

A Work Project, presented as part of the requirements for the Award of a Master Degree in Finance  
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Rolls-Royce - The Engine of Change:  
Evaluating Financial Growth and  
Equity Dynamics

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## Abstract

This report is part of the Rolls-Royce Equity Research Report and evaluates Rolls-Royce's financial growth and equity dynamics, focusing on its business model, market outlook, and comprehensive valuation. Key areas analyzed include the Civil Aerospace and Power Systems segments, which are expected to drive growth in line with market recovery trends and rising demand for energy solutions. A detailed DCF and APV valuation provide an estimated fair share price, supported by scenario analysis to account for risks and uncertainties. The Civil Aerospace segment demonstrates strong recovery potential through increasing engine deliveries and aftermarket service growth, while Power Systems benefits from expanding energy demand and sustainability trends. The report concludes that Rolls-Royce is well-positioned for future growth, contingent on successful execution of its transformation program and effective risk mitigation.

Keywords: Equity Research, Valuation, Aerospace & Defense

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This report is part of the Rolls-Royce – The Engine of Change Equity Report, developed by Jannik Schulze and Patrick Kari and should be read as an integral part of it.

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# Introduction

The joint equity research report, titled "Rolls-Royce – The Engine of Change" aims to provide a comprehensive evaluation of Rolls-Royce Holdings PLC. It assesses the company's business model, market environment, financial performance, critical financial forecasts and an equity valuation while analysing critical risks, macroeconomic trends, and strategic developments. The purpose of this report is to deliver a detailed understanding of Rolls-Royce's growth drivers, operational challenges, and valuation potential to support informed investment decisions. Contributions to the report are divided into multiple sections and were split between both students.

This individual report adds significant value to the joint work by providing a detailed analysis of Rolls-Royce's business model, core segments, and market shares. It includes an industry overview focusing on macroeconomic trends and the Civil Aerospace and Power Systems markets, alongside an assessment of key risks and the company's ESG positioning. Comprehensive revenue forecasts were conducted for the Civil Aerospace and Power Systems segments, combined with analyses of future capital expenditures and working capital. DCF and APV valuations, including the calculation of Rolls-Royce's cost of debt, were conducted to estimate the company's fair share price, supported by a scenario analysis to address key uncertainties and to derive an ultimate investment recommendation.

Remaining sections of the joint report, covered by my partner, mainly address the Defence and New Markets segments, focusing on extensive market analysis as well as revenue forecasts for the Defence and SMR segment. Additionally, his report includes a detailed analysis of Rolls-Royce's financial health, examining liquidity, capital structure, and profitability trends, as well as the critical forecast of the company's operating performance. Further sections cover a comparative company analysis (CCA), which was used as an additional valuation method alongside the cashflow-based valuation. A sensitivity analysis completes the evaluation by highlighting the impact of key variables on the DCF-derived share price.

Based on our valuation, we assign a **HOLD** recommendation with a fair share price estimate of 613.28 GBX, including dividends, by December 2025. This reflects the company's strong market positioning and growth potential across core and emerging segments, such as Civil Aerospace and SMR. However, the recent share price appreciation has narrowed the gap to its intrinsic value, indicating limited short-term upside while still acknowledging the ongoing operational turnaround.

# Company Overview

## Company Description



Rolls-Royce Holdings PLC (Rolls-Royce) headquartered in London, United Kingdom (UK), is a multinational industrial technology company that designs and manufactures power system solutions for the use in air, land and sea applications. The company was founded in 1906 by Charles Rolls and Henry Royce and developed from a manufacturer of luxury automobiles into a leading company in the aviation industry. Following financial difficulties in 1971 and the spin-off of the automotive division in 1973, Rolls-Royce now focuses on aircraft engines and propulsion systems for the marine and energy sector. As of 2024, the company employs over 41,000 people in more than 48 countries worldwide.

One of the cornerstones of Rolls-Royce is its brand which stands for engineering excellence, reliability and technological innovation. Its products are used worldwide in safety-critical areas, which underlines the trust placed in the brand. Through continuous effort in research and development, Rolls-Royce has built a reputation as a pioneer in the provision of complex power solutions.

## Company Segments

Rolls-Royce operates across four business segments, namely Civil Aerospace (48% of revenue), Defence (26%), Power Systems (26%), and New Markets (0.03%). Revenue is split into Original Equipment (OE) and aftermarket services. OE focuses on the sale of new power applications and systems to original equipment manufacturers, while aftermarket services provide services such as maintenance, repair and overhaul. Each segment is further divided by product categories. Revenues in each segment are generated globally with a focus on North American, European, and Asian markets with the USA (28% of revenue) and UK (14% of revenue) each representing the countries with the highest share by individual country. Due to this distribution, the geographical exposure can be considered diversified.

The Civil Aerospace segment of Rolls-Royce specializes in manufacturing and servicing engines for large commercial aircraft, regional jets, and business jets. The large engine division, led by the Trent engine family, powers new generation widebody aircrafts like the Boeing 787, Airbus A350, and A330neo, achieving a 33% market share for large engines in service and 41% for engines on order. In Business Aviation, Rolls-Royce supplies advanced jets like the Gulfstream G700 and Bombardier Global 5500 with its Pearl and BR700 engines. This represents a growing segment due to its stability compared to commercial aviation and Rolls-Royce's strong market share of 70%. While Rolls-Royce exited the narrowbody

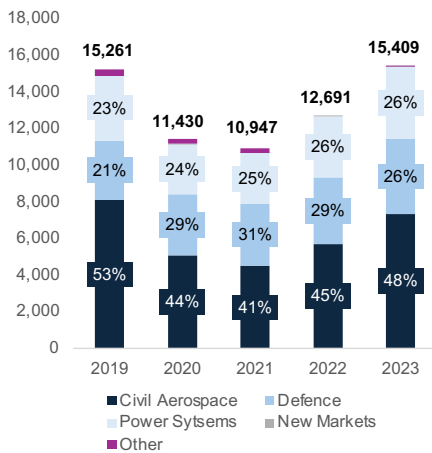


Exhibit 1: Revenue Split by Business Segment in £m (2019 – 2023)

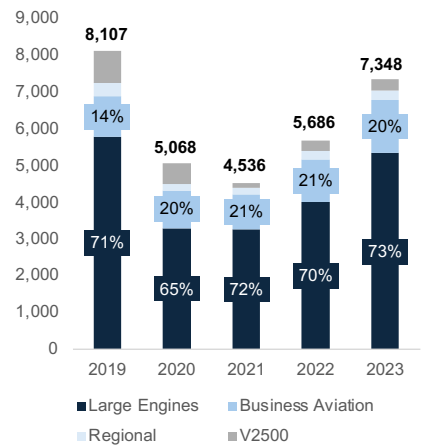


Exhibit 2 : Revenue Split Civil Aerospace in £m (2019 – 2023)

market in 2012, it continues to supply components and aftermarket services for regional and narrowbody aircraft, contributing minimally to revenue within the regional and V2500 divisions.

Rolls-Royce's Defence segment is a leading provider of propulsion solutions for military applications. It encompasses the development, manufacture and maintenance of engines for military aircraft, naval and submarines. These include engines for fighter jets such as the Eurofighter Typhoon, military transport aircraft such as the Lockheed C-130 Hercules, as well as propulsion solutions for submarines and naval vessels, including nuclear reactor systems for the British Royal Navy. Rolls-Royce shows promising market shares across all sub-segments with 25-30% in transport, 10-20% in combat, 100% for UK submarines, 15-20% for naval and 10-15% for helicopter solutions.

The Power Systems segment offers versatile energy systems, including MTU branded engines and power solutions for industrial, maritime and government related applications as well as emergency power solutions and battery systems. It combines traditional diesel and gas engines with technologies such as hybrid and hydrogen propulsion to drive decarbonization. Rolls-Royce holds >30% market share in governmental solutions, 15-20% in power generation and marine applications, and 10-15% in industrial power solutions. Revenue share from marine propulsion sharply dropped in 2023 due to the reclassification of the naval business into governmental power solutions.

Rolls-Royce's New Markets segment focuses on the development and commercialization of innovative technologies. After the decision to exit the electrical mobility division in 2023, the segment exclusively comprises the development of Small Modular Nuclear Reactors (SMRs). Since the SMR business is still in an early stage, no material revenues are recorded in this segment so far. However, Rolls-Royce's SMRs are currently in the advanced regulatory approval process in the UK. Moreover, the firm is the chosen partner of the Czech Republic and short-listed in the selection process from Sweden.

## Industry Overview

### Macroeconomic Analysis

The global economic outlook shows modest growth with projections of a stabilized but low GDP growth near-term. The International Monetary Fund (IMF) is forecasting global growth of 3.2% in 2024 and 2025, which represents a mediocre performance compared with pre-pandemic levels. Main reasons for this economic slowdown are disinflationary trends, monetary policy adjustments, geopolitical

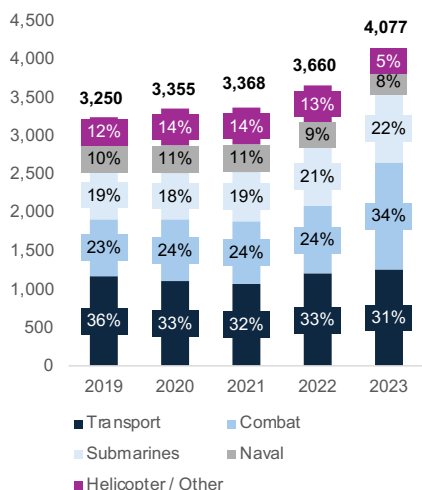


Exhibit 3: Revenue Split Defence in £m (2019 – 2023)

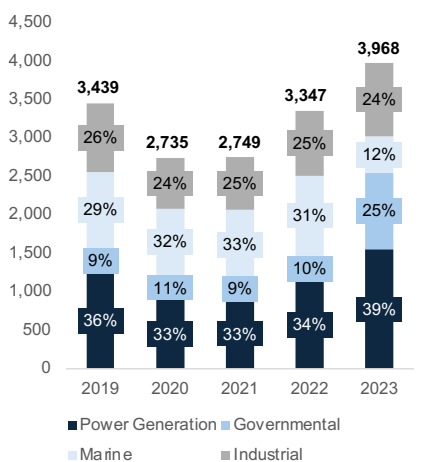


Exhibit 4: Revenue Split Power Systems in £m (2019 – 2023)

IMF GDP Growth Projections			
Year	Advanced Economies	Emerging Economies	World
2024	1.80%	4.20%	3.20%
2025	1.80%	4.20%	3.20%
2026	1.80%	4.20%	3.30%
2027	1.70%	4.00%	3.20%
2028	1.70%	3.90%	3.10%
2029	1.70%	3.90%	3.10%

Exhibit 5: GDP Growth Projections

tensions, and supply chain disruptions.<sup>1</sup>

Global inflation rates in key markets showed signs of relief after its peak in 2022 and inflation is expected to normalise close to central banks' target of 2%.<sup>2</sup> This decline provides some kind of relief since the stabilization of input costs is lowering the overall production costs and further improves margins. Inflation is particularly important for Rolls-Royce since its business heavily relies on long-term contracts with its customers and the company is therefore partially limited in its ability to pass on costs to customers. Additionally, inflation is also affecting the available income of households, which could reduce future demand for air travel.

