EDISON

Dowlais Group

Initiation of coverage

A premium automotive business

Automotive components

The listing of Dowlais in April 2023 launched the GKN group of automotive components businesses, market-leading automotive driveline and powder metallurgy manufactured components, as a standalone entity. Leveraging automotive market recovery over a restructured cost base is expected to deliver strong margin expansion as automotive markets return to pre-COVID-19 peak levels. This should drive earnings growth, confirming the 'premium' tag, driving the valuation.

Year end	Revenue (£m)	PBT* (£m)	EPS* (p)	DPS (p)	P/E (x)	Yield (%)
12/22	5,246	212	N/A	N/A	N/A	N/A
12/23e	5,487	259	13.3	4.0	10.0	3.0
12/24e	5,799	337	17.4	5.2	7.6	4.0
12/25e	5,939	427	22.4	6.7	5.9	5.1

Note: *PBT and EPS are normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments.

A premium automotive business

The Dowlais demerger should provide greater scrutiny of the operations as a standalone entity as opposed to their position within the Melrose 'buy, improve, sell' strategy. Strong market-leading positions on a global basis are attractive. However, key to market appreciation is likely to be the improved returns from the extensive restructuring programmes and evidence of the journey to management's target of over 11% operating margin from the two core operating businesses.

Electrification impact neutral with upside potential

Given the exposure to automotive drivetrains, the group is exposed to the shift from internal combustion engines (ICEs) to electric vehicles (EVs). Losses in areas such as propshafts and all-wheel drive (AWD) systems are expected to be offset by gains in sideshafts and eDrive components making the group powertrain agnostic. Additional developments in eDrive components and selective eDrive systems in the Automotive division combined with developments in magnets in Powder Metallurgy, offer upside potential given the scale of the market opportunities.

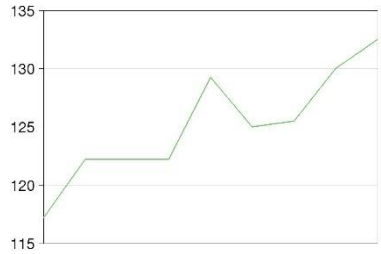
Valuation: Pathway to a premium rating

Our current DCF valuation of c £2.6bn translates to a share price of 186p. In the short term, markets may look towards automotive peer group metrics, which suggest c 168p a share. As progression towards the margin targets becomes evident and the group delivers on its earnings potential, investor focus will turn towards the higher-rated automotive peer group such as Autoliv and Brembo. A re-rating to this peer group would indicate a valuation of £3.7bn or 264p a share. Delivering such performance improvement should also lead to a reduction in beta and hence the cost of capital. Using a beta similar to Autoliv or Brembo would reduce the weighted average cost of capital (WACC) by c 100bp, increasing the valuation to £3.1bn or 225p a share.

2 May 2023

Price	**130p**
Market cap	**£1,810m**
Net debt (£m) at 31 December 2022	834
Shares in issue	1,393m
Free float	97%
Code	DWL
Primary exchange	LSE
Secondary exchange	N/A

Share price performance



%	1m	3m	12m
Abs	N/A	N/A	N/A
Rel (local)	N/A	N/A	N/A
52-week high/low		130p	117p

Business description

Dowlais is an automotive components group with two core divisions: GKN Automotive is the market leader in drive systems for both ICEs and EVs, and GKN Powder Metallurgy is the leader in sintered component manufacture and number two in metal powders.

Next events

Trading update	23 May 2023

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Edison profile page

Dowlais Group is a research client of Edison Investment Research Limited

Investment summary

Company description: A market-leading automotive components group

Dowlais is a global automotive components group with market-leading positions. The primary business, GKN Automotive, produces drivetrain components, predominantly sideshafts. The smaller division, GKN Powder Metallurgy, manufactures sintered metal components and metal powders.

Investment highlights

Strong margin recovery to boost earnings and cash generation

A major restructuring programme (£486m since 2018) has seen a reduction in the manufacturing footprint along with a shift to 'best cost' locations. In addition, there has been a focus on internal operational efficiency programmes, including purchasing, and on commercial terms for new business. The benefits have been masked by the weak automotive market. However, as global light vehicle production recovers (S&P expects a return to 2019 levels in 2025/26), operational gearing benefits should generate a strong margin recovery. Management's target on full market recovery is for operating margin of c 11% (>10% in GKN Automotive and 14% in Powder Metallurgy) against 6.6% reported in 2022. These would be peak margins but are in line with the improvements that Melrose has achieved in other 'improvement' programmes of 400–500bp.

Automotive electrification impact expected to be neutral but with upside potential

Electrification is important given the exposure of both businesses to the automotive powertrain (motor, gearbox and driveline). GKN Automotive will see the need for propshafts and some of the AWD gearing/torque vectoring products affected to be replaced by more and higher-value sideshafts and eDrive components and/or systems. Our expectation is for a neutral impact with upside dependent on the level of eDrive system business wins and the development of the magnets business. The complete integrated systems market is competitive and, with management's commitment to profitability and GKN Automotive's limited scale, management is being selective with the programmes being pursued. The Powder Metallurgy division has c 50% of the business at risk, through exposure to engine and gearbox components. New electrification components and a push into the industrial markets will cushion this impact, but developments in magnets for the eMotor will be key. Again, we expect a broadly neutral impact with upside if the magnets business can deliver on management's expectations.

Corporate optionality

Management is clear that shareholder value creation is a key focus, reflecting its Melrose cultural roots. It has made a commitment to revisit the ownership of Powder Metallurgy in the next two to three years, once the electrification impact and magnets business development becomes more evident, which could provide a value trigger. In addition, the strong balance sheet, combined with positive cash generation, provides optionality over corporate development of the GKN Automotive business, from bolt-on acquisitions to enhance the growth profile, to consolidation plays. The nascent hydrogen storage business, if successful, is likely to require additional funding/capabilities, which could involve finance or partnership with third parties.

Valuation: Pathway to a premium rating

The shares are currently going through a period of volatility post the demerger, hence offering an attractive valuation with a pathway to a premium rating over the next two to three years. Our DCF valuation of c £2.6bn translates to a share price of 186p, or using the automotive peer group, £2.3bn or c 168p a share. Strong market-leading positions within the portfolio suggest a premium automotive business. Margin recovery to management target levels, driven by the restructuring and market recovery, would support such a hypothesis and should see the shares re-rate towards premium auto stocks such as Autoliv and Brembo; this would suggest a valuation of £3.7bn or 264p a share. Note this would also boost our DCF valuation due to the lower volatility to £3.1bn or 225p a share.

Sensitivities: Automotive market volumes key

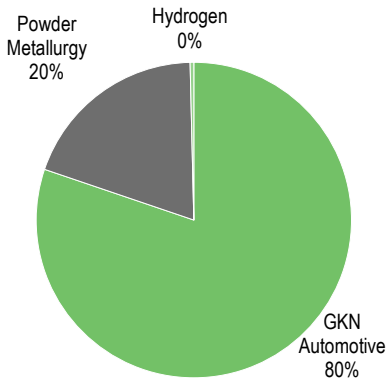
The key sensitivity for the group is automotive volumes globally but particularly in North America and Europe. 2022 global sales were c 10% below the 2019 peak (North America c 12% and Europe c 25%), partially due to supply chain issues, in particular a shortage of chips, which are now abating. While there appears to be pent-up demand in Western markets, softer economic conditions are likely to provide a headwind. Current market expectations are for limited growth in global automotive markets in 2023; Edison's assumption is +3%, in line with S&P forecasts.

Internal operational sensitivities include the impact of inflation and passing such cost pressures on to clients or offsetting them through internal action. 2022 witnessed positive pass through, primarily relating to material costs, with margins in automotive increasing from 4.6% to 5.9%, albeit with some time lag. Employee cost inflation may prove more difficult to pass through and require greater efficiency programmes to offset. Contract wins or losses and the EV transition provide sensitivities both upwards and downwards. The visibility that automotive contracts provide is positive, enabling early actions to be taken to adjust capacity as the order book requires.

