental Annual Fact Books

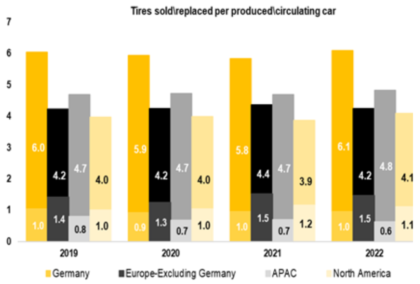


Source: Statista



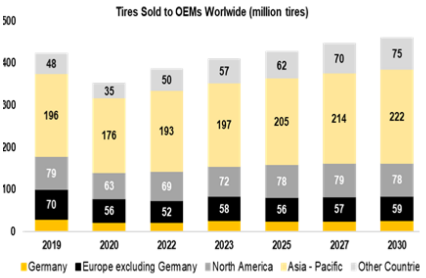


Source: Michelin Annual Reports



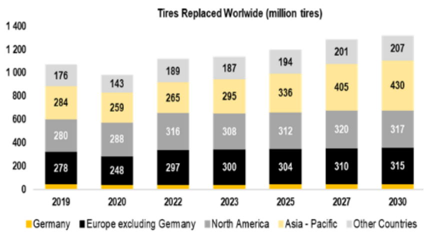
Note: Bottom columns represent tires replaced per circulating vehicle

Source: Michelin Annual Reports, European Tyre & Rubber Manufacturers Association (ETRMA)

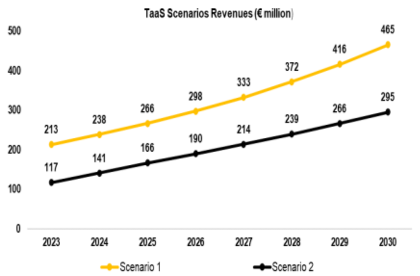


Note: Forecasts based on vehicles production and tires sold per vehicle.

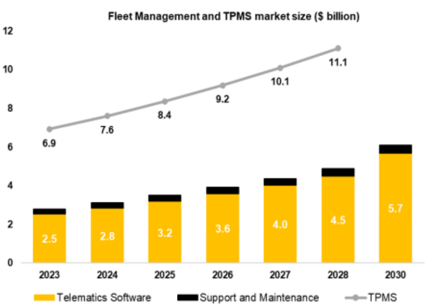
Source: OICA, Michelin Annual Reports, Own Estimates



Note: Forecasts based on circulating vehicles projection and tires replaced per vehicle.
Source: Michelin Annual Reports; Own Estimates



Note: Scenario 1 is based on Telematics Software and Support & Maintenance Services for the Fleet Management market estimated by FMI Insights. Scenario 2 relies upon Michelin's own forecasts on the future development of TaaS, published in 2016 in Tire Industry: Global Tire Intelligence Report by Shaw Information Services.



Source: FMI Insights

of the 95g/km saving demanded by the EU by 2025)[2]. As alternative drivetrains are becoming more widespread, this trend is set to further intensify, due to the potential for expanded range and energy efficiency benefits associated with such wheels, driving sales up. In this regard, Conti's product strategy is proving successful: in 2022, nine of the ten most successful electric vehicle manufacturers – including Tesla, Porsche, BYD and KIA – relied on its expertise for their original equipment, rewarding the company's rising efforts in BEV tires homologations (500+ projects by the end of 2023)[3]. The added weight, torque and noise levels generated by EVs also provide incentives to invest in specially designed tread patterns, newly constructed carcasses, and modified rubber compounds increasingly made of recycled materials. Besides improving vehicles' footprint, advancements in tire engineering will allow high-end manufacturers to differentiate themselves from low-cost Asian competitors, which have saturated markets worldwide and diluted manufacturers market shares by almost 20% between 2004 and 2017. Lightweight tires, air-less puncture-proof concepts, noise-cancelling solutions, and tires capable of generating electricity during driving to recharge the vehicle's battery, are likewise being developed with this goal in mind, and may in turn reinforce the uptake in UHP tires.

Technological Advancements

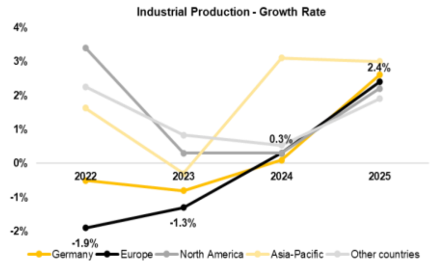
Features Monetization

The advancing technologies developed by Continental have allowed the incorporation of innovative features which create additional revenue sources to the company. Besides private owners, OEMs and a growing number of corporate buyers are expected to be highly interested in available data on their vehicles. Given the high number of vehicles leased by fleet operators, who also provide maintenance and telematics support[4], real time monitoring of units' performance might be of particular interest to them, since on-the-road punctures and repairs by third parties will be potentially reduced, cutting total cost of ownership. Moreover, information on tires pressure, temperature, mileage, and tread depth (given by integrated sensors) can be used to save fuel and enhance the level of operational safety, which raises interest to any car owner. The utility of such pieces of information becomes even more important in the realm of trucks, buses, and commercial vehicles, where tires account for 53% of operating costs and usage conditions are tougher. Subscription plans are bound to be the preferred option for these services, offering flexibility that aligns with actual needs and allowing gradual updates with pay-to-use features. Similarly, OEMs are also taking advantage of the accelerated digitalization brought by the pandemic to monetize their services through feature differentiation. These mobility-as-a-service venues will indeed bolster Continental's sales since it is possesses a unique advantage over competitive tires-as-a-service (Taas) already marketed by Goodyear, Bridgestone (Webfleet and Fleetcare solutions), and Michelin: its in-house expertise in sensors, specifically tire pressure monitoring systems (TPMS) and Tread Depth Monitoring (TDM) manufactured in the SAM business unit (synergy between divisions), but also heated seats and high beam assist. This goes in line with Conti's ambition to implement "further business activities within Automotive that are expected to contribute around €1.4

[2] Source: Bryan, Garnier & Co – Tyre & Rubber Products, 2017
[3] Source: Continental Press Releases, Capital Markets Update 2023
[4] Source: Deloitte, Fleet Management Europe, 2017

billion to consolidated sales this fiscal year”[5] (FY23). Overall, fleet management software, telematics and maintenance & support services are expected to post CAGRs in the 7-12% range by 2033, potentially injecting additional income in excess of €700 million per year to the tires division baseline, assuming the company’s historical market share as proxy for its positioning in these segments.

Industrial Production

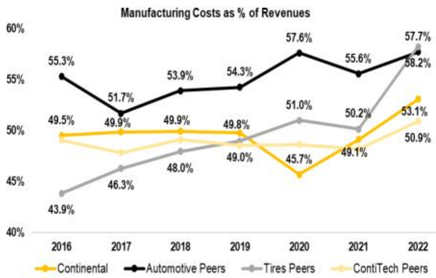


Source: Bloomberg.

Text Sources: Deloitte 2024 Manufacturing Industry Outlook; ING, Forbes

The development of the ContiTech division is particularly contingent on industrial customers. In the short-run, industrial production is foreseen to slow down, as economic uncertainty and tight labor markets continue to pressure manufacturers’ margins, and momentum in the post-pandemic production catch-up is waning. Nevertheless, the future of the sector holds high prospects for increased automation and digital advancement solutions (AI, IoT, predictive maintenance), due to the potential for asset efficiency, safety, and sustainability enhancements, driven by their seamless scalability. In this sense, ContiTech is poised to benefit from Conti’s overall technological expertise to become a prominent player in the industry.

Raw Materials & Manufacturing Costs



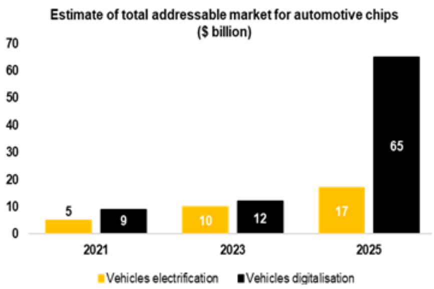
Note: Historical manufacturing costs allocated to each division according to share of revenues

Source: Own Estimates

In the recent past, the main cause for the declining operational margin across the whole company was a surge in manufacturing costs, caused by events that provoked scarcity of raw materials and consequent rising prices. By analysing Conti peers, it is clear that ContiTech suffered the least from this phenomenon due to its diverse nature and low dependence on products that were affected by such events. As for Automotive and Tires, they were highly impacted by semiconductors and rubber shortages, respectively. Nevertheless, it is important to highlight the stability of the company, with a constant ratio of manufacturing costs to revenues until 2020. This is especially relevant to the Tires division, which saw its competitors costs skyrocket due to natural rubber shortages.

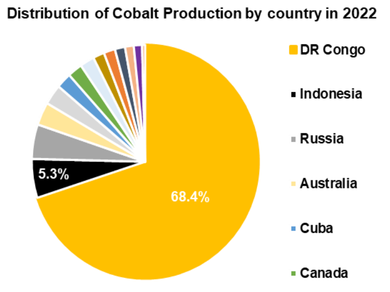
Supply Chain Disruptions

In 2022, 35% of the Group’s €28.4 billion purchasing volume referred to electronics and electromechanical components. These raw materials are primarily used in the Automotive and Contract Manufacturing divisions, whose products are fundamentally technological, and so, they suffered the biggest impact from disruptions in the semiconductors industry. Even though global chipmakers recovered from the shortage caused by the Covid-19 pandemic to a point of oversupply, the current supply gut is not expected to persist and does not encompass more sophisticated chips such as generative AI related, which have been on the rise since OpenAI’s ChatGPT was launched. On its 2022 annual report, Continental states that delivery backlogs for semiconductors hit records in this year and the company does not expect substantial improvements before 2025. Also, while the USA tries to recover market share through the CHIPS Act, China keeps a close target on Taiwan, the largest manufacturer of semiconductors worldwide, putting the market in peril once again. Furthermore, to cope with the enhancing infotainment systems, modern cars require a bigger number and more expensive chips, with the average value of

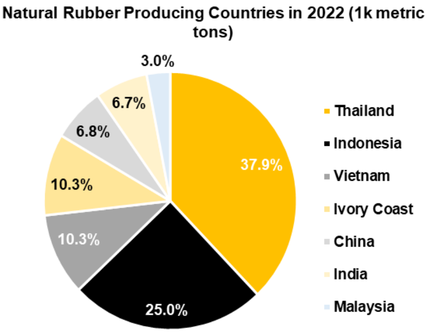


Source: Financial Times; HIS Markit; STMicroelectronics

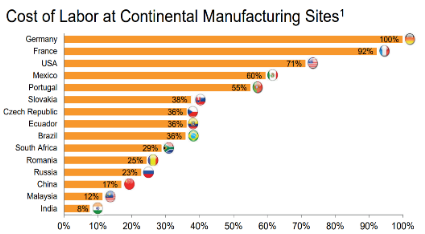
[5] Source: Continental AG, Capital Market Day, 2023



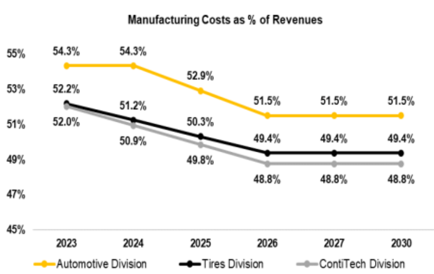
Source: Statista



Source: Malaymail.com; Reuters



Source: Continental Annual Fact Books



semiconductors per car forecasted to reach $1,138 by 2028 (from $700 in 2020), according to S&P Global Mobility. Therefore, prices for Conti breakthrough technologies, especially in the Automotive segment, are expected to continue increasing in the medium-term as electric mobility becomes more advanced and semiconductors availability remains fragile. Hence, this is posed as a risk to Continental not only in terms of manufacturing costs but also in terms of demand, since vehicles price will also remain high, implying that the next generation of AVs will not be at reach of an average individual.

Raw Materials Scarcity & Substitution

Even though companies are implementing regionalization strategies, some raw materials are of great importance to the industry evolution and are concentrated in certain regions of the world, putting entire production lines at risk. The best-known examples are lithium and cobalt. Essential to produce EVs' lithium-ion batteries (the most used today), they have scarce reserves and are in great part detained by politically unstable countries. Similarly, natural rubber, the primary raw material for tires, is sourced from Southeast Asia, a region increasingly affected by political tensions (United States vs China) and weather/diseases related supply shortages, posing a challenge to the division's procurement. In addition, cutbacks on rubber output to move the commodity's global price in a direction favourable to exporters have been announced in recent times by Indonesia, Thailand, and Malaysia (H1 2019), which in aggregate control over 65% of the global production. Even so, the potential for mitigation is considerable, in light of Conti's commitment to producing 100% sustainable tires by 2050 (interim targets in the range of 30 - 40% by 2030). This move, which is in line with that of competitors like Michelin, Bridgestone, and Pirelli, is expected to spur investments in alternative sources of rubber like dandelion plants, whose derivatives exhibit properties comparable to products made of natural rubber. Russia's significant role in dandelion cultivation is unlikely to impact their promising outlook, as these plants can thrive in temperate regions globally and are ready for harvest after just one or two years. Furthermore, as an alternative course of action, the company has made advancements in recycling materials from the paper and wood industries, from PET bottles and end of use tires, which have jointly led to the production of its most sustainable series yet: UltraContact NXT (65% of renewable content).

Plants Capacity Utilization

Continental's decision to relocate a significant portion of its production to mega plants in countries such as Romania, Slovakia, China, and Brazil have not yielded successful results thus far. The goal was to take advantage of bigger production capacity, lower personnel expenses, and lower fixed costs per output, however, the complementary effects of declining capacity utilization and inflation- driven wage adjustments contributed to the deterioration of Conti's operational margin. Nevertheless, considering general improvements in manufacturing costs and a definitive closure to Covid-19, the 90% facilities usage targeted by the company is expected to be achieved as well as the desired economies of scale.

Manufacturing Costs

Considering its progress on sourcing new and sustainable materials, it is natural that the Tires segment had been less impacted by disruptions compared to its peers. Therefore, it is also expected to quickly soften the share of manufacturing spending in terms of sales in the short run. In fact, the first nine months of 2023 show promising signs of a reversion in input prices, with butadiene down by 31% YoY in €/Tonne and rubber experiencing a 17% reduction in USD/Tonne[6]. Likewise, ContiTech is expected to follow the same downward trend converging to pre-pandemic industry level. Regarding Automotive, due to its vulnerability to supply chain shortages and raw materials price evolution, manufacturing costs are expected to continue at a higher level before stabilising by 2026. In fact, aluminium, plastic, steel, and copper are other important materials sourced in the segment and some have seen its price rising in the last months.

Valuation

Revenues Forecast

- ### Tires Division

Price per Tire - 2023	OE	Replacement
Germany	71.5 €	117.5 €
Europe excl Germany	121.6 €	83.4 €
North America	151.8 €	133.2 €
Asia-Pacific	37.5 €	71.7 €
Other countries	125.0 €	129.0 €

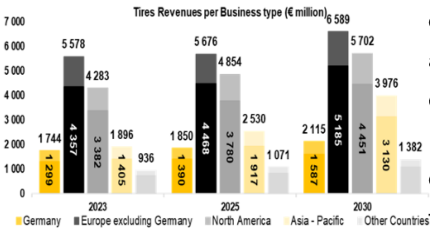
Note: Differences are justifiable considering the contractual agreements in place between OEMs and Continental, regulating prices and quantity intakes.

Source: Own Estimates; Reifendirekt for Germany, Allopneus for Europe, ATD's Tirebuyer.com for North America, Tirenavi and Cantustore for Asia and South America (Other Countries), respectively.

# Tires sold per	Vehicle Manufactured	Ciculating Vehicle
Germany	6.0	1.0
Europe excl Germany	4.3	1.5
North America	4.7	1.1
Asia-Pacific	4.0	0.7

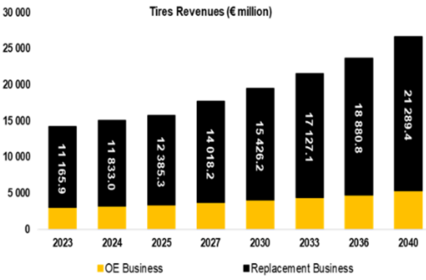
Tires Market Share	2022	2026	2030
Germany	23.8%	24.0%	24.0%
Europe excl Germany	17.9%	16.5%	16.5%
North America	8.1%	8.8%	9.0%
Asia-Pacific	6.3%	7.5%	7.5%
Other countries	3.0%	3.0%	3.0%

Source: Own Estimates



Note: Bottom bars correspond to Replacement business revenues

Source: Own Estimates



Source: Own Estimates

Regarding the OE business, the geographical forecasts of vehicles produced were used alongside the expected number of tires sold per vehicle manufactured, in order to obtain the total number of pneumatics sold to car makers in a year. To determine Conti's tire sales quantity, its market share was applied assuming that it will remain constant in Germany but slightly drop in the rest of Europe, as the company keeps expanding its manufacturing capacity and sales networks in Asia and North America. Finally, tires price was assumed to grow with each region's inflation. Overall, the projected slow evolution in vehicles production is reflected in the mild growth (3.1% until 2040) of OE sales, which, contrarily to the Automotive division, markets vehicles' content with a smaller future price expansion, despite the incorporation of digital tire monitoring features (Taas).

As for the Replacement business, the average price per tire was taken from online marketplaces, after filtering per location, brand, and tires seasonality (and again grown at inflation). As expected, tires in North and South America are more expensive due to the larger share of SUVs and light trucks, while the Asia Pacific region, where cost is priority for individual buyers, tends to have more affordable options. Note that Continental's most recent rim size split between UHP tires and tires below 17" inches was factored in the calculation, considering its pricing implications. Moreover, in this case the number of replacement tires sold was calculated using forecasted number of circulating vehicles, which provides a more accurate estimation of their demand. All in all, Tires division is anticipated to enjoy a moderate expansion phase in the coming years, reaching a turnover of € 26.63 billion by 2040, at a CAGR of 3.68%. This is mostly sustained by the replacement business, whose growth in the period exceeds 3.80% CAGR and is foreseen to better grasp gains in the APAC region. In 2040, Asia and North America will account almost equally for roughly 52% of Tires sales, up from 39% in 2019. Afterwards, the segment is expected to reach steady state and enjoy a 3% long-term growth sustained by the absence of substitution risks by alternative products and implausible changes in consumers' bargaining power. Regarding the threat posed by new entrants, low-cost producers are likely to keep gaining ground, with affordability considerations remaining a decisive factor that overshadows appreciation for the technological complexity of these products. Even so, any loss in volumes sold caused by it is likely to be recovered through partnerships on

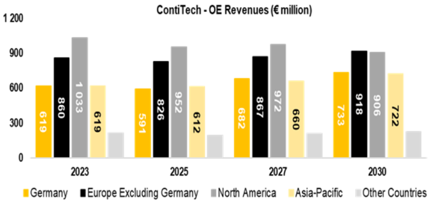
[6] Q3 2023 Interim Financial Report, Pirelli.

ContiTech OE Market Share	2022	2025	2030
Germany	21.3%	15.0%	12.3%
Europe excl Germany	16.0%	12.5%	9.0%
North America	17.3%	13.5%	9.8%
Asia-Pacific	20.8%	16.5%	11.9%
Other countries	13.8%	10.0%	7.5%

Source: Own Estimates

Content Value per Engine type	2022
Electric	265.0 €
Hybrid	215.0 €
Petrol	135.0 €

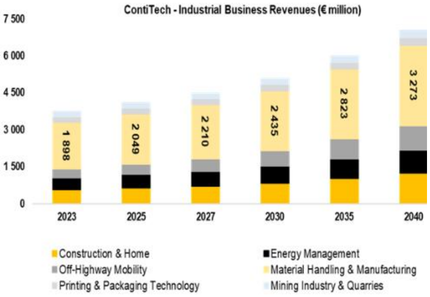
Source: Continental 2021 Fact Book



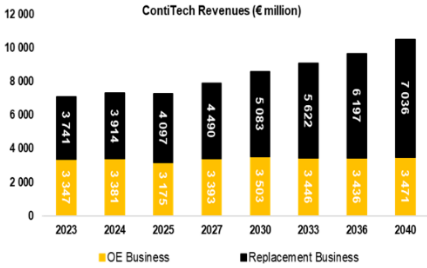
Source: Own Estimates

Markets Targeted	Share of Sales within ContiTech	CAGR
Construction & Home	8.0%	6.0%
Energy Management	7.0%	5.0%
Off-Highway Mobility	5.0%	9.0%
Material Handling & Manufacturing	27.0%	3.0 - 4.0%
Printing & Packaging Technology	3.0%	2.0%
Mining Industry & Quarries	3.0%	2.0%

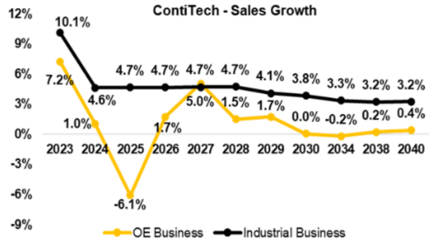
Source: Continental Capital Market Day; Own Estimates



Source: Own Estimates



Source: Own Estimates



Source: Own Estimates

digital tire monitoring solutions, which require advanced technologies unique to high-end manufacturers, such as Conti's.

- ContiTech Division – OE Business

Firstly, to reflect the spinoff of the OE business unit and given the uncertainty of how it will proceed, it was assumed that Conti's market share (Automotive share used in 2022) will decrease over the years, with a more significant drop in 2025. Even though it is slightly less tech focused, ContiTech is benefiting from the growing automotive electrification phenomenon, increasing the number and sophistication of the systems provided per car. As such, revenues were calculated according to the content value per engine type (grown with inflation) and respective forecast of vehicles manufactured. Overall, the OE unit is expected to present a mild growth (below 2% YoY) in the future and lose significant share to the replacement business, representing roughly 41% of ContiTech sales by 2030.

- ContiTech Division – Industrial/Replacement Business

Serving a vast number of industries, replacement business revenues were split into the main markets targeted by ContiTech, which are expected to display different CAGRs in the future. Material Handling & Manufacturing (conveyor belts and related services) was assumed to represent the highest share of sales due to its large variety and inner product value. Nevertheless, it is important to highlight that estimated growth rates for each unit are below the CAGR of the market itself, since Continental is expected to only slightly grasp the gains of the markets addressed. For example, while there are multiple companies solely focused on developing material handling solutions, this is estimated to represent less than 5% of the Group's sales, while the entire ContiTech Industrial business accounts for roughly 9%. A similar small market share is attributed to fluid handling solutions (part of Energy Management), despite the high role on ContiTech's business. In this case, the pharmaceutical and food chain industries are the ones displaying the biggest growth prospects but are lightly (or not even) targeted by Continental. Consequently, the Industrial unit is estimated to grow at 4.1% YoY until 2030, considerably below company's view, which projects a 7% CAGR. Moreover, steady state is expected to be reached by 2040, with ContiTech expanding at roughly 2.64% forever main competitors, mainly European and American, which receive faster from customers.

Capital Expenditures (CapEx)

In 2019, Continental started to carry out operations in Right-of-use (ROU) assets, causing a substantial rise of PP&E. In the following year, contrarily to what would be expected due to the adversities caused by the pandemic, PP&E increased considerably once again, which is explained by the annexation of Powertrain assets to the remaining divisions. Therefore, PP&E has been adjusted in the last couple of years, with a sharp decline in 2021 to achieve an almost stable level in 2022. In fact, it was assumed that the Automotive division has indeed reached a steady ratio of PP&E to revenues, which will just slightly fall as operations become more efficient. Regarding the Tires segment, PP&E is expected to present a slower growth and stabilize later since the sale of operations in Russia is still ongoing. This is also reflected in the declining workforce employed in this division, which is expected to decrease for the second consecutive year before the effects of rising demand is noticed in a growing number of personnel. As for ContiTech, PP&E as % of revenues will slightly decrease to stabilize on the low end of industry wide values, reflecting the ongoing restructuring in this division.

Since 2019, Conti intangible assets drop almost 25%, with Tires segment entailing a 60% loss. As mentioned before, Continental took a big hit from impairment charges in 2019, which also affected intangibles assets and enhanced the direct impact from poor market conditions and the consequent slow demand verified in the last years. Hence, intangibles are expected to further decline in 2023 to the latest (Q3) reported value by the company. In the years to follow, intangibles will very slowly adjust to historical average, with Automotive segment displaying a quicker recovery due to the smaller impact felt and larger brand potential.

Value Drivers

After presenting an exceptional 25% ROIC in 2017 and 2018, Automotive division efficiency quickly became ordinary, with returns dropping to less than 8% still in 2019. In the future, the operational margin will slowly recover as manufacturing costs and personnel expenses are adjusted, however, it is projected to stabilize at roughly 4.2% in the long run, slightly above half of pre-pandemic level. As a result, the Automotive division is expected to reach a 10.3% ROIC. This can indeed be perceived as a conservative projection, but it's important to underscore that the challenges ahead paint the 2016 scenario as a comparatively prosperous period. The remaining segments are expected to follow similar conservative recovery trends. Tires presents a higher operational margin (roughly 8.50%) mainly driven by a lower share of R&D and despite a bigger role of SG&A. However, assets turnover is intrinsically lower since Automotive operations will increasingly involve software development while Tires activities require a significantly higher share of PP&E. Overall, long-term ROIC is projected to be roughly 13.36%. Finally, ContiTech's steady state operational margin (3.80%) is expected to be close to pre-pandemic level since the cost structure will not suffer significant changes. Note however that, despite having the lowest individual salaries, ContiTech presents the lowest revenues per employee and, consequently, it is the division with the highest wages as % of sales. Nevertheless, assets turnover is expected to surpass historical values as the division becomes more technological oriented and focused on refurbishment services, which highlights a higher efficiency of invested capital management. As such, the division will reach a steady 8.73% ROIC in the long-term.