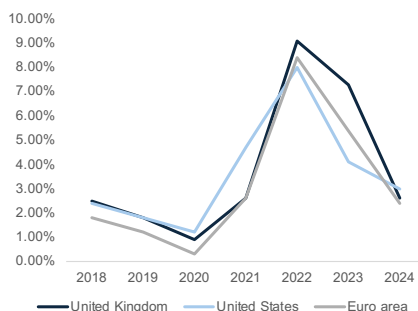
Over the past two years, interest rates continuously have risen across key markets due to the central banks efforts to tackle inflation. For the future, the IMF expects interest rates to decrease toward their natural levels as inflation falls.<sup>3</sup> The current high interest environment represents a mixed outlook for Rolls-Royce. Higher financing costs increase the financial burden to cover interest payments, which could negatively impact the companies' profitability and cashflows. Furthermore, this rise could negatively impact the demand of new aircrafts, as airlines financing costs also increase. On the other hand, high interest rates could stabilize currency fluctuations by attracting capital inflows which could in return reduce financial risks associated with the global nature of Rolls-Royce's business model. This seems particularly important, since Rolls-Royce is generating a large share of its cash flows in US Dollar and Euro, while reporting financial statements in Pound Sterling.

## Market Analysis

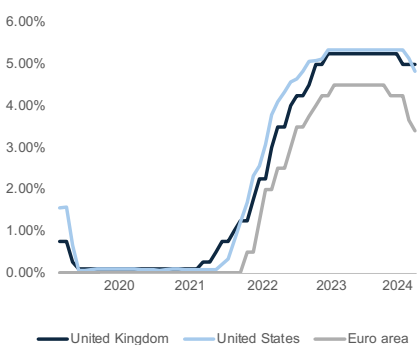
### ▪ Civil Aerospace

The years 2023 and 2024 are characterized by further relief for the aerospace industry. According to the International Air Transport Association (IATA), demand for global air passenger traffic measured in revenue passenger kilometres, is expected to grow by 11.6% in 2024<sup>4</sup>. Airplane traffic is also expected to grow with 8% annually for the next three years before smoothing to an annually growth rate of 3.6% from 2027 onwards<sup>5</sup>. This increase means an almost complete recovery from the COVID-19 dip in 2020.

As a result of this positive outlook, the demand for fleet expansion and aircraft replacement is continuously increasing. Airbus reported an increase in net orders of 255% in 2023 (2,094 orders) compared to 2022 (820 orders). Net orders in 2024 (as of end October 2024) decreased to 739 but this is predominantly due to a



**Exhibit 6: Inflation Development (2018 – 2024)**



**Exhibit 7: Interest Rate Development (2020 – 2024)**

**Post-covid recovery fuels demand for air passenger traffic**

**Airbus and Boeing with record-high order backlogs**

<sup>1</sup> Source: IMF, 2024a

<sup>2</sup> Source: IMF, 2024b

<sup>3</sup> Source: IMF, 2024c

<sup>4</sup> Source: IATA, 2024

<sup>5</sup> Source: Airbus, 2024a

record-breaking high order backlog of over 8,500 aircrafts. Therefore, orders are expected to increase as the backlog is processed. Boeing reported an increase in net orders of 104% in 2023 (1,576 orders) compared to 2022 (771 orders). Similar to its competitor Airbus, Boeing also records a large order backlog of more than 5,600 aircrafts which pushes the reported net orders in 2024 down to 378. For Rolls-Royce this signals a positive and predictable outlook for future OE engine deliveries.<sup>6</sup>

***Supply chain issues remain persistent***

On the production side the situation remains challenging as Airbus and Boeing are both still significantly behind their peak production levels. The post-pandemic production scale-up has exposed several supply chain issues at Tier-1 suppliers like Rolls-Royce, in addition to labour shortages, which have hindered aircraft manufacturers in reaching their delivery targets. The ongoing supply chain issues within the industry, coupled with the recently revealed quality issues at Boeing, have resulted in a discrepancy between aircraft production and demand. Consequently, airlines will have to extend the lifespan of their existing fleet. This extended lifespan benefits aftermarket service providers like Rolls-Royce since overhauls and shop visits are expected to increase with a growing fleet age.

***Digitalisation and sustainable aviation as future trends***

Digitalisation and the use of Artificial Intelligence (AI) is rapidly changing whole industries. The use case of AI in aviation should also not be neglected. AI could make time-consuming simulations more efficient, particularly in the production of critical components such as engines. Within the aftermarket service segment AI could reshape the operational flight management by using predictive maintenance applications that predict the optimal timing for future shop visits and thus increase fleet efficiency and aircraft life span<sup>7</sup>. Another visible trend within the industry is the desired shift to Sustainable Aviation Fuel (SAF). New lower carbon fuels will be central to achieving net zero in the medium and are therefore in the spotlight of regulators, airlines and passengers. The IATA estimated that SAF could contribute around 65% to the reduction in emissions needed by aviation to reach net zero CO2 emissions by 2050<sup>8</sup>. For Rolls-Royce, these digital platforms, and the shift to SAF are not just trends, but necessities. Stricter regulations, the net-zero transition, and rising airline cost pressures will drive innovation essential for Rolls-Royce to sustain its leading position in aviation.

- **Power Systems**

Current demand expectations across key markets in Power Systems show promising growth opportunities in various sub-segments. Within power generation, the increasing demand for cloud computing services and AI drives the rapid

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<sup>6</sup> Source: PwC, 2024

<sup>7</sup> Source: Deloitte, 2024a

<sup>8</sup> Source: IATA, n.d.

***Increasing demand for reliable power solutions due to digitalisation***

expansion of data centres and its corresponding energy demand. According to the International Energy Agency (IEA), data centres consumed around 460 TWh of electricity in 2022 and this amount is expected to double by 2026. Furthermore, the implementation of the “Industrial Internet of Things” (IIoT) represents a huge opportunity for manufactures due to the raising energy demand. Estimates predict that by 2025, 50% of manufactures will have implemented IIoT in operations<sup>9</sup>. These automation efforts will require additional and critical power solutions to ensure permanent and stable production.

***Offshore growth boosted by wind expansion, luxury yacht demand strengthened by wealth and travel trends***

Within the Marine sub-segment, the market for offshore supply and service vessels shows sustainable growth opportunities which is underlined by a study of the Global Wind Energy Council (GWEC). The study predicts total offshore wind capacity to rise from 75.2 GW in 2023 to almost 380 GW in 2030<sup>10</sup>. We expect that this increase in offshore wind parks also fuels demand for offshore vessel propulsion systems, particularly as systems become more efficient and sustainable. In the context of the yacht market, the luxury segment benefits from a 5.3% increase in billionaires in 2024 compared to 2023, reaching a new all-time high, and a projected 7.6% growth rate for luxury travel, supporting a positive outlook for luxury yacht propulsion systems<sup>11</sup>.

***Sustainable power systems are becoming a key expectation of customers***

Sustainability is one of the most prominent factors characterising the trends of the propulsion and energy sectors. Sustainable or electrified products are becoming a key expectation of customers and thus increasingly important across all divisions of Rolls-Royce Power Systems. From the support of alternative fuel variants to fuel consumption optimization, as well as the shift to electrified battery- or hybrid-based products for power generators, ship engines, or industrial vehicles, the opportunities are diverse. Implementing these advancements into the existing product portfolio is vital for the ongoing success of Rolls-Royce in this market segment. Especially as customers try to reach their own net-zero targets for sustainable operations.

***Increased automation requires product adjustments***

Automation is another key driver of innovation, with autonomous driving and shipping systems transforming operations for Rolls-Royce’s customers. These advancements enable 24/7 operations with enhanced precision and consistency, delivering significant benefits. Nevertheless, they require precise adjustments and coordination of engine solutions to customer systems and requirements. Rolls-Royce’s ability to integrate these options while maintaining its core offerings is critical to attract new orders and to be at the forefront of emerging technologies.

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<sup>9</sup> Source: IEA, 2024; Lindquist, 2024

<sup>10</sup> Source: GWEC, 2024

<sup>11</sup> Source: Forbes, 2024; Deloitte, 2024b

# Risk- and ESG Assessment

## Key Risks

### ***Risk of transformation failure***

Central to Rolls-Royce's future profitability is its execution of its transformation program and the corresponding focus on cost reduction, efficiency gains, and financial resilience. With a failure of this program, the company risks enduring operational inefficiencies, weakened financial performance, and a diminished competitive position in the aerospace and defence market. Due to these significant long-term effects, we classify the risk with a high economic impact on the company. However, due to ongoing and successful restructuring efforts since 2018 with a low to medium probability of risk.

### ***Operational risk***

Operating in an industry which is dependent on high reliability and safety standards, the operational risk due to failures of products is one of the most important risks for Rolls-Royce. Systematic engine failures within the Civil Aerospace or Defence segment could not only lead to grounded aircrafts which are costly for Rolls-Royce's clients but also to serious accidents that could put human lives at risk. As this could result in compensations and penalties with an additional reputation damage, we classified the risk with a high potential economic impact. Even though Rolls-Royce has put multiple measures in place to ensure a functional quality management, latest recurring issues with its Trent 1000 engine indicate a non-negligible likelihood of potential technical failures<sup>12</sup>. We therefore classified the probability of risk as medium.