Activity profile

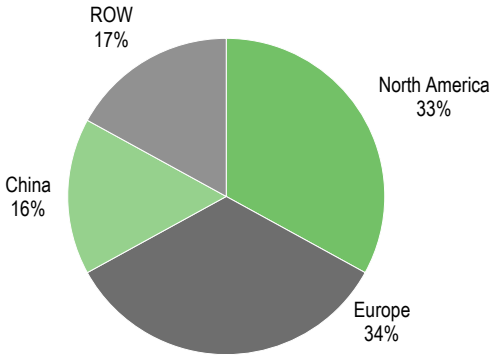
Dowlais is a global automotive components group with strong market-leading positions. GKN Automotive produces drivetrain components, predominantly sideshafts, where it is the market leader. Powder Metallurgy manufactures sintered metal components, where it is the market leader, and metal powders. The Hydrogen division is a nascent hydrogen storage business.

Exhibit 1: Sales by division



Source: Dowlais

Exhibit 2: Sales by geography



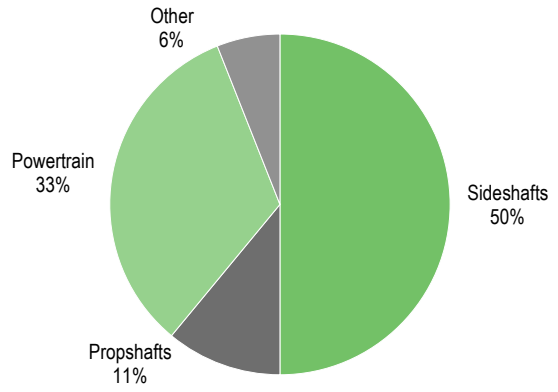
Source: Dowlais

GKN Automotive

Overview

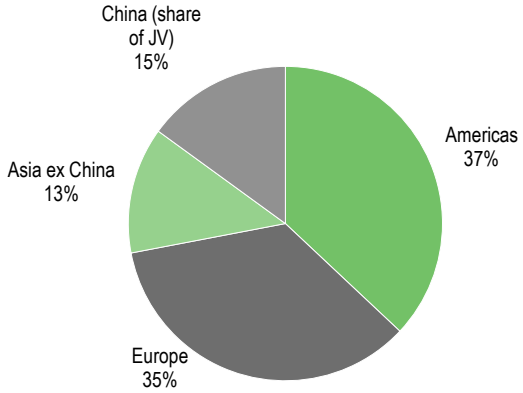
GKN Automotive supplies drivetrain components and systems, transmitting the mechanical power from the engine/gearbox to the wheels. The primary business is sideshafts and constant velocity joints (CVJs), which take the power laterally outwards to the wheels. Propshafts takes power longitudinally from the engine/gearbox to the rear axle. ePowertrains control the torque from the engine/gearbox to the sideshafts/propshafts for both AWD ICE-powered vehicles and electric eDrive. The business is global, including a 50/50 joint venture (JV) with HASCO in China.

Exhibit 3: Activity profile



Source: Dowlais

Exhibit 4: Geographic exposure



Source: Dowlais

History

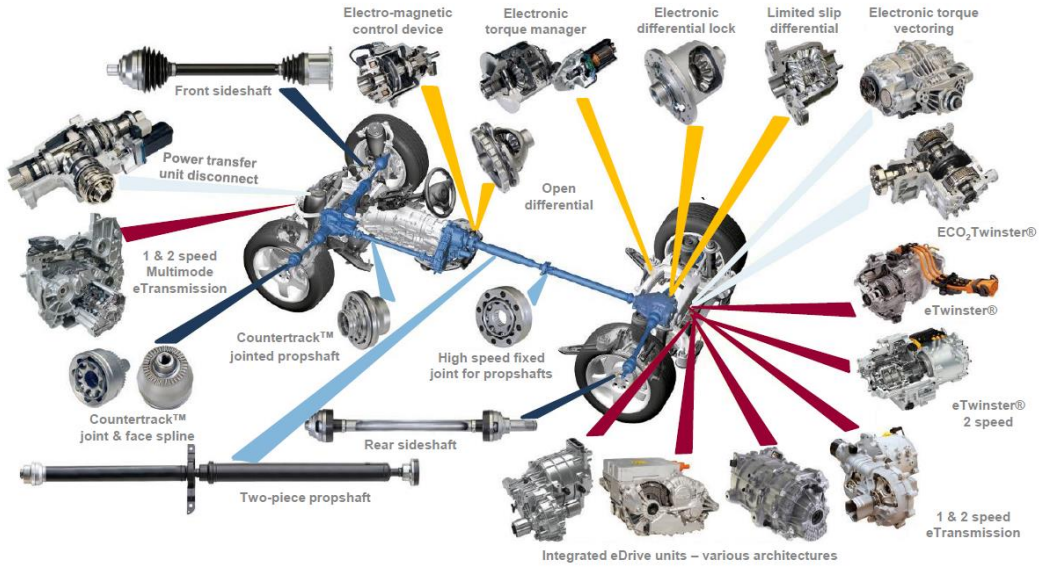
Automotive drivetrain originated primarily as a rear-wheel drive configuration – a front-mounted engine driving a propshaft via a gearbox to a fixed rear axle, the front wheels being purely for directional steering. The Austin Rover Mini launched in 1956 came with a new design CVJ that provided constant power levels to the wheels as they turned through corners. These CVJs were attached to sideshafts to provide a torque transfer system from the engine/gearbox. Hence the modern front-wheel drive was born. The adoption of front-wheel drive increased through the 1970s to the dominant drivetrain architecture seen today, with CVJs becoming the standard technology.

The CVJ for the Mini was designed and manufactured by Birfield Group, which GKN acquired in 1966. The business had first-mover advantage as well as strong intellectual patent protection. Combined with GKN's ability to fund expansion, the business grew globally to support original equipment manufacturers (OEMs) as they developed front-wheel drive platforms. This included being the first CVJ producer in China through a 50/50 JV established in 1988.

Activity profile

Exhibit 5 provides an overview of the group's product set.

Exhibit 5: The product set



Source: Dowlais

Sideshafts and CVJs

The sideshaft and two CVJs form a system connecting the motor/gearbox to the wheel in order to transfer the torque to the wheel (see Exhibit 6). Critical aspects are the efficient transfer of torque with minimal rotational losses while permitting the required angular variation. The system consists of three components:

- A CVJ, see Exhibit 7, transmits torque from the sideshaft to the wheel. Key is the ability to maintain constant velocity to the wheels despite the changing directional angles. The system operates as a ball and socket joint. The ball end houses an arrangement of ball bearings, which slot into grooves in the socket to transfer the rotational power. These grooves enable the point of contact to move as the wheels turn and hence the orientation between the wheel and the sideshaft changes, but the rotational transfer remains consistent. These joints operate at angles up to 50° as required in steering.
- Sideshaft: this is the connecting rod that transfers the torque between the two joints. Key is the weight and stiffness/torsional resistance.
- A lower specification joint is positioned at the inboard end attaching the sideshaft to the engine/gearbox. This is a simpler and cheaper joint, which transfers the torque but only permits limited angular movement as required primarily by the suspension between the motor and the wheels as the directional movement is limited.

Exhibit 6: Sideshaft

Source: GKN Automotive

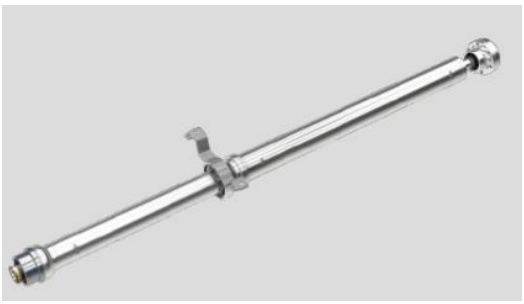
Exhibit 7: Constant velocity joint

Source: GKN Automotive

Propshafts

A propshaft is a rotating metal rod/tube to take the power from the engine/gearbox in the front of the car to the rear axle. Like a sideshaft this is a relatively simple component, albeit having to handle significant torsional stress.