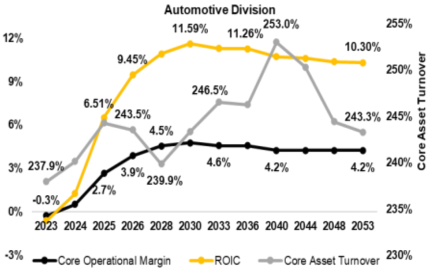
Cost of Capital

Due to a sharp increase in long-term indebtedness, Continental's gearing ratio has surged from merely 15.27% in 2018 to over 31% in 2022. At the same time, retained earnings have been falling, reducing equity values, and payout rate turned negative in 2019 and 2020. This trend is attributed to the intense investments carried out by the company to solidify its leadership role in the automotive industry, resorting to different sources of funding for that. No te also that short-term debt levels have risen in the last two years, despite the prevailing high-interest environment, as indicated in the latest quarterly report. Moving forward, Conti is targeting a 40% debt-to-equity ratio, translated into a 28.57% gearing ratio, above its historical capital structure but slightly decreasing from current values toward more sustainable levels.

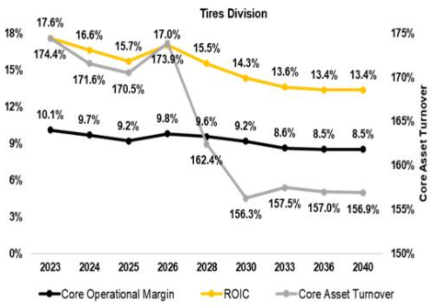
PP&E as % of Revenues	2022	2024	2027	2030
Automotive Division	28.4%	28.4%	27.2%	26.0%
Tires Division	33.6%	33.4%	35.6%	36.8%
ContiTech Division	22.1%	21.2%	20.8%	20.8%

Intangibles as % of Revenues	2022	2024	2027	2030
Automotive Division	3.7%	2.9%	3.4%	4.0%
Tires Division	0.3%	0.3%	0.6%	1.0%
ContiTech Division	3.9%	3.2%	3.4%	3.9%

Source: Continental Financial Reports; Own Estimates

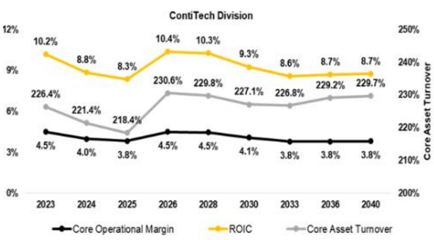


Source: Own Estimates

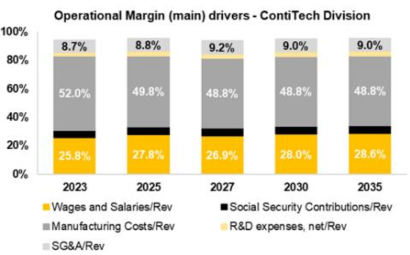


Source: Own Estimates

Source: Own Estimates



Source: Own Estimates



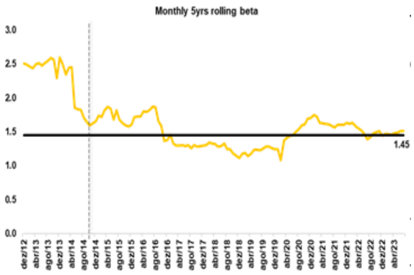
Source: Own Estimates

FY	Gearing ratio
2016	22.4%
2017	18.3%
2018	15.3%
2019	26.8%
2020	30.6%
2021	29.5%
2022	31.0%

Source: Continental Financial Reports; Own Estimates

- Cost of Debt

Due to the unavailability of meaningful long term outstanding bonds, the 10-year yield from Bloo mberg's European BBB Corporate Bonds curve was used instead, as per Continental's credit rating. Moreover, an annualized probability of default of 0.3% and a ten-year average loss given default rate of 41.01% were factored in the estimation, based on Moody's 2022 Global Default Study. Consequently, the implied cost of debt obtained was 4.18%, or 2.90% in after tax terms, considering Germany's 30.7% standard domestic tax duty (15% Corporate Tax, 14.8% Trade Tax and 5.50% Solidarity Surcharge).



Source: Bloomberg, Own Calculations

Automotive Division
1st tier Peers
MAGNA INTERNATIONAL INC
VALEO
APTIV
FORVIA
HYUNDAI MOBIS CO LTD
LEAR CORP
HL MANDO
2nd tier Peers
AISIN CORP
DENSO CORP
SCHAEFFLER AG - PREF
VISTEON

Tires Division
1st tier Peers
MICHELIN (CGDE)
GOODYEAR TIRE & RUBBER CO
BRIDGESTONE CORP
PIRELLI & C SPA
HANKOOK TIRE & TECHNOLOGY CO
2nd tier Peers
YOKOHAMA RUBBER CO LTD
TOYO TIRE CORP
SUMITOMO RUBBER INDUSTRIES

ContiTech Division
1st tier Peers
GATES INDUSTRIAL CORPORATION
TRELLEBORG
TI FLUID SYSTEMS
SUMITOMO RIKO
2nd tier Peers
PLASTIC OMNIUM
NOK CORPORATION
PARKER HANNIFIN
INTERROL GROUP

Contract Manufacturing Division
VITESCO

Regression-based WACC	
Equity Beta	1.44
Cost of Equity	12.2%
5-years Historical D/EV	25.7%
Unlevered Cost of Equity	10.1%
Unlevered Equity Beta	1.14
Beta debt	0.10
Target capital structure	40.00%
Target D/EV	28.57%
MRP	6.90%
Risk-free rate	2.29%
Cost of Debt	4.18%
Unlevered Cost of Equity	**10.15%**
Relevered Equity Beta	1.55
Cost of Equity (CAPM)	13.01%
WACC	**10.12%**

Source: Continental Financial Reports; Bloomberg

- Cost of Equity & WACC

To estimate Continental's cost of equity, a CAPM model was employed, adopting the perspective of a globally diversified marginal investor. Thus, the MSCI World Index (in EUR) was selected as the market portfolio, against which the company's historical monthly returns were regressed to assess Conti's levered and rolling betas. After organizing the peers per division and across different tiers, the respective equity betas and capital structures were used to calculate an unlevered beta for each segment. However, while rolling betas averaged roughly 1.45 and going no under than 1.08 in the last 8 years, only Automotive beta alone could get near to these values. Therefore, it was concluded that a regression-based beta represents best the systematic risk faced by Continental compared to aggregating or averaging the risks of each segment. Using betas from comparable companies would have been proved inaccurate since each peer is only focused on one of Conti's products (e.g. only tires, or only auto components) and not on the whole portfolio. For example, rubber companies typically exhibited lower return volatilities to the overall stock market, a trend which persisted even after adjusting for the tendency of tire competitors to be headquartered in Asia. Conversely, automotive suppliers tended to demonstrate higher correlation with economic activity, thus mirroring the market. Regarding the risk-free rate, a 2.29% yield of a 10-year German bond was assumed as a proxy. Furthermore, according to the range recently recommended by the German Institute of Public Auditors (IDW[7]), a 6.90% market risk premium (MRP) was singled out, which resembles the historical values applied by German companies and is in line with statements by Continental itself. In fact, in its most recent annual report, the company hints to a 7.50% MRP and a 10% WACC for its cost of capital determination. For this analysis, after unlevering and relevering the regression beta at historical and target gearing ratios, respectively, an equity beta of 1.55 was obtained. Taking all into consideration, a 13.01% cost of equity (Re) and 10.12% WACC were estimated. For comparison, note that each division's WACC ranged from 8.18% to 9.53%.

Discounted Cash-Flow Model

To complete the discounted cash-flow model, using a sum of parts (SOP) approach, the unlevered operating cash flows for each division were calculated until the respective steady states were reached (2040 for Tires and ContiTech). After discounting at the 10.12% WACC, the non-core value was added obtaining EV, and net debt was subtracted to reach an equity value of €20,658.4 as of December 31st 2024. Under the assumption of no changes in current shares outstanding numbers, this translated into a €103.29 share price.

[7] Source: Cost of Capital Study 2023, KPMG

Total Value of Operations	28 830.2
Non-core Value	(1 711.3)
Enterprise Value	27 118.9
Net Debt	(6 460.5)
Equity	20 658.4
# shares outstanding	200.01
Price per share	**103.29**

Source: Own Estimates

Relative valuation

To assess Continental's fair value relative to comparable companies, a multiples valuation was implemented. As for peers' selection, this was assumed to include the aforementioned closest competitors (Tier 1), as well as other less technologically advanced automotive suppliers and industrial manufacturers, which, at varying degrees, are also expected to benefit/risk from the same mobility megatrends (Tier 2). Therefore, to exclude outliers, Trailing Twelve Months (TTM) EV/Sales, EV/EBITDA, EV/EBITA and EV/EBIT were scattered for each peer as far back as 2016, conducting both a time-series and a cross-sectional analysis. Note that most deviations appeared in the aftermath of the Covid pandemic, especially in the automotive segment (e.g. Denso, Visteon). Hence, seeing 2023 still as a calibration year for the industry, it was decided to opt for forward and leading[8] versions of these same multiples as a basis for the relative valuation, maintaining a SOP perspective. At first, both implied similar price ranges, €71.6 - €103.6 and €81.3 - €105.9 respectively, depending on the chosen multiple. Sales multiples contributed to the highest values, driven by Conti's strong recovery in turnover, which is projected to surpass pre-Covid figures already in 2024. Conversely, as the company keeps struggling with supply chain disruptions and high raw material costs, ratios multiplied by next year's EBITDA and EBITA resulted in lower estimates, and only leading multiples based on 2025 operating results started yielding equally large enterprise values.

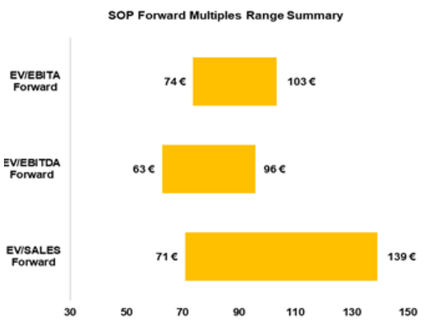
Median Multiples - SOP approach	EV/SALES Forward	EV/EBITDA Forward	EV/EBITA Forward
Automotive Division	0.41x	3.33x	7.04x
Tires Division	0.66x	4.43x	7.14x
ContiTech Division	1.09x	6.23x	9.11x
Contract Manufacturing	0.79x	6.78x	9.41x

Median Multiples - SOP approach	EV/SALES 2024	EV/EBITDA 2024	EV/EBITA 2024
Automotive Division	0.43x	4.31x	6.41x
Tires Division	0.74x	4.91x	7.40x
ContiTech Division	0.92x	5.45x	9.47x
Contract Manufacturing	0.28x	2.62x	9.51x

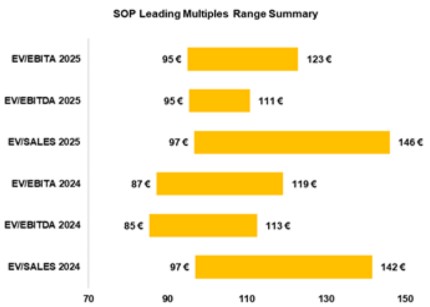
Median Multiples - SOP approach	EV/SALES 2025	EV/EBITDA 2025	EV/EBITA 2025
Automotive Division	0.41x	4.37x	5.26x
Tires Division	0.72x	4.81x	6.84x
ContiTech Division	0.88x	5.16x	8.35x
Contract Manufacturing	0.27x	2.30x	7.40x

Source: Bloomberg; Refinitiv; Own Estimates.

However, after being capitalized at the 10.12% WACC, leading metrics substantially increased, aligning more closely with the estimation derived from the DCF, at €93.4 to €120.5. Note also how, apart from ContiTech, including just Tier 1 companies in the analysis did not lead to significant changes. This is likely a consequence of the diverse nature of comparables identified for this division: industrial companies with a strong focus on automotive, but also players in the fluid power and handling businesses, which exhibited higher EBIT and EBITDA margins. In the end, a second evaluation at consolidated level was also performed, exclusively including all Tier 1 peers. Generally, multiples fell between the ranges observed for the Automotive and Tires division and, in aggregate, similar prices were returned (€77.1-€104.9). Nevertheless, sales contribution to high-end values was less marked (€83.2 forward, and €90.7/€89.2 leading), whereas ContiTech's above median EV over EBITDA/EBITA ratios raised implied prices. Revenues being the least subject to managerial manipulation, this led to the decision to disregard this approach. Instead, an average share price of €106.7 as of December 31st, 2024, was adopted, resulting from the use of leading Sales/EBITDA/EBITA multiples in the sum of the parts model.



Source: Own Estimates.



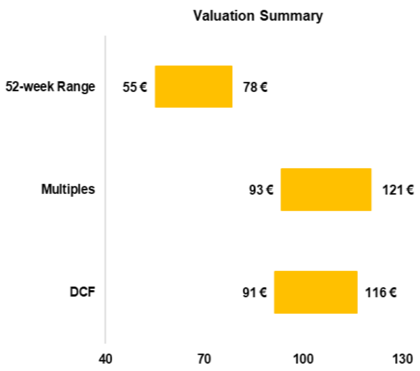
Source: Own Estimates.

Final Recommendation

According to the DCF valuation, a stock of Continental AG will be traded at €103.29, being this considered the most appropriate method to assess the company's fair value. Nevertheless, note that the share price obtained with the multiples approach is almost identical, reinforcing the validity of the DCF result. Hence, as of December 20th, 2023, a 35.87% price appreciation is expected, to which is summed a 1.19% dividend yield over the next year. All in all, a total 37.06% shareholder return entail a **buy** recommendation to investors. As a final remark, note that this valuation was considered conservative in light

[8] Trailing twelve months multiples are intended as the periodic EV over a line item (be it Sales/EBITDA/EBITA/EBIT) of the rolling past year. Leading multiples are defined as the ratio between the periodic EV and a line item referring to one year or more in the future. For this relative valuation both leading multiples over 2024 and 2025 figures were looked at and included in the price ranges recommended. As for forward multiples, both EV and any value at the denominator refer to 2024 and therefore capitalization to valuation date is not required for them. Marra et al., 2021.

of Conti's own projections and yet, the lowest range of the DCF model computed would still entail a buy recommendation to investors (over 20% shareholder return).



Source: Own Estimates, Bloomberg.

CONTINENTAL AG

COMPANY REPORT

AUTOMOTIVE

20 DECEMBER 2023

STUDENT: JOSÉ CARLOS R. BARROS 39578@novasbe.pt
STUDENT: ALEARDO CHITTO' 55739@novasbe.pt

An Equity Perspective on the Future of Mobility

Leading the technological shift in the Automotive Industry

- Continental has in the automotive industry its main market, benefiting from the growing electric mobility trend but being also impacted by the cooldown in vehicles production.

- Automotive division is expected to present a fast growth (5.26% YoY) in the next 30 years tied to the increasing number of electronic components and SW per vehicle, while Tires will intensify features monetization to solidify market share (TaaS).

- Asia-Pacific yields the highest market prospects, reinforcing Conti's expansion in the region which is estimated to account for over 25% of the Group's sales by 2030.

- Through the ContiTech division, Continental will reduce its procyclical exposure by enhancing the share of industrial solutions in its product range to achieve a stable 8.75% ROIC.

- While ridesharing is not expected to be a significant threat in the next decades, rising manufacturing costs pose a serious risk to company's efficiency, whose long-term operational margin (5.5%) will not surpass pre-pandemic level.

Company description

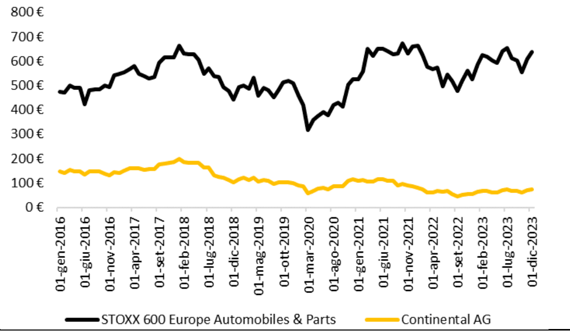
Continental is one of the world's largest automotive suppliers. While its origins lie in rubber products, the company has diversified its portfolio significantly, and most sales are now generated by the Automotive division. Besides developing cutting-edge technologies to support the mobility megatrends of the future, it is also a leading industrial solutions provider. On this date, Conti employs over 199,000 workers at 519 locations across 5 continents.

Recommendation:	**BUY**
Total Shareholder Return	*37.06 %*
Price Target FY24:	**103.29 €**
Dividend Yield	*1.19 %*
Price (as of 1-Feb-24)	**76.02 €**

Reuters: CONG Bloomberg: CON

52-week range (€)	55.14 - 78.26
Market Cap (€ bn)	15.20
Outstanding Shares (m)	200
Fiscal Year End-Date	December, 31st

Source: Bloomberg, Annual Reports

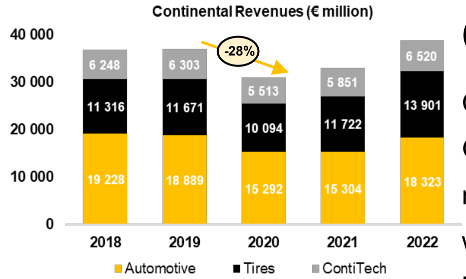


Source: Bloomberg

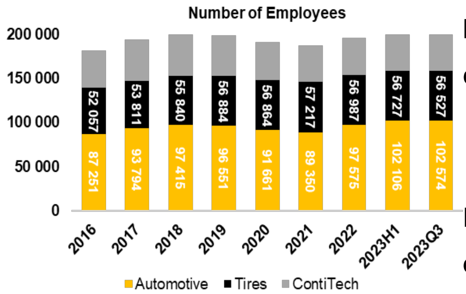
(Values in € millions)	FY22	FY23F	FY24F
Revenues	39,408	42,341	44,907
Revenues growth rate	16.71%	7.44%	6.06%
EBITDA	4,256	4,412	4,725
Core Result	2,241	2,342	3,248
Core Operational Margin	3.80%	4.09%	4.21%
EPS	0.33	4.25	4.78
Capex/Revenues	4.97%	6.62%	6.37%
Net Debt/EBITDA	1.40x	1.53x	1.37x
EV/EBITDA TTM	5.46x	5.97x	6.15x
ROIC	9.71%	5.81%	5.95%
ROE	5.81%	5.37%	4.21%

Source: Bloomberg; Continental Annual Reports; Own estimates

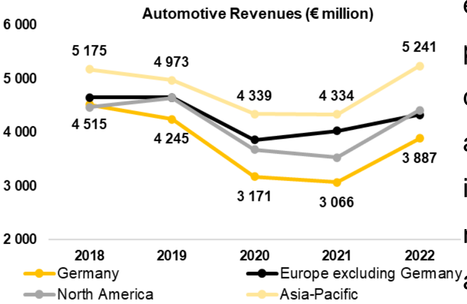
TABLE OF CONTENTS



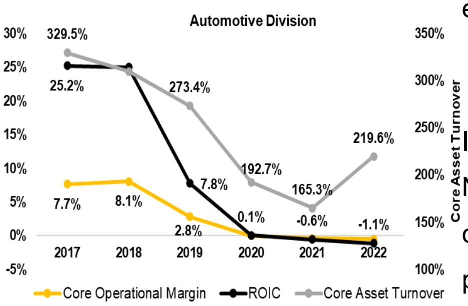
Source: Continental Financial Reports



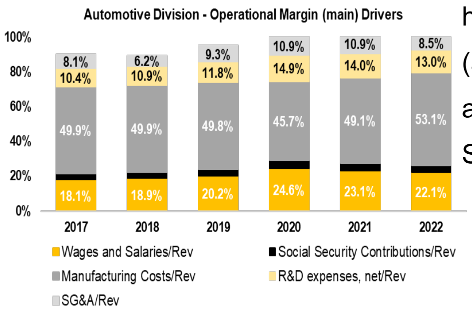
Source: Continental Financial Reports



Source: Continental Financial Reports



Source: Continental Financial Reports; Own Estimates



Source: Continental Financial Reports; Own Estimates

COMPANY OVERVIEW

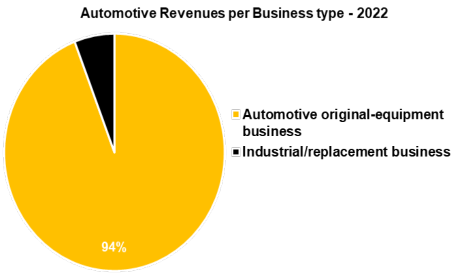
Continental AG (also known as Conti) was founded in 1871 in Hanover, Germany, where it is still headquartered. Initially established as a rubber manufacturer, Continental has always had transformation and change in its core, which turned it not only into one of the largest automotive suppliers but also a leading technology company worldwide. Besides its solid Tires division, Continental develops cutting-edge industrial solutions in the ContiTech segment and, since its creation in 1995, the Automotive division has been developing breakthrough technologies for the automotive industry. On this date, the company employs over 199,000 workers at 519 locations across 5 continents.

Automotive Division

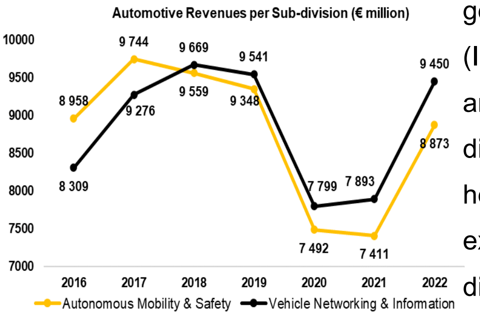
Even though Conti is more commonly recognized for its tires, the Automotive division is responsible for the highest share of sales (over 45%) and employs almost 50% of the company's workforce. However, its operational margin and ROIC have been declining since 2018, reaching negative values in 2021. This evolution was initially caused by a significant downward trend in vehicles production and enhanced by the unfavourable market and macroeconomic conditions triggered by the pandemic. Moreover, assets turnover declined as well and was roughly 67% of 2017's value last year, mainly driven by growing inventories. On the upside, it is important to highlight the growing share of APAC revenues, which was the only region able to surpass 2019 sales already. Note also that around 94% of Automotive revenues are generated through the sale of original equipment (OE), while the rest comes from the replacement business. Since no meaningful shifts are expected in the latter, its future revenues were estimated by assuming the same share of OE sales going forward.

▪ Business Units

In 2022, Continental merged the Autonomous Mobility & Safety and Vehicle Networking & Information divisions into a unified organizational structure constituted by 6 business units. Firstly, Autonomous Mobility (AM) unit is pioneering advanced automated driving (AD) solutions to shape the future of individual mobility with less mortality and more relaxing commutes to work. With more than 25 years of expertise in assisted and automated driving, Continental has been developing revolutionizing technologies such as the Cruising Chauffeur (advanced cruise control) and Valet Parking (driverless parking). Secondly, to achieve increased safety, comfort, and efficiency (the main goal of AD), the Safety & Motion (SAM) unit is responsible for the creation of active and passive



Source: Continental Financial Reports; Own Estimates



Source: Continental Financial Reports; Own Estimates

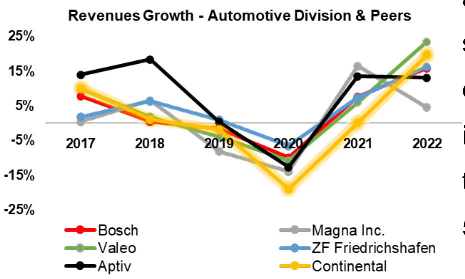
Autonomous Mobility (AM)
- High-tech cameras
- Lidar sensors
- Ultrasonic sensors
- Radars
- Control units

Architecture and Networking (AN)
- High-performance Computers (HPCs)
- Zone Control Units (ZCUs)
- Remote Keyless Entry (RKE)
- Start Stop button
- Power closures

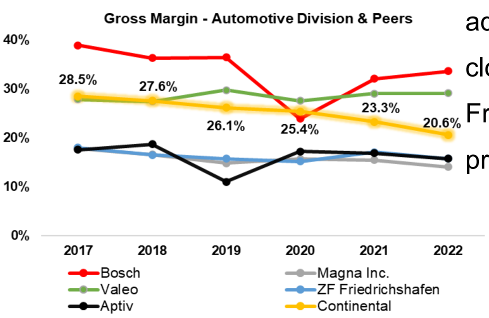
Safety and Motion (SAM)
- Advanced brake systems
- Chassis electronics
- Sensors
- Washer systems

User Experience (UX)
- Driver Identification display
- Head-Up display (HUD)
- Curved Ultrawide display
- Digital cluster

Smart Mobility (SMY)
- eHorizon technology
- Virtual key management
- Vehicle data services



Source: Continental & Peers Financial Reports



Source: Continental & Peers Financial Reports

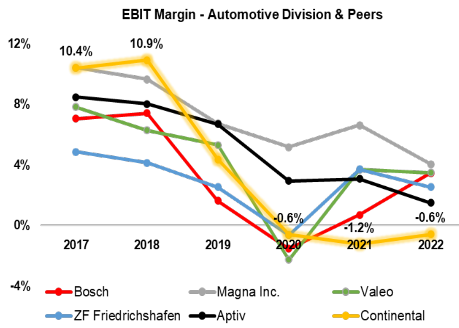
safety enhancing technologies such as Tread Depth Monitoring (TDM) and Intelligent Battery Sensors (IBS, to monitor core battery parameters). Thirdly, as the world moves in a path towards electric mobility, software is beginning to define hardware characteristics, and so the new centralized vehicle E/E (electrical and electronic) architecture paves the road for new system features. To make Continental a top-tier software-oriented mobility provider, the Architecture & Networking (AN) division develops HPCs and ZCUs to improve the performance and reduce the complexity of E/E architectures. This last-generation of computing power makes the vehicle part of the Internet of Things (IoT) and therefore connected to the cloud, enhancing data exchange handling and "over-the-air" updating capabilities. Consequently, the Smart Mobility (SMY) division is able to collect data for a better understanding of a vehicle's status, health and driving profile in order to monetize the findings. Lastly, enhanced user experience (UX) will be the differentiator in this market, through innovative display solutions that show all the important driving information to a driver without the need to look down at the instrument cluster. Hence, despite Automotive's apparent mathematical inefficiency, there is no doubt autonomous driving is a booming market and Continental is at the forefront.