### ***High dependence on air traffic and defence spending***

Given the nature of Rolls-Royce's business model, the company faces a high dependence on the demand in air traffic and defence spending. A slowdown in global air travel or cuts in government's defence budget could lead to a significant decline in revenues and thus represents a material risk. We therefore classified the risk with a high economic impact. However, due to the latest market expectations which signal a promising outlook with a low-medium risk probability.

### ***Risk of supply chain disruptions***

Another current and highly relevant risk for Rolls-Royce is the risk of disrupted supply chains. These disruptions may arise from global factors such as material shortages, logistical bottlenecks or geopolitical tensions. The consequences of such risks include delayed deliveries, increased costs, and reputational damage, particularly in industries where reliability is critical. Therefore, we classified this risk with a medium to high economic impact and due to the current relevance in Rolls-Royce's business environment with a high probability of risk.

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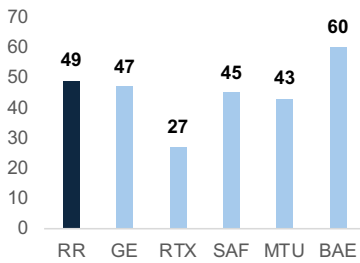
<sup>12</sup> Source: Casey, 2024

**Currency risk**

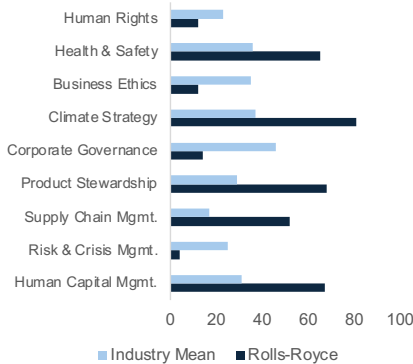
The global operation of Rolls-Royce subjects the firm to a variety of economic risks. Most importantly is the currency risk. Since its two main competitors are US Dollar-denominated, Rolls-Royce keeps a fixed dollar price list for its products to ensure competitive parity, regardless of the development of the GBP<sup>13</sup>. This imposes the company with a significant currency risk, since Rolls-Royce is reporting its financial statements in Pound Sterling but cannot pass the currency risk to its customers. We classified the currency risk with a medium economic impact as the amount has a significant volume and with a medium probability of risk due to the ongoing hedging efforts.

▪ **ESG Positioning**

Sustainability within the aerospace and defence industry developed into one of the industry's cornerstones. Exhibit 8 shows that Rolls-Royce's management has positioned the company in a competitive position compared to its main peers, as the overall ESG score is just above the peer average of 45.2 according to the S&P Global assessment framework. This score is driven by the multiple ongoing ESG initiatives within the company. Concerning environmental aspects, Rolls-Royce committed itself to reach net-zero carbon emissions from operations and facilities and that all products are compatible with net-zero targets by 2050. Following this, significant progress was already made in the development of a sustainable product portfolio. In 2023, Rolls-Royce announced the successful test of all its in-production large civil aerospace engines on SAF. In Rolls-Royce Power Systems, already 80% of the portfolio is ready for the use of alternative fuels and the SMR business could play an important role in Europe's green energy transition. When looking at the overall ESG performance broken down by dimension in Exhibit 9, we receive valuable insights into potential strengths and weaknesses. The company performs extraordinary regarding its climate strategy, product stewardship and human capital management, which positions Rolls-Royce as a leader in sustainable innovation and workforce engagement. However, deficits arise in the areas of corporate governance, ethics and crisis management which could potentially undermine stakeholder trust, increase the probability in reputational damage and exposes Rolls-Royce to heightened operational and financial risks. It will become a key challenge for Rolls-Royce to balance its strengths with improvements in weaker areas to ensure a holistic ESG reputation.



**Exhibit 8: ESG Score Comparison**



**Exhibit 9: ESG Benchmarking**

<sup>13</sup> Source: Williams, 2010

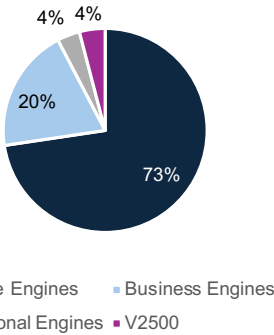
# Forecasts

## Revenue Forecast

- Civil Aerospace

To build a reliable and comprehensive revenue forecast for the Civil Aerospace segment, we used a bottom-up approach by identifying the key revenue drivers for Rolls-Royce's large engine business. Due to the low revenue share and the limited availability of data for the business engine-, regional and V2500 businesses, the sophisticated approach focusses solely on the large engine business, whereas simplified methods were used for the other sub-segments within Civil Aerospace.

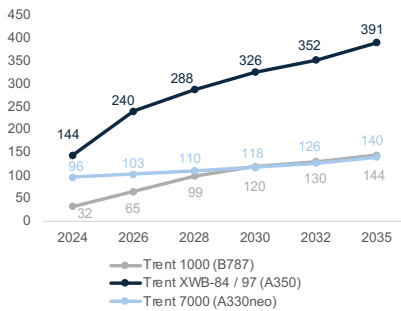
The primary driver of revenue from the sale of OE within Civil Aerospace has been identified as the number of engine deliveries. Since many aircrafts offer multiple engine configurations from different manufacturers, we analysed the for Rolls-Royce relevant aircraft types. Rolls-Royce holds a 100% market share as the exclusive engine supplier for the Airbus A330neo and A350 and a 27% share for the Boeing 787. To forecast future engine deliveries, we assessed Airbus and Boeing's monthly production targets for these aircraft types, assuming they will achieve their medium-term goals. Once these targets are met, we project production rates to grow in line with the growth of the global aircraft market size<sup>14</sup>. By annualizing production targets, multiplying by the number of engines per aircraft, and applying Rolls-Royce's market share for each type, we calculated yearly engine deliveries. This results in compound annual growth rates (CAGRs) of 13.5% for Trent 1000 deliveries, 9.3% for Trent XWB, and 3.5% for Trent 7000 during the forecast period. Another key revenue driver is the average revenue per engine delivery. To model this, we projected growth from 2023 to align with the revenue-weighted inflation rate of Rolls-Royce. This approach accounts for short- and medium-term price increases driven by supply chain challenges and critical material costs, while assuming stabilization in the long-term. Finally, total large engine OE revenues were calculated by multiplying the total engine deliveries by the average revenue per delivery.



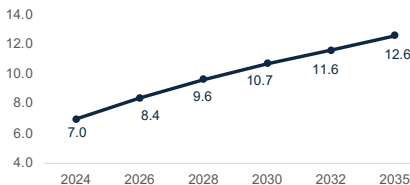
**Exhibit 10: Revenue Split Civil Aerospace 2023**

Aircraft type	Prod. target per month	Market share Rolls-Royce
Boeing 787	10 (2026)	27%
Airbus A350	12 (2028)	100%
Airbus A330neo	4 (2024)	100%

**Exhibit 11: Production Targets Airbus & Boeing**



**Exhibit 12: Development of Large Engine Deliveries (2024 - 2035)**



**Exhibit 13: Development Average Revenue per Large Engine in £m (2024 - 2035)**

<sup>14</sup> Source: Precedence Research, 2024

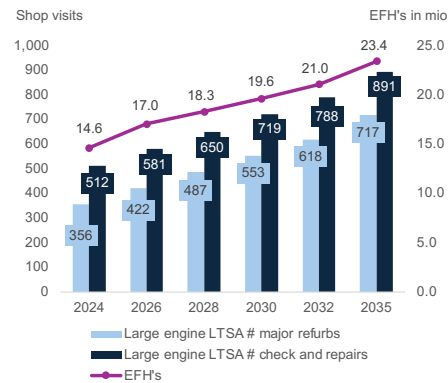
<sup>15</sup> Source: Yahoo Finance, 2024

more and more Airbus A320s are reaching the end of their lifespan and are replaced by the A320neo. However, Rolls-Royce still acts as a supplier of spare parts and the engine is expected to be in service until 2045<sup>16</sup>. We therefore used the historical six-year median for the 2024 estimate, converging to the six-year minimum by the forecast's end to reflect the phase-out of the division for Rolls-Royce while accounting for spare parts demand.

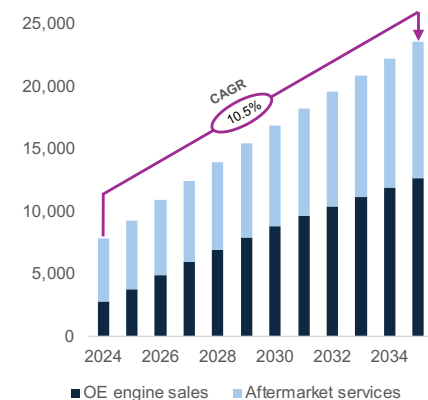
Aftermarket services are another key revenue source for the Civil Aerospace segment, mainly driven by engine flying hours (EFH) and shop visits, which include major refurbishments and checks/repairs. Most large engines sold by Rolls-Royce are maintained under long-term service agreements (LTSAs), where airlines pay per EFH for maintenance to ensure safety, compliance, and performance. EFHs are expected to grow with international air traffic, surpassing pre-pandemic levels by 2025, aligning slightly below Rolls-Royce's projections. Corresponding LTSA shop visits are therefore also expected to increase with past trends resulting in a CAGR of 6.6% for major refurburbs and 5.3% for checks/repairs. Average revenue per shop visit is expected to increase with the revenue weighted inflation rate of Rolls-Royce to account for pricing adjustments. Total large engine aftermarket revenue is calculated by multiplying shop visits by average revenue per visit.

Service revenues for business-, regional and V2500 engines were estimated with a simplified approach as data for EFH's and shop visits is lacking. In this approach, we have taken the six-year historical average growth rates for the business- and regional engine sub-segments and converged it with the Global Aircraft MRO CAGR of 3.5% until 2032<sup>17</sup>. For V2500 engines, we kept the average six-year growth rate constant across the forecasting period. We expect service revenues for this engine type to increase with a lower rate than the overall market due to the increasing number of A320 retirements and the reduced activity of Rolls-Royce in this sub-segment of Civil Aerospace.