Exhibit 8: Propshaft



Source: GKN Automotive

ePowertrain systems

GKN Automotive has developed a range of products designed to control torque transfer, which include vectoring capabilities enabling varying levels of torque to be delivered to each wheel, thereby improving traction and cornering. Traditional systems utilised the braking system on individual wheels, which the GKN system does not. This family of products includes clutches and differentials.

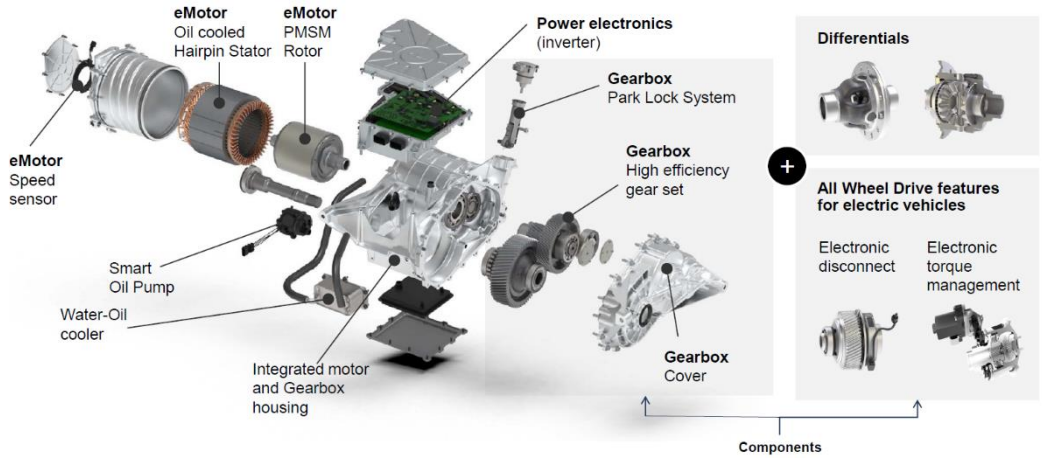
Exhibit 9: AWD Twinster torque vectoring

Source: GKN Automotive

eDrive components and systems

A full eDrive powertrain system converts the battery's electrical energy into mechanical rotational torque required to drive the wheels. The system incorporates an electric motor to generate the mechanical power, power electronics/invertor to control the motor and gearbox/differentials/torque management systems to condition the torque and transfer to the sideshafts, all within an overarching software control system. The entire system is termed 3-in-1 (motor, gearing and invertor) whereas systems without the invertor are known as 2-in-1. GKN Automotive's involvement came from its torque management expertise, vertically integrating to provide the full drive package along with internally developed control software. Exhibit 10 highlights the key components in the system.

Exhibit 10: eDrive system and components



Source: Dowlais

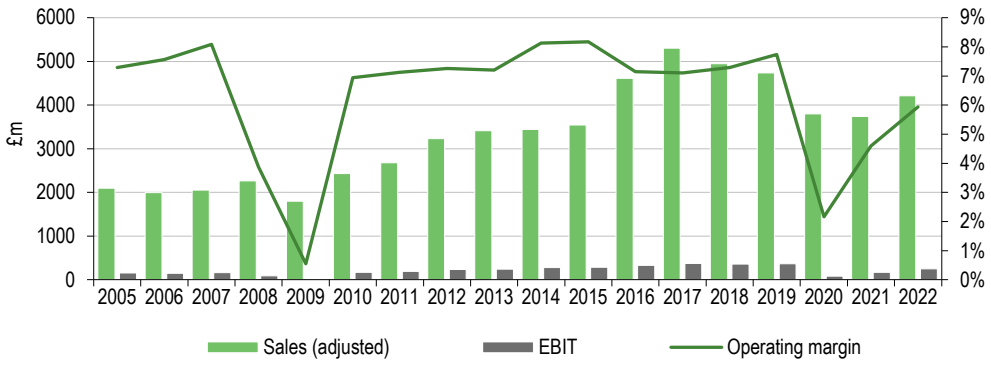
Market position and peer group

GKN is the clear market leader in sideshafts and CVJs, claiming relationships with 90% of the world's OEMs and a c 50% of share of driveline wallet from its top 10 customers. We note that previous GKN management (pre-Melrose acquisition) claimed a c 50% share of the outsource market (around 10% being in-sourced by the OEMs). Competitors generally have additional activities and regional strengths and/or association with particular OEMs. Some key competitors are American Axle, Dana (primarily trucks), Magna, Nexteer, NTN, BorgWarner, Hyundai WIA, Linamar, Vitesco (spin-off of Continental's powertrain business) and Valeo (which acquired Siemens auto business in 2022).

Financial performance

The business has produced solid and stable financial performance apart from over the oil shock/financial crisis and COVID-19 pandemic, when auto volumes declined.

Exhibit 11: Historical financial performance



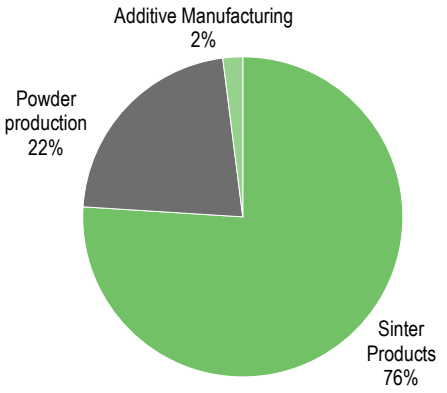
Source: GKN, Melrose

Powder Metallurgy

Overview

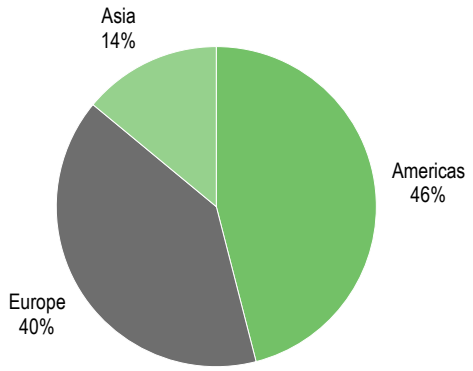
Powder Metallurgy's main business is the sintering of metal parts from powder under high temperature and/or pressure to fuse the powder together in an alternative process to traditional liquid poured metal castings or forgings. The process permits 'near net shape' components to be formed limiting the requirement for additional machining and inherent scrap generation. The business also produces powders for sinter production through its Hoeganaes brand. The division also has a nascent additive manufacturing business. The business primarily serves the automotive market, 78% of sales, with the remaining 22% to the broader industrial market.

Exhibit 12: Activity profile by sales



Source: Dowlais

Exhibit 13: Sales by region



Source: Dowlais

History

The business was a smaller operating unit within GKN, which was seen as a growth opportunity and was expanded rapidly in the late 1990s through some 20 acquisitions. The transformational deal was the $386m purchase of Sinter Metal in 1998, which brought with it the Hoeganaes powder business. Operational issues, primarily related to the lack of acquisition integration, and poor financial performance led to significant restructuring, particularly in North America, in the early 2000s, and its performance has significantly improved since.

Activity profile

Sintered parts

Traditionally metal components were cast from liquid metal into sand moulds, cooled and machined. Sintering uses metal powders, which are compressed into a metal mould, then fused through heat and pressure. This offers a number of advantages including the ability to produce 'near net shape' components, thereby reducing both machining requirements and scrap, while the process also uses less energy. Sintering also provides opportunity for light weighting due to the reduced density of the component and the ability to use different metal powder formulas to customise the properties of the final component. GKN produces over 10 million components a day.

Metal powders

In the production of high-quality metal powders, the shape and consistency of granules is critical to the quality and hence performance of the sintered component. GKN specialises in the atomisation method of powder manufacture, where molten metal is jetted in droplet form and rapidly cooled

under controlled conditions to form solid powders. GKN produces around 250,000 tonnes of powder a year, with a third of production used in the group's own sinter component production.