- ## Business Reorganization

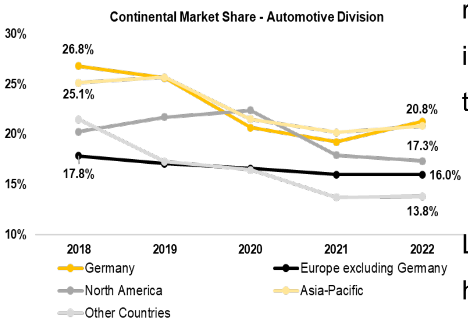
At the recent Capital Market Day, Nikolai Setzer (Conti's CEO) announced plans to carve out User Experience into an independent unit in the short term. This follows company's goal to focus on business areas with strong value growth, achieved by giving higher organizational independence to such units. Note however that, in the following years, the company will be assessing whether the best solution for User Experience is a spin off, due to the significant investment required by this unit and its hardware focus. On top of this, Continental announced that an administrative restructuring will be taking place until 2025 to strengthen the division's competitiveness while streamlining its business and easing annual costs by €400 million. To this end, Smart Mobility will be dissolved, involving roughly 5,500 job cuts. Nevertheless, this is expected to be simply translated into a partial offset of the ongoing growth in hirings, which surpassed 5,000 new employees in 2023 (according to Q3 report).

- ## Competitors

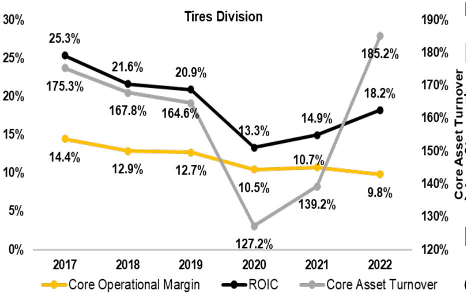
Even though there are countless manufacturers of auto parts, only a few are as advanced as Continental in the development of AD technologies and so the list of close competitors is small: Bosch, Magna International Inc., Valeo, ZF Friedrichshafen and Aptiv. Note that these companies develop a wide range of products therefore, only the divisions focused on the same products as Conti



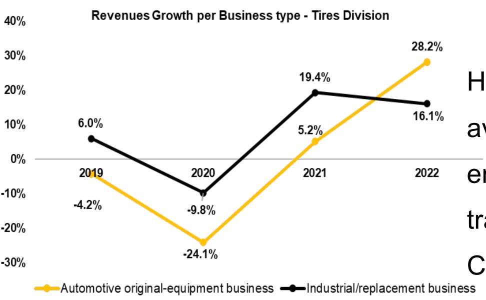
Source: Continental & Peers Financial Reports



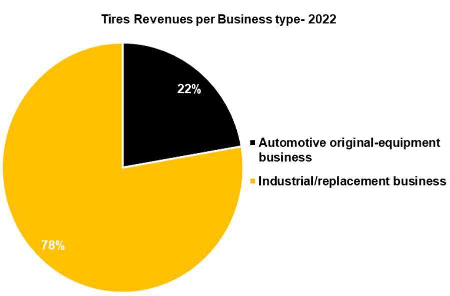
Source: Continental & Peers Financial Reports; Own



Source: Continental Financial Reports; Own Estimates



Source: Continental Financial Reports; Own Estimates



Source: Continental Financial Reports

were accounted for comparison. As for Continental, the 2018-2020 period was drastic to the entire industry, with sales decreasing YoY. The following years have been (still are) of recovery and, even though Conti gained ground in terms of revenues growth, its efficiency suffered a big hit and is at the bottom of the industry, with gross margin still down mainly due to supply chain shortages. Moreover, while revenues presented a similar evolution across geographies, Conti market share (based on revenues) declined in comparison to 2018. North America share was the most affected after the pandemic and is expected to recover only slightly in the next years, as the USA aim to reduce imports and reliance on foreign companies. Contrarily, APAC market share will certainly improve as Conti is focused on the opportunities emerging in this market and there are no local relevant competitors at this point.

Tires Division

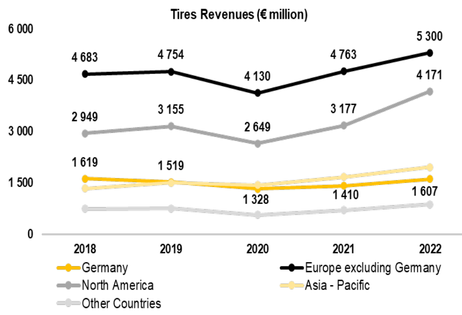
- Original Equipment
- Replacement APAC
- Replacement EMEA
- Replacement the Americas
- Specialty Tires

Tires Division

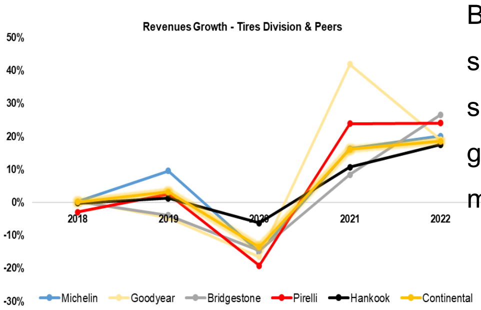
Leveraging its century-long expertise, the Tires division equips road and off-highway vehicles (farm, port, logistics and material handling use) with purpose made sets of pneumatics. In addition to its principal trademark, and to support its customer centric approach, Conti maintains a vast array of secondary brands, including Uniroyal (the inventor of the rain tire), Viking, Matador and Hooser Racing Tire. Besides, digital tire monitoring, hot and cold retreading for end-of-life tires, and management services for specialist dealers and fleet managers are also offered under the banner of Conti360°Solutions, following a reorganization in 2021. In this field, the company enjoys a clear competitive advantage granted by knowledge sharing on sensors and software technology from the Automotive division, which is reflected in its commitment to become the world's leading tire solutions provider by 2030 ("Vision 2030" plan).

▪ Business Performance

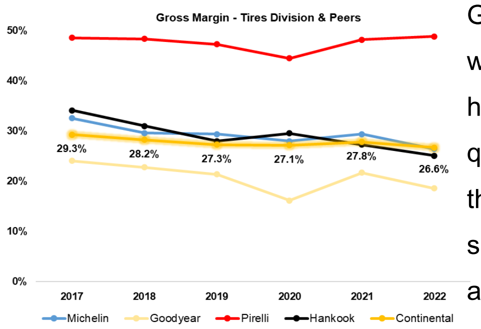
Historically, Tires have generated above 40% of the Group's EBIT, despite an average contribution to sales of around 30% and a 28% share of total employees. The division's remarkable operating profitability is underscored by its track record of achieving ROIC above 20%. In fact, it is often perceived as Continental's cash cow, generating profits for reinvestments in high-growth capital-intensive branches. Even in "tougher" years, such as 2020 and 2021, the declines in invested capital returns and operational margin were less pronounced compared to the Automotive segment, which is in great part due to the higher share of sales from the Replacement units (78% of the division turnover). These segments refurbish passenger cars, trucks, and commercial vehicles already in circulation, as opposed to selling directly to automotive manufacturers; and so, the headwinds in vehicles production had a smaller impact in revenues. Note that



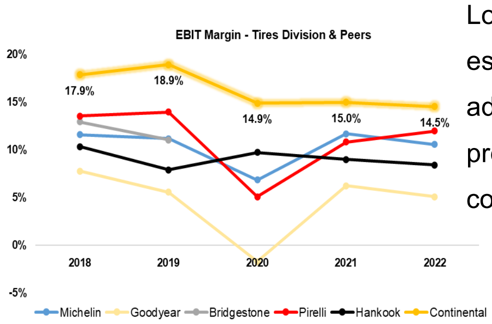
Source: Continental Financial Reports



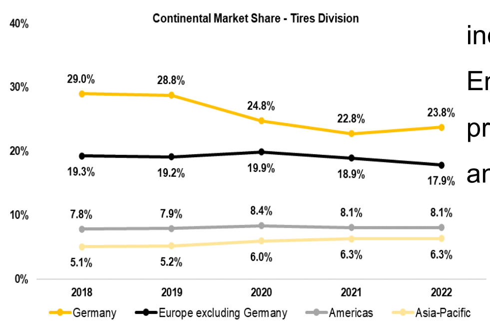
Source: Continental & Peers Financial Reports



Source: Continental & Peers Financial Reports



Source: Continental & Peers Financial Reports



Source: Continental & Peers Financial Reports; Own

ROIC was also sustained by a quick recovery in asset turnover, with customers payment terms reverting to pre pandemic levels already in 2021 and the average payable period on the rise, although this is not anticipated to continue in the future. On the matter of sales balance, Europe as a whole still generates most of Tires revenues, to which the German market, where the company holds a robust market share, gives a significant contribution (12.5% of the 2018-2022 total turnover, on average). To this day, the largest hurdle for Conti's international expansion has been the highly consolidated nature of the industry in Asia, with local players like Yokohama, Toyo Tires, Sumitomo Rubber, Hankook and Bridgestone sharing most of the available revenue pool. In response to this, substantial investments amounting €1.6 billion have been made since 2018 in supply chain set up (i.e. factories) in APAC/America, as the division aims for greater regional manufacturing responsiveness and solutions tailored to local markets.

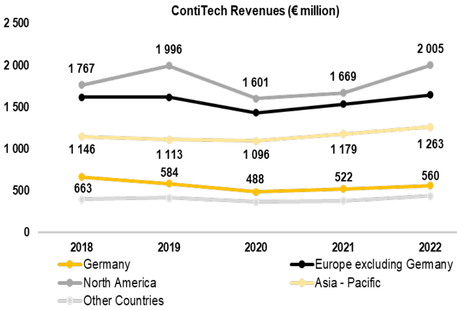
- Competitors

The technological sophistication and materials complexity reached by Continental's cutting-edge tires limits the list of close competitors to Michelin, Goodyear, Bridgestone, Pirelli, and Hankook, namely the largest manufacturers worldwide. In recent years, these companies' growth rates and cost margins have moved in synchronous, deteriorating immediately after the pandemic hit and quickly recovering ground within the following two years. It should be noted that the stabilizing effect of replacement tires held industry wide, as most tire makers share the same customer structure (e.g. Goodyear 78%, Michelin 75%). Note also how different gross margins converge to a narrow EBIT range when other operating expenses are included, suggesting that higher effectiveness in manufacturing costs handling alone does not guarantee industry leadership. Looking ahead, increased pressure on overall profitability is anticipated, as established manufacturers pursue a differentiating strategy relying on high value-added segments, like EV and Ultra-high performance tires (UHP), whose growth prospects are strong and where competition from cost-effective Asian competitors is lower.

ContiTech Division

Aiming to be a technological leader for material-driven solutions, ContiTech develops and manufactures future oriented products/solutions for diverse industries such as Automotive, Agriculture, Aerospace, Railway, Construction, Energy Management, Food Chain Processing and Material Handling. These products are generally made of rubber and plastic combined with metal or fabric and integrated with electronic components. The services provided in ContiTech's

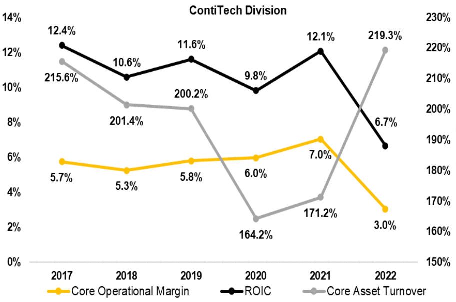
Industrial/replacement business are an exception within Continental as they are not focused on road vehicles. Besides being a world leader in manufacturing technical and decorative surface materials from plastic, the main bulk of Conti's services in this unit are related to conveyor belts installation, maintenance, and refurbishment, granting technological upgrades to such pieces of equipment. Hence, Continental sees in this segment the potential to expand its technological expertise to less tech heavy areas while diversifying its portfolio.



Source: Continental Financial Reports

Business Performance

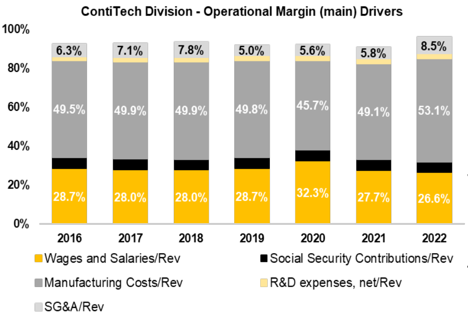
ContiTech division employs around 21% of Continental workers and accounts for almost 17% of the Groups' sales. Similarly to Tires, ContiTech also proved its resilience with a stable ROIC and growing operational margin before 2022. This is mainly due to the fact that only around 48% of its revenues are derived from the sale of automotive original equipment and that industrial production had a boom in 2021, as countries restarted production after the pandemic. Consequently, the Industrial/replacement business generates over 50% of the division revenues since 2020. Naturally, industrial production slowed down in 2022 and, even though 2019 sales level was overtaken, supply chain shortages negatively impacted ContiTech's operational margin and ROIC.



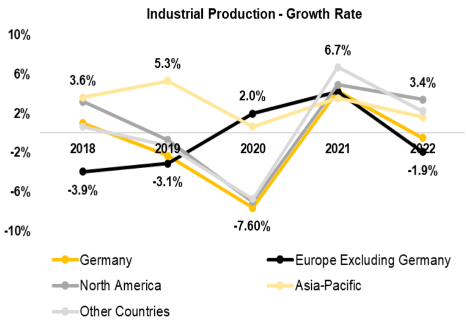
Source: Continental Financial Reports

Business Reorganization

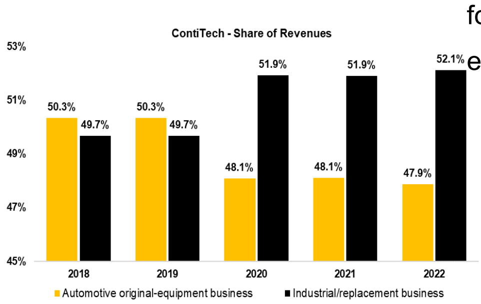
Despite its profitability, in order to solidify its brand and strengthen the pathway towards electric mobility, Continental has decided that the automotive unit (Original Equipment Solutions) currently bundled within ContiTech will become fully independent by 2025. Therefore, the Board will be analysing whether the best solution is the entry of a strategic investor, a joint venture, or the sale of this unit. This follows last May structural reorganization which segmented the ContiTech division into the current five business units. According to Philip Nelles, CEO of the ContiTech group sector, the rationale of this restructuring is seizing new growth opportunities within the industrial business, which grants broader revenue streams and longer product life cycles, while the automotive business is consolidated to create synergies. In fact, Conti's ambition is that the industrial units of ContiTech achieve a share of division sales of around 60% in the medium-term and 80% in the long-term. All in all, similarly to what occurred to the Powertrain division, Continental is on the verge of prioritizing specialization to focus on improving the efficiency of its industrial business while reducing exposure to the procyclical Automotive industry.



Source: Continental Financial Reports; Own Estimates



Source: Bloomberg



Source: Continental Financial Reports

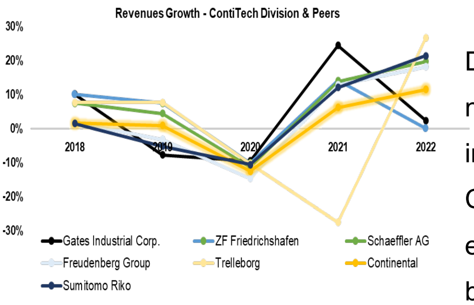
ContiTech Division

- Original Equipment Solutions (OESL)
- Surface Solutions
- Industrial Solutions Americas
- Industrial Solutions EMEA
- Industrial Solutions APAC

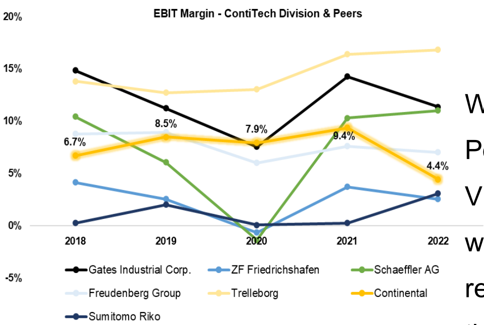
Source: Realignment ContiTech to increase customer and market proximity. (2023, February 2). Continental AG

Products & Solutions

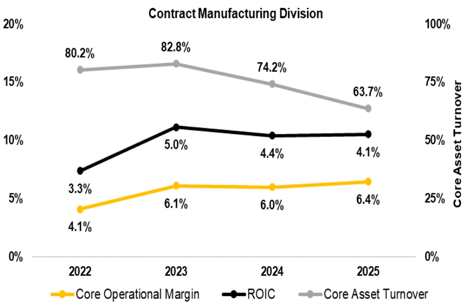
- Material Handling
  - Conveyor belts
- Fluid Handling
  - Industrial hoses
- Printing technology & rollers
- Sealing Systems
- Compounds & sheetings
- Surface materials
- Suspension & Anti-vibration



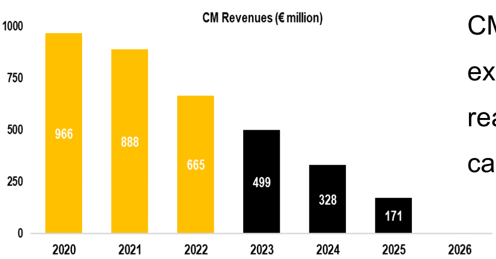
Source: Continental & Peers Financial Reports



Source: Continental & Peers Financial Reports



Source: Continental Financial Reports



Source: Continental Financial Reports; Own Estimates

- Competitors

Due to the wide range of products and services provided within ContiTech, it is nearly impossible to find actual comparable companies. Therefore, a set of industrial focused peers was gathered to cover the main industries targeted by Continental. Even though the market reaction is alike, with similar sales evolution, the diversity of structures creates a large variation in EBIT margin between companies. Nevertheless, it is clear the efficiency of ContiTech business reflected by its stable margins (except in 2022).

Powertrain & Contract Manufacturing

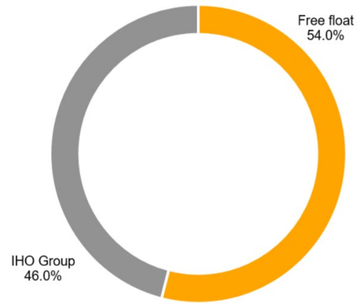
With more than €7.0 billion in revenues and employing over 40,000 people, Powertrain division ceased to exist in 2020 and gave place to a new company, Vitesco Technologies. The spin-off had been announced in April 2019 in what was Continental's first move to realign the Group's operations, centralizing resources in the development of breakthrough automotive technologies. Also, this gives Vitesco greater flexibility than Powertrain could have to quickly react to a market that is rapidly changing, as exhaust emission regulations imposed by governments become more stringent. Moreover, Conti had lost significant ground to Asian competitors which are more advanced in the development of powertrains for EVs (comprise fewer components).

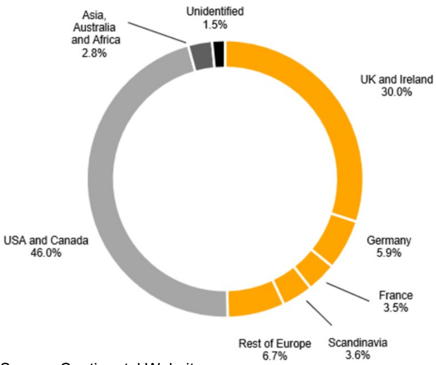
Nevertheless, after its closure, Continental started a new temporary division, Contract Manufacturing (CM), to carry out the continuing operations of the former Powertrain Technologies. As part of the spin-off, industrial sites were either transferred to Vitesco Technologies or retained by Continental AG. Hence, the two companies entered a contract manufacturing arrangement "to ensure a time-efficient and cost-optimized exit of formerly shared production plants"[1]. According to Vitesco, the phase-out of CM will be substantially complete by 2025 and the relevant agreements terminated or replaced by new ones. On Continental's side, CM revenues have been steadily decreasing as the volume of operations is expected to continue falling in the next years, until complete phase-out is reached. Therefore, it was forecasted that revenues, expenses and invested capital in the CM division will consistently fall towards 0 in 2026.

Ownership Structure

Continental AG (Bloomberg ticker: CON) is traded on the German stock exchanges of Frankfurt, Hamburg, Hanover and Stuttgart, and is part of the DAX,

[1] Vitesco Annual Reports



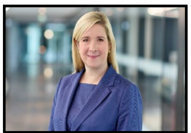


Source: Continental Website

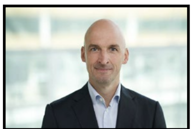
Prime Automobile and Prime All Share indexes, among others. As of December 2023, Continental has a market capitalization of €15.20 billion and 200,005,983 shares outstanding. Of these, 46% are held by the IHO Group (indirectly owned by the Schaeffler family), which holds also 100% of the voting rights in Schaeffler AG and approximately 49.9% of Vitesco shares. Regarding the 54% share of public investors, it is noticeable that German and other European investors represent only a minority, while North American and British investors are a majority. Since the latter are recognized by a stronger participation in financial markets, this is perceived as a positive signal of Conti's value and potential to attract significant demand in Europe, when and if its performance becomes notorious. Finally, the most recent change in the shareholder structure occurred in September 2013, when the IHO Group abandoned the idea of a full merger between Conti and Schaeffler AG, announcing the sale of 7.8 million shares to reduce its shareholding in Continental AG to 46.0%. This happened after a turmoil period between the two competitors triggered by a fierce takeover battle in which Schaeffler AG acquired a 49.9% share of Continental (nearly 90% indirectly) in mid-2008 using low market transparency tactics.

Board of Directors


Nikolai Setzer


Katja Dürrfeld


Philipp von Hirschheydt


Christian Kötz


Philip Nelles


Dr. Ariane Reinhart

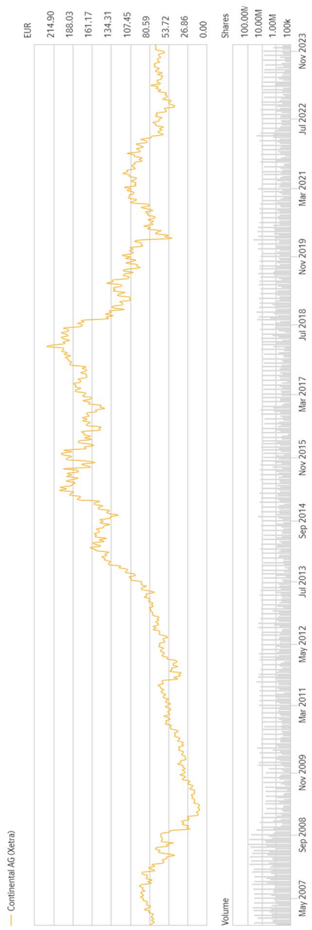

Olaf Schick

Source: Continental Website

In April 2023, the Supervisory Board of Continental AG extended the appointment of CEO and chairman of the Executive Board Nikolai Setzer for five more years, until 2029. In charge as CEO since 2020, Nikolai Setzer joined the company in 1997 and held important roles in the last decade while the firm crossed times of great market change and structural reshaping. This extension is a clear sign that the ongoing reorganization plan will continue in the long term for the company to achieve a leading position in the electric mobility industry. Another proof that the ambition and expertise of the company will be maintained was the appointment of Philipp von Hirschheydt to the Executive Board as Head of the Automotive division, after performing several roles in the firm since 2007. Regarding the remaining members, Katja Dürrfeld, Christian Kötz and Philip Nelles have carried out many functions at Continental for more than 20 years, while Dr. Ariane Reinhart joined almost 10 years ago. Finally, even though Olaf Schick only joined the company last May, he grants full expertise after 19 years at Daimler AG, performing duties as CFO of different subsidiaries of the Group.