Overall, expected revenues in Civil Aerospace show strong growth dynamics resulting in a projected CAGR of 10.5% across the forecasting period. Growth will be driven primarily by the expected high deliveries of large engines, as aircraft manufacturers such as Airbus and Boeing have high order backlogs and production is therefore expected to expand further. Aftermarket services are also expected to increase, however with a slight slower growth than OE sales as advanced technology like the use of AI for optimal maintenance planning will drive efficiency in the MRO market. Furthermore, OE sales experienced a more pronounced decline during the pandemic, creating a larger recovery runway as market conditions normalize and demand for new aircraft engines accelerates.



**Exhibit 14: Development EFH and Shop Visits (2024 – 2035)**



**Exhibit 15: Civil Aerospace Revenue Development in £m (2024 – 2035)**

<sup>16</sup> Source: Kjelgaard, 2023

<sup>17</sup> Source: Spherical Insights LLP, 2024

- Power Systems

To build a robust revenue forecast in the Power Systems segment, we focussed on the main revenue driver, namely the demand for energy or propulsion systems in Rolls-Royce's key markets. Therefore, we further divided this driver into the expected development of key markets that get served and the expected development of key solutions which get sold to the customer base. This method was used since detailed information's such as sales volumes and delivery schedules, are extremely limited, further complicating any attempt to forecast revenue development on a product-by-product basis.

We started with an analysis of the expected growth of the most important markets that get served within each sub-segment (Power Generation; Governmental; Marine; Industrial). The Power Generation sub-segment for example serves critical sectors such as data centres, industrial manufacturing, and utilities all of which are growing at different future growth rates. Similar to our approach within the Defence segment, we calculated a combined market CAGR which comprises of the different growth rates from the individual key markets. This method was used across all sub-segments and their individual key markets within Power Systems. A detailed list of all key markets and their corresponding expected growth rates can be observed in Exhibit 16.

Power Systems Key Market CAGRs	
Key Market	CAGR
<b>Power Generation</b>	<b>9.0%</b>
Data Center Market	11.4%
Industrial Manufacturing Market	7.5%
Utility Market	8.0%
<b>Governmental</b>	<b>6.3%</b>
Land Defence Market	7.4%
Naval Market	5.1%
<b>Marine</b>	<b>4.4%</b>
Commercial Marine Market	3.0%
Yacht Market	5.8%
<b>Industrial</b>	<b>6.3%</b>
Locomotive Market	7.1%
Mining Vehicle Market	5.5%

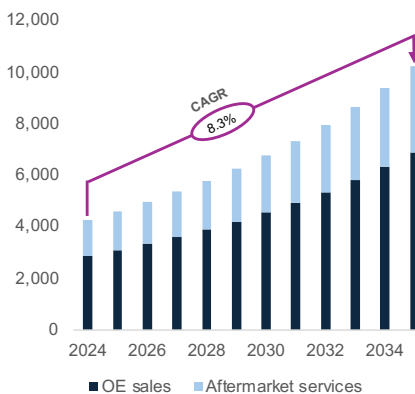
**Exhibit 16: Growth Rates Key Markets Power Systems**

Power Systems Key Solutions CAGRs	
Key Solutions	CAGR
<b>Power Generation</b>	<b>12.7%</b>
Diesel Power Systems	7.0%
Gas Power Systems	4.3%
Battery Energy Storage Systems	26.9%
<b>Governmental</b>	<b>5.2%</b>
Military Ground Vehicle Propulsion Systems	6.5%
Naval Vessel Engines	4.0%
<b>Marine</b>	<b>6.7%</b>
Marine Propulsion Systems	4.4%
Marine Automation and Control Systems	8.9%
<b>Industrial</b>	<b>4.5%</b>
Industrial Engines	4.5%

**Exhibit 17: Growth Rates Key Solutions Power Systems**

After analysing the key markets, our focus turned to the corresponding key solutions - specifically, the products Rolls-Royce provides to these markets. For instance, for the data centre market Rolls-Royce offers Battery Energy Storage Systems as solutions. We then again calculated a combined CAGR for the key-solutions in each sub-segment as shown as in Exhibit 17. Subsequently we combined the development of key markets and key solutions similarly to the revenue forecast for the Defence segment to get a final CAGR per sub-segment. The weighted CAGR puts a 1/3 weight in the key markets and a 2/3 weight on the key solutions. This combined CAGR is expected to be fully realized by 2033. Revenue growth for OE and aftermarket revenue starts with the historical five-year average in 2024, gradually aligning with the combined CAGR over ten years.

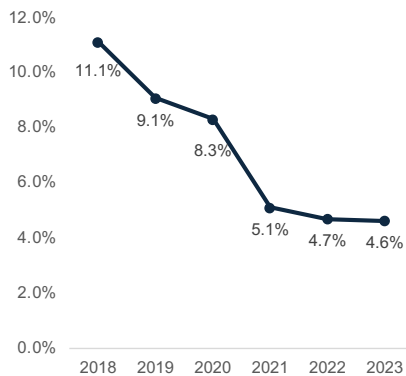
Overall, revenues in Power Systems are expected to grow with a CAGR of 8.3% over the forecasting period. This growth is mainly driven by the Power Generation sub-segment which shows strong growth, with historical OE sales at 12.3% and aftermarket services at 11.1%, converging to a baseline growth of 11.4%, driven by rising energy demands in production and supported by the increasing adoption of sustainable solutions, such as hybrid systems. Governmental revenue growth is expected to slow down, with OE and aftermarket sales moving from around 11% to 5.6% by 2033, reflecting strong demand in the short- to medium term with reduced growth in defence propulsion systems over the long term as global



**Exhibit 18: Power Systems Revenue Development in £m (2024 – 2035)**

security situation is expected to ease. Marine revenue growth is projected to rise to 5.9% by 2033, supported by projected increasing demand in commercial shipping and luxury yacht markets. Industrial growth, while improving to 5.1%, remains the lowest due to strategic de-prioritization and historically weak performance.

## Capital Expenditures

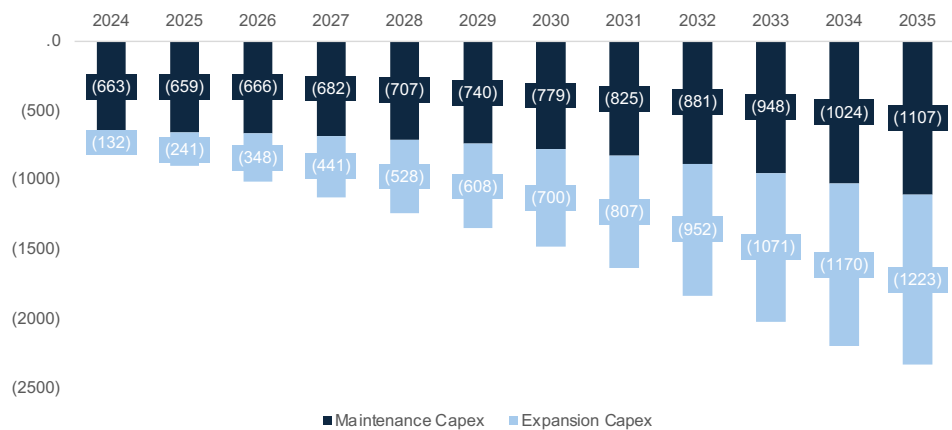


**Exhibit 19: Development Capex as % of Revenue (2018 – 2023)**

Capital Expenditures (Capex) of Rolls-Royce consist of investments in Property, Plant and Equipment (PP&E) as well as investments in intangible assets. Right-of-use assets were not considered in Capex as they represent the capitalization of lease obligations rather than an outflow of cash to maintain them. Historically, Capex of Rolls-Royce ranged between 11.1% and 4.6% of sales with a strong decreasing trend. This trend aligns with Rolls-Royce’s past restructuring efforts, which included divestments of business units, strategic cost efficiencies and a disciplined approach to capital allocation. This focus on efficiency has led to a more streamlined organization, allowing Rolls-Royce to allocate capital more effectively and reduce Capex relative to revenue. We expect that Rolls-Royce will maintain a low percentage of Capex to sales of 4.8% over the forecasting period as the transformation continues and reorganization of the company is still ongoing. Furthermore, Rolls-Royce announced to implement zero-based-budgeting in 2024 which is expected to eliminate unnecessary or non-value-adding expenditures, reducing overall spending, including capital expenditures.

**Increasing production in core segments and production start for SMR drive Capex**

Despite the low Capex to sales ratio, increasing demand in Rolls-Royce’s core segments and the anticipated production start of Rolls-Royce SMR require higher total amounts of investment in PP&E and intangible assets to ensure smooth production and to protect new engineering technologies with patents. These dynamics and the expected increase in revenues lead to a Capex CAGR of 10.2% across the forecasting period.

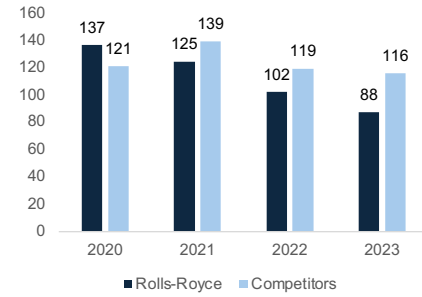


**Exhibit 20: Capex Development in £m (2024 – 2035)**

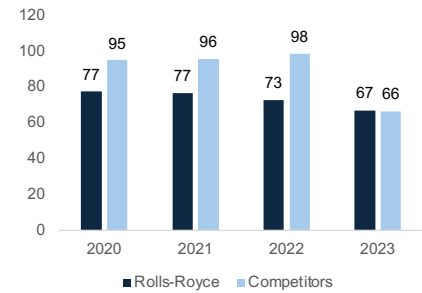
## Working Capital Management

Net working capital (NWC) is commonly used as a key indicator of a company's liquidity and operational efficiency and comprises of multiple items. One component of NWC is the operating cash which represents the cash a company needs to cover its day-to-day operational expenses, such as paying suppliers or employees. Operating cash was forecasted by using the median operating cash-to-sales ratio of competitors over a historical timespan of eight years.