Exhibit 14: Metal powders

Source: Dowlais

Exhibit 15: Sintered metal parts

Source: Dowlais

Additive manufacturing

Additive manufacturing constructs a component by layering the material, which is then fused, often using a laser. By controlling the deposition of the metal, accurate and complex shapes can be constructed, offering greater structural freedom, increasing the design potential compared to traditional manufacturing techniques. To date the cost of the process, including the relatively slow cycle times, has limited its adoption to prototyping and high-value niche products. GKN offers binder jetting and laser sintering technologies for metals and, through the 2019 acquisition of FORECAST 3D, plastics.

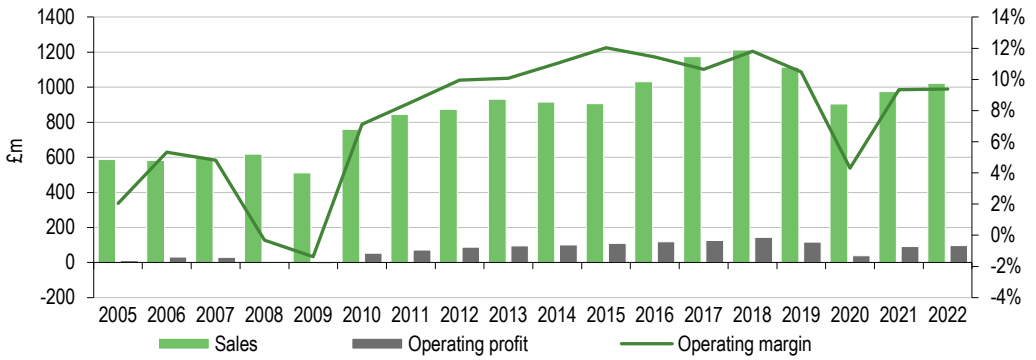
Market position and competition

The sinter metal business is fragmented, with GKN claiming the market-leading position. Competitors include smaller divisions of large industrial groups such as Sandvik and Ametek, and specialist companies such as Miba and hGear. The powder market is relatively concentrated, with Höganäs being the market leader and GKN Hoeganaes the clear number two. Combined these companies have over 50% of the market, according to Dowlais management.

Financial performance

Since the restructuring in the early 2000s and the financial crisis, the business has produced a strong and relatively stable performance, even limiting the impact from the COVID-19 pandemic downturn. Note that margins are affected by commodity prices as seen in 2022.

Exhibit 16: Historical financial performance

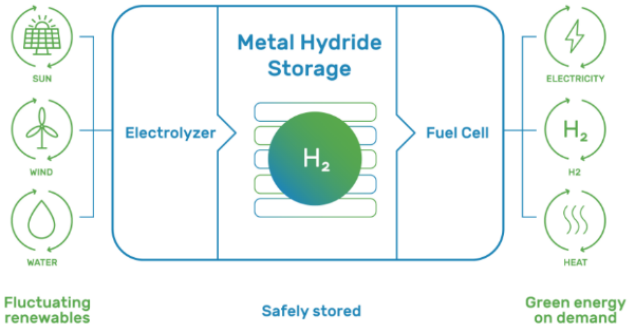


Source: GKN, Melrose

Hydrogen

GKN Hydrogen has developed a compact hydrogen storage system using metal powders. Traditionally, hydrogen is stored as a high-pressure gas or a cryogenic (low temperature) liquid. Chemical storage offers an alternative technology through the hydrogen bonding with a compound in a reversible reaction. The GKN system uses a proprietary metal hydride enabling significant volumes of hydrogen to be held at close to ambient conditions. Benefits claimed by the GKN storage system include long life (15+ years), low pressure, no capacity losses and 100% recyclability. The system generates heat on regeneration, which, along with the weight of metal hydride, makes such a technology best suited to stationary storage solutions. The system is designed to be modular to provide flexibility for individual applications. The business reported its first commercial revenues (£1m) in 2022.

Exhibit 17: Overview process diagram



Source: GKN Hydrogen

Exhibit 18: HY2MEDI system

Source: GKN Hydrogen

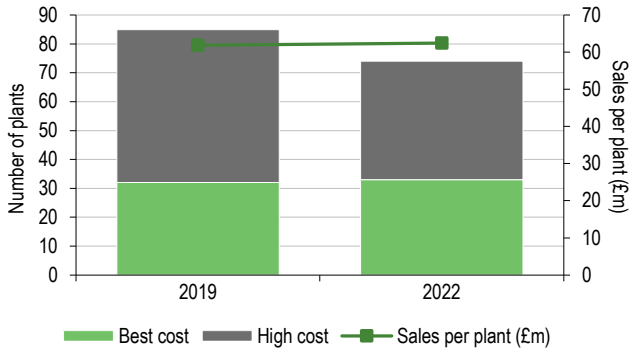
Operational improvements: Restructuring, margin targets and cash generation

Melrose acquired GKN as an under-performing group of companies with the aim of improving the prospects and the financial performance. To achieve this, £486m of restructuring charges have been taken to date. In this section, we consider some of the actions taken and the anticipated impact on the financial performance against management expectations.

Right-sizing the operations

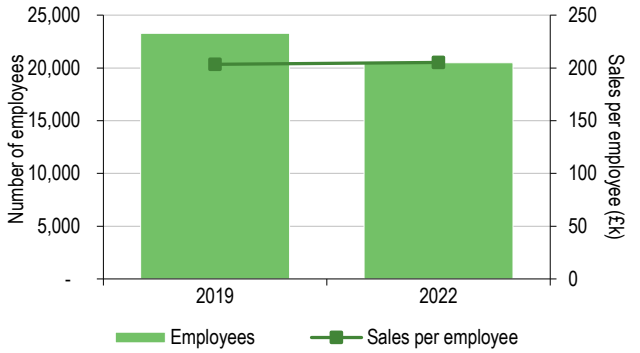
Right-sizing the operations has been a broad process of reducing the fixed-cost infrastructure, addressing the plant network and associated staffing, along with moving the centre of gravity to 'best cost' regions. Exhibit 19 shows the reduction in the plant network from 85 to 74, with, more importantly, the balance of 'best cost' facilities moving from 37% to 45% of the network. Requirements to be close to customers given the 'just-in-time' demands of automotive supply chains, combined with closure costs and pay-backs, limits the ability to move to 'best cost' locations. Similarly, Exhibit 20 shows the reduction in headcount of 12%, which, with the shift to lower-cost regions, will have had a greater impact on the cost line. Unfortunately, the decline in auto volumes over the period has seen sales decline by c 11%, hence sales per plant and sales per employee have made limited progress. As a consequence, while the group is benefiting from the move to best/lower-cost regions as witnessed by the margin improvements in 2022, there is significant operational gearing potential from the excess capacity as the end markets and sales recover.

Exhibit 19: Manufacturing infrastructure



Source: Dowlais, Edison Investment Research

Exhibit 20: Employees



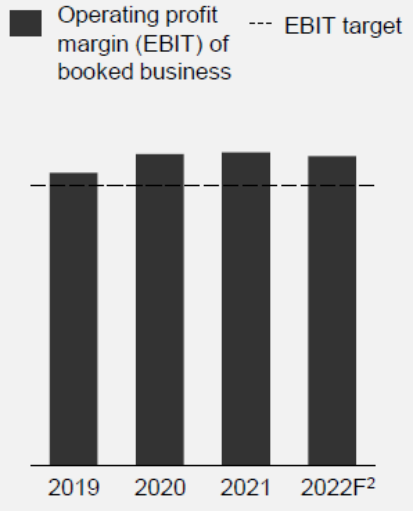
Source: Dowlais, Edison Investment Research

Improved commercial terms

Automotive contracts tend to be multi-year and aligned to expected but not guaranteed volumes, which depend on the ultimate success of any particular programme. Adding in the traditional automotive annual price down expectations and the initial commercial terms become critical. Actions taken include:

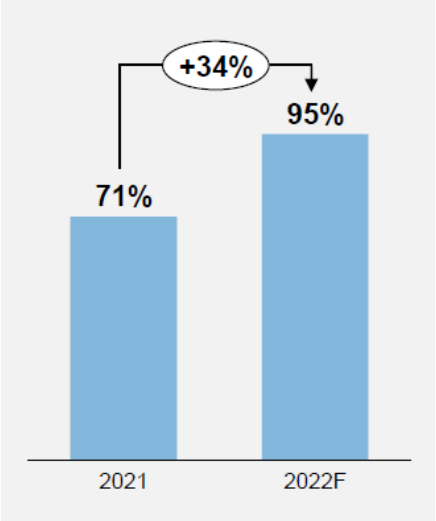
- GKN Automotive: improved initial contract terms. On acquisition management took a provision of £200m for loss-making contracts (13% of sales were loss making), highlighting poor commercial discipline. Management has changed the emphasis on new business wins from top line and market share to focusing on booking business on appropriate commercial terms. Exhibit 21 shows the improvements being made on new booked business.
- Powder Metallurgy: reduced exposure to raw material price fluctuations. Powder Metallurgy includes significant material costs, c 30% of sales, depending on global commodity prices. Passing such costs through to the customer is critical to maintaining profitability. Management has increased the level of customers on pass-through contracts to 95%.