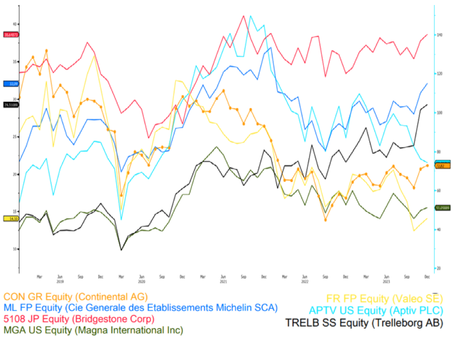
Stock Performance

Following the unforgettable 2008 stock market crash, Continental shares price plummeted to merely €12.18 in the beginning of 2009 from a peak of over €104.00 per share in July 2007. After touching the bottom, shares followed an



Source: Continental Website

upward trajectory to reach an all-time high of €224.71 in January 2018. The turning point came in late 2013 with a full recovery of the automotive industry and a surge of assisted and automated driving, as well as electric mobility. Indeed, even though revenues were mainly sustained by the mature Tires division, Continental was already regarded as a top and highly promising player in the arising market for technological auto parts. Right after peaking in 2018, Conti's share price took a downward trend declining to as low as €44.77 in September 2022. This evolution reflected some major negative events affecting the company and the industry. For example, a shortage in the supply of natural rubber caused by floods in Asia affected the Tires division and soared the alarms to find a replacement for this key raw material. The remaining divisions, as well as Continental's main rivals (Valeo, Michelin, Pirelli, etc), were similarly affected by rising material costs and the beginning of a sharp decline in vehicles demand. In 2019, Continental was also particularly affected by impairment charges worth approximately €2.5 billion after writing down more than 100 acquisitions made over the previous 30 years, whose book value was recalculated based on the gloomy outlook for the automotive industry[2]. To worsen the already poor projections, Covid-19 hit the global economy. Even though the biggest impact in sales had been felt in 2020 (28.36% drop), Conti bearish stock performance has been exacerbated since late-2021 due to the global semiconductors' shortage and weak macroeconomic environment. Since falling below €100.00 in November 2021, share price was never able to recover to the same mark, averaging roughly €70.00 in the last 25 months. Reflecting this downward trend, dividends per share and the payout ratio declined in the last years. However, the Board recently announced a 30 to 40% payout target in the coming years.



Note: Share price evolution since March 2019

Source: Bloomberg

Macroeconomic & Geopolitical Context

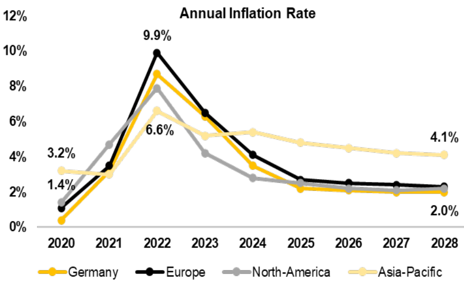
The last couple of years will be forever remembered because of the Covid-19 pandemic, a life-changing event that hit every country without notice and led economic activity into a sudden halt. However, the worst scenario for economies came when people started to resume their lives. While demand for goods and services quickly soared, industrial production was rather slow to restart, bringing supply chain shortages and the highest inflation level since last century to the forefront. Due to the crisis unparallel nature, Central Banks (CBs) were forced to intervene and raised interest rates unprecedently, with the FED funds rate reaching a 22-year high last November in an attempt to tame inflation. The direct consequence of these rate jumps was an increase in borrowing costs, leading

[2] Global car slowdown hits German industrial groups. (n.d.). Financial Times. https://www.ft.com/content/331a363a-0551-11ea-a984-fbbacad9e7dd

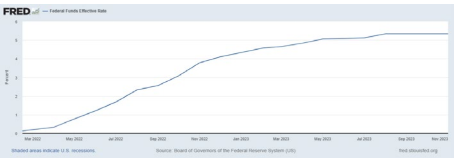
companies to avoid debt financing and likely postpone investments. Also, such uncertainty caused low consumer confidence and, consequently, a drop in consumers spending, especially non-essential goods such as the ones marketed by Continental. However, it is important to note that Conti revenues still increased in 2022 and will improve further in 2023 (evidence from Q3 report). Even though most CBs have stabilized interest rates, these are expected to remain on the high for the months to come. Particularly in Europe, inflation showed signs of deceleration last month but, as many economists believe this wave of inflation will persist, CBs are being cautious before lowering rates, knowing that taking too long to react will also have adverse effects. Therefore, due to the complexity of controlling inflation, the next years will continue to be haunted by fears of recession and adaption to this new reality.

Geopolitical Overview

To make matters worse, the world is also going through the most boiling geopolitical context in decades. Besides the long-lasting conflicts in the Middle East and coups in Africa, the war in Ukraine broke out after Russia's invasion in 2022 marked the closest conflict to European Union (and NATO) borders in decades. On one hand, this situation dragged the attention of several countries which aid Ukraine with significant financial and military (equipment) support, deviating leaders focus from internal affairs. Not long ago, for example, the USA were pointing to resolve conflicts in the Middle East and fell asleep during China's uprisal to become the second largest economy in the world. On the other hand, Ukraine-Russia war caused another wave of supply chain disruptions affecting products exported from these countries, such as wheat, oil, and fertilizers. This exacerbated inflationary pressures on societies and, being Russia the third largest energy exporter worldwide, it created an energy crisis, particularly in Europe. The subsidy schemes put in place last winter involved immense funding from governments and might raise conflicting objectives (ending with people spending more energy). Therefore, Europe might face troubles again to survive its first winter without Russian gas since it still lacks enough storage capacity (full capacity covers less than half of winter consumption) and suitable alternatives. These developments certainly concern Continental since against the backdrop of rising energy prices, many people are concerned that they will no longer be able to afford personal mobility (decreasing demand for vehicles). Furthermore, last October the conflict between Israel and Palestine erupted to the deadliest level since early 2000's, after Hamas attacked Israeli soil. This event is followed with attention since the Middle East is the largest oil supplier in the world. As of now, there is no extraordinary impact on oil

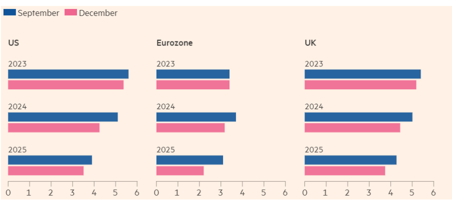


Source: IMF



Note: FED funds rate since March 2022

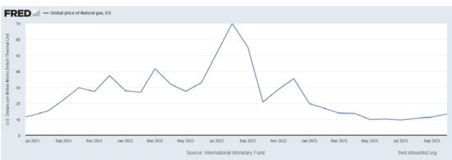
Source: Federal Reserve Economic Data



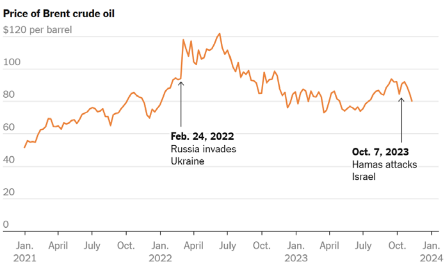
Market expectation of policy rate (%)

Note: Investors are now more optimistic regarding interest rate cuts than in September

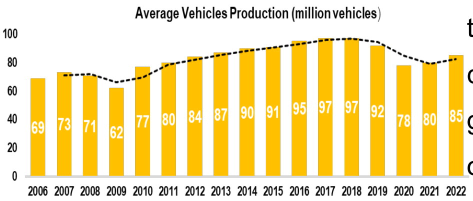
Source: Financial Times, Atlanta Fed, ECB, BoE, ICE US (December 12, 2023)



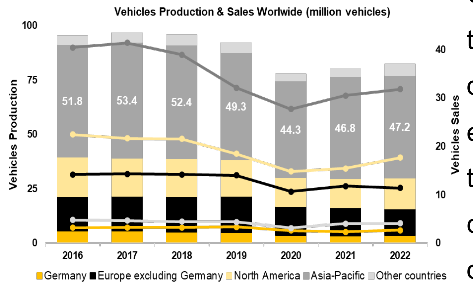
Note: Global price of Natural gas, EU, since July 2021



Source: Reed, S. (2023, November 13). Why are oil prices falling while war rages in the Middle East? The New York Times

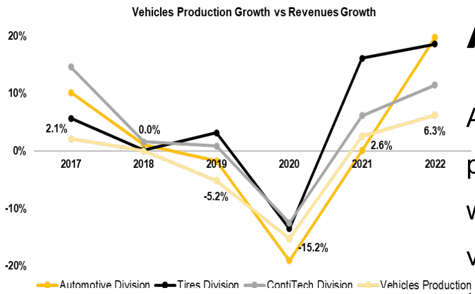


Source: Statista

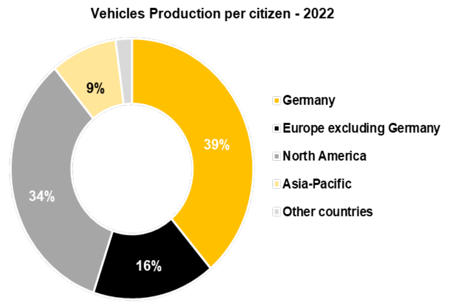


Note: Columns represent vehicles production

Source: Statista

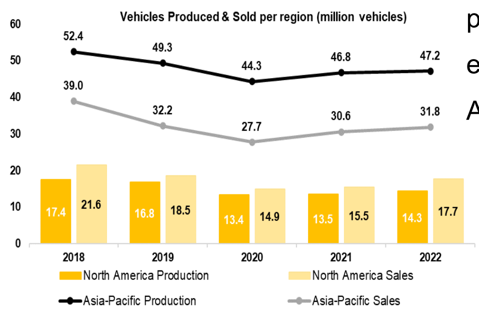


Source: Continental Financial Reports; Statista



Note: Number of vehicles manufactured divided by population density

Source: Statista; United Nations

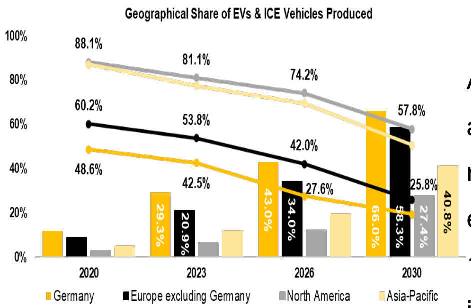


Source: Statista

price, but this can quickly change if neighbouring countries (mainly Iran) escalate the conflict, with the barrel price potentially soaring to over $150 in the worst-case scenario. Overall, this negative overview is derived from the downside of globalisation, which makes countries in different spheres of the world dependent on each other. To soften this reality, supply chain networks are expected to adopt measures such as on-shoring or near-shoring production and logistics management to increase resilience (sales in the same region of production). Continental is also expected to adopt these strategies to reduce its vulnerability to price and quantity fluctuations of several components and ensure timely delivery of raw materials. In fact, concerns about interdependence were prevalent even before the pandemic, with countries like the United States establishing tariffs on imports from China already in 2018 (Trump administration). Similarly, countries are becoming more aware of the importance of internal production for own consumption, especially in Asia. Thus, considering its expansion ambition in Asia-Pacific, Continental has announced that more R&D locations will be opened in the region to strengthen its affinity among consumers.

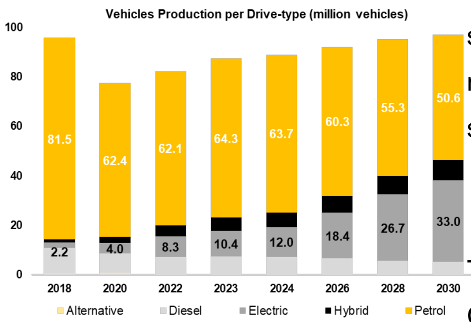
Automotive Industry

After many years of steep growth in vehicles' production (passenger cars used as proxy), the peak was reached in 2017 with almost 97 million vehicles produced worldwide in a single year. It followed a quick decline to roughly 78 million vehicles manufactured in 2020 before an upward trend restarted, being expected to reach 2017 production levels no sooner than 2029. As highlighted before, the cooldown of the automotive industry was the main responsible for the mild growth of the Group's turnover in 2018 and 2019 and, coupled with Covid-19 effects, it led to an even bigger drop in 2020 sales. Geographically, Asia-Pacific is the region with the highest production and sales of vehicles (followed by far by North America and Europe), to which China gives a major contribution with over 32% of global production in 2022. However, if the population density of each region is accounted for, production and sales in Asia-Pacific fall tremendously shorter than North America and Europe. Moreover, while sales in North America are "slightly" higher than automobiles' production, Asia-Pacific sales represent roughly 65% of the production in the region. Hence, this market saturation in western countries helps explaining the softened demand for vehicles verified since 2018, while pointing out the potential growth in the APAC market. Thus, it is no surprise that expanding into this region is Conti's main goal, which occupies first place in Automotive division sales already.

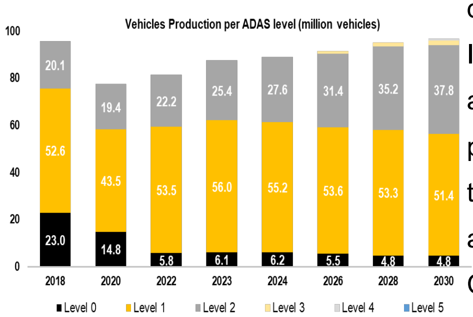


Note: Columns represent EVs

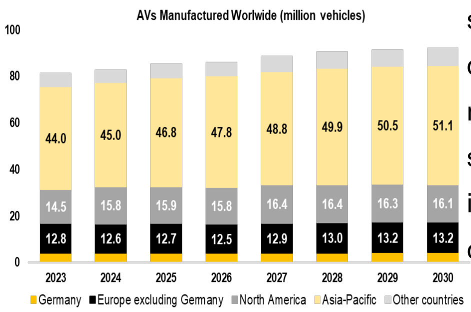
Source: Statista; Own Estimates



Source: Statista; Own Estimates



Source: Statista; Own Estimates



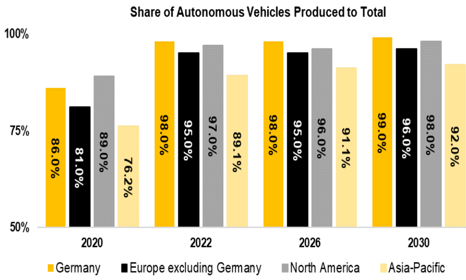
Source: Statista; Own Estimates

Electric Vehicles

Another reason for the low demand in the industry is its own technological advancement, driven by sustainability and changing consumer behaviour. The rapid evolution of the industry is clearly reflected in the market penetration of electric vehicles (EVs), whose share of annual vehicles sold rose from less than 1% to over 10% within the last decade. This shift is expected to be strengthened in the coming years as governments become more aware of the urge to reduce pollution. Even though similar concerns are shared across the world, governments aid through subsidies and incentive schemes were not yet enough to make the price for EVs more affordable and so targets are for now falling short. In the next years, internal-combustion engine (ICE) vehicles will still represent the majority of vehicles produced, even though EVs are prone to a sustained growth YoY, especially in Europe.

Autonomous Vehicles

The second major development in the Automotive Industry and to which Continental is strongly linked is vehicles automation, defined by 5 SAE levels. Although it is very unlikely that fully autonomous vehicles in which human beings have no driving interference (level 5 vehicles) will be seen casually driving around any time soon, vehicles with assisted driving are already common these days and are expected to reach a 95% share of annual cars produced by 2028. In fact, vehicles with no automation (level 0) are being phased out and represent a minority of vehicles produced. Geographically, even though Asia-Pacific presents a lower (but fastest growing) share of AVs manufactured, it will still hold the highest amount of vehicles produced worldwide. Level 1 vehicles introduce assistance driving systems such as Lane keeping Assist (LKA) or Adaptive Cruise Control (ACC) and represent most vehicles manufactured this decade (over 65% share in 2022). In Level 2, LKA and ACC are combined into one system able to control the longitudinal and lateral dynamics of the vehicle at the same time. While vehicles of these 2 levels are already frequent, level 3 technology is expected to reach the market very slowly by 2025 and to mark a significant leap in the industry, as it brings conditional automation and allows drivers to occasionally take their eyes off the road. Likewise, level 4 vehicles are not expected to have a significant share in the passenger cars market any time soon. However, robotaxis designed by Cruise and Waymo are already circulating in San Francisco since last summer, while last-stage trials are occurring in other cities in the United States and China. If successful, robotaxis are likely to spread

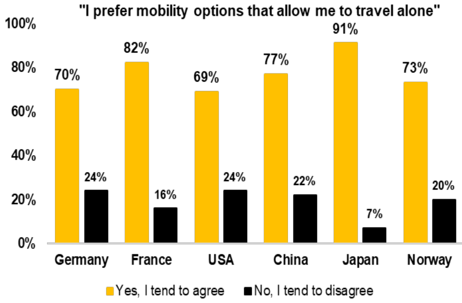


Source: Statista; Own Estimates

to other countries in the following years and contribute to a new revenue stream to Continental.

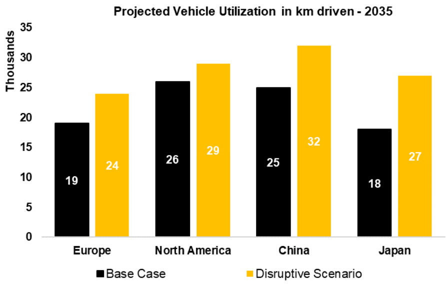
In the medium to long-term, the market penetration of autonomous vehicles above level 1 will also benefit from the intensification of EVs commercialization. Obviously, EVs' electric systems provide an easier integration of autonomous features compared to ICE cars and, since EVs have fewer moving pieces, it is also simpler to control its components. Moreover, both technologies are considered to still be at early development stages thus, there is a large potential to reinforce and accelerate one another.

Ridesharing

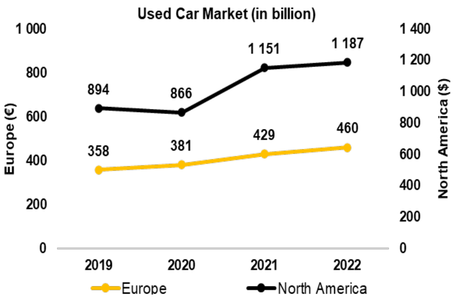


Source: Continental 2022 Mobility Report

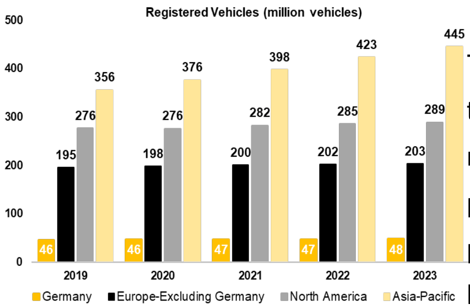
Continental should also be aware of a new trend in the industry: Ridesharing. Driven by EVs' low operating costs and rising awareness of the need to reduce pollution, a growing number of people will avoid owning a car. Ride-hailing (one is not really sharing a ride or reducing traffic congestion) with companies like Uber, Lyft, etc or shared micro mobility (electric bicycles or scooters) have been the most popular solutions, but OEMs are developing alternatives such as subscription-based vehicles. Besides finding a new revenue stream, OEMs can attract customers who are completely new to the brand by giving them the right to use a vehicle in exchange for a recurring fee. By now, this business model has only been implemented by a small number of brands (Porsche, Cadillac, BMW, etc) in a few cities, but the greater the level of automatization the faster will be the growth of ridesharing. In the long run, the best fit for ridesharing are robotaxis, which will autonomously drive around a city picking up people. Nevertheless, while the ridesharing trend will benefit from Continental technologies, it is not certain whether Conti will gain from this advancement. In part, replacement businesses such as tire sales benefit from an increased utilization rate per vehicle, since more kilometres will be driven by registered cars, implying a higher frequency for tires substitution. However, this upside is completely offset by the direct consequence of shared mobility: reduced automotive sales, which, as it was already shown, negatively impacts all segments turnover. Even though this trend poses a risk to the company, it is important to note that ridesharing is not expected to gain significant market share in the next two decades (or even more), as it requires a big change of consumers' behaviour, and it is simply not feasible in rural areas and certain locations of the world.



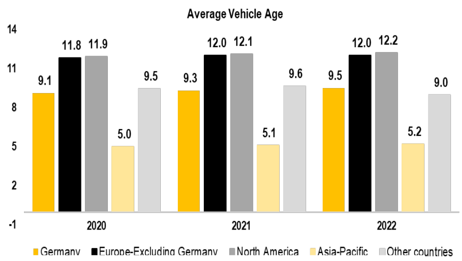
Source: Deloitte Future of Automotive Sales and Aftersales. Impact of current industry trends on OEM revenues and profits until 2035.



Source: Bain & Company, Outlook for the European Used Car Market, Statista



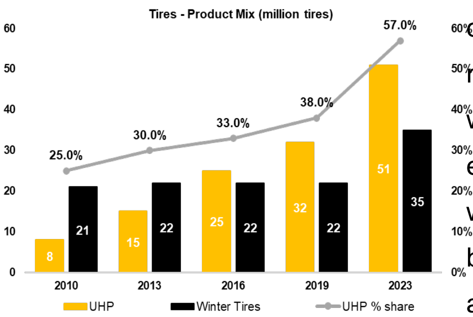
Source: CEIC, Global Economic Data, Indicators, Charts & Forecasts; Statista; Deutsche Bank.



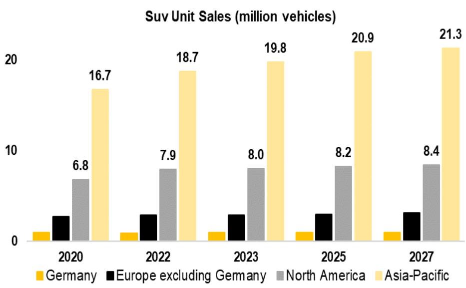
Source: Boston Consulting Group, At the Crossroads: The European Aftermarket in 2030; S&P Global Mobility

Prices by rim size for Summer and All seasons replacement tires	<17"inches	>18" inches
Germany	91.2 €	148.7 €
Europe-Excluding Germany	46.9 €	133.5 €
North America	111.7 €	168.4 €
Asia-Pacific	47.7 €	89.8 €
Other countries	93.7 €	155.6 €

Source:Own Estimates; Reifendirekt for Germany, Allopneus for Europe, ATD's Tirebuyer.com for North America, Tirenavi and Cantustore for Asia and South America (Other Countries), respectively. Later to be used also for forecasting purposes.



Source: Continental Annual Fact Books



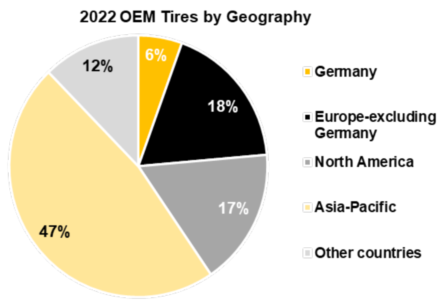
Source: Statista

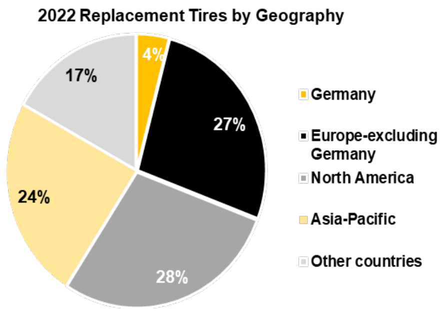
Replacement Business

The development of automotive replacement businesses (78% of Continental's tire business by customer split) will be impacted by sales and aftersales marketplaces maturities, which are mainly captured by average vehicle age and parc size growth rates (i.e. yearly variation in the number of registered/circulating passenger cars and commercial vehicles). For replacement sales purposes, larger car parc sizes are translated into bigger revenue pools, as more and more automobiles may need to be refurbished, including with winter tyres, which are often sold at higher prices. Emerging countries in the APAC region clearly stand out with skyrocketing increases in car ownership, though most of the growth is attributable to China (YoY increases in the 8-12% range from 2016 to 2022). In comparison, South Korea followed as a faraway runner-up growing stably around 2.6% per year, whereas European, North, and South American total in use vehicles increased on average 1% during the same period. The remaining expansion in global registered vehicles stems from the ageing of cars in circulation. In Western Europe, for example, the share of vehicles older than eight years (known as segment 3 vehicles) jumped from 50% in 2011 to 65% in 2019, and it is projected to reach 75% by 2030. Similarly, volumes of cars aged 6-14 in America will grow by another 10 million units by 2028, enlarging the regional aftermarket target range. Even in Asia – where passenger cars (PC) and light commercial vehicles (LCV) are half the age of their Western counterparts – used cars are being substituted less often, implying that more auto parts, like tire sets, will be required per vehicle over its lifetime. This tendency is driven by the fact that automobiles' prices have and are expected to continue rising, while families have less disposable income for non-priority goods, especially in the current years of economic downturn. Governmental interventions penalizing older motorcars, such as impossibility of circulation in the city centre or on specific weekdays and subsidies granted to incentivize vehicle substitution are not expected to revert the direction in the short term. All in all, car parc sizes worldwide are not expected to recess in the future and even a deceleration will be mild (no significant change in mobility habits), yielding positive prospects to auto parts replacement businesses.

Tires Industry

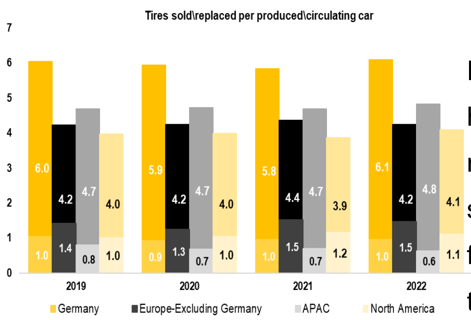
It is important to understand that for most pneumatics more than one size is available, depending on rim, height, width, and vehicle speed. Generally, the higher the rubber content the higher the price companies can charge, with production costs rising less than proportionally (economies of scale), which





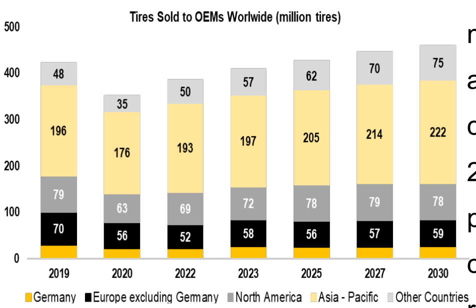
Source: Michelin Annual Reports

explains why Continental's product mix has gradually started trending in favour of >18" inches wheels. In fact, since 2010, Ultra-performance tires (UHP i.e. above 18" inches) have showcased an average 3.9% growth vs 1.6% for narrow tires, and this pattern is expected to persist. The underlying driver of this development is the growing popularity of SUVs, which are equipped with oversized braking disks and require higher tires for aesthetic concerns, helping suppliers in their premiumisation strategy by democratizing larger tires. Moreover, a strategy built on this price differential is broadly applicable across geographies and customers, which helps overcoming the diverse nature of the industry. Asia-Pacific, despite being the region with the highest shares of both circulating and produced vehicles, and consequently of tires sold/replaced, presents the lowest ratio of tires replaced/sold per circulating/manufactured vehicle. Also, while APAC accounts for almost half of global OEM tires sold, it represents only 24% of replacement units. This proportion completely differs from Europe and America's, which present a larger replacement business, resulting in higher replaced tires per circulating car, usually at least 1 per year.