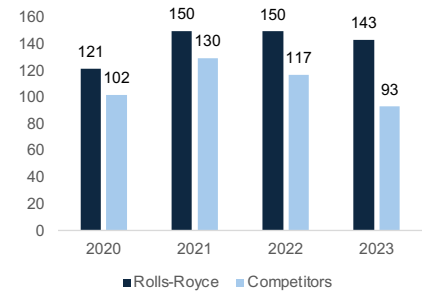
Other components of NWC include accounts receivable, inventory, and accounts payable, all of which are expressed in days and are benchmarked against the median performance of Rolls-Royce's competitors. In 2023, Rolls-Royce's Cash Conversion Cycle (CCC) was 164 days, exceeding the peer median of 122 days, signalling further room for improvement in working capital management. Rolls-Royce outperformed peers in Days Sales Outstanding (DSO) at 88 days compared to 116. We expect that Rolls-Royce can overall sustain its advantage due to its ongoing efficiency efforts. However, with a slight increase in DSO as the economic slowdown could lead to adjusted payment terms. Therefore, we forecasted accounts receivable with the historical average in collection days. Days Payables Outstanding (DPO) aligns with peers at 67 days, with slight decline forecasted based on the six-year historical minimum. For Days Inventory Outstanding (DIO), Rolls-Royce gets outperformed at 143 days compared to 93 days of its peers. Rolls-Royce also recognized this and therefore targets a significant reduction in inventory days. We acknowledged this and forecasted inventory with the six-year minimum in inventory days which leads to meaningful improvements in DIO. This method seems reasonable as the expected DIO in 2035 is still slightly higher than the median of its peers and thus considers arising challenges, such as long production cycles or the complexity of products.



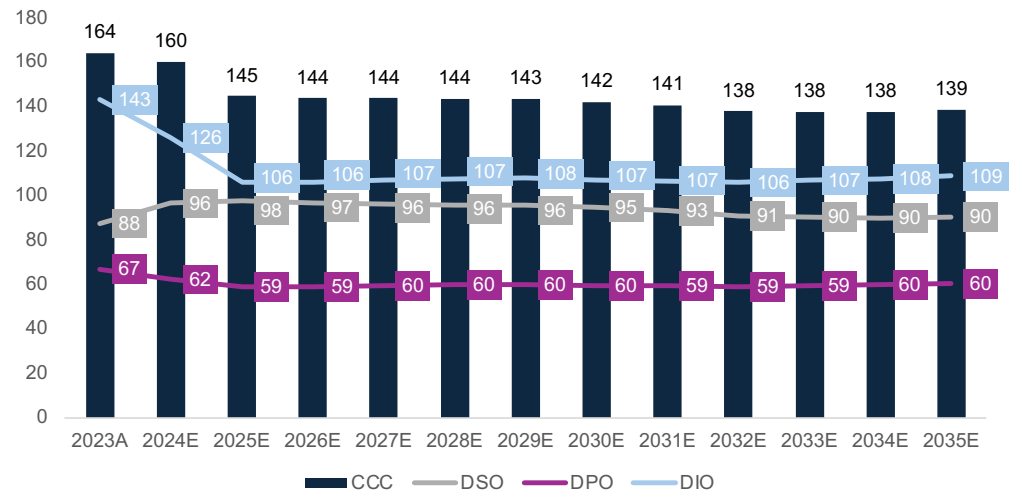
**Exhibit 21: Development DSO (2020 – 2023)**



**Exhibit 22: Development DPO (2020 – 2023)**



**Exhibit 23: Development DIO (2020 – 2023)**



**Exhibit 24: Future Development Cash Conversion Cycle (2023 – 2035)**

# Valuation

## Weighted Average Cost of Capital

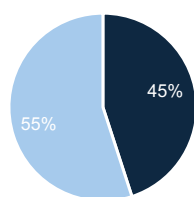
- Cost of Debt

In order to determine Rolls-Royce's cost of debt, the market values of all current outstanding bonds were examined. Therefore, we calculated a weighted yield-to-maturity (YTM) by weighting the individual YTM's of these bonds against the outstanding debt in Pound Sterling. To account for the possibility of default we adjusted the weighted YTM by the loss given default and the corresponding default probability. Ultimately, cost of debt was derived by subtracting the product of the loss given default of 54.67% and the probability of default of 0.13% from the weighted YTM. Loss given default for Rolls-Royce was defined as the industry standard, which was retrieved from Bloomberg, whereas the default probability was sourced from Refinitiv. This calculation yields underlying cost of debt of 4.61% and after-tax cost of debt of 3.91%. After-tax cost of debt was determined by adjusting the cost of debt by the average effective tax rate of 15.05%.

The final WACC yields 10.74% and was calculated by weighting the cost of equity and the after-tax cost of debt by their respective proportions of Rolls-Royce's projected future capital structure.

## Cashflow Based Valuation – DCF and APV

A discounted cash flow model (DCF) was used as the main valuation method in this analysis. To account for the possibility of default, a default case has been added which adjusts the cash flows from the base case by the loss given default. Final expected cash flows were derived by weighting the cash flows from the base case and the default case with the corresponding probability of default and their counter probability. The projected long-term GDP growth rate from 2031-2035 of 2.5% was used as the terminal growth rate of cash flows<sup>18</sup>. By applying this cautious approach to estimate the terminal value, we ensure that the terminal value reflects sustainable, economy-aligned assumptions. After discounting the final expected cash flows with Rolls-Royce's projected WACC the enterprise value was adjusted by the expected net debt in 2025. This results in an equity value adjusted by non-controlling interest (NCI) of £50,710m. By dividing this amount by the current number of outstanding shares, a fair share price of 596.25 GBX was derived. Since we assumed a changing capital structure for Rolls-Royce, an adjusted present value (APV) valuation was conducted additionally to the DCF to further confirm the DCF valuation. The APV valuation resulted in a marginal 1%



■ % of EV due to Forecast Period  
■ % of EV due to Terminal Value

**Exhibit 25: Contribution to Enterprise Value 2025**

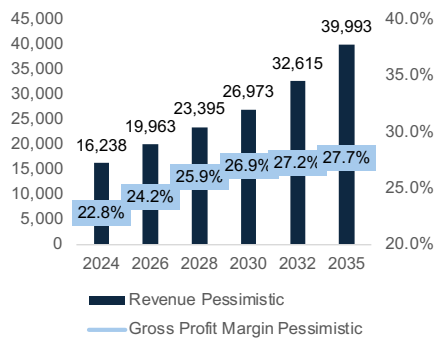
<sup>18</sup> Source: Conference Board, 2024

difference compared to the DCF resulting in a fair share price of 602.81 GBX. This emphasises the need to consider that both methods use different methods for evaluating the tax shield.

## Scenario Analysis

### ▪ Pessimistic Case

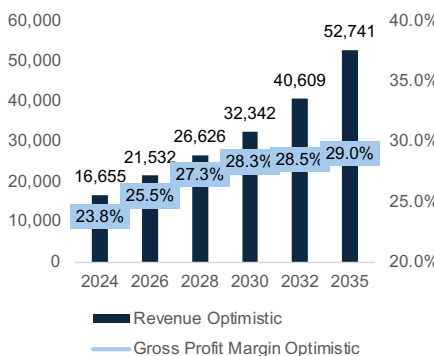
Rolls-Royce's reliance on global air traffic, with the Civil Aerospace segment contributing 48% of revenue in 2023, makes the company vulnerable to external factors like recessions, geopolitical instability, and rising oil prices, which could reduce demand for air travel, engine deliveries, and engine flying hours. The COVID-19 pandemic's 60% drop in air passengers highlighted the industry's fragility<sup>19</sup>. Such shocks not only reduce revenue but also create operational and financial challenges, potentially slowing Rolls-Royce's financial transformation. Therefore, we have factored in the potential for slower global air traffic growth and challenges in executing the transformation program as key considerations in this scenario. To properly reflect those risks, we assumed a lower revenue growth for the Civil Aerospace segment of 4 p.p. per year compared to the base case. Furthermore, we accounted for lower profitability by lowering the gross profit margins by one p.p. per year and by increasing the percentage of SG&A costs of sales by 1% per year. These assumptions yield a share price of 427.40 GBX for the pessimistic case which represents a delta of -28.3% compared to the base case. We assume the pessimistic scenario to have a probability of 20% as most factors lie outside of Rolls-Royce's influence.



**Exhibit 26: Revenue and Margin Development Pessimistic Case in £m (2024 – 2035)**

### ▪ Optimistic Case

In a favourable economic environment, Rolls-Royce sees increased demand across all segments, driven by a strong growing aviation sector, higher than expected defence spendings and ongoing global investments in energy. Operationally, Rolls-Royce can enhance efficiency through digital tools and supply chain optimization while prioritizing aligning with industry trends and expectations. In the best-case scenario, all these factors synergistically contribute to an extraordinary growth projection, reflected in an increase in stronger revenue growth of 0.8 p.p. per year compared to the base case for each segment. Additionally, we assumed that Rolls-Royce would be able to improve gross profit margins by 0.25 p.p. and to realize cost improvements in SG&A and R&D costs to sales of 1% across each segment due its successful and synergy generating transformation program. These assumptions yield a share price of 663.62 GBX for the optimistic case which represents a delta of +11.3% compared to the base case.



**Exhibit 27: Revenue and Margin Development Optimistic Case in £m (2024 – 2035)**

<sup>19</sup> Source: ICAO, 2021

To maintain conservative expectations, the optimistic scenario is assigned a probability of 10%.

- Base Case without SMR Business

Rolls-Royce entered the SMR business in 2021 and is currently in the design and certification phase of its reactors. Future revenues and potential costs are therefore highly speculative and rely on multiple assumptions. Production delays, lack of orders and problems with certification processes can occur as possible obstacles. Due to this uncertainty, we developed a third scenario which excluded Rolls-Royce's SMR business from all revenue and cost streams. Besides excluding the SMR business, all assumptions are similar to the base case. Excluding the SMR business yields a share price of 568.49 GBX with a delta of -4.7% compared to the base case. This relatively small delta highlights our cautious approach when including SMR into the base case to not distort the valuation through speculative assumptions.