Exhibit 21: Margin on new business for Automotive



Source: Dowlais

Exhibit 22: Contracts with material pass-through agreements for Powder Materials

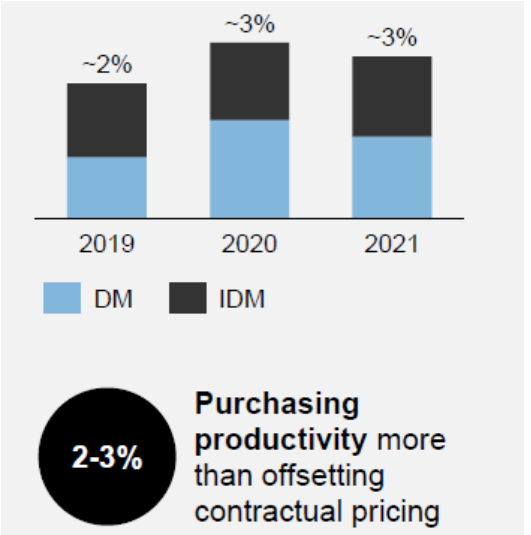


Source: Dowlais

Continuous improvement

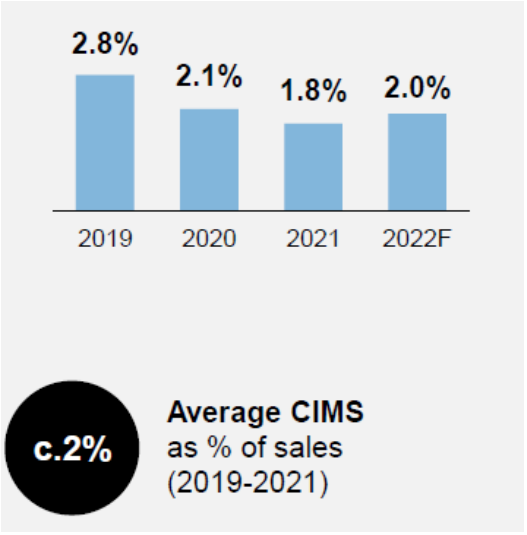
The automotive sector is notorious for price down pressures, reflecting the competitive nature of the market as OEMs, often with excess capacity, look for market share. Annual operational improvements are required by suppliers to offset these pressures, leading the sector to be at the forefront of new manufacturing techniques such as just-in-time, lean, six sigma, etc, along with investment in areas such as automation. Under the Dowlais/Melrose management, these actions have included reassessment of the supply chain looking at consolidation of suppliers and lowest landed cost to reduce total brought in material costs.

Exhibit 23: Purchasing productivity as % of sales (GKN Automotive)



Source: Dowlais. Note: DM/IDM, direct/indirect manufacturing purchases.

Exhibit 24: Cost improvements as % of sales (Powder Metallurgy)



Source: Dowlais. Note: CIMS, continuous improvement savings.

Summary

The above highlights some of the key aspects of the turnaround programmes, albeit the headwind from the decline in auto volumes has limited the benefit to the overall financial performance. These

actions are expected to continue reflecting the dynamic state of the auto world and management determination to target operational issues as they arise, as witnessed in North America Powder Metallurgy in 2022 where underperformance at a single site has led to further actions.

Margin targets

Dowlais management has set a target of increasing the operating margin in GKN Automotive to at least 10% and in Powder Metallurgy to around 14%, dependent on commodity prices. This translates to c 11% margins for the group, excluding the hydrogen business and central costs. Management expects that this will be achieved largely from the operational gearing benefits from the automotive market with volumes returning to 2019 levels. These would be peak margins but are in line with the expansion that Melrose has achieved in other 'improvement' programmes of 400–500bp.

Exhibit 25 models the recovery potential, that is the operating margin for GKN Automotive against the growth in sales (recovery of the auto markets) and the drop through from incremental revenue. The negative drop through when the automotive markets declined in 2020 was 30% (ie each lost £1m of revenue reduced EBIT by £300k). A recovery of the auto markets to the 2019 level, expected by S&P in 2025/26, would suggest sales growth of c 15%, which, combined with the 30% drop-through we estimate, would translate to margins of 9.7%, approaching target margins before considering further commercial actions or additional restructuring benefits.

Exhibit 25: GKN Automotive margin potential

		Automotive growth				
		5%	10%	15%	20%	25%
Drop through	20%	7.3%	7.9%	8.4%	8.9%	9.3%
	25%	7.5%	8.3%	9.0%	9.7%	10.3%
	30%	7.8%	8.8%	9.7%	10.5%	11.3%
	35%	8.0%	9.2%	10.3%	11.4%	12.3%

Source: Edison Investment Research

Powder Metallurgy's negative drop through in 2020 was 37%. Exhibit 26 plots the operational gearing impact on margin. A 15% market recovery along with a 35% drop through would therefore see the business achieve the target margin; note that this also assumes a reversal of the recent commodity price rises.

Exhibit 26: Powder Metallurgy margin potential

		Automotive growth				
		5%	10%	15%	20%	25%
Drop through	25%	11.3%	12.0%	12.7%	13.3%	13.9%
	30%	11.5%	12.5%	13.4%	14.3%	15.0%
	35%	11.8%	13.0%	14.1%	15.2%	16.1%
	40%	12.1%	13.5%	14.9%	16.1%	17.2%

Source: Edison Investment Research

Overall, this suggests that the management target margins should be achievable as end markets return to 2019 levels. Management expects that this is likely to be 2026 when the hydrogen business and potentially the Powder Metallurgy magnets business should also be profitable.

Electrification: The impact of EV adoption

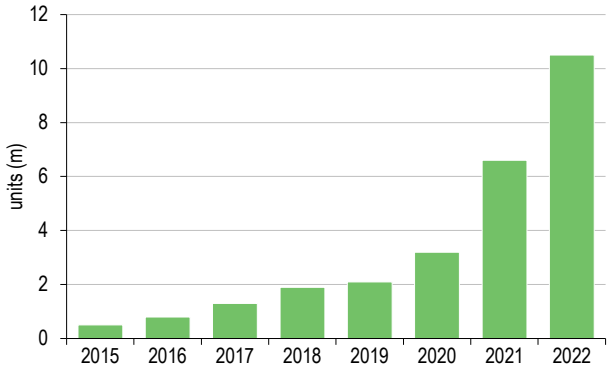
Overview

The automotive industry is undergoing a shift from traditional ICEs to a range of electric powered vehicles. These are categorised as mild (MHEV) and full hybrid (FHEV) vehicles powered by a regular combustion engine and rechargeable batteries and stop/start systems, plug-in hybrid

(PHEV) driven by an electric motor powered from batteries as well as by an ICE and battery electric vehicles (BEV) powered solely by electric motor and batteries. FCEVs are fuel cell powered EVs.