Note: Bottom columns represent tires replaced per circulating vehicle. Upper columns correspond to tires sold per vehicles manufactured.

Source: Michelin Annual Reports, European Tyre & Rubber Manufacturers Association (ETRMA)



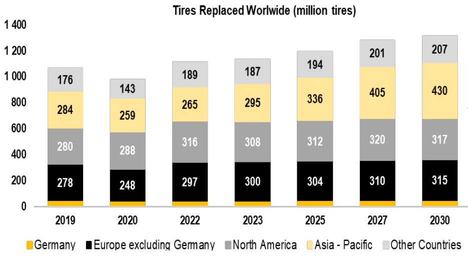
Note: Forecasts based on vehicles production and tires sold per vehicle.

Source: OICA, Michelin Annual Reports, Own Estimates

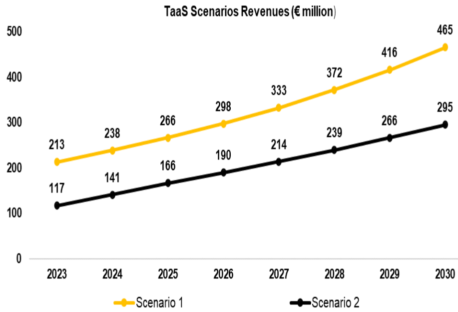
Innovative Tires

In response to governments' pressure for improved sustainability, tire makers have increasingly directed R&D efforts and production towards low rolling resistance pneumatics (i.e. the force resisting the motion when a tyre rolls on a surface). Indeed, given the high contribution of wheels to the average vehicle's fuel consumption (30% when properly inflated), it is estimated that low-friction tires can lower CO_2 emissions by 2g per km (6% of the 95g/km saving demanded by the EU by 2025)[3]. As alternative drivetrains are becoming more widespread, this trend is set to further intensify, due to the potential for expanded range and energy efficiency benefits associated with such wheels, driving sales up. In this regard, Conti's product strategy is proving successful: in 2022, nine of the ten most successful electric vehicle manufacturers – including Tesla, Porsche, BYD and KIA – relied on its expertise for their original equipment, rewarding the company's rising efforts in BEV tires homologations (500+ projects by the end of 2023)[4]. The added weight, torque and noise levels generated by EVs also provide incentives to invest in specially designed tread patterns, newly constructed carcasses, and modified rubber compounds increasingly made of recycled materials. Besides improving vehicles' footprint, advancements in tire engineering will allow high-end manufacturers to differentiate themselves from low-cost Asian competitors, which have saturated markets worldwide and

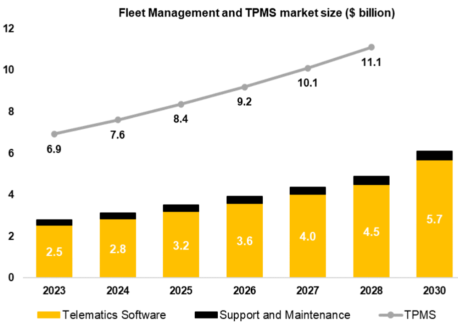
[3] Source: Bryan, Garnier & Co – Tyre & Rubber Products, 2017
[4] Source: Continental Press Releases, Capital Markets Update 2023



Note: Forecasts based on circulating vehicles projection and tires replaced per vehicle.
Source: Michelin Annual Reports; Own Estimates



Note: Scenario 1 is based on Telematics Software and Support & Maintenance Services for the Fleet Management market estimated by FMI Insights. Scenario 2 relies upon Michelin's own forecasts on the future development of TaaS, published in 2016 in Tire Industry: Global Tire Intelligence Report by Shaw Information Services.



Source: FMI Insights

diluted manufacturers market shares by almost 20% between 2004 and 2017. Lightweight tires, air-less puncture-proof concepts, noise-cancelling solutions, and tires capable of generating electricity during driving to recharge the vehicle's battery, are likewise being developed with this goal in mind, and may in turn reinforce the uptake in UHP tires.

Technological Advancements

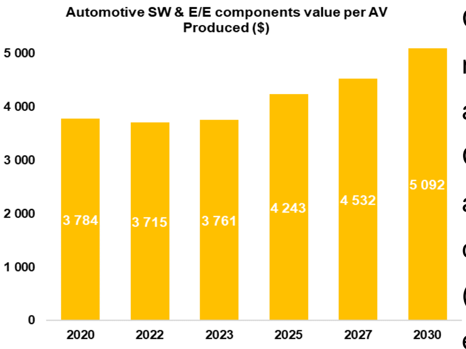
Features Monetization

The advancing technologies developed by Continental have allowed the incorporation of innovative features which create additional revenue sources to the company. Besides private owners, OEMs and a growing number of corporate buyers are expected to be highly interested in available data on their vehicles. Given the high number of vehicles leased by fleet operators, who also provide maintenance and telematics support[5], real time monitoring of units' performance might be of particular interest to them, since on-the-road punctures and repairs by third parties will be potentially reduced, cutting total cost of ownership. Moreover, information on tires pressure, temperature, mileage, and tread depth (given by integrated sensors) can be used to save fuel and enhance the level of operational safety, which raises interest to any car owner. The utility of such pieces of information becomes even more important in the realm of trucks, buses, and commercial vehicles, where tires account for 53% of operating costs and usage conditions are tougher. Subscription plans are bound to be the preferred option for these services, offering flexibility that aligns with actual needs and allowing gradual updates with pay-to-use features. Similarly, OEMs are also taking advantage of the accelerated digitalization brought by the pandemic to monetize their services through feature differentiation. These mobility-as-a-service venues will indeed bolster Continental's sales since it is possesses a unique advantage over competitive tires-as-a-service (Taas) already marketed by Goodyear, Bridgestone (Webfleet and Fleetcare solutions), and Michelin: its in-house expertise in sensors, specifically tire pressure monitoring systems (TPMS) and Tread Depth Monitoring (TDM) manufactured in the SAM business unit (synergy between divisions), but also heated seats and high beam assist. This goes in line with Conti's ambition to implement "further business activities within Automotive that are expected to contribute around €1.4 billion to consolidated sales this fiscal year"[6] (FY23). Overall, fleet management software, telematics and maintenance & support services are expected to post CAGRs in the 7-12%

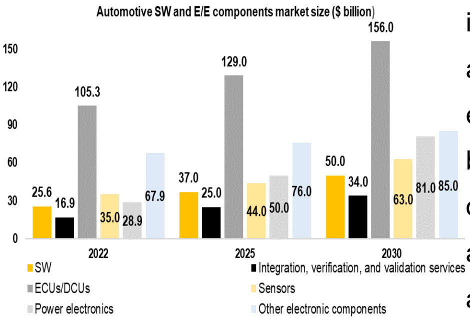
[5] Source: Deloitte, Fleet Management Europe, 2017
[6] Source: Continental AG, Capital Market Day, 2023

range by 2033, potentially injecting additional income in excess of €700 million per year to the tires division baseline, assuming the company's historical market share as proxy for its positioning in these segments.

Automotive Software and Electronic Components



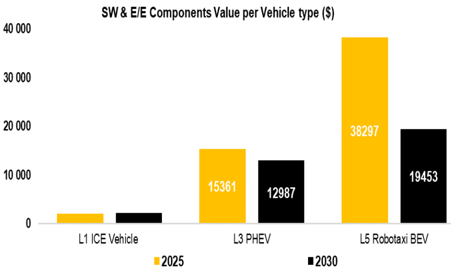
Source: Burkacky, O., Deichmann, J., Guggenheimer, M., & Kellner, M. (2023, January 3). Outlook on the automotive software and electronics market through 2030. McKinsey & Company



Source: Burkacky, O., Deichmann, J., Guggenheimer, M., & Kellner, M. (2023, January 3). Outlook on the automotive software and electronics market through 2030. McKinsey & Company

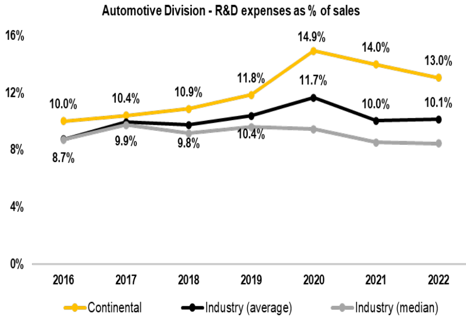
Considering Continental tech products in the Automotive division, the closest market targeted by the company is the "automotive software (SW) and electrical and electronic components (E/E) market", which is expected to grow at a 7% CAGR until 2030 to reach $469 billion. During the same period, the overall automotive market is predicted to grow only at 3% CAGR. From the core components considered, electronic control units (ECUs)/domain control units (DCUs) present the highest value but decreasing unit costs, followed by electronic components such as harnesses, controls, switches, and displays. Power electronics are expected to present the highest growth, mainly driven by EV adoption, followed by SW and sensors (including Lidar), guided by AD adoption. Moreover, the content of SW and electronics per car is expected to increase in the future and to differ according to the powertrain type (electric, ICE) and SAE AV level, being expected however a decrease in unit costs due to scale effects, lowering components value over time. Nevertheless, the balance between increased content and lower unit costs will still result in a growing value of SW and E/E components per AV produced, estimated at $3,760.90 in 2023 and expected to surpass $5,000 by 2030. The overall growth of the market will also be tied to the increase in labour costs, driven by a dominance of SW. According to McKinsey, salaries in the sector are expected to grow annually between 2 to 6% until 2030, due to the need of more domain specialists and highly skilled SW developers.

Partnerships



Source: Burkacky, O., Deichmann, J., Guggenheimer, M., & Kellner, M. (2023, January 3). Outlook on the automotive software and electronics market through 2030. McKinsey & Company

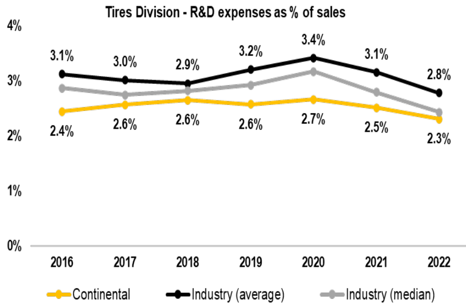
The sourcing of hardware (HW) and SW components is expected to become separate, making it easier for tech-native companies to enter the industry. As established value pools are broken, entry barriers are reduced putting Continental market share at risk. With the redesign of production processes, co-development between OEMs and suppliers will become necessary and so partnerships will be key to maintaining a relevant place in the market. Continental has been following this strategy and established several partnerships with tech companies in the last years. Among these, one can highlight the partnerships with Aurora to develop and manufacture AD trucking system kits for Aurora Driver (starts production in 2027), with Volkswagen to produce the first HPC for the entire network of its ID. models (30 vehicle models from different manufacturers will be equipped with this technology by 2024-end), and with Amazon Web Services/Google Cloud to develop a Smart Cockpit High-Performance Computer (ready for production in 18 months) that will allow drivers to have a natural dialogue with their car. Moreover, Conti and Ambarella Inc. are since this year jointly developing AI based hardware and software solutions for ADAS. Regarding the Tires segment, Continental recently secured the status of preferred partner of Mercedes-Benz in the Asia Pacific Region, and it will be supplying the manufacturer's whole car portfolio, from A- to GLS-Class, until 2025. Besides Mercedes, Stellantis, Ford, and the Volkswagen and Renault groups stand as the division's largest customers. Finally, it is important to note Conti's increasing preference for multi-year customer trials of its digital solutions portfolio, which are set up on short notice with haulage companies, like Gor Oz and Venneker Trusts, operating small fleets in unique environments.



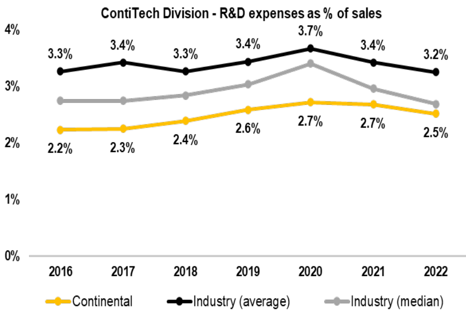
Source: Continental & Peers Financial Reports; Own Estimates

Research & Development

Proving that Continental is also investing in in-house expertise, in 2017 the company inaugurated a new R&D centre in Silicon Valley that houses some of the strongest experts in the industry and, in 2020, it established its own supercomputer for Artificial Intelligence (AI), which is unrivalled in the automotive industry and grants notable computing power for developers worldwide. Nevertheless, developing cutting-edge technologies in the Automotive division implied a large expenditure in R&D in the last years. However, the high ratio of R&D expenses (net of income received) compared to its main peers was not translated into bigger margins (as seen before). Therefore, the Board plans to "consolidating its 82 development locations worldwide" in order to improve costs management. As such, R&D expenses were forecasted to represent 9.5% of Automotive sales by 2028. Conversely, reflecting the higher maturity of its services, the Tires division has been underspending in R&D in comparison to its main competitors. However, addressing this gap, the company has adopted new techniques at the Contidrom, its main research facility in Germany. These include an Automated Indoor Braking Analyzer (AIBA) system to monitor the friction properties of tires on dry and wet road, and a driver-in-the-loop simulator that allows virtual testing of new prototypes, thus shortening development times. Moreover, sustainability commitments and labelling initiatives on rolling resistance, wet performance, and noise cancelling will further contribute to stronger research efforts, reinforcing the expectation of a higher R&D share of sales in the future (converging to industry level). Similarly, ContiTech has been below its peers' level, but a growing trend is perceived with the shift of focus towards industrial replacement. Given that its products are (still) less tech heavy

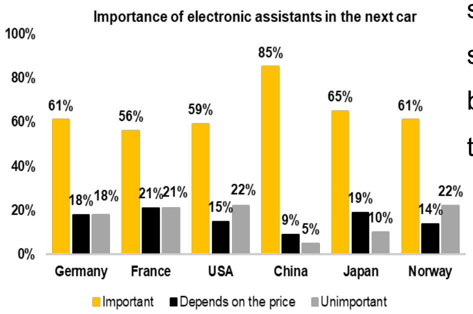


Source: Continental & Peers Financial Reports; Own Estimates

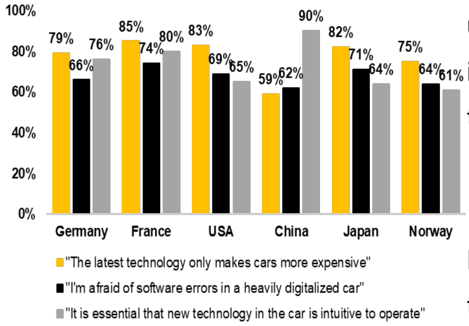


Source: Continental & Peers Financial Reports; Own Estimates

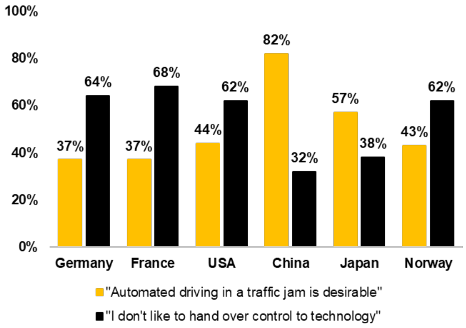
R&D expenses (% of sales)	2023	2024	2026	2028
Automotive	12.4%	11.8%	10.7%	9.5%
Tires	2.4%	2.7%	3.1%	3.1%
ContiTech	2.6%	2.9%	3.2%	3.2%



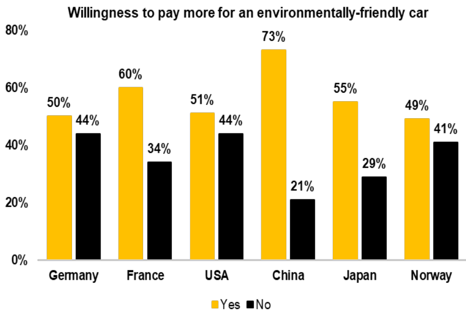
Source: Continental 2022 Mobility Report



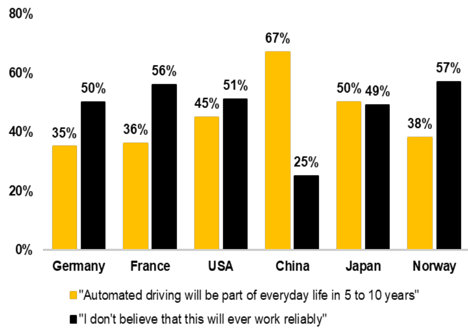
Source: Continental 2022 Mobility Report



Source: Continental 2022 Mobility Report



Source: Continental 2022 Mobility Report



Source: Continental 2022 Mobility Report

compared to the remaining segments, Conti will likely redirect investments to upgrade its offer and improve competitiveness, using R&D as main tool. As such, it is expected to overtake Tires as the second division with high share of R&D in terms of sales.

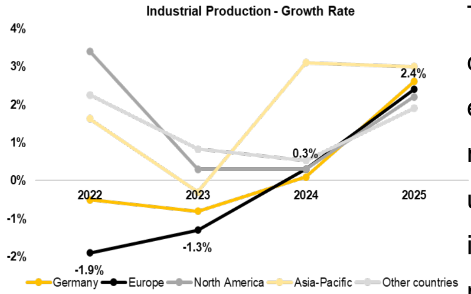
ADAS Demand

Despite the advancements made in the Automotive industry and the progress in the commercialization regulations for AVs, it will all be in vain if there is no significant demand for autonomous vehicles. Even though most of the respondents to Continental 2022 Mobility Report[7] stated that having electronic assistants in their next car is important, many feared that it would contribute further to rise car prices. On top of that, over 60% of the people surveyed would be afraid of software errors in a heavy digitalized car and believed operational intuitiveness is essential. According to the respondents' answers, it can be inferred that people in Asia are significantly more open towards automated driving compared to Western citizens, who are not keen on handing over a car's control to technology and do not believe automated driving will ever work reliably. Therefore, even though the primary goal of autonomous driving is to maximize safety, it will take some time until drivers fully trust such advancements, delaying the market penetration of certain Conti technologies. Moreover, owners of non-electric cars remain sceptical of acquiring one over concerns on the availability of sufficient charging infrastructures and its real environmental impact – 44% of German and American respondents are not willing to pay more for an environmentally-friendly car. Overall, customers' acceptance is indeed a risk Continental faces by developing high-tech products. This does not apply to vehicles with SAE levels 1 or 2 technologies since drivers still have full control over their cars however, level 3 vehicles only require the driver to intervene after a warning period (conditional automation), even enabling the legal use of cell phones for short intervals. Right now, Conti's biggest investment is on the development of innovative technologies for cars of this level (and above), which might struggle to conquer the market. However, these vehicles will only be available in marketplaces in the long run, giving people time to adjust to a new reality. Moreover, once released, their price tag will be significantly more expensive compared to cars of lower autonomous levels. Hence, they can be perceived as a premium good which only the wealthiest can afford, balancing the low quantity demanded with high prices.

[7] 6000 people surveyed from Germany (1,001), France (1,000), the USA (1,000), China (1,009), Japan (1,000) and Norway (1,001)

Finally, according to the same survey, ridesharing does not seem to be gaining a significant share either, as the vast majority of respondents is uninformed about car-sharing models (China being an exception).

Industrial Production

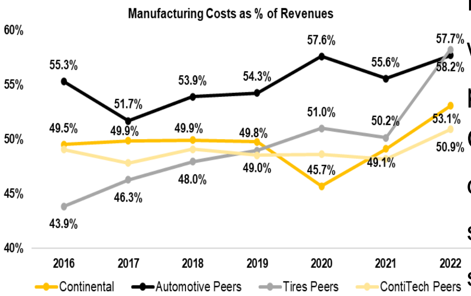


Source: Bloomberg.

Text Sources: Deloitte 2024 Manufacturing Industry Outlook; ING, Forbes

The development of the ContiTech division is particularly contingent on industrial customers. In the short-run, industrial production is foreseen to slow down, as economic uncertainty and tight labor markets continue to pressure manufacturers' margins, and momentum in the post-pandemic production catch-up is waning. Nevertheless, the future of the sector holds high prospects for increased automation and digital advancement solutions (AI, IoT, predictive maintenance), due to the potential for asset efficiency, safety, and sustainability enhancements, driven by their seamless scalability. In this sense, ContiTech is poised to benefit from Conti's overall technological expertise to become a prominent player in the industry.

Raw Materials & Manufacturing Costs



Note: Historical manufacturing costs allocated to each division according to share of revenues

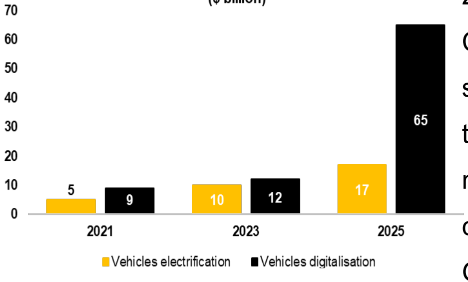
Source: Own Estimates

In the recent past, the main cause for the declining operational margin across the whole company was a surge in manufacturing costs, caused by events that provoked scarcity of raw materials and consequent rising prices. By analysing Conti peers, it is clear that ContiTech suffered the least from this phenomenon due to its diverse nature and low dependence on products that were affected by such events. As for Automotive and Tires, they were highly impacted by semiconductors and rubber shortages, respectively. Nevertheless, it is important to highlight the stability of the company, with a constant ratio of manufacturing costs to revenues until 2020. This is especially relevant to the Tires division, which saw its competitors costs skyrocket due to natural rubber shortages.

Supply Chain Disruptions

In 2022, 35% of the Group's €28.4 billion purchasing volume referred to electronics and electromechanical components. These raw materials are primarily used in the Automotive and Contract Manufacturing divisions, whose products are fundamentally technological, and so, they suffered the biggest impact from disruptions in the semiconductors industry. Even though global chipmakers recovered from the shortage caused by the Covid-19 pandemic to a point of oversupply, the current supply gut is not expected to persist and does not encompass more sophisticated chips such as generative AI related, which have been on the rise since OpenAI's ChatGPT was launched. On its 2022 annual report, Continental states that delivery backlogs for semiconductors hit records in

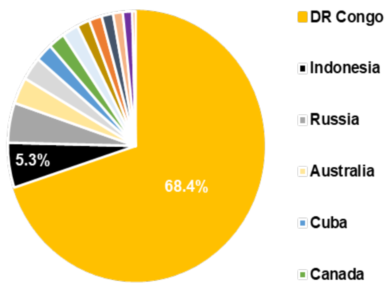
Estimate of total addressable market for automotive chips ($ billion)



Source: Financial Times; HIS Markit; STMicroelectronics

this year and the company does not expect substantial improvements before 2025. Also, while the USA tries to recover market share through the CHIPS Act, China keeps a close target on Taiwan, the largest manufacturer of semiconductors worldwide, putting the market in peril once again. Furthermore, to cope with the enhancing infotainment systems, modern cars require a bigger number and more expensive chips, with the average value of semiconductors per car forecasted to reach $1,138 by 2028 (from $700 in 2020), according to S&P Global Mobility. Therefore, prices for Conti breakthrough technologies, especially in the Automotive segment, are expected to continue increasing in the medium-term as electric mobility becomes more advanced and semiconductors availability remains fragile. Hence, this is posed as a risk to Continental not only in terms of manufacturing costs but also in terms of demand, since vehicles price will also remain high, implying that the next generation of AVs will not be at reach of an average individual.

Distribution of Cobalt Production by country in 2022

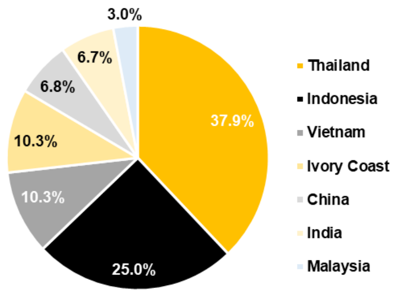


Source: Statista

Raw Materials Scarcity & Substitution

Even though companies are implementing regionalization strategies, some raw materials are of great importance to the industry evolution and are concentrated in certain regions of the world, putting entire production lines at risk. The best-known examples are lithium and cobalt. Essential to produce EVs' lithium-ion batteries (the most used today), they have scarce reserves and are in great part detained by politically unstable countries. Similarly, natural rubber, the primary raw material for tires, is sourced from Southeast Asia, a region increasingly affected by political tensions (United States vs China) and weather/diseases related supply shortages, posing a challenge to the division's procurement. In addition, cutbacks on rubber output to move the commodity's global price in a direction favourable to exporters have been announced in recent times by Indonesia, Thailand, and Malaysia (H1 2019), which in aggregate control over 65% of the global production. Even so, the potential for mitigation is considerable, in light of Conti's commitment to producing 100% sustainable tires by 2050 (interim targets in the range of 30 - 40% by 2030). This move, which is in line with that of competitors like Michelin, Bridgestone, and Pirelli, is expected to spur investments in alternative sources of rubber like dandelion plants, whose derivatives exhibit properties comparable to products made of natural rubber. Russia's significant role in dandelion cultivation is unlikely to impact their promising outlook, as these plants can thrive in temperate regions globally and are ready for harvest after just one or two years. Furthermore, as an alternative course of action, the company has made advancements in recycling materials from the paper and wood industries, from PET bottles and end of use

Natural Rubber Producing Countries in 2022 (1k metric tons)

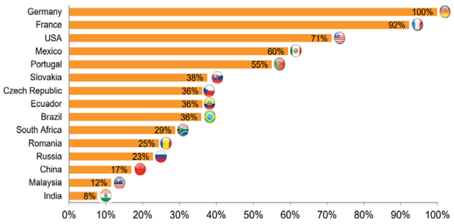


Source: Malaymail.com; Reuters

tires, which have jointly led to the production of its most sustainable series yet: UltraContact NXT (65% of renewable content).