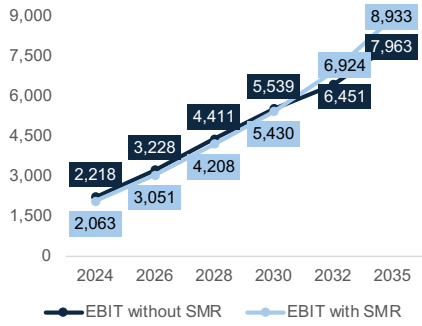


Exhibit 28: EBIT Development with and without SMR Business in £m (2024 – 2035)

## Recommendation

Based on our valuation, we assign a **HOLD** rating to Rolls-Royce with a fair share price estimate of 613.28 GBX, including dividends, by 31 December 2025. This is derived from a weighted average of cash flow-based valuations (80% weight: 599.53 GBX) and a CCA (20% weight: 620.03 GBX), yielding a price of 603.63 GBX excluding dividends. Adding the expected dividend in 2025 of 9.65 GBX, we arrive at the final valuation. This approach emphasizes cash flow-based valuations as the most accurate reflection of intrinsic value, complemented by market-based multiples. Our overall recommendation is underpinned by Rolls-Royce's robust market positioning, ongoing operational turnaround, and significant growth potential across core and emerging business segments like Civil Aerospace and SMR. However, the substantial share price appreciation over the past year has narrowed the gap to its intrinsic value, suggesting more limited upside potential in the near term while reflecting the progress of the ongoing turnaround.

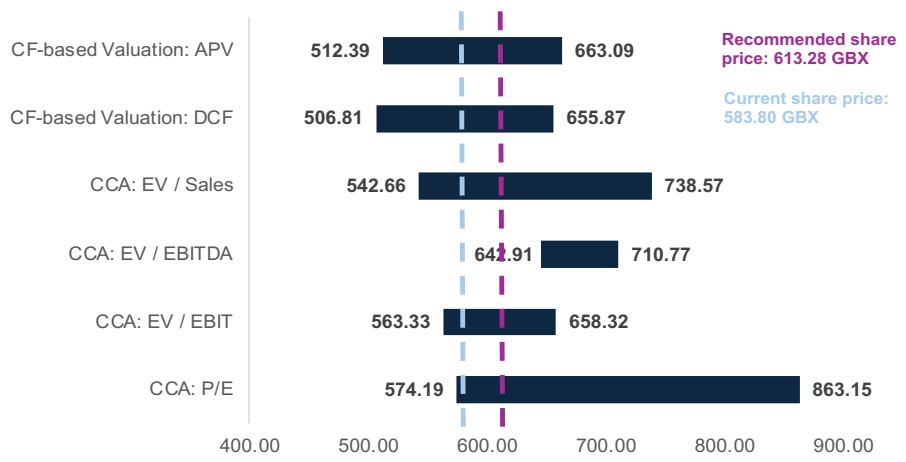


Exhibit 29: Football Field - Valuation

# Appendix

## Financial Statements

### Balance Sheet Forecast

Reformulated Balance Sheet in £m	FY 2018A	FY 2019A	FY 2020A	FY 2021A	FY 2022A	FY 2023A	FY 2024E	FY 2025F	FY 2026F	FY 2027F	FY 2028F	FY 2029F	FY 2030F	FY 2031F	FY 2032F	FY 2033F	FY 2034F	FY 2035F
<b>Total funds invested (Uses)</b>																		
<b>Core Business</b>																		
<b>Current Assets / Liabilities</b>																		
Operating Cash	2,772	2,923	2,025	1,977	2,383	2,905	3,085	3,490	3,932	4,357	4,793	5,228	5,738	6,333	7,109	7,834	8,510	9,039
Trade receivables and other assets	4,690	5,065	5,455	5,383	6,936	8,123	8,442	9,551	10,762	11,925	13,117	14,307	15,703	17,330	19,455	21,438	23,289	24,737
Inventories	4,287	4,320	3,690	3,666	4,708	4,948	3,872	4,330	4,825	5,285	5,743	6,184	6,778	7,468	8,372	9,207	9,980	10,576
Contract Assets	2,057	2,095	1,510	1,473	1,461	1,242	1,858	2,036	2,216	2,397	2,580	2,765	2,951	3,139	3,328	3,522	3,723	3,933
Taxation recoverable	34	39	117	90	127	80	81	81	81	81	81	81	81	81	81	81	81	81
Trade payables and other liabilities	(8,292)	(8,450)	(6,653)	(6,016)	(6,963)	(6,896)	(6,981)	(7,807)	(8,700)	(9,529)	(10,355)	(11,150)	(12,220)	(13,466)	(15,094)	(16,600)	(17,993)	(19,067)
Contract liabilities	(3,794)	(4,228)	(4,187)	(3,599)	(4,825)	(6,098)	(5,808)	(6,166)	(6,499)	(6,810)	(7,100)	(7,370)	(7,619)	(8,104)	(8,930)	(9,992)	(10,921)	(11,533)
Current tax liabilities	(138)	(172)	(154)	(101)	(104)	(143)	(188)	(190)	(215)	(238)	(262)	(285)	(313)	(346)	(388)	(428)	(464)	(493)
Provisions for liabilities and charges	(915)	(789)	(686)	(449)	(615)	(515)	(677)	(786)	(863)	(957)	(1,052)	(1,146)	(1,260)	(1,381)	(1,501)	(1,720)	(1,886)	(1,984)
<b>Net Working Capital (NWC)</b>	<b>701</b>	<b>793</b>	<b>1,117</b>	<b>2,424</b>	<b>3,108</b>	<b>3,546</b>	<b>3,703</b>	<b>4,558</b>	<b>5,538</b>	<b>6,512</b>	<b>7,545</b>	<b>8,612</b>	<b>9,839</b>	<b>11,046</b>	<b>12,710</b>	<b>14,242</b>	<b>15,645</b>	<b>16,666</b>
<b>Non-Current Assets / Liabilities</b>																		
Intangible assets	5,295	5,442	5,145	4,041	4,098	4,009	4,095	4,219	4,383	4,581	4,814	5,079	5,382	5,730	6,140	6,601	7,107	7,638
Property, plant and equipment	4,929	4,803	4,515	3,917	3,936	3,728	3,638	3,622	3,677	3,787	3,787	3,947	4,149	4,399	4,701	5,076	5,504	5,972
Right-of-use assets	0	2,009	1,405	1,203	1,061	905	1,028	1,024	1,039	1,070	1,116	1,173	1,243	1,329	1,435	1,556	1,688	1,823
Deferred tax assets	2,092	1,887	1,826	2,249	2,731	2,998	3,028	3,025	2,981	2,898	2,775	2,609	2,413	2,181	1,894	1,571	1,215	841
Trade payables and other liabilities	(1,940)	(2,071)	(1,922)	(1,575)	(2,364)	(1,927)	(2,204)	(2,465)	(2,747)	(3,009)	(3,269)	(3,521)	(3,858)	(4,252)	(4,766)	(5,241)	(5,681)	(6,021)
Provisions for liabilities and charges	(649)	(1,812)	(930)	(1,046)	(1,656)	(1,449)	(1,558)	(1,763)	(1,986)	(2,201)	(2,421)	(2,641)	(2,898)	(3,199)	(3,591)	(3,957)	(4,299)	(4,566)
Contract liabilities	(5,336)	(6,612)	(6,245)	(6,710)	(7,337)	(8,438)	(8,910)	(9,413)	(9,873)	(10,294)	(10,680)	(11,031)	(11,348)	(12,070)	(12,799)	(13,542)	(14,316)	(15,122)
Deferred tax liabilities	(962)	(618)	(494)	(451)	(286)	(330)	(426)	(426)	(420)	(408)	(391)	(367)	(340)	(307)	(267)	(221)	(171)	(118)
<b>Net Non-Core Current Assets</b>	<b>3,429</b>	<b>3,028</b>	<b>3,300</b>	<b>1,628</b>	<b>163</b>	<b>(504)</b>	<b>(1,310)</b>	<b>(2,176)</b>	<b>(2,946)</b>	<b>(3,575)</b>	<b>(4,109)</b>	<b>(4,549)</b>	<b>(5,008)</b>	<b>(5,687)</b>	<b>(6,678)</b>	<b>(7,729)</b>	<b>(8,846)</b>	<b>(9,076)</b>
<b>Core Invested Capital</b>	<b>4,130</b>	<b>3,821</b>	<b>4,417</b>	<b>4,052</b>	<b>3,291</b>	<b>3,042</b>	<b>2,394</b>	<b>2,382</b>	<b>2,593</b>	<b>2,937</b>	<b>3,437</b>	<b>4,063</b>	<b>4,831</b>	<b>5,159</b>	<b>5,832</b>	<b>6,513</b>	<b>7,159</b>	<b>7,592</b>