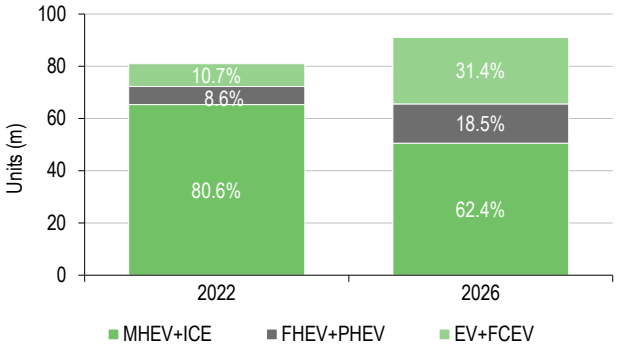
EV production has accelerated in recent years led by China, where 22% of the new vehicle market was EV related in 2022. This trend is becoming global, boosted by various levels of local legislation and incentives for both consumers and OEMs. Over the next four years traditional ICE cars are expected to decline from 65m to 50m units while EVs, led by full electric, are expected to increase from 16m units to 40m. This major change to the vehicle powertrain affects both of Dowlais's key businesses.

Exhibit 27: Global EV production



Source: IEA

Exhibit 28: Global auto expectations by powertrain



Source: S&P

GKN Automotive

Power from an electric motor has different characteristics to an ICE. Primarily this is in the torque characteristics with an EV able to operate through a far larger range than an ICE (hence why ICEs stall). The 'torque advantage' of the electric motor requires a different drive system to smoothly transfer the rotational power of the engine to the wheels. This is perhaps best evidenced by the gearing system, where many cars currently have six or eight speed gearboxes while an electric powered car can work off a single take-off with reverse achieved by simply switching the electrical direction and hence motor direction. It is worth noting that, to maximise performance, EVs generally have some limited gearing system. EVs also have alternative challenges to deal with such as braking and regeneration under braking, along with higher rotational speeds. This provides differing challenges and opportunities to the individual sub-units.

Sideshafts and CVJs

The electric motor has far greater torque than an ICE, requiring sideshafts/CVJs to be able to handle higher loadings and hence have greater inherent strength (ie be somewhat larger). Management estimates this impact at c 5% average value increase. A greater proportion of EVs than ICEs are likely to be four-wheel drive due to the improved performance, while rigid axles are also likely to be replaced by a motor/sideshaft system. This should lead to increased sideshaft/CVJs penetration, which management estimates at 2.4 units per vehicle on average up from 2.1. Hence the overall shift is expected to prove positive for this key activity.

It is worth noting the potential threat from in-wheel electric motors. This architecture puts the electric motor inside the wheel, thereby negating the requirement for sideshafts and CVJs. In-wheel motors claim greater efficiency, largely due to vehicle set-up and regenerative braking as well as enhanced safety, including improved braking. However, there are disadvantages, including weight (suspension issues), expense, motor size and life time concerns, given the harsh operating

environment. Use at present is limited, although the Lordstown Endurance SUV is designed with in-wheel motors. Note that GKN Automotive is also researching this technology.

Propshafts

Propshafts will be a loser in the changing drivetrain architecture, with the rear axle driven by its own rear-mounted motor rather than a front-mounted engine and connecting propshaft. Propshafts currently make up 11% of sales.

Powertrain: All-wheel drive (AWD)

Control of power to each wheel will still be critical, particularly in higher performance vehicles. However, the new vehicle architecture eliminates the propshaft and hence the requirement to convert/control torque at either end, thereby eliminating the need for certain AWD units, although the technology can arguably be used within the eDrive for power control and vectoring.

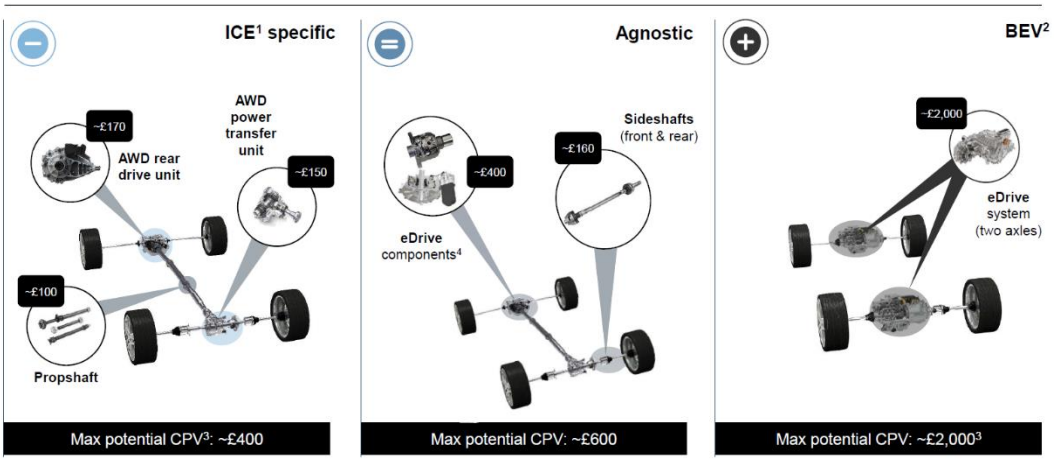
eDrive systems and components

GKN clearly has capabilities in eDrive systems and components, having invested over £200m in R&D over the last five years, and highlighted by the award of a range of headline contracts such as a 3-in-1 system with 'a leading German OEM' and 2-in-1 systems with Stellantis (Fiat 500e) and Ford. However, the systems market is competitive, as traditional engine (often the OEMs themselves) and gearbox manufacturers look to replace their ICE businesses at the same time as new entrants, such as GKN, look to take advantage of the step change in technology. Hence the market for the complete integrated system is competitive, and, with management's commitment to profitability and GKN Automotive's limited scale, GKN Automotive is tending towards becoming a specialist in components such as differentials and torque management, where it already has an established presence. This is also reflects management's financial focus and hence unwillingness to undertake certain eSystems business, which, with significant bought-in components and GKN's limited scale, can be below group hurdle rates.

Overall expectations

Exhibit 29 highlights the expected gains and losses for GKN Automotive. Note that the eDrive components in the 'Agnostic' category offer similar content per vehicle as the ICE specific category.

Exhibit 29: GKN Automotive content per vehicle

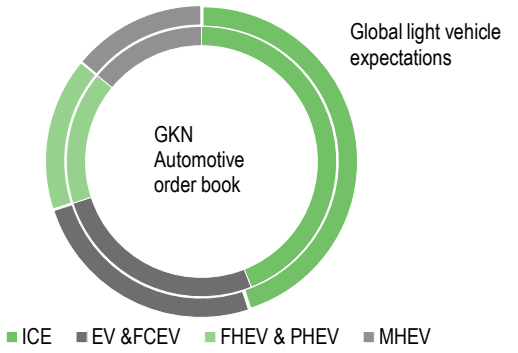


Source: Dowlais. Note: 3 content per vehicle, 4 differentials and disconnects.

Evidence to date

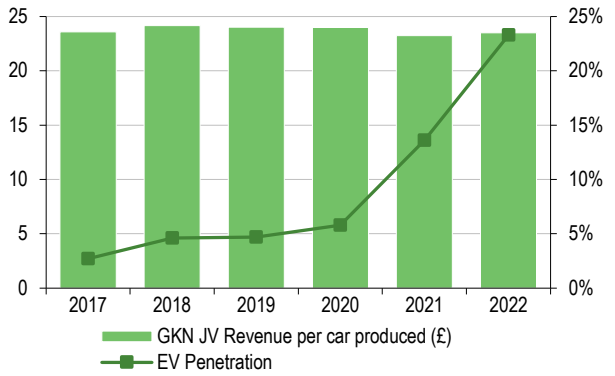
2022 new bookings were over £5bn with over 40% to EVs, hence management's view that overall the group is powertrain (EV v ICE) agnostic as this is in line with the expected market by 2026 as shown in Exhibit 30. We note that the 2022 reported life-time order intake relating to EVs from peers were: American Axle 40%, Linamar 50%, Schaeffler 40% and Vitesco 75%. China is the most advanced market in this transformation, hence it is worth reviewing how the GKN JV is faring. Exhibit 31 highlights GKN Automotive's share of revenue from its associate per vehicle produced in China, providing a high level analysis of the impact of electrification. Revenue per car has remained broadly flat, suggesting an overall neutral impact is being seen from electrification in China.