Plants Capacity Utilization

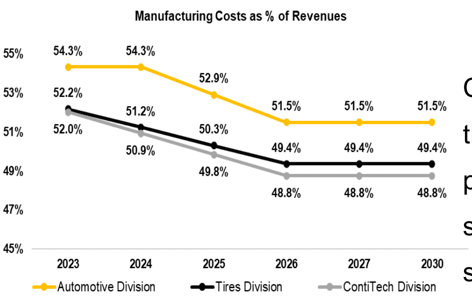
Cost of Labor at Continental Manufacturing Sites[1]



Source: Continental Annual Fact Books

Continental's decision to relocate a significant portion of its production to mega plants in countries such as Romania, Slovakia, China, and Brazil have not yielded successful results thus far. The goal was to take advantage of bigger production capacity, lower personnel expenses, and lower fixed costs per output, however, the complementary effects of declining capacity utilization and inflation-driven wage adjustments contributed to the deterioration of Conti's operational margin. Nevertheless, considering general improvements in manufacturing costs and a definitive closure to Covid-19, the 90% facilities usage targeted by the company is expected to be achieved as well as the desired economies of scale.

Manufacturing Costs



Source: Own Estimates

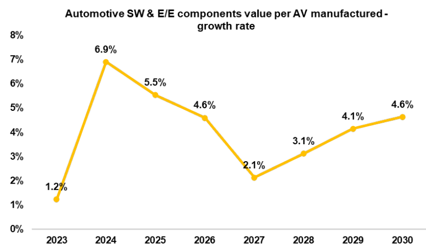
Considering its progress on sourcing new and sustainable materials, it is natural that the Tires segment had been less impacted by disruptions compared to its peers. Therefore, it is also expected to quickly soften the share of manufacturing spending in terms of sales in the short run. In fact, the first nine months of 2023 show promising signs of a reversion in input prices, with butadiene down by 31% YoY in €/Tonne and rubber experiencing a 17% reduction in USD/Tonne[8]. Likewise, ContiTech is expected to follow the same downward trend converging to pre-pandemic industry level. Regarding Automotive, due to its vulnerability to supply chain shortages and raw materials price evolution, manufacturing costs are expected to continue at a higher level before stabilising by 2026. In fact, aluminium, plastic, steel, and copper are other important materials sourced in the segment and some have seen its price rising in the last months.

Automotive Market Share	2022	2026	2030
Germany	21.3%	22.6%	24.0%
Europe excluding Germany	16.0%	17.0%	17.0%
North America	17.3%	17.7%	18.0%
Asia-Pacific	20.8%	22.4%	24.0%
Other countries	13.8%	14.0%	14.0%

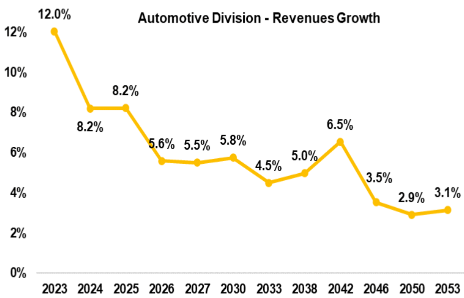
Source: Own Estimates

Valuation

Revenues Forecast



▪ Automotive Division

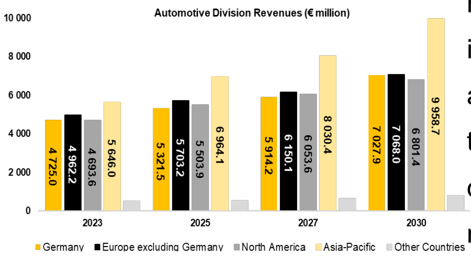


Note: Growth rate from Automotive SW and E/E components value per AV was adjusted up and downwards according to market, macroeconomic & geopolitical drivers

Source: Own Estimates

Building upon the geographical projections of AVs manufactured, revenues per AV targeted by Continental were forecasted to grow at the same pace of the global automotive SW and E/E components market. Note that a growing market share (especially in APAC region) was assumed, since the company is expected to benefit from its early investments in ADAS to recover ground lost in the last

[8] Q3 2023 Interim Financial Report, Pirelli.



Source: Own Estimates

few years. Also, even though tech firms are expected to join the industry, Continental and its main peers not only enjoy a mature business and solid reputation but are also the only companies in such a fast-growing industry to integrate both hardware and software in its value chain. Therefore, partnerships are very likely to be formed to secure progress, but no new entrants will be able to gain significant market share in the medium-term. Overall, the Automotive division is expected to present a fast growth during the next two decades, with revenues increasing on average 6% a year. This trend is sustained by the highly promising developments unearthed, to which Continental will contribute greatly. Geographically, Asia-Pacific will solidify its position as sales leader with a 32% share by 2030, while North America's drop to roughly 21% (from 24% in 2022). In the (very) long-term, more general drivers were adopted to conclude that Continental will reach a smaller and steady growth level by 2053 (3.14%). By then, the industry will have attained a mature state, represented by a major share of EVs and high-level AVs, whose price will have become more standardised. Moreover, Continental is also expected to lose some of its current potential due to an increase in competition, as it becomes easier to replicate its products. Contributing to the higher industry maturation, the shift in mobility habits will be intensified and connectivity and infrastructure issues will prevent the most advanced technologies from reaching some parts of the globe.

Price per Tire - 2023	OE	Replacement
Germany	71.5 €	117.5 €
Europe excl Germany	121.6 €	83.4 €
North America	151.8 €	133.2 €
Asia-Pacific	37.5 €	71.7 €
Other countries	125.0 €	129.0 €

Note: Differences are justifiable considering the contractual agreements in place between OEMs and Continental, regulating prices and quantity intakes.

Source: Own Estimates; Reifendirekt for Germany, Allopneus for Europe, ATD's Tirebuyer.com for North America, Tirenavi and Cantustore for Asia and South America (Other Countries), respectively.

# Tires sold per	Vehicle Manufactured	Ciculating Vehicle
Germany	6.0	1.0
Europe excl Germany	4.3	1.5
North America	4.7	1.1
Asia-Pacific	4.0	0.7

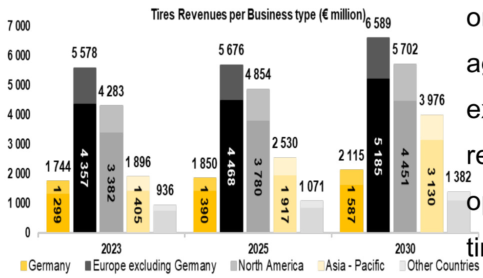
Tires Market Share	2022	2026	2030
Germany	23.8%	24.0%	24.0%
Europe excl Germany	17.9%	16.5%	16.5%
North America	8.1%	8.8%	9.0%
Asia-Pacific	6.3%	7.5%	7.5%
Other countries	3.0%	3.0%	3.0%

Source: Own Estimates

- Tires Division

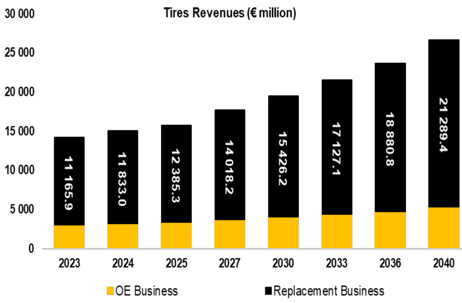
Regarding the OE business, the geographical forecasts of vehicles produced were used alongside the expected number of tires sold per vehicle manufactured, in order to obtain the total number of pneumatics sold to car makers in a year. To determine Conti's tire sales quantity, its market share was applied assuming that it will remain constant in Germany but slightly drop in the rest of Europe, as the company keeps expanding its manufacturing capacity and sales networks in Asia and North America. Finally, tires price was assumed to grow with each region's inflation. Overall, the projected slow evolution in vehicles production is reflected in the mild growth (3.1% until 2040) of OE sales, which, contrarily to the Automotive division, markets vehicles' content with a smaller future price expansion, despite the incorporation of digital tire monitoring features (Taas).

As for the Replacement business, the average price per tire was taken from online marketplaces, after filtering per location, brand, and tires seasonality (and again grown at inflation). As expected, tires in North and South America are more expensive due to the larger share of SUVs and light trucks, while the Asia Pacific region, where cost is priority for individual buyers, tends to have more affordable options. Note that Continental's most recent rim size split between UHP tires and tires below 17" inches was factored in the calculation, considering its pricing



Note: Bottom bars correspond to Replacement business revenues. Upper values correspond to total Tires revenues.

Source: Own Estimates



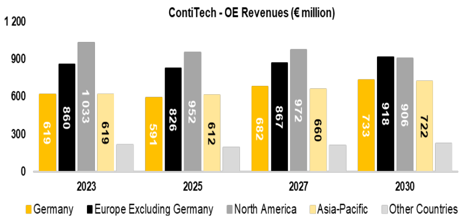
Source: Own Estimates

ContiTech OE Market Share	2022	2025	2030
Germany	21.3%	15.0%	12.3%
Europe excl Germany	16.0%	12.5%	9.0%
North America	17.3%	13.5%	9.8%
Asia-Pacific	20.8%	16.5%	11.9%
Other countries	13.8%	10.0%	7.5%

Source: Own Estimates

Content Value per Engine type	2022
Electric	265.0 €
Hybrid	215.0 €
Petrol	135.0 €

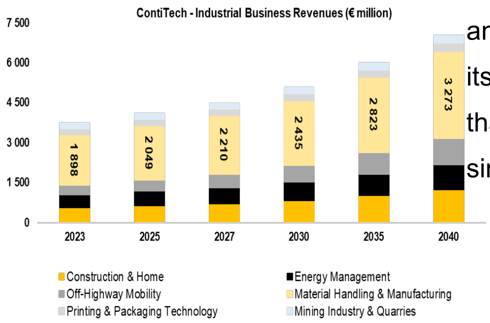
Source: Continental 2021 Fact Book



Source: Own Estimates

Markets Targeted	Share of Sales within ContiTech	CAGR
Construction & Home	8.0%	6.0%
Energy Management	7.0%	5.0%
Off-Highway Mobility	5.0%	9.0%
Material Handling & Manufacturing	27.0%	3.0 - 4.0%
Printing & Packaging Technology	3.0%	2.0%
Mining Industry & Quarries	3.0%	2.0%

Source: Continental Capital Market Day; Own Estimates



Source: Own Estimates

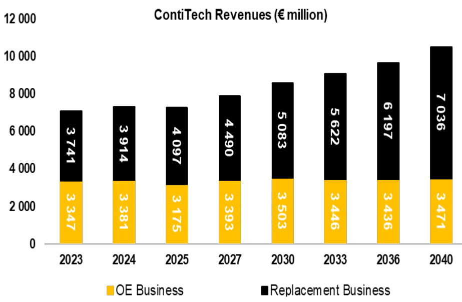
implications. Moreover, in this case the number of replacement tires sold was calculated using forecasted number of circulating vehicles, which provides a more accurate estimation of their demand. All in all, Tires division is anticipated to enjoy a moderate expansion phase in the coming years, reaching a turnover of € 26.63 billion by 2040, at a CAGR of 3.68%. This is mostly sustained by the replacement business, whose growth in the period exceeds 3.80% CAGR and is foreseen to better grasp gains in the APAC region. In 2040, Asia and North America will account almost equally for roughly 52% of Tires sales, up from 39% in 2019. Afterwards, the segment is expected to reach steady state and enjoy a 3% long-term growth sustained by the absence of substitution risks by alternative products and implausible changes in consumers' bargaining power. Regarding the threat posed by new entrants, low-cost producers are likely to keep gaining ground, with affordability considerations remaining a decisive factor that overshadows appreciation for the technological complexity of these products. Even so, any loss in volumes sold caused by it is likely to be recovered through partnerships on digital tire monitoring solutions, which require advanced technologies unique to high-end manufacturers, such as Conti's.

- ## ContiTech Division – OE Business

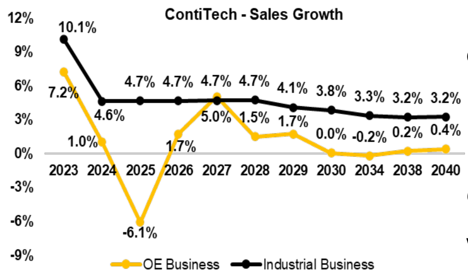
Firstly, to reflect the spinoff of the OE business unit and given the uncertainty of how it will proceed, it was assumed that Conti's market share (Automotive share used in 2022) will decrease over the years, with a more significant drop in 2025. Even though it is slightly less tech focused, ContiTech is benefiting from the growing automotive electrification phenomenon, increasing the number and sophistication of the systems provided per car. As such, revenues were calculated according to the content value per engine type (grown with inflation) and respective forecast of vehicles manufactured. Overall, the OE unit is expected to present a mild growth (below 2% YoY) in the future and lose significant share to the replacement business, representing roughly 41% of ContiTech sales by 2030.

- ## ContiTech Division – Industrial/Replacement Business

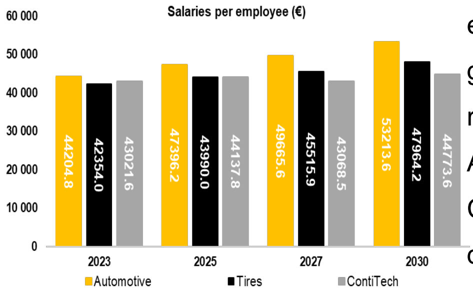
Serving a vast number of industries, replacement business revenues were split into the main markets targeted by ContiTech, which are expected to display different CAGRs in the future. Material Handling & Manufacturing (conveyor belts and related services) was assumed to represent the highest share of sales due to its large variety and inner product value. Nevertheless, it is important to highlight that estimated growth rates for each unit are below the CAGR of the market itself, since Continental is expected to only slightly grasp the gains of the markets



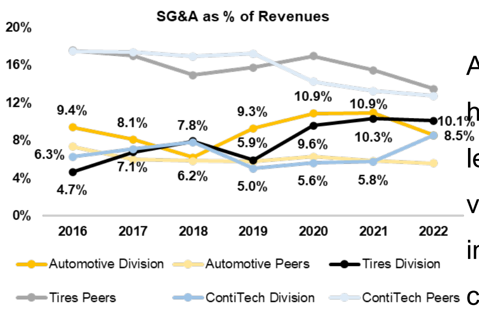
Source: Own Estimates



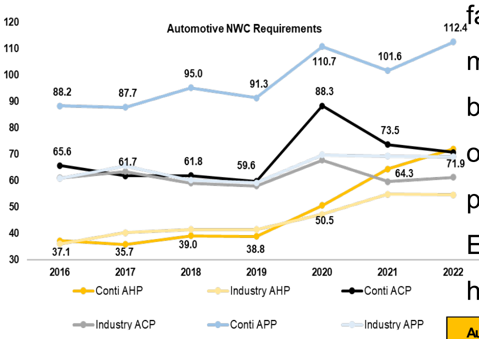
Source: Own Estimates



Source: Own Estimates



Source: Continental & Peers Financial Reports



Source: Continental & Peers Financial Reports

addressed. For example, while there are multiple companies solely focused on developing material handling solutions, this is estimated to represent less than 5% of the Group's sales, while the entire ContiTech Industrial business accounts for roughly 9%. A similar small market share is attributed to fluid handling solutions (part of Energy Management), despite the high role on ContiTech's business. In this case, the pharmaceutical and food chain industries are the ones displaying the biggest growth prospects but are lightly (or not even) targeted by Continental. Consequently, the Industrial unit is estimated to grow at 4.1% YoY until 2030, considerably below company's view, which projects a 7% CAGR. Moreover, steady state is expected to be reached by 2040, with ContiTech expanding at roughly 2.64% forever.

Wages & SG&A

On top of growing in line with inflation, individual salaries and SS contributions were also adjusted to reflect the growing number of hirings and share of sales. In fact, as Continental advances in the development of innovative technologies, a great number of SW developers and highly skilled personnel will be hired, especially in the Automotive division where individual wages were projected to grow 3.17% YoY until 2030. As for SG&A as % of revenues (net of income received), the reforms imposed by the administrative restructuring in the Automotive segment will imply its decline towards industry level (7.09%). Conversely, SG&A share of sales will increase in the Tires and ContiTech divisions towards peers' level (12.70% and 9%, respectively), as the company attempts not to lose market share and expand its customer/market reach.

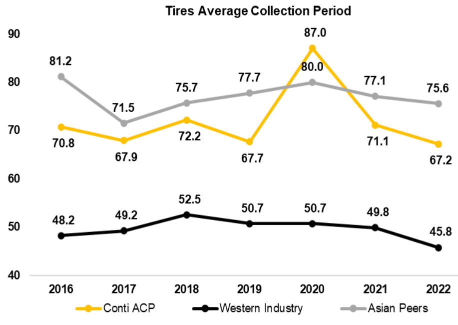
Net Working Capital Requirements

After widening a gap to the industry average since the pandemic, the average holding period (AHP) in the Automotive division is expected to fall towards the level verified prior to supply chain disruptions, which had caused a surge in the value of raw materials and, later, led to higher storage of inventories to soften the impact of sudden disruptions. The same evolution is visible for the average collection period (ACP), which has started a downward trend already as customers (OEM mostly) businesses recover full pace and so are able to pay faster, diminishing their bargain power. Similarly, Conti will also be quicker to meet its debt with suppliers, reducing the average payable period. In the past, a big gap existed to main competitors' level however, due to the growing maturity of Automotive products, the payable period is expected to become shorter than pre-pandemic level, being still at industry's maximum.

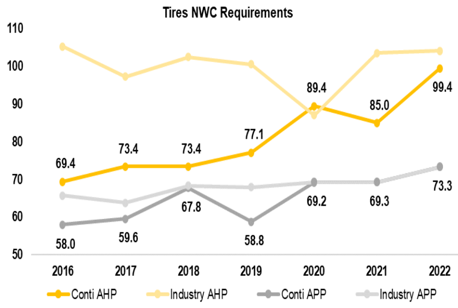
Even though ContiTech presents intrinsic differences to Automotive segment, highlighted by a longer period during which inventories remain in the company

Automotive Division	2022	2024	2027	2030
A. Holding Period	71.9	56.6	41.2	41.2
A. Collection Period	70.7	65.8	61.0	61.0
A. Payable Period	112.4	99.2	75.8	75.8

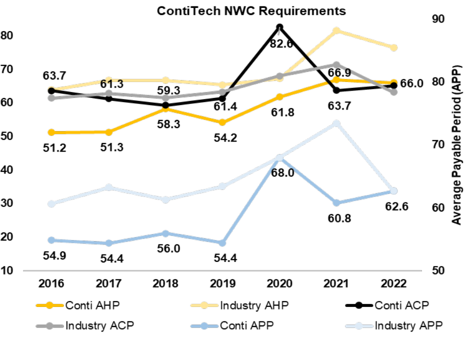
Tires Division	2022	2024	2027	2030
A. Holding Period	99.4	103.7	101.3	101.3
A. Collection Period	67.2	66.1	65.0	65.0
A. Payable Period	73.3	69.6	66.5	66.5



Source: Continental & Peers Financial Reports



Source: Continental & Peers Financial Reports



Source: Continental & Peers Financial Reports

ContiTech Division	2022	2024	2027	2030
A. Holding Period	66.0	64.9	63.9	62.9
A. Collection Period	65.2	63.2	62.3	62.3
A. Payable Period	62.6	62.1	62.1	62.1

PP&E as % of Revenues	2022	2024	2027	2030
Automotive Division	28.4%	28.4%	27.2%	26.0%
Tires Division	33.6%	33.4%	35.6%	36.8%
ContiTech Division	22.1%	21.2%	20.8%	20.8%

Intangibles as % of Revenues	2022	2024	2027	2030
Automotive Division	3.7%	2.9%	3.4%	4.0%
Tires Division	0.3%	0.3%	0.6%	1.0%
ContiTech Division	3.9%	3.2%	3.4%	3.9%

Source: Continental Financial Reports; Own Estimates

before being sold, the same evolutionary trends are applied. Overall, the three indicators evolved closely to the industry and are expected to converge to its pre-pandemic level in the short-run.

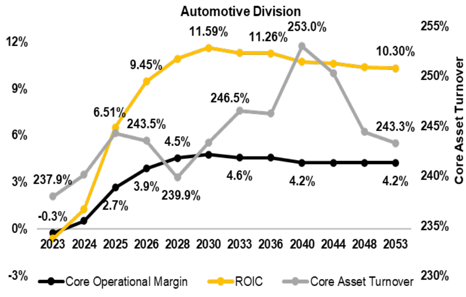
For the Tires division, the holding period is expected to persist above historical values, continuing the convergence to competitors' level, and reflecting the longer time needed to implement new materials and technological features in its products. While the payable period will continue to evolve in line with the industry towards pre-pandemic average, the collection period is expected to vary just slightly. In fact, the ACP reflects Conti's ambition to fit into the APAC market, characterized by longer payment periods. This development has been visible in the big gap driven to Conti's main competitors, mainly European and American, which receive faster from customers.

Capital Expenditures (CapEx)

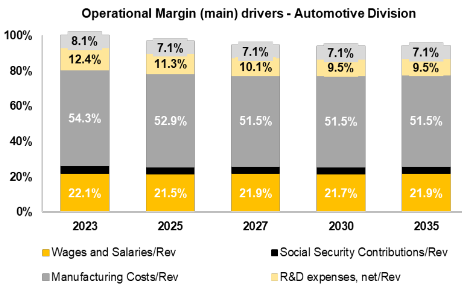
In 2019, Continental started to carry out operations in Right-of-use (ROU) assets, causing a substantial rise of PP&E. In the following year, contrarily to what would be expected due to the adversities caused by the pandemic, PP&E increased considerably once again, which is explained by the annexation of Powertrain assets to the remaining divisions. Therefore, PP&E has been adjusted in the last couple of years, with a sharp decline in 2021 to achieve an almost stable level in 2022. In fact, it was assumed that the Automotive division has indeed reached a steady ratio of PP&E to revenues, which will just slightly fall as operations become more efficient. Regarding the Tires segment, PP&E is expected to present a slower growth and stabilize later since the sale of operations in Russia is still ongoing. This is also reflected in the declining workforce employed in this division, which is expected to decrease for the second consecutive year before the effects of rising demand is noticed in a growing number of personnel. As for ContiTech, PP&E as % of revenues will slightly decrease to stabilize on the low end of industry wide values, reflecting the ongoing restructuring in this division.

Since 2019, Conti intangible assets drop almost 25%, with Tires segment entailing a 60% loss. As mentioned before, Continental took a big hit from impairment charges in 2019, which also affected intangibles assets and enhanced the direct impact from poor market conditions and the consequent slow demand verified in the last years. Hence, intangibles are expected to further decline in 2023 to the latest (Q3) reported value by the company. In the years to follow, intangibles will very slowly adjust to historical average, with Automotive segment displaying a quicker recovery due to the smaller impact felt and larger brand potential.