<b>Non-Core Business</b>																		
<b>Current Assets / Liabilities</b>																		
Other financial assets	343	467	687	361	542	360	589	666	751	832	915	998	1,096	1,209	1,357	1,496	1,625	1,726
Post-retirement scheme surpluses	1,944	1,170	907	1,148	613	782	717	652	586	521	456	391	326	260	195	130	65	0
Assets held for sale	750	18	288	2,028	0	109	233	233	233	233	233	233	233	233	233	233	233	233
Short-term investments	6	6	0	8	11	0	5	5	5	5	5	5	5	5	5	5	5	5
Investments – joint ventures and associates	(412)	(402)	(394)	(404)	(422)	(478)	(482)	(485)	(488)	(491)	(495)	(498)	(501)	(504)	(507)	(511)	(514)	(517)
Other financial liabilities	(647)	(493)	(666)	(689)	(1,016)	(448)	(447)	(450)	(534)	(575)	(616)	(655)	(703)	(765)	(841)	(914)	(982)	(1,040)
Post-retirement scheme deficits	(1,303)	(1,378)	(1,360)	(1,373)	(1,033)	(1,035)	(949)	(893)	(776)	(690)	(604)	(516)	(431)	(345)	(259)	(173)	(86)	0
Liabilities associated with assets held for sale	(376)	(15)	(228)	(723)	0	(55)	(233)	(233)	(233)	(233)	(233)	(233)	(233)	(233)	(233)	(233)	(233)	(233)
Provisions: Tax related interest and penalties	(36)	(17)	(14)	(4)	(4)	(6)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(16)	(17)	(18)
Provisions: Claims and litigation	0	0	0	0	(11)	0	0	0	0	0	0	0	0	0	0	0	0	0
Provisions: Restructuring	(119)	(21)	(100)	(6)	(2)	0	0	0	0	0	0	0	0	0	0	0	0	0
Provisions: Insurance	(51)	(21)	(25)	(16)	(11)	0	(12)	(13)	(15)	(17)	(18)	(20)	(22)	(24)	(27)	(30)	(33)	(35)
<b>Net Non-Core Current Assets</b>	<b>922</b>	<b>118</b>	<b>(280)</b>	<b>1,138</b>	<b>(478)</b>	<b>175</b>	<b>379</b>	<b>436</b>	<b>497</b>	<b>559</b>	<b>623</b>	<b>689</b>	<b>760</b>	<b>832</b>	<b>924</b>	<b>1,010</b>	<b>1,090</b>	<b>1,155</b>
<b>Non-Current Assets / Liabilities</b>																		
Investments – other	22	14	19	36	36	31	34	38	43	48	52	57	63	69	78	86	93	99
Other financial assets	(22)	(66)	(107)	(46)	(141)	34	94	106	120	133	146	159	175	193	216	239	259	275
Other financial liabilities	(3,642)	(3,094)	(3,046)	(2,715)	(3,230)	(1,983)	(2,139)	(2,257)	(2,454)	(2,558)	(2,737)	(2,867)	(3,075)	(3,238)	(3,496)	(3,749)	(3,955)	(4,217)
Provisions: Tax related interest and penalties	(26)	(38)	(19)	(10)	(12)	(16)	(14)	(16)	(18)	(20)	(22)	(24)	(27)	(29)	(33)	(36)	(40)	(42)
Provisions: Claims and litigation	0	0	0	0	(32)	0	0	0	0	0	0	0	0	0	0	0	0	0
Provisions: Restructuring	(85)	(47)	(136)	(15)	(4)	0	0	0	0	0	0	0	0	0	0	0	0	0
Provisions: Insurance	(36)	(49)	(35)	(36)	(29)	0	(27)	(31)	(35)	(38)	(42)	(46)	(51)	(56)	(63)	(69)	(75)	(80)
<b>Net Non-Core Non-Current Assets</b>	<b>(3,644)</b>	<b>(3,128)</b>	<b>(3,109)</b>	<b>(2,694)</b>	<b>(3,098)</b>	<b>(1,966)</b>	<b>(2,053)</b>	<b>(2,200)</b>	<b>(2,344)</b>	<b>(2,477)</b>	<b>(2,603)</b>	<b>(2,722)</b>	<b>(2,852)</b>	<b>(3,061)</b>	<b>(3,300)</b>	<b>(3,531)</b>	<b>(3,758)</b>	<b>(3,965)</b>
<b>Non-Core Invested Capital</b>	<b>(2,722)</b>	<b>(3,010)</b>	<b>(3,389)</b>	<b>(1,556)</b>	<b>(3,056)</b>	<b>(1,791)</b>	<b>(1,674)</b>	<b>(1,764)</b>	<b>(1,846)</b>	<b>(1,918)</b>	<b>(1,980)</b>	<b>(2,032)</b>	<b>(2,092)</b>	<b>(2,229)</b>	<b>(2,376)</b>	<b>(2,521)</b>	<b>(2,667)</b>	<b>(2,810)</b>
<b>Financial Operations</b>																		
Excess Cash	2,202	1,520	1,427	644	224	879	2,671	3,022	3,405	3,773	4,150	4,527	4,968	5,483	6,155	6,783	7,368	7,826
Short-term Debt	(859)	(775)	(1,272)	(279)	(558)	(609)	(717)	(437)	(458)	(538)	(588)	(636)	(695)	(762)	(847)	(926)	(999)	(1,058)
Long-term Debt	(3,804)	(4,910)	(6,056)	(7,497)	(5,597)	(4,950)	(5,177)	(3,157)	(3,524)	(3,879)	(4,242)	(4,604)	(5,018)	(5,495)	(6,109)	(6,800)	(7,210)	(7,630)
<b>Net Financial Debt</b>	<b>(2,460)</b>	<b>(4,165)</b>	<b>(5,903)</b>	<b>(7,132)</b>	<b>(5,731)</b>	<b>(4,880)</b>	<b>(3,223)</b>	<b>(572)</b>	<b>(608)</b>	<b>(644)</b>	<b>(680)</b>	<b>(716)</b>	<b>(745)</b>	<b>(774)</b>	<b>(800)</b>	<b>(823)</b>	<b>(841)</b>	<b>(862)</b>
<b>Equity attributable to ordinary shareholders</b>	<b>(1,074)</b>	<b>(3,376)</b>	<b>(4,897)</b>	<b>(4,662)</b>	<b>(6,050)</b>	<b>(3,681)</b>	<b>(2,556)</b>	<b>(6)</b>	<b>87</b>	<b>324</b>	<b>725</b>	<b>1,263</b>	<b>1,943</b>	<b>2,104</b>	<b>2,604</b>	<b>3,116</b>	<b>3,598</b>	<b>3,868</b>
Non-controlling interest (NCI)	22	22	22	26	34	52	52	52	52	52	52	52	52	52	52	52	52	52
<b>Total Equity</b>	<b>(1,052)</b>	<b>(3,354)</b>	<b>(4,875)</b>	<b>(4,636)</b>	<b>(6,016)</b>	<b>(3,629)</b>	<b>(2,504)</b>	<b>46</b>	<b>139</b>	<b>376</b>	<b>777</b>	<b>1,315</b>	<b>1,995</b>	<b>2,156</b>	<b>2,656</b>	<b>3,168</b>	<b>3,650</b>	<b>3,920</b>
<b>Total Funding</b>	<b>1,408</b>	<b>811</b>	<b>1,028</b>	<b>2,496</b>	<b>(285)</b>	<b>1,251</b>	<b>720</b>	<b>618</b>	<b>746</b>	<b>1,019</b>	<b>1,457</b>	<b>2,031</b>	<b>2,740</b>	<b>2,930</b>	<b>3,456</b>	<b>3,992</b>	<b>4,491</b>	<b>4,782</b>