Exhibit 30: Expected powertrain exposure in 2026



Source: Dowlais

Exhibit 31: GKN JV revenue progression



Source: China Association of Vehicle Manufacturers, Edison Investment Research

Edison expectations

Exhibit 32 highlights the expected changes in revenue (excluding some of the smaller businesses, c 4% of sales) assuming flat automotive sales but purely a change in mix to assess the impact of electrification. Key assumptions are a 20% decline in ICEs and a doubling of EVs. This suggests that the division should be ICE/EV agnostic, arguably with upside depending on eDrive component wins.

Exhibit 32: GKN Automotive anticipated sales progression through the EV transition in a flat automotive market (£m)

	2022	2027	Notes
Sideshafts/CVJs	2,100	2,180	Benefit of higher EV penetration and specification
Propshafts	450	360	20% decline in ICE
AWD	1,000	800	20% decline in ICE
eDrive systems	250	200	Management decision not to focus on low-margin business
eDrive components	200	500	EV growth
Total	4,000	4,040	

Source: Dowlais, Edison Investment Research

Powder Metallurgy

The Powder Metallurgy business has 78% exposure to automotive including significant powertrain exposure. Management estimates that 30% is powertrain agnostic and will be unaffected by the transition, leaving c 50% of the division's sales exposed and potentially at risk from the electrification shift. Management has a three-pronged strategy to address this:

Target EV opportunities

Intention is to gain business in EV pumps and gears where Powder Metallurgy traditionally operates, as well as in new components such as thermal management for batteries, power cables, etc, which will provide additional opportunities. In addition, powder metal is suited to the more

complex components for axial and transverse electric motors, which can produce greater levels of flux and therefore torque, which could offer opportunities. The lighter weight of sintered components assists in taking weight out of a vehicle, which is important given the weight of batteries and could lead to additional components converting to Powder Metallurgy. Note that 24% of bookings were pure EV in 2022 providing confidence in such opportunities.

Grow the industrial business

The Metal Powder Industries Federation, a US trade body, estimates that automotive accounts for c 70% of the Powder Metallurgy market in the United States, which provides a proxy for the world exposure. The remainder is broadly split including industrial motors, hydraulics, healthcare, defence, aerospace, construction, electronics and metalworking. GKN's strategy is to win additional business in the non-auto markets. This will require a pivot in the marketing effort, which has been heavily automotive focused; the key will be to identify sectors with similar characteristics including volume requirements. Being the market leader and also able to add value through the materials/powder business should assist in these efforts.

Expand the magnets business into e-motor magnets

EVs generally use permanent magnets due to their higher power density, torque density and efficiency (IDTechEx estimates 86% of the market use permanent magnets). The most widely used are neo magnets containing neodymium, iron and boron as well as a blend of other metals such as praseodymium, dysprosium and aluminium to refine the mechanical properties. The most common method of manufacture is to blend the materials in a furnace, cast and turn them into powders before sintering. Clearly this is an area of GKN Powder Metallurgy expertise, albeit additional steps are required to generate the requisite magnetic properties.

The EV magnets market will clearly grow as EV demand Increases. At the same time, both a range of incentives and concerns over security of supply are expected to see OEMs look to on-shoring supply, reducing reliance on Chinese production, which currently dominates the market (management estimates 92%). Management sees magnets as a significant growth opportunity and is planning a pilot line of 500 tonnes capacity in 2023, with a longer-term target of £300m annual revenue.

Edison expectations

Exhibit 33 highlights our expected changes in revenue (excluding additive manufacturing) assuming flat automotive sales but purely a change in mix to assess the impact of electrification. Key assumptions are 20% growth in the industrial business and £100m in the new magnets business (note management's target is £300m of revenue medium term). If achieved, this would see Powder Metallurgy as ICE/EV agnostic, arguably with upside if the magnets opportunity achieves management targets.

Exhibit 33: GKN Powder Metallurgy anticipated sales progression through the EV transition in a flat automotive market (£m)

	Current	2027	Notes
Auto non-ICE	280	300	Some additional market wins
Industrial	220	250	Growth from the diversification strategy
Magnets	0	100	£100m of revenue by 2027
Auto ICE	500	350	In line with expected decline in ICE production
Total	1,000	1,000	

Source: Dowlais, Edison Investment Research

Summary

It is easy to assess the negative impacts from electrification (eg a decline in propshafts), but more challenging to assess the scale and likelihood of success in areas of opportunity such as eDrive or magnets.

Corporate activity

Dowlais is a holding company, highlighting management's view that value creation is the key driver and a willingness to entertain alternative scenarios to achieve this. A strong balance sheet and good cash generation helps provide optionality.

Powder Metallurgy

Management has committed to reviewing the ownership of Powder Metallurgy in the next two to three years. Such a timeframe is required to ensure that the margin recovery trajectory is fully established and to provide further evidence of the automotive electrification pathway including development of the magnets business, in order to maximise value. The business was marketed as part of GKN's defence against Melrose's approach and subsequently by Melrose, suggesting management already has some insight into potentially interested parties. It is also worth noting that Höganäs, the market leader in powders, was taken private in 2013, perhaps highlighting the most likely avenue if management does decide to dispose of the business.

GKN Automotive

For the development of GKN Automotive, management is suggesting potential from consolidation, vertical integration, technology acceleration or adjacency:

- Consolidation: given GKN Automotive's market position in sideshafts, further significant acquisitions in this area may prove difficult to achieve from both a regulatory and customer acceptance perspective, albeit we are minded of the Dana agreed offer for GKN Automotive in 2018 as part of the GKN defence. There may be more selective opportunities such as in the propshaft business as part of the managed decline or in the eDrive business given the potential market shake-out as the market matures.
- Vertical integration/technology acceleration: an acquisition to provide additional technology and accelerate bringing product to market could assist in developing the business, particularly in eDrive given this product family has not reached the mature phase seen in sideshafts. As a more complex product there will clearly be areas, such as software, where GKN Automotive may not have the requisite expertise.
- Adjacency: there is potential to add associated products to expand the offering/system to customers. Brakes or bearings would provide one such opportunity, albeit a large market in its own right.

Hydrogen

The nascent Hydrogen business now has a number of reference projects established and is starting to achieve commercial sales (2022 revenue £1m). The speed of adoption of hydrogen within the cleantech economy is still unclear, hence so is the scale of the opportunity and consequently the required investment. If successful there will clearly be a range of options open to management, from a disposal, to partnership, to fully funding continued development.

Cash returns to shareholders

Margin recovery will improve operational cash generation, which will be assisted by the limited working capital requirements, reduced restructuring programmes and reducing Hydrogen investment albeit capex is expected to rise. This should see net debt, post dividends payments, which will be set at 25–35% of net profit, reduce from 2024, which will provide flexibility to management in terms of the corporate agenda or additional cash returns to maintain the target 1–1.5x leverage.

Exhibit 34: Cash forecast summary

	2022	2023e	2024e	2025e	2026e
Cash conversion (operating cash to EBIT)	47%	33%	70%	77%	78%
Free cash generation (£m)	76	(46)	112	188	229
Net cash/(debt) (£m)	(834)	(901)	(854)	(748)	(620)
Net debt/EBITDA (x)	1.4	1.4	1.2	0.9	0.7

Source: Dowlais, Edison Investment Research

Valuation

We use a discounted cash flow (DCF) analysis to provide an absolute valuation and a peer group comparison to provide a relative valuation.

Discounted cash flow valuation

Our DCF valuation is based on a 10-year cash flow and subsequent terminal valuation. Key assumptions for the cost of capital are shown in Exhibit 35. Note that the risk premium used reflects the current peer group average.

Exhibit 35: WACC assumptions

Risk free rate	3.8%
Risk premium	6.0%
Beta	1.3x
Cost of equity	11.6%
Cost of debt	6.5%
WACC	9.6%

Source: Edison Investment Research

Exhibit 36 provides the output from our DCF model relative to two key variables, the cost of capital and terminal growth rate. We assume a WACC of 10% and terminal growth of 1–2%, which translates to a valuation of 178–194p a share (£2.5–2.7bn) and average of 186p/£2.6bn. One caveat with this valuation is the difficulty in taking into account the likely cyclicality of the business and its end markets.