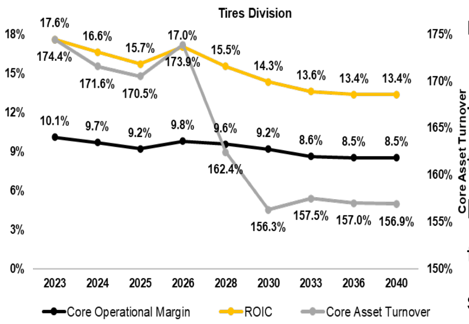
Value Drivers



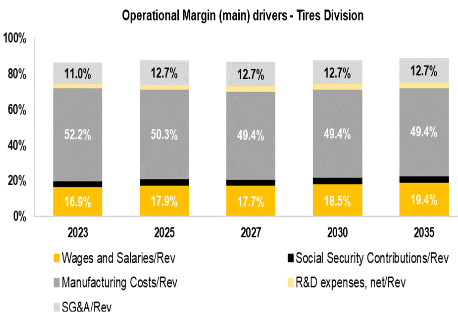
Source: Own Estimates



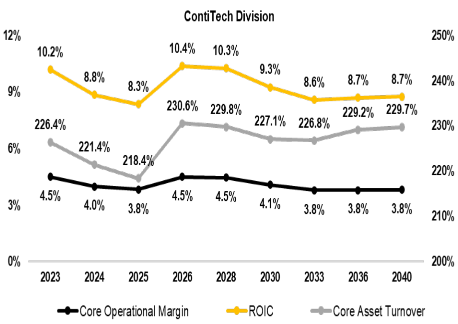
Source: Own Estimates



Source: Own Estimates



Source: Own Estimates



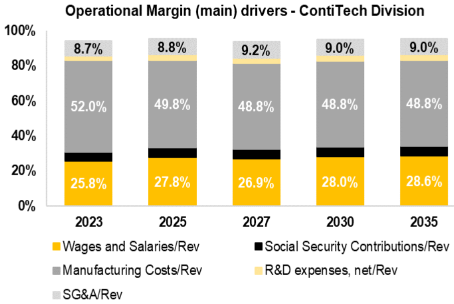
Source: Own Estimates

After presenting an exceptional 25% ROIC in 2017 and 2018, Automotive division efficiency quickly became ordinary as assisted driving turned to be regular too, with returns dropping to less than 8% still in 2019. In the future, the operational margin will slowly recover as manufacturing costs and personnel expenses are adjusted, however, it is projected to stabilize at roughly 4.20% in the long run, slightly above half of pre-pandemic level. This can indeed be perceived as a conservative projection but, the truth is that 2016 scenario looks a like a golden age compared to what the future has reserved. If on one hand annual vehicles production will not reach 2016 values any time soon and shared mobility will gain supporters, on the other hand raw materials scarcity and unionized groups syndicating higher wages will become rule, mitigating the likelihood of seeing an exceptional margin once again. In this sense, manufacturing costs will continue representing a huge burden on Conti's production processes, accounting for around 50% of revenues earned for the three segments. Regarding assets turnover, a faster recovery is expected towards stabilization at over 240%, meaning that each million of invested capital would generate around €2.40M in revenues. Overall, in the long run the Automotive division is expected to reach a 10.30% ROIC.

The remaining segments are expected to follow similar conservative recovery trends. Tires presents a higher operational margin (roughly 8.50%) mainly driven by a lower share of R&D and despite a bigger role of SG&A. However, assets turnover is intrinsically lower since Automotive operations will increasingly involve software development while Tires activities require a significantly higher share of PP&E. Overall, long-term ROIC is projected to be roughly 13.36%. Finally, ContiTech's steady state operational margin (3.80%) is expected to be close to pre-pandemic level since the cost structure will not suffer significant changes. Note however that, despite having the lowest individual salaries, ContiTech presents the lowest revenues per employee and, consequently, it is the division with the highest wages as % of sales. Nevertheless, assets turnover is expected to surpass historical values as the division becomes more technological oriented and focused on refurbishment services, which highlights a higher efficiency of invested capital management. As such, the division will reach a steady 8.73% ROIC in the long-term.

Cost of Capital

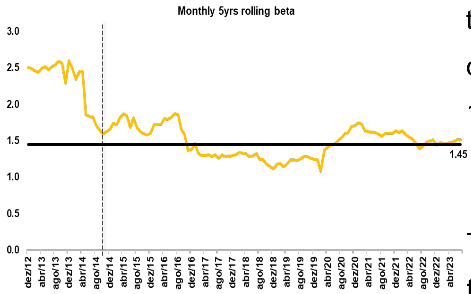
Over the last years, Continental has been increasing its gearing ratio from merely 15.27% in 2018 to over 31% in 2022, due to a sharp increase in (long-term) debt. At the same time, retained earnings have also been falling (reducing equity



Source: Own Estimates

FY	Gearing ratio
2016	22.4%
2017	18.3%
2018	15.3%
2019	26.8%
2020	30.6%
2021	29.5%
2022	31.0%

Source: Continental Financial Reports; Own Estimates



Source: Bloomberg, Own Calculations

Automotive Division
1st tier Peers
MAGNA INTERNATIONAL INC
VALEO
APTIV
FORVIA
HYUNDAI MOBIS CO LTD
LEAR CORP
HL MANDO
2nd tier Peers
AISIN CORP
DENSO CORP
SCHAEFFLER AG - PREF
VISTEON

Tires Division
1st tier Peers
MICHELIN (CGDE)
GOODYEAR TIRE & RUBBER CO
BRIDGESTONE CORP
PIRELLI & C SPA
HANKOOK TIRE & TECHNOLOGY CO
2nd tier Peers
YOKOHAMA RUBBER CO LTD
TOYO TIRE CORP
SUMITOMO RUBBER INDUSTRIES

ContiTech Division
1st tier Peers
GATES INDUSTRIAL CORPORATION
TRELLEBORG
TI FLUID SYSTEMS
SUMITOMO RIKO
2nd tier Peers
PLASTIC OMNIUM
NOK CORPORATION
PARKER HANNIFIN
INTERROL GROUP

Contract Manufacturing Division
VITESCO

value) with the payout rate dropping as well (turned negative in 2019 and 2020). This is explained by the intense investment Conti has been carrying out to solidify its leadership role in the automotive industry, resorting to different sources of funding for that. Moving forward, Continental is targeting a 40% debt-to-equity ratio, translated into a 28.57% gearing ratio. According to the latest quarterly report, despite the current environment of high interest rates, Conti has increased its debt level for the second consecutive year, especially short-term debt (counterintuitively), reflecting the importance of the ongoing advancements. Nevertheless, debt financing is expected to slightly decrease in the following years towards stabilization at target level.

- Cost of Debt

Due to the unavailability of meaningful long term outstanding bonds, the 10-year yield from Bloomberg's European BBB Corporate Bonds curve was used instead, as per Continental's credit rating. Moreover, an annualized probability of default of 0.3% and a ten-year average loss given default rate of 41.01% were factored in the estimation, based on Moody's 2022 Global Default Study. Consequently, the implied cost of debt obtained was 4.18%, or 2.90% in after tax terms, considering Germany's 30.7% standard domestic tax duty (15% Corporate Tax, 14.8% Trade Tax and 5.50% Solidarity Surcharge).

- Cost of Equity & WACC

To estimate Continental's cost of equity, a CAPM model was employed, adopting the perspective of a globally diversified marginal investor. Thus, the MSCI World Index (in EUR) was selected as the market portfolio, against which the company's historical monthly returns were regressed to assess Conti's levered and rolling betas. After organizing the peers per division and across different tiers, the respective equity betas and capital structures were used to calculate an unlevered beta for each segment. However, while rolling betas averaged roughly 1.45 and going no under than 1.08 in the last 8 years, only Automotive beta alone could get near to these values. Therefore, it was concluded that a regression-based beta represents best the systematic risk faced by Continental compared to aggregating or averaging the risks of each segment. Using betas from comparable companies would have been proved inaccurate since each peer is only focused on one of Conti's products (e.g. only tires, or only auto components) and not on the whole portfolio. For example, rubber companies typically exhibited lower return volatilities to the overall stock market, a trend which persisted even after adjusting for the tendency of tire competitors to be headquartered in Asia. Conversely, automotive suppliers tended to demonstrate higher correlation with economic activity, thus mirroring the market. Regarding the risk-free rate, a

Regression-based WACC	
Equity Beta	1.44
Cost of Equity	12.2%
5-years Historical D/EV	25.7%
Unlevered Cost of Equity	10.1%
Unlevered Equity Beta	1.14
Beta debt	0.10
Target capital structure	40.00%
Target D/EV	28.57%
MRP	6.90%
Risk-free rate	2.29%
Cost of Debt	4.18%
Unlevered Cost of Equity	**10.15%**
Relevered Equity Beta	1.55
Cost of Equity (CAPM)	13.01%
WACC	**10.12%**

Source: Continental Financial Reports; Bloomberg

Total Value of Operations	28 830.2
Non-core Value	(1 711.3)
Enterprise Value	27 118.9
Net Debt	(6 460.5)
Equity	20 658.4
# shares outstanding	200.01
Price per share	**103.29**

Source: Own Estimates

2.29% yield of a 10-year German bond was assumed as a proxy. Furthermore, according to the range recently recommended by the German Institute of Public Auditors (IDW[9]), a 6.90% market risk premium (MRP) was singled out, which resembles the historical values applied by German companies and is in line with statements by Continental itself. In fact, in its most recent annual report, the company hints to a 7.50% MRP and a 10% WACC for its cost of capital determination. For this analysis, after unlevering and relevering the regression beta at historical and target gearing ratios, respectively, an equity beta of 1.55 was obtained. Taking all into consideration, a 13.01% cost of equity (Re) and 10.12% WACC were estimated. For comparison, note that each division's WACC ranged from 8.18% to 9.53%.

Discounted Cash-Flow Model

To complete the discounted cash-flow model, using a sum of parts (SOP) approach, the unlevered operating cash flows for each division were calculated until the respective steady states were reached (2053 for Automotive, 2040 for Tires and ContiTech). As mentioned before, Contract Manufacturing cash flows converged to 0 in 2027, as it is expected to cease existence by 2026. Next, free cash flows were discounted at the 10.12% WACC, and the non-core value was added to obtain EV. Finally, net debt was subtracted to reach an equity value of €20,658.4 as of December 31st, 2024, and, assuming the number of outstanding shares remains constant, a €103.29 share price was estimated.

Relative valuation

Median Multiples - SOP approach	EV/SALES Forward	EV/EBITDA Forward	EV/EBITA Forward
Automotive Division	0.41x	3.33x	7.04x
Tires Division	0.66x	4.43x	7.14x
ContiTech Division	1.09x	6.23x	9.11x
Contract Manufacturing	0.79x	6.78x	9.41x

Median Multiples - SOP approach	EV/SALES 2024	EV/EBITDA 2024	EV/EBITA 2024
Automotive Division	0.43x	4.31x	6.41x
Tires Division	0.74x	4.91x	7.40x
ContiTech Division	0.92x	5.45x	9.47x
Contract Manufacturing	0.28x	2.62x	9.51x

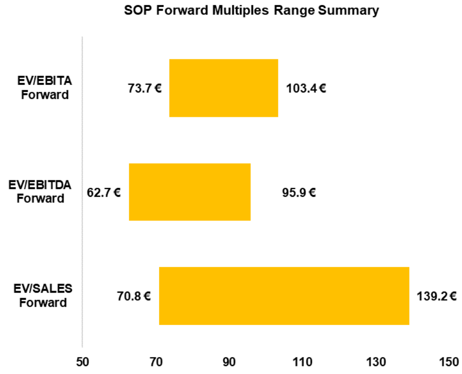
Median Multiples - SOP approach	EV/SALES 2025	EV/EBITDA 2025	EV/EBITA 2025
Automotive Division	0.41x	4.37x	5.26x
Tires Division	0.72x	4.81x	6.84x
ContiTech Division	0.88x	5.16x	8.35x
Contract Manufacturing	0.27x	2.30x	7.40x

Source: Bloomberg; Refinitiv; Own Estimates.

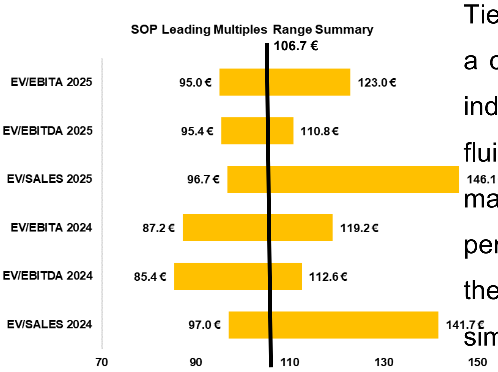
To assess Continental's fair value relative to comparable companies, a multiples valuation was implemented. As for peers' selection, this was assumed to include the aforementioned closest competitors (Tier 1), as well as other less technologically advanced automotive suppliers and industrial manufacturers, which, at varying degrees, are also expected to benefit/risk from the same mobility megatrends (Tier 2). Therefore, to exclude outliers, Trailing Twelve Months (TTM) EV/Sales, EV/EBITDA, EV/EBITA and EV/EBIT were scattered for each peer as far back as 2016, conducting both a time-series and a cross-sectional analysis. Note that most deviations appeared in the aftermath of the Covid pandemic, especially in the automotive segment (e.g. Denso, Visteon). Hence, seeing 2023 still as a calibration year for the industry, it was decided to opt for forward and leading[10] versions of these same multiples as a basis for the

[9] Source: Cost of Capital Study 2023, KPMG

[10] Trailing twelve months multiples are intended as the periodic EV over a line item (be it Sales/EBITDA/EBITA/EBIT) of the rolling past year. Leading multiples are defined as the ratio between the periodic EV and a line item referring to one year or more in the future. For this relative valuation both leading multiples over 2024 and 2025 figures were looked at and included in the price ranges recommended. As for forward multiples, both EV and any value at the denominator refer to 2024 and therefore capitalization to valuation date is not required for them. Marra et al., 2021.



Source: Own Estimates.



Source: Own Estimates.

Automotive Division		WACC		
		8.12%	10.12%	12.12%
g	1.54%	123.7	100.9	88.0
	3.14%	130.9	**103.3**	88.9
	3.49%	133.2	104.0	89.2

Tires Division		WACC		
		8.12%	10.12%	12.12%
g	1.41%	121.3	98.0	83.5
	3.01%	134.0	**103.3**	86.1
	3.36%	137.9	104.8	86.8

ContiTech Division		WACC		
		8.12%	10.12%	12.12%
g	1.50%	107.0	102.9	100.3
	2.30%	108.0	**103.3**	100.5
	2.85%	108.8	103.6	100.7

relative valuation, maintaining a SOP perspective. At first, both implied similar price ranges, €71.6 - €103.6 and €81.3 - €105.9 respectively, depending on the chosen multiple. Sales multiples contributed to the highest values, driven by Conti's strong recovery in turnover, which is projected to surpass pre-Covid figures already in 2024. Conversely, as the company keeps struggling with supply chain disruptions and high raw material costs, ratios multiplied by next year's EBITDA and EBITA resulted in lower estimates, and only leading multiples based on 2025 operating results started yielding equally large enterprise values. However, after being capitalized at the 10.12% WACC, leading metrics substantially increased, aligning more closely with the estimation derived from the DCF, at €93.4 to €120.5. Note also how, apart from ContiTech, including just Tier 1 companies in the analysis did not lead to significant changes. This is likely a consequence of the diverse nature of comparables identified for this division: industrial companies with a strong focus on automotive, but also players in the fluid power and handling businesses, which exhibited higher EBIT and EBITDA margins. In the end, a second evaluation at consolidated level was also performed, exclusively including all Tier 1 peers. Generally, multiples fell between the ranges observed for the Automotive and Tires division and, in aggregate, similar prices were returned (€77.1-€104.9). Nevertheless, sales contribution to high-end values was less marked (€83.2 forward, and €90.7/€89.2 leading), whereas ContiTech's above median EV over EBITDA/EBITA ratios raised implied prices. Revenues being the least subject to managerial manipulation, this led to the decision to disregard this approach. Instead, an average share price of €106.7 as of December 31st, 2024, was adopted, resulting from the use of leading Sales/EBITDA/EBITA multiples in the sum of the parts model.

Sensitivity & Scenario Analysis

To examine to what extent key inputs such as the WACC and steady-state growth rates affect the share price obtained, these values were varied together within each division. In a nutshell, it is important to highlight that a percentage change in WACC has a significantly bigger impact in the final price than the same variation in steady-state growth. Moreover, due to its higher share on Conti's operations, a variation in Automotive's inputs creates the strongest effect on share price, while shifts in ContiTech barely affect the valuation. Regarding the Automotive and Tires divisions, it was deemed important to study how the success or failure of Continental strategies might translate into the share price. Therefore, for Automotive, it was assumed that the future market share in each geography could range 5% up or down from the estimated/baseline values. Consequently, studying the impact on Asia-Pacific and Europe except Germany (North America) yields a

Automotive Division - Mkt Share		Asia-Pacific				
		-5.0%	-2.5%	0.0%	2.5%	5.0%
North America	-5.0%	78.5	85.5	91.9	98.9	103.8
	-2.5%	85.9	92.4	98.4	102.8	110.0
	0.0%	92.8	98.8	103.3	110.5	117.3
	2.5%	99.3	103.7	111.0	117.8	124.6
	5.0%	104.1	111.4	118.2	125.0	131.8

Source: Own Estimates.

Tires Division - Mkt Share		Asia-Pacific				
		-5.0%	-2.5%	0.0%	2.5%	5.0%
Europe (excl Germany)	-2.5%	88.8	92.9	96.0	99.3	103.7
	0.0%	96.9	100.1	103.3	107.8	114.0
	2.5%	102.4	105.6	110.1	116.3	122.0
	5.0%	107.8	112.4	118.6	124.4	130.1

Source: Own Estimates.

Automotive Replacement Business - Share of OE Sales	1.0%	5.0%	10.0%
	96.9	103.3	112.9

Source: Own Estimates.

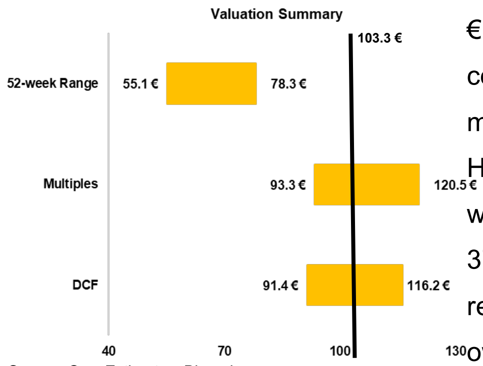
Replacement Tires Prices under UHP% Scenarios	2023	2025	2030
Germany	118 €	125 €	140 €
Europe - excluding Germany	84 €	92 €	107 €
Asia Pacific	70 €	77 €	95 €
Latin America (Other Countries)	126 €	139 €	170 €

Source: Own Estimates.

share price ranging from €77.4 to €133 (€78.5 to €131.84), proving that the company is highly dependent on its own efforts to improve value. The same scenario was tested in the Tires division, differing the fact that a smaller market share loss was assumed in Europe and North America (no more than -2.5%). As such, share price ranges from €88.8 to €130.1 (€84 to €137.1) for Asia-Pacific and Europe except Germany (North America).

Returning to the Automotive division, it was assessed how a bigger role of the replacement business could change results, compared to the 5% share of OE business assumed. In fact, stock price estimated would increase 9.33% if the share of this business would double, while a reduction to simply 1% of OE sales would yield a 6.21% drop in Conti's price. Finally, the upward trajectory in adoption of tires with rim sizes above 18'inches was broken down by geography, to better capture the division's local offering. Accordingly, the current 57% share of UHP tires was increased in more mature markets like Germany and Europe (yearly at 1.25% intervals) and at first kept constant in other regions. Under this more optimistic scenario, the company's stock was now estimated at €106.45 (up 3.06%), as both inflation and product mix developments are accounted for in future replacement tires price. Next, Latin America and Asia's initial UHP proportion were lowered 5%, and projected to remain at such level until 2025, before marginally growing each year. This resulted in a price drop of 2.64%, reaffirming the sensitivity of the division's outlook to revenues outside Europe.

Final Recommendation



Source: Own Estimates, Bloomberg.

According to the DCF valuation, a stock of Continental AG will be traded at €103.29, being this considered the most appropriate method to assess the company's fair value. Nevertheless, note that the share price obtained with the multiples approach is almost identical, reinforcing the validity of the DCF result. Hence, as of December 20th, 2023, a 35.87% price appreciation is expected, to which is summed a 1.19% dividend yield over the next year. All in all, a total 37.06% shareholder return entail a **buy** recommendation to investors. As a final remark, note that this valuation was considered conservative in light of Conti's own projections and yet, the lowest range of the DCF model computed would still entail a buy recommendation to investors (over 20% shareholder return).

Appendix

Income Statement

Group Level, Core	2020	2021	2022	2023	2024	2025	2026	2027	2028	2030	2035	2039	2040
Revenues	31,864.4	33,765.2	39,408.9	42,341.0	44,906.9	47,222.1	49,582.6	52,369.4	54,656.7	59,704.5	72,325.1	84,220.8	88,742.3
Cost of sales	(23,988.1)	(25,589.2)	(30,741.9)	(33,051.1)	(35,020.7)	(36,297.1)	(37,560.5)	(39,616.9)	(41,526.3)	(45,455.5)	(55,427.4)	(64,665.0)	(68,277.2)
Gross profit	7,876.3	8,176.0	8,667.0	9,289.9	9,886.2	10,924.9	12,022.1	12,752.5	13,130.4	14,249.0	16,897.7	19,555.8	20,465.1
Gross margin	24.72%	24.21%	21.99%	21.94%	22.01%	23.14%	24.25%	24.35%	24.02%	23.87%	23.36%	23.22%	23.06%
R&D expenses, net	(2,700.7)	(2,586.8)	(2,871.4)	(3,085.0)	(3,244.3)	(3,392.2)	(3,463.8)	(3,497.7)	(3,498.7)	(3,879.0)	(4,798.9)	(5,689.0)	(6,053.2)
SG&A	(3,224.9)	(3,396.6)	(3,688.6)	(3,939.6)	(4,181.2)	(4,384.8)	(4,593.5)	(4,873.8)	(5,070.2)	(5,492.0)	(6,599.4)	(7,621.8)	(7,990.6)
Other income/expenses (net)	-27.6	-19.3	-10.3	40.0	42.6	44.9	47.3	50.0	52.2	57.0	69.0	80.4	84.7
Income from equity-accounted investees	-69.5	54.8	28.3	36.4	46.1	54.8	57.9	61.2	64.1	70.9	87.8	104.0	110.5
Core operating expenses	(6,005.1)	(5,925.8)	(6,426.4)	(6,948.2)	(7,336.8)	(7,677.3)	(7,952.1)	(8,260.4)	(8,452.6)	(9,243.2)	(11,241.4)	(13,126.4)	(13,848.7)
thereof Depreciation	(501.1)	(1,656.8)	(1,454.5)	(1,558.8)	(1,633.7)	(1,702.4)	(1,808.4)	(1,926.7)	(2,025.6)	(2,175.8)	(2,599.5)	(3,023.7)	(3,180.8)
thereof Intangibles Amortization	(455.0)	(266.9)	(244.4)	(177.1)	(188.9)	(200.0)	(228.4)	(259.9)	(292.1)	(366.8)	(451.0)	(530.8)	(563.2)
thereof ROU assets Amortization	(350.1)	(325.8)	(316.4)	(334.2)	(352.6)	(368.1)	(391.0)	(416.1)	(437.0)	(469.2)	(558.8)	(648.6)	(681.8)
EBITA	2,676.3	2,842.9	2,801.4	2,852.9	3,090.9	3,815.8	4,689.4	5,168.2	5,407.0	5,841.8	6,666.0	7,608.9	7,861.5
EBITA margin	8.40%	8.42%	7.11%	6.74%	6.88%	8.08%	9.46%	9.87%	9.89%	9.78%	9.22%	9.03%	8.86%
Core Result before taxes	1,871.2	2,250.2	2,240.6	2,341.6	2,549.4	3,247.7	4,070.0	4,492.1	4,677.9	5,005.8	5,656.2	6,429.4	6,616.4
Stautory taxes	(574.5)	(690.8)	(687.9)	(718.9)	(782.7)	(997.0)	(1,249.5)	(1,379.1)	(1,436.1)	(1,536.8)	(1,736.5)	(1,973.8)	(2,031.2)
Tax adjustments	116.1	153.9	(53.7)	110.2	122.0	129.2	137.0	146.5	157.7	173.7	217.6	254.0	267.7
Core Result after taxes	1,412.8	1,713.3	1,499.1	1,732.9	1,888.7	2,379.8	2,957.5	3,259.6	3,399.4	3,642.7	4,137.4	4,709.6	4,852.8

Group level, Non Core	2020	2021	2022	2023	2024	2025	2026	2027	2028	2030	2035	2040
Personnel expenses	(19.6)	(21.0)	(24.0)	(25.5)	(27.4)	(29.1)	(30.8)	(32.5)	(34.3)	(37.7)	(44.7)	(53.6)
Pension and post-employment benefit costs	(362.9)	(414.7)	(334.7)	(365.6)	(397.5)	(421.3)	(448.7)	(475.1)	(501.6)	(553.4)	(713.8)	(905.7)
per Group Employee (in units)	(1,852.5)	(2,172.6)	(1,681.6)	(1,790.9)	(1,864.3)	(1,914.7)	(1,962.5)	(2,009.6)	(2,055.8)	(2,142.0)	(2,365.0)	(2,611.1)
Other income/expenses (net)	(1,917.3)	30.9	(1,127.9)	(499.3)	(529.6)	(556.9)	(584.7)	(617.6)	(644.6)	(704.1)	(852.9)	(1,046.5)
Other income from investments	0.6	0.4	0.8	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Interest income	90.7	82.9	83.6	103.3	103.3	103.3	103.3	103.3	103.3	103.3	103.3	103.3
Effects from currency translation	(86.0)	(128.1)	(59.6)	(88.4)	(93.8)	(101.3)	(118.4)	(122.3)	(114.4)	(131.7)	(160.0)	(196.2)
% of Revenues	-0.27%	-0.38%	-0.15%	-0.21%	-0.21%	-0.21%	-0.24%	-0.23%	-0.21%	-0.22%	-0.22%	-0.22%
Effects from changes in the fair value of derivative instruments and other valuation effects	71.6	69.5	12.8	-	-	-	-	-	-	-	-	-
Non-core result before taxes	(2,222.9)	(380.1)	(1,449.0)	(874.9)	(944.3)	(1,004.6)	(1,078.7)	(1,143.5)	(1,190.9)	(1,323.0)	(1,667.4)	(2,098.1)
Stautory taxes	682.4	116.7	444.8	268.6	289.9	308.4	331.2	351.1	365.6	406.2	511.9	644.1
Statutory tax rate	30.7%	30.7%	30.7%	30.7%	30.7%	30.7%	30.7%	30.7%	30.7%	30.7%	30.7%	30.7%
Non-core adjustments	(115.2)	4.9	(104.6)									
Non-tax-deductible impairment of goodwill	(140.1)	-	(115.8)	-	-	-	-	-	-	-	-	5.0
Other Comprehensive Income	(1,506.7)	1,344.9	1,409.1	(10.3)	(10.9)	(11.5)	(12.1)	(12.7)	(13.3)	(14.5)	(17.6)	(21.6)
(Income)/Loss from discountinued operations	(353.2)	156.9	-	-	-	-	-	-	-	-	-	5.0
Non-core result	(3,655.6)	1,243.3	184.5	(616.6)	(665.3)	(707.7)	(759.6)	(805.2)	(838.6)	(931.4)	(1,173.1)	(1,465.6)