### Cash Flow Forecast

Reformulated Cash Flow Map in £m	FY 2019A	FY 2020A	FY 2021A	FY 2022A	FY 2023A	FY 2024E	FY 2025F	FY 2026F	FY 2027F	FY 2028F	FY 2029F	FY 2030F	FY 2031F	FY 2032F	FY 2033F	FY 2034F	FY 2035F
<b>NOPLAT</b>	1,054	(2,423)	(136)	421	1,414	1,754	2,149	2,593	3,061	3,577	4,132	4,615	5,158	5,885	6,494	7,087	7,593
<b>Depreciation &amp; Amortization</b>	1,315	2,455	1,009	1,004	1,029	988	982	994	1,020	1,059	1,110	1,171	1,245	1,334	1,439		

**Income Statement Forecast**

Reformulated Income Statement																		
<i>in £m</i>	FY 2018A	FY 2019A	FY 2020A	FY 2021A	FY 2022A	FY 2023A	FY 2024E	FY 2025F	FY 2026F	FY 2027F	FY 2028F	FY 2029F	FY 2030F	FY 2031F	FY 2032F	FY 2033F	FY 2034F	FY 2035F
<b>Operating and recurrent activities</b>																		
<b>Underlying Revenues</b>	14,288	15,261	11,430	10,947	12,691	15,409	16,532	18,703	21,074	23,351	25,685	28,016	30,750	33,336	38,097	41,980	45,605	48,441
Civil Aerospace	7,378	8,107	5,068	4,536	5,686	7,348	7,824	9,292	10,923	12,427	13,955	15,446	16,879	18,247	19,549	20,868	22,205	23,562
Defence	3,124	3,250	3,355	3,368	3,660	4,077	4,439	4,809	5,184	5,560	5,934	6,303	6,666	7,033	7,375	7,723	8,087	8,469
Power Systems	3,434	3,545	2,735	2,749	3,347	3,968	4,273	4,606	4,968	5,362	5,791	6,259	6,770	7,322	7,951	8,639	9,394	10,223
New Markets	0	0	5	2	3	4	2	5	8	12	18	23	450	1,350	3,240	4,770	5,940	6,210
Other businesses	0	0	273	303	0	12	2	0	0	0	0	0	0	0	0	0	0	0
Corporate and inter-segment	(429)	(577)	(6)	(11)	(5)	0	(8)	(9)	(10)	(11)	(12)	(13)	(15)	(16)	(18)	(20)	(22)	(23)
<i>ITP Aero (Discontinued in 2021)</i>	779	936	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Cost of Sales</b>	(12,046)	(12,919)	(12,043)	(8,951)	(10,214)	(12,178)	(12,637)	(14,132)	(15,749)	(17,250)	(18,744)	(20,184)	(22,120)	(24,376)	(27,323)	(30,049)	(32,571)	(34,515)
Underlying Cost of Sales	(13,489)	(14,245)	(12,104)	(9,222)	(11,043)	(13,255)	(13,610)	(15,233)	(16,989)	(18,624)	(20,256)	(21,833)	(23,930)	(26,373)	(29,565)	(32,520)	(35,256)	(37,367)
Double accounted FX adjustments	1,443	1,326	61	271	829	1,077	973	1,101	1,241	1,375	1,512	1,649	1,810	1,998	2,243	2,471	2,685	2,852
<b>Underlying Gross Profit</b>	2,240	2,342	(613)	1,996	2,477	3,231	3,894	4,571	5,325	6,101	6,942	7,832	8,630	9,560	10,775	11,932	13,034	13,926
Civil Aerospace	493	622	(1,987)	474	853	1,394	1,875	2,313	2,825	3,338	3,893	4,475	4,890	5,286	5,664	6,046	6,433	6,826
Defence	690	669	684	721	726	804	917	1,033	1,158	1,291	1,432	1,581	1,672	1,762	1,850	1,938	2,029	2,125
Power Systems	866	909	678	778	918	1,050	1,124	1,231	1,349	1,479	1,623	1,782	1,958	2,154	2,374	2,620	2,894	3,200
New Markets	0	0	2	1	(1)	1	0	6	1	2	3	5	6	122	372	903	1,346	1,696
Other businesses	0	0	15	32	(29)	(15)	(16)	0	0	0	0	0	0	0	0	0	0	0
Corporate and inter-segment	35	(64)	(5)	(10)	10	(3)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(16)	(18)	(19)	(20)
<i>ITP Aero (Discontinued in 2021)</i>	156	206	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Operating Expenses</b>	(1,627)	(1,626)	(1,574)	(1,673)	(1,948)	(1,803)	(1,831)	(2,043)	(2,274)	(2,500)	(2,734)	(2,971)	(3,200)	(3,492)	(3,851)	(4,292)	(4,696)	(4,993)
Civil Aerospace	(668)	(673)	(717)	(731)	(823)	(697)	(641)	(761)	(894)	(1,018)	(1,143)	(1,265)	(1,382)	(1,494)	(1,601)	(1,709)	(1,818)	(1,929)
<i>Underlying Commercial and administrative costs</i>	(336)	(299)	(310)	(297)	(371)	(354)	(289)	(343)	(403)	(456)	(515)	(570)	(623)	(673)	(721)	(770)	(819)	(869)
<i>Underlying Research and development costs</i>	(332)	(374)	(407)	(434)	(452)	(343)	(352)	(418)	(492)	(559)	(628)	(695)	(760)	(821)	(880)	(939)	(999)	(1,060)
Defence	(270)	(256)	(232)	(266)	(296)	(245)	(316)	(342)	(369)	(395)	(422)	(448)	(474)	(500)	(525)	(549)	(575)	(602)
<i>Underlying Commercial and administrative costs</i>	(170)	(151)	(146)	(161)	(174)	(173)	(188)	(204)	(220)	(236)	(252)	(267)	(283)	(298)	(313)	(328)	(343)	(359)
<i>Underlying Research and development costs</i>	(100)	(105)	(86)	(105)	(122)	(72)	(127)	(138)	(149)	(160)	(170)	(181)	(191)	(201)	(212)	(222)	(232)	(243)
Power Systems	(551)	(550)	(491)	(540)	(645)	(643)	(684)	(733)	(786)	(844)	(906)	(973)	(1,047)	(1,127)	(1,215)	(1,313)	(1,419)	(1,536)
<i>Underlying Commercial and administrative costs</i>	(363)	(374)	(331)	(363)	(441)	(456)	(451)	(482)	(515)	(551)	(589)	(631)	(676)	(726)	(780)	(840)	(905)	(975)
<i>Underlying Research and development costs</i>	(188)	(176)	(160)	(177)	(204)	(187)	(234)	(252)	(272)	(293)	(317)	(342)	(370)	(401)	(435)	(472)	(514)	(559)
New Markets	0	0	(47)	(71)	(131)	(161)	(155)	(167)	(179)	(193)	(208)	(225)	(232)	(299)	(429)	(631)	(786)	(822)
<i>Underlying Commercial and administrative costs</i>	0	0	(1)	(3)	(23)	(24)	(9)	(11)	(14)	(19)	(24)	(32)	(29)	(87)	(208)	(305)	(379)	(396)
<i>Underlying Research and development costs</i>	0	0	(46)	(68)	(108)	(137)	(146)	(156)	(165)	(174)	(184)	(193)	(202)	(212)	(221)	(236)	(240)	(248)
Other businesses	0	0	(35)	(30)	(2)	0	(0)	0	0	0	0	0	0	0	0	0	0	0
<i>Underlying Commercial and administrative costs</i>	0	0	(26)	(20)	(2)	0	(0)	0	0	0	0	0	0	0	0	0	0	0
<i>Underlying Research and development costs</i>	0	0	(9)	(10)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Corporate and inter-segment	(51)	(53)	(52)	(35)	(51)	(57)	(35)	(40)	(45)	(50)	(55)	(60)	(66)	(73)	(82)	(90)	(98)	(104)
<i>Underlying Commercial and administrative costs</i>	(51)	(53)	(52)	(35)	(51)	(57)	(35)	(40)	(45)	(50)	(55)	(60)	(66)	(73)	(82)	(90)	(98)	(104)
<i>Underlying Research and development costs</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>ITP Aero (Discontinued in 2021)</i>	(67)	(94)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Underlying Commercial and administrative costs</i>	(57)	(61)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Underlying Research and development costs</i>	(30)	(33)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Operating Profit before taxes (EBIT)</b>	613	716	(2,187)	323	529	1,428	2,063	2,528	3,051	3,601	4,208	4,861	5,430	6,068	6,924	7,640	8,337	8,933
Civil Aerospace	(175)	(51)	(2,704)	(257)	30	697	1,235	1,553	1,930	2,320	2,750	3,210	3,508	3,792	4,063	4,337	4,615	4,897
% - Operating profit margin	-2.4%	-0.6%	-53.4%	-5.7%	0.5%	9.5%	15.8%	16.7%	17.7%	18.7%	19.7%	20.8%	20.8%	20.8%	20.8%	20.8%	20.8%	20.8%
Defence	420	413	452	455	430	559	602	691	789	895	1,010	1,133	1,198	1,262	1,326	1,388	1,454	1,522
% - Operating profit margin	13.4%	12.7%	13.5%	13.5%	11.7%	13.7%	13.6%	14.4%	15.2%	16.1%	17.0%	18.0%	18.0%	18.0%	18.0%	18.0%	18.0%	18.0%
Power Systems	315	359	167	238	273	407	440	498	563	635	717	809	911	1,027	1,159	1,308	1,475	1,665
% - Operating profit margin	9.2%	10.1%	6.8%	8.7%	8.2%	10.3%	10.3%	10.8%	11.3%	11.8%	12.4%	12.9%	13.5%	14.0%	14.6%	15.1%	15.7%	16.3%
New Markets	0	0	(45)	(70)	(132)	(160)	(154)	(166)	(177)	(190)	(203)	(219)	(109)	73	474	714	910	973
% - Operating profit margin	-	-	-900.0%	-3500.0%	-4400.0%	-4000.0%	-6929.2%	-3643.6%	-2213.8%	-1520.0%	-1155.6%	-955.3%	-24.3%	5.4%	14.6%	15.0%	15.3%	15.7%
Other businesses	0	0	(20)	2	(31)	(15)	(16)	0	0	0	0	0	0	0	0	0	0	0
Corporate and inter-segment	(16)	(117)	(57)	(45)	(41)	(60)	(42)	(48)	(54)	(60)	(66)	(72)	(79)	(87)	(97)	(107)	(117)	(124)
<i>ITP Aero (Discontinued in 2021)</i>	69	112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Taxation</b>	(115)	338	(236)	(459)	(109)	(14)	(310)	(379)	(458)	(540)	(631)	(729)	(814)	(910)	(1,039)	(1,146)	(1,251)	(1,340)
Statutory taxes	(116)	(136)	416	(61)	(101)	(396)	(516)	(632)	(763)	(900)	(1,052)	(1,215)	(1,357)	(1,517)	(1,731)	(1,910)	(2,084)	(2,233)
Tax Adjustments	1	474	(651)	(398)	(8)	322	206	253	305	360	421	486	543	607	692	764	834	893
<b>Operating Result after tax (NOPLAT)</b>	498	1,054	(2,423)	(136)	421	1,414	1,754	2,149	2,593	3,061	3,577	4,132	4,615	5,158	5,885	6,494	7,087	7,593
<b>Non-Core Operations</b>																		
<b>Non-Operating Income (Expenses)</b>	(1,806)	(1,677)	36	99	185	354	(150)	(104)	(14)	46	94	135	164	192	229	255	281	303
Derivative & FX adjustments	(24)	144	1,003	(40)	264	475	141	173	209	247	288	333	374	416	475	524	571	612
Programme exceptional charges	(976)	(1,409)	620	105	69	21	(40)	(15)	(6)	(2)	(1)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Restructuring exceptional charges	(331)	(151)	(470)	45	(47)	(102)	(125)	(125)	(69)	(38)	(21)	(11)	(6)	(3)	(2)	(1)	(1)	(0)
Acquisition accounting & M&A	183	(24)	(85)	(50)	(58)	(50)	(71)	(80)	(90)	(100)	(110)	(120)	(132)	(145)	(163)	(180)	(195)	(207)
Impairments & asset write-offs	(155)	(84)	(1,336)	9	(65)	8	(56)	(57)	(58)	(60)	(63)	(67)	(71)	(75)	(81)	(88)	(95)	(102)
Pension past-service credit	0	0	308	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other underlying adjustments	(130)	(12)	(4)	(17)	22	2	0	0	0	0	0	0	0	0	0	0	0	0
Business disposals (relevant for 2018 & 2019)	(356)	(139)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-core adjustments (relevant for 2018 & 2019)	(15)	(2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Underlying Share of results of joint ventures and associates</b>	32	109	179	91	123	162	217	237	255	268	284	298	315	327	341	356	373	390
<b>Gain / (loss) arising on disposal of businesses</b>	358	139	(14)	56	81	1	53	53	53	53	53	53	53	53	53	53	53	53
<b>Non-Core Result before taxes</b>	(1,416)	(1,429)	201	246	389	517	119	186	294	368	430	486	531	572	622	664	706	745
<b>Taxation</b>	266	(674)	22	(350)	(80)	(5)	(18)	(28)	(44)	(55)	(65)	(73)	(80)	(86)	(93)	(100)	(106)	(112)
Statutory taxes	269	272	(38)	(47)	(74)	(121)	(30)	(47)	(73)	(92)	(108)	(121)	(133)	(143)	(156)	(166)	(177)	(186)
Tax Adjustments	(3)	(945)	60	(303)	(6)	117	12	19	29	37	43	49	53	57				

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