Group level, Financial	2020	2021	2022	2023	2024	2025	2026	2027	2028	2030	2035	2040
Interest expense	(264.2)	(180.4)	(234.8)	(321.6)	(322.7)	(323.8)	(333.5)	(344.3)	(364.5)	(387.2)	(446.7)	(527.0)
Rd*previous year debt				4.18%	4.18%	4.18%	4.18%	4.18%	4.18%	4.18%	4.18%	4.18%
Financial Result before taxes	(264.2)	(180.4)	(234.8)	(321.6)	(322.7)	(323.8)	(333.5)	(344.3)	(364.5)	(387.2)	(446.7)	(527.0)
Stautory taxes	81.1	55.4	72.1	98.7	99.1	99.4	102.4	105.7	111.9	118.9	137.1	161.8
Statutory tax rate	30.7%	30.7%	30.7%	30.7%	30.7%	30.7%	30.7%	30.7%	30.7%	30.7%	30.7%	30.7%
Non-controlling interests	7.3	(89.0)	(38.1)	(62.3)	(63.5)	(64.4)	(66.8)	(72.2)	(75.5)	(80.7)	(95.2)	(115.6)
% of Non-controlling interests	-1.9%	19.7%	8.0%	12.3%	12.3%	12.3%	12.3%	12.3%	12.3%	12.3%	12.3%	12.3%
Financial Result	(175.8)	(214.0)	(200.8)	(285.2)	(287.2)	(288.8)	(297.9)	(310.9)	(328.1)	(349.0)	(404.8)	(480.7)

Total comprehensive income	(2,418.6)	2,742.6	1,482.8	831.1	936.1	1,383.4	1,900.0	2,143.5	2,232.8	2,362.3	2,559.5	2,906.6

Balance Sheet

Group Level, Core	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2035	2040
Operating cash	641.5	676.4	788.1	846.8	898.1	944.4	991.6	1,047.3	1,093.1	1,147.8	1,194.0	1,446.4	1,774.8
% of Revenues	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Inventories	4,238.2	4,993.7	6,729.6	6,939.6	6,960.4	6,773.5	6,561.3	6,924.0	7,245.3	7,553.6	7,844.2	9,404.4	11,340.5
Average holding period	64.49	71.23	79.90	76.64	72.54	68.11	63.76	63.79	63.68	63.31	62.99	61.93	60.62
Trade accounts receivable	7,353.2	7,089.5	7,767.7	8,056.5	8,246.8	8,375.1	8,499.9	8,978.4	9,368.8	9,834.9	10,226.5	12,378.2	15,167.6
Average collection period	84.23	76.64	71.94	69.45	67.03	64.73	62.57	62.58	62.57	62.55	62.52	62.47	62.38
Trade accounts payable	(5,933.1)	(5,865.4)	(7,637.0)	(7,928.4)	(8,018.3)	(7,899.6)	(7,721.2)	(7,668.8)	(8,041.2)	(8,440.7)	(8,818.6)	(10,792.0)	(13,359.2)
Average payable period	90.28	83.66	90.67	87.56	83.57	79.44	75.03	70.65	70.68	70.75	70.81	71.07	71.42
Income taxes, net	(555.3)	(168.8)	(248.1)	(284.7)	(303.1)	(319.2)	(341.0)	(366.6)	(381.5)	(398.8)	(412.2)	(491.8)	(590.4)
Contract liabilities, net	(171.9)	(171.2)	(132.6)	(107.8)	(119.3)	(126.7)	(132.5)	(141.8)	(147.7)	(154.7)	(160.6)	(196.7)	(240.8)
Other assets, net	704.8	382.4	422.0	604.7	636.5	665.2	693.9	732.9	765.0	803.6	836.4	1,014.2	1,246.4
Operating Working Capital	**6,277.4**	**6,936.6**	**7,689.7**	**8,126.8**	**8,301.1**	**8,412.8**	**8,552.0**	**9,505.4**	**9,901.8**	**10,345.7**	**10,709.8**	**12,762.7**	**15,338.9**
Long-term Contract liabilities	(7.0)	(7.6)	(7.8)	(8.4)	(8.9)	(9.3)	(9.8)	(10.4)	(10.8)	(11.4)	(11.8)	(14.3)	(17.6)
Long-term Other liabilities	(38.3)	(32.7)	(22.8)	(20.3)	(17.0)	(12.7)	(13.3)	(14.0)	(14.7)	(15.4)	(16.1)	(19.6)	(24.3)
Other Intangible assets	1,346.9	1,087.7	973.7	865.0	922.9	977.2	1,115.9	1,270.0	1,427.3	1,608.3	1,792.3	2,203.6	2,751.9
PP&E	13,760.6	11,411.6	11,467.2	12,307.8	12,936.3	13,476.8	14,305.8	15,225.3	15,992.1	16,657.5	17,168.3	20,451.5	24,961.9
% Revenues	43.2%	33.8%	29.1%	29.1%	28.8%	28.5%	28.9%	29.1%	29.3%	29.0%	28.8%	28.3%	28.1%
of which Right-of-use assets	1,487.1	1,195.1	1,161.1	1,226.3	1,293.9	1,350.7	1,434.7	1,526.8	1,603.6	1,670.3	1,721.5	2,050.3	2,501.9
Investments in equity-accounted investees	320.3	305.9	305.1	399.6	428.3	456.3	481.8	509.1	532.5	561.2	586.4	720.9	899.2
% of Revenues	1.0%	0.9%	0.8%	0.9%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Deferred tax assets, net	(188.5)	(48.3)	110.6	100.1	108.3	108.2	98.1	97.3	95.9	94.0	92.6	111.3	127.6
Core Invested Capital	**21,471.4**	**19,653.1**	**20,515.8**	**21,770.7**	**22,671.0**	**23,409.3**	**24,530.5**	**26,582.6**	**27,924.1**	**29,240.0**	**30,321.6**	**36,216.2**	**44,037.5**

Group level, Non Core	2020	2021	2022	2023	2024	2025	2026	2027	2028	2030	2035	2040
Goodwill	3,576.4	3,711.8	3,218.2	3,218.2	3,218.2	3,218.2	3,218.2	3,218.2	3,218.2	3,218.2	3,218.2	3,218.2
Investment property	12.2	12.0	11.5	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9
Other assets, net	(155.5)	(14.1)	45.8	(21.2)	(21.2)	(21.2)	(21.2)	(21.2)	(21.2)	(21.2)	(21.2)	(21.2)
Other investments	123.4	169.4	170.0	170.7	170.7	170.7	170.7	170.7	170.7	170.7	170.7	170.7
Deferred tax assets, net	2,771.3	2,275.5	1,891.1	1,669.8	1,448.6	1,227.4	1,227.4	1,227.4	1,227.4	1,227.4	1,227.4	1,227.4
Defined benefit assets	82.7	101.6	93.1	76.6	60.3	41.8	22.3	23.1	23.8	25.2	29.4	33.8
per Group Employee	422.2	532.3	467.7	375.2	282.6	190.1	97.5	97.5	97.5	97.5	97.5	97.5
Derivative instruments and interest-bearing investments	256.6	225.9	207.3	223.8	223.8	223.8	223.8	223.8	223.8	223.8	223.8	223.8
Other financial assets, net	(986.8)	(927.3)	(1,363.8)	(895.6)	(895.6)	(895.6)	(895.6)	(895.6)	(895.6)	(895.6)	(895.6)	(895.6)
Assets held for sale	22.8	7.9	-	-	-	-	-	-	-	-	-	-
Employee benefits	(7,346.4)	(5,986.5)	(3,898.2)	(4,136.6)	(4,464.4)	(4,756.5)	(5,097.4)	(5,430.9)	(5,769.5)	(6,460.2)	(7,546.3)	(8,672.6)
per Group Employee	(37,501.5)	(31,363.5)	(19,585.2)	(20,262.5)	(20,939.8)	(21,617.1)	(22,294.4)	(22,971.7)	(23,649.0)	(25,003.6)	(25,003.6)	(25,003.6)
Provisions for other risks and obligations	(2,968.0)	(1,893.1)	(1,660.9)	(1,524.1)	(1,463.5)	(1,402.9)	(1,342.2)	(1,281.6)	(1,221.0)	(1,221.0)	(1,221.0)	(1,221.0)
Discontinued assets/liabilities	816.2	-	-									
Non-core invested capital	(3,795.1)	(2,316.9)	(1,285.9)	(1,206.6)	(1,711.3)	(2,182.3)	(2,482.1)	(2,754.3)	(3,031.6)	(3,720.9)	(4,802.7)	(5,924.6)
Group's Total Invested capital	**17,676.3**	**17,336.3**	**19,229.8**	**20,564.2**	**20,959.7**	**21,227.0**	**22,048.3**	**23,828.3**	**24,892.5**	**26,600.7**	**31,413.5**	**38,112.9**

Group level, Financial	2020	2021	2022	2023	2024	2025	2026	2027	2028	2030	2035	2040
Excess cash & equivalents	2,297.2	1,592.7	2,199.9	1,510.0	1,806.4	2,744.2	3,343.5	3,376.5	3,973.5	5,368.4	6,295.1	7,489.4
Debt	(7,334.4)	(5,730.8)	(7,694.7)	(7,721.5)	(7,748.3)	(7,978.4)	(8,238.7)	(8,721.6)	(9,016.7)	(9,468.8)	(11,083.2)	(13,192.3)
Non-controling interests	(376.7)	(452.5)	(475.8)	(508.8)	(518.6)	(525.2)	(545.5)	(589.6)	(615.9)	(658.2)	(777.3)	(943.0)
% Invested Capital	-2.1%	-2.6%	-2.5%	-2.47%	-2.47%	-2.47%	-2.47%	-2.47%	-2.47%	-2.47%	-2.47%	-2.47%
Total Financing	(5,413.9)	(4,590.6)	(5,970.6)	**(6,720.3)**	**(6,460.5)**	**(5,759.4)**	**(5,440.8)**	**(5,934.7)**	**(5,659.2)**	**(4,758.5)**	**(5,565.4)**	**(6,646.0)**

Equity attributable to the shareholders of the parent company	12,262.4	12,216.0	13,259.2	**13,843.9**	**14,499.2**	**15,467.6**	**16,607.6**	**17,893.7**	**19,233.3**	**21,842.1**	**25,848.1**	**31,466.9**

Cash Flow Map

Group Level, Core	2020	2021	2022	2023	2024	2025	2026	2027	2028	2030	2035	2040
EBIT	1,871.2	2,250.2	2,240.6	2,341.6	2,549.4	3,247.7	4,070.0	4,492.1	4,677.9	5,005.8	5,656.2	6,616.4
EBIT margin	5.87%	6.66%	5.69%	5.53%	5.68%	6.88%	8.21%	8.58%	8.56%	8.38%	7.82%	7.46%
Statutory taxes	(574.5)	(690.8)	(687.9)	(718.9)	(782.7)	(997.0)	(1,249.5)	(1,379.1)	(1,436.1)	(1,536.8)	(1,736.5)	(2,031.2)
Tax adjustments	116.1	153.9	(53.7)	110.2	122.0	129.2	137.0	146.5	157.7	173.7	217.6	267.7
NOPLAT	1,412.8	1,713.3	1,499.1	1,732.9	1,888.7	2,379.8	2,957.5	3,259.6	3,399.4	3,642.7	4,137.4	4,852.8
Depreciation	501.1	1,656.8	1,454.5	1,558.8	1,633.7	1,702.4	1,808.4	1,926.7	2,025.6	2,175.8	2,599.5	3,180.8
Amortization	805.1	592.7	560.8	511.3	541.5	568.1	619.4	676.0	729.2	836.0	1,009.8	1,245.1
Gross FCF	2,719.0	3,962.8	3,514.4	3,803.0	4,063.9	4,650.3	5,385.3	5,862.3	6,154.2	6,654.5	7,746.6	9,278.7
Net CAPEX	210.8	358.7	(1,956.9)	(2,801.9)	(2,861.6)	(2,865.4)	(3,395.4)	(3,676.3)	(3,678.8)	(3,706.6)	(4,565.7)	(5,801.5)
Change in NWC	(126.9)	(659.2)	(753.2)	(437.1)	(174.2)	(111.7)	(139.2)	(953.4)	(396.4)	(364.1)	(489.1)	(665.4)
Change in other (core) operating assets, net	87.7	(130.8)	(167.9)	(86.0)	(39.6)	(31.7)	(14.3)	(25.2)	(20.9)	(22.6)	(34.5)	(51.6)
Unlevered Operating CF	2,890.7	3,531.5	636.4	478.0	988.4	1,641.4	1,836.4	1,207.4	2,058.0	2,561.1	2,657.3	2,760.1

Group level, Non Core	2020	2021	2022	2023	2024	2025	2026	2027	2028	2030	2035	2040
EBIT	(2,222.9)	(380.1)	(1,449.0)	(874.9)	(944.3)	(1,004.6)	(1,078.7)	(1,143.5)	(1,190.9)	(1,323.0)	(1,667.4)	(2,098.1)
Statutory taxes	682.4	116.7	444.8	268.6	289.9	308.4	331.2	351.1	365.6	406.2	511.9	644.1
Tax adjustments	(115.2)	4.9	(104.6)	-	-	-	-	-	-	-	-	-
Non-tax-deductible impairment of goodwill	(140.1)	-	(115.8)	-	-	-	-	-	-	-	-	5.0
(Income)/Loss from discountinued operations	(353.2)	156.9	-	-	-	-	-	-	-	-	-	5.0
Other Comprehensive Income	(1,506.70)	1,344.90	1,409.10	(10.3)	(10.9)	(11.5)	(12.1)	(12.7)	(13.3)	(14.5)	(17.6)	(21.6)
NPLAT	(3,655.6)	1,243.3	184.5	(616.6)	(665.3)	(707.7)	(759.6)	(805.2)	(838.6)	(931.4)	(1,173.1)	(1,465.6)
△ Goodwill	(1,537.1)	135.4	(493.6)	-	-	-	-	-	-	-	-	-
△ Investment property	0.5	(0.2)	(0.5)	0.4	-	-	-	-	-	-	-	-
△ Other assets, net	(104.9)	141.4	59.9	(67.0)	-	-	-	-	-	-	-	-
△ Other investments	(74.2)	46.0	0.6	0.7	-	-	-	-	-	-	-	-
△ Deferred tax assets, net	703.8	(495.8)	(384.5)	(221.2)	(221.2)	(221.2)	-	-	-	-	-	-
△ Defined benefit assets	74.9	18.9	(8.5)	(16.5)	(16.3)	(18.4)	(19.5)	0.8	0.7	0.7	0.8	0.9
△ Derivative instruments and interest-bearing investments	51.1	(30.7)	(18.6)	16.5	-	-	-	-	-	-	-	-
△ Other financial assets, net	(141.9)	59.5	(436.5)	468.2	-	-	-	-	-	-	-	-
△ Assets held for sale	(66.8)	(14.9)	(7.9)	-	-	-	-	-	-	-	-	-
△ Employee benefits	(571.4)	1,359.9	2,088.3	(238.4)	(327.8)	(292.0)	(340.9)	(333.5)	(338.6)	(347.5)	(207.1)	(238.0)
△ Provisions for other risks and obligations	(1,040.3)	1,074.9	232.2	136.8	60.6	60.6	60.6	60.6	60.6	-	-	-
△ Discontinued assets/liabilities	816.2	(816.2)	-	-	-	-	-	-	-	-	-	-
Unlevered Non-operating CF	(1,765.5)	(234.9)	(846.4)	(696.0)	(160.6)	(236.6)	(459.8)	(533.1)	(561.3)	(584.6)	(966.8)	(1,228.5)
Total Unlevered CF	1,125.1	3,296.6	(210.0)	(218.0)	827.8	1,404.8	1,376.6	674.4	1,496.7	1,976.5	1,690.5	1,531.6

Group Level, Financial	2020	2021	2022	2023	2024	2025	2026	2027	2028	2030	2035	2040
Interest expense	(264.2)	(180.4)	(234.8)	(321.6)	(322.7)	(323.8)	(333.5)	(344.3)	(364.5)	(387.2)	(446.7)	(527.0)
Tax Shield	81.1	55.4	72.1	98.7	99.1	99.4	102.4	105.7	111.9	118.9	137.1	161.8
Change in Debt	(284.6)	(1,603.6)	1,963.9	26.8	26.8	230.1	260.3	482.9	295.2	204.4	396.4	584.2
Change in Excess cash & equivalents	153.3	704.5	(607.1)	689.8	(296.3)	(937.8)	(599.3)	(33.0)	(597.0)	(669.0)	206.1	(227.8)
Change in Non-controling interests	(96.4)	(13.2)	(14.8)	(29.3)	(53.8)	(57.7)	(46.5)	(28.2)	(49.1)	(62.5)	(63.7)	(69.6)
Transactions with shareholders	(714.3)	(2,789.0)	(439.6)	(246.4)	(280.9)	(415.0)	(760.0)	(857.4)	(893.1)	(1,181.2)	(1,919.7)	(1,453.3)
Financing CF	(1,125.15)	(3,826.31)	739.66	218.0	(827.8)	(1,404.8)	(1,376.6)	(674.36)	(1,496.7)	(1,976.5)	(1,690.5)	(1,531.6)

Long-term Value Drivers

ROE	2020	2021	2022	2023	2024	2025	2026	2027	2028	2030	2035	2040
Weight Core	121,5%	113,4%	106,7%	105,9%	108,2%	110,3%	111,3%	111,6%	112,2%	114,0%	115,3%	115,5%
Core Operational Margin	4,4%	5,1%	3,8%	4,1%	4,2%	5,0%	6,0%	6,2%	6,2%	6,1%	5,7%	5,5%
Core Asset Turnover	165,7%	157,3%	200,5%	206,4%	206,3%	208,3%	211,8%	213,5%	205,6%	204,2%	208,2%	211,6%
Core ROIC	7,3%	8,0%	7,6%	8,4%	8,7%	10,5%	12,6%	13,3%	12,8%	12,5%	11,9%	11,6%
Core Activity	8,9%	9,0%	8,1%	8,9%	9,4%	11,6%	14,1%	14,8%	14,3%	14,2%	13,7%	13,4%
Weight Non-Core	-21,5%	-13,4%	-6,7%	-5,9%	-8,2%	-10,3%	-11,3%	-11,6%	-12,2%	-14,0%	-15,3%	-15,5%
Non-core ROIC	191,9%	-32,8%	-8,0%	48,0%	55,1%	41,4%	34,8%	32,4%	30,4%	27,6%	25,5%	25,8%
Non-Core Activity	-41,2%	4,4%	0,5%	-2,8%	-4,5%	-4,3%	-3,9%	-3,7%	-3,7%	-3,9%	-3,9%	-4,0%
Net Debt / Equity	-44,2%	-41,9%	-45,0%	-48,5%	-44,6%	-37,2%	-32,8%	-33,2%	-29,4%	-21,8%	-21,5%	-21,1%
ROIC	-10,7%	16,7%	9,7%	5,8%	5,9%	8,0%	10,4%	11,1%	10,7%	10,5%	9,8%	9,3%
Financial Result / Net Debt	3,2%	4,2%	3,4%	4,2%	4,4%	5,0%	5,5%	5,2%	5,8%	7,3%	7,3%	7,2%
Financial Activity	6,1%	-5,3%	-2,9%	-0,8%	-0,7%	-1,1%	-1,6%	-2,0%	-1,5%	-0,7%	-0,6%	-0,4%
ROE	-26,1%	8,2%	5,81%	5,37%	4,21%	6,2%	8,5%	9,1%	9,2%	9,7%	9,3%	8,9%

Disclosures and Disclaimers

Report Recommendations

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

This report was prepared by José Barros and Aleardo Chitto', Master in Finance students of Nova School of Business and Economics ("Nova SBE"), within the context of the Field Lab – Equity Research.

This report is issued and published exclusively for academic purposes, namely for academic evaluation and master graduation purposes, within the context of said Field Lab – Equity Research. It is not to be construed as an offer or a solicitation of an offer to buy or sell any security or financial instrument.

This report was supervised by a Nova SBE faculty member, acting merely in an academic capacity, who revised the valuation methodology and the financial model.

Given the exclusive academic purpose of the reports produced by Nova SBE students, it is Nova SBE understanding that Nova SBE, the author, the present report and its publishing, are excluded from the persons and activities requiring previous registration from local regulatory authorities. As such, Nova SBE, its faculty and the author of this report have not sought or obtained registration with or certification as financial analyst by any local regulator, in any jurisdiction. In Portugal, neither the author of this report nor his/her academic supervisor is registered with or qualified under COMISSÃO DO MERCADO DE VALORES MOBILIÁRIOS ("CMVM", the Portuguese Securities Market Authority) as a financial analyst. No approval for publication or distribution of this report was required and/or obtained from any local authority, given the exclusive academic nature of the report.

The additional disclaimers also apply:

USA: Pursuant to Section 202 (a) (11) of the Investment Advisers Act of 1940, neither Nova SBE nor the author of this report are to be qualified as an investment adviser and, thus, registration with the Securities and Exchange Commission ("SEC", United States of America's securities market authority) is not necessary. Neither the author nor Nova SBE receive any compensation of any kind for the preparation of the reports.

Germany: Pursuant to §34c of the WpHG (*Wertpapierhandelsgesetz*, i.e., the German Securities Trading Act), this entity is not required to register with or otherwise notify the *Bundesanstalt für Finanzdienstleistungsaufsicht* ("BaFin", the German Federal Financial Supervisory Authority). It should be noted that Nova SBE is a fully-owned state university and there is no relation between the student's equity reports and any fund raising programme.

UK: Pursuant to section 22 of the Financial Services and Markets Act 2000 (the "FSMA"), for an activity to be a regulated activity, it must be carried on "by way of business". All regulated activities are subject to prior authorization by the Financial Conduct Authority ("FCA"). However, this report serves an exclusively academic purpose and, as such, was not prepared by way of business. The author - a Master's student - is the **sole and exclusive responsible** for the information, estimates and forecasts contained herein, and for the opinions expressed, which exclusively reflect his/her own judgment at the date of the report. Nova SBE and its faculty have no single and formal position in relation to the most appropriate valuation method, estimates or projections used in the report and may not be held liable by the author's choice of the latter.

The information contained in this report was compiled by students from public sources believed to be reliable, but Nova SBE, its faculty, or the students make no representation that it is accurate or complete, and accept no liability whatsoever for any direct or indirect loss resulting from the use of this report or of its content.

Students are free to choose the target companies of the reports. Therefore, Nova SBE may start covering and/or suspend the coverage of any listed company, at any time, without prior notice. The students or Nova SBE are not responsible for updating this report, and the opinions and recommendations expressed herein may change without further notice.

The target company or security of this report may be simultaneously covered by more than one student. Because each student is free to choose the valuation method, and make his/her own assumptions and estimates, the resulting projections, price target and recommendations may differ widely, even when referring to the same security. Moreover, changing market conditions and/or changing subjective opinions may lead to significantly different valuation results. Other students' opinions, estimates and recommendations, as well as the advisor and other faculty members' opinions may be inconsistent with the views expressed in this report. Any recipient of this report should understand that statements regarding future prospects and performance are, by nature, subjective, and may be fallible.

This report does not necessarily mention and/or analyze all possible risks arising from the investment in the target company and/or security, namely the possible exchange rate risk resulting from the security being denominated in a currency either than the investor's currency, among many other risks.

The purpose of publishing this report is merely academic and it is not intended for distribution among private investors. The information and opinions expressed in this report are not intended to be available to any person other than Portuguese natural or legal persons or persons domiciled in Portugal. While preparing this report, students did not have in consideration the specific investment objectives, financial situation or particular needs of any specific person. Investors should seek financial advice regarding the appropriateness of investing in any security, namely in the security covered by this report.

The author hereby certifies that the views expressed in this report accurately reflect his/her personal opinion about the target company and its securities. He/ She has not received or been promised any direct or indirect compensation for expressing the opinions or recommendation included in this report.

[If applicable, it shall be added: *"While preparing the report, the author may have performed an internship (remunerated or not) in* [insert the Company's name]. *This Company may have or have had an interest in the covered company or security"* and/ or *"A draft of the reports have been shown to the covered company's officials (Investors Relations Officer or other), mainly for the purpose of correcting inaccuracies, and later modified, prior to its publication."]*

The content of each report has been shown or made public to restricted parties prior to its publication in Nova SBE's website or in Bloomberg Professional, for academic purposes such as its distribution among faculty members for students' academic evaluation.

Nova SBE is a state-owned university, mainly financed by state subsidies, students tuition fees and companies, through donations, or indirectly by hiring educational programs, among other possibilities. Thus, Nova SBE may have received compensation from the target company during the last 12 months, related to its fundraising programs, or indirectly through the sale of educational, consulting or research services. Nevertheless, no compensation eventually received by Nova SBE is in any way related to or dependent on the opinions expressed in this report. The Nova School of Business and Economics does not deal for or otherwise offer any investment or intermediation services to market counterparties, private or intermediate customers.