Exhibit 36: DCF valuation per share (p/share)

		Terminal growth rate				
		0.0%	1.0%	2.0%	3.0%	4.0%
WACC	**12.0%**	124	132	140	151	164
	11.5%	133	142	152	164	180
	11.0%	143	153	164	179	197
	10.5%	154	165	178	195	217
	10.0%	166	**178**	**194**	214	241
	9.5%	179	194	212	236	269
	9.0%	194	211	233	262	303
	8.5%	210	230	257	292	344
	8.0%	229	253	285	329	396

Source: Edison Investment Research

Peer group valuation

Dowlais has no identical peers. Exhibit 37 provides a peer group with drivetrain/powertrain operations along with other predominantly automotive activities, and are either European or US listed. Note BorgWarner is currently undergoing its own demerger programme. Using three-year forward valuation metrics provides an average valuation of £2.3bn or 168p a share.

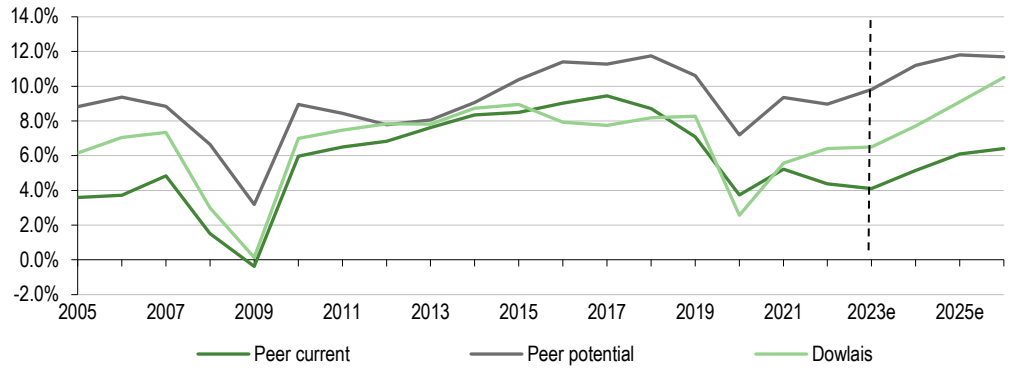
Exhibit 37: Direct peer group valuation

	EV/EBIT (x)			EV/EBITDA (x)			P/E (x)			EBIT margin		
	2023	2024	2025	2023	2024	2025	2023	2024	2025	2023	2024	2025
Dowlais	7.8	6.3	5.2	4.3	3.7	3.3	10.0	7.6	5.9	6.5%	7.6%	8.7%
Peers												
American Axle	14.3	11.6	10.4	4.7	4.5	4.4	17.2	8.4	6.3	4.1%	4.9%	5.4%
Dana	11.6	8.9	7.5	5.3	4.7	4.2	21.5	10.2	7.3	3.4%	4.3%	4.9%
Magna	11.9	9.0	6.9	6.5	5.5	4.5	16.2	12.0	8.9	4.6%	5.6%	6.9%
Borg Warner	8.0	6.9	6.1	5.6	5.1	4.6	10.0	8.5	7.3	10.1%	10.7%	11.2%
Linamar	5.6	5.0	4.8	3.4	3.1	2.9	8.4	7.3	6.9	8.0%	8.6%	8.7%
Valeo	10.0	7.0	5.4	3.0	2.6	2.3	12.7	7.6	5.5	3.6%	4.8%	5.7%
Vitesco	7.7	4.5	3.3	2.7	2.1	1.8	14.9	8.1	6.3	3.1%	5.1%	6.4%
Median	**10.0**	**7.0**	**6.1**	**4.7**	**4.5**	**4.2**	**14.9**	**8.4**	**6.9**	**4.1%**	**5.1%**	**6.4%**
Dowlais financials (EBIT/EBIT DA/EPS)	343	423	510	623	713	800	13.3	17.4	22.4	6.2%	7.4%	9.0%
Dowlais market cap (£m)[1]	2,593	2,115	2,288	2,120	2,354	2,501	2,745	2,047	2,145			
Dowlais value per share (p)	186	152	164	152	169	180	197	147	154			

Source: Refinitiv, Edison Investment Research (prices 25 April 2023). Note: [1]adjusted for debt of £834m pro-forma on demerger.

Dowlais's market leading positions and high market shares arguably suggest a higher quality of earnings than general auto peers. Exhibit 38 shows the historical margin profile (pre central costs) for Dowlais (extracted from GKN/Melrose reports) and future Edison expectations. Historically, returns have been similar to the peer group discussed (peer current in Exhibit 38), but if management's targeted return of over 10% can be realised then the valuation demanded by the likes of Autoliv and Brembo, our high margin 'peer potential' group in Exhibit 38, may become more relevant.

Exhibit 38: Operating margin profile



Source: Refinitiv, Edison Investment Research

Exhibit 39 highlights what such a re-rating might mean to the value of the shares. In particular, the impact into 2024 and 2025, when we expect the evidence of the improved margin profile to become more evident. An average of 2025 multiples suggest a valuation of £3.7bn or 264p a share.

Exhibit 39: Potential peer valuation

	EV/EBIT (x)			EV/EBITDA (x)			P/E (x)			EBIT margin		
Company	**2023**	**2024**	**2025**	**2023**	**2024**	**2025**	**2023**	**2024**	**2025**	**2023**	**2024**	**2025**
Autoliv	10.1	7.5	6.5	7.0	5.5	4.9	14.1	9.8	8.4	8.8%	11.0%	11.8%
Brembo	11.4	10.2	9.3	7.2	6.6	6.1	14.1	12.7	11.5	10.8%	11.4%	11.7%
Average	**10.8**	**8.8**	**7.9**	**7.1**	**6.0**	**5.5**	**14.1**	**11.3**	**10.0**	**9.8%**	**11.2%**	**11.8%**
Dowlais financials (EBIT/EBITDA/ EPS)	342	429	560	622	719	880	13.3	17.8	25.1	6.2%	7.4%	9.0%
Dowlais market cap (£m)[1]	2,862	2,965	3,582	3,565	3,518	4,002	2,600	2,795	3,486			
Dowlais value per share (p)	206	213	257	256	253	288	187	201	251			

Source: Refinitiv, Edison Investment Research. Note: Prices as at 25 April 2023. [1]Adjusted for debt of £834m pro-forma on demerger.

Summary

Our current DCF valuation of c £2.6bn translates to a share price of 186p. In the short term, markets may look towards automotive peer group metrics, which implies c 168p a share. As progression towards the margin targets becomes evident and the group delivers on its earnings potential, so investor focus will turn towards the higher rated automotive peer group, such as Autoliv and Brembo. A re-rating to this peer group would translate to a valuation of £3.7bn or 264p a share. Delivering such an operational performance should also lead to a reduction in beta and hence the cost of capital. Using a beta similar to Autoliv or Brembo would reduce the WACC by c 100bp, increasing our valuation to £3.1bn or 225p a share.

Sustainability

Dowlais has yet to publish its stand-alone sustainability performance or targets, although it has stated that 20% of the management bonus will be aligned with strategy and ESG goals. Dowlais's strategy is expected to be aligned with that of Melrose. Some of Melrose's key metrics and targets are:

- Emissions: achieve net zero greenhouse gas emissions by 2050. This includes reducing CO_2e/£m revenue by 20% on average for Scope 1 and 2 emissions across its businesses by 2025 and 40% by 2030.
- Renewable electricity: source 50% of electricity from renewable sources by 2025 and 75% by 2030.
- Low-carbon R&D: achieve 50% of total R&D expenditure on climate-related R&D per year to contribute to the decarbonisation of the sectors in which its businesses operate by 2025, 75% by 2030 and 100% by 2040.
- Products contributing to sectoral decarbonisation: achieve 50% of new products contributing to the decarbonisation of the sectors in which its businesses operate by 2025, 75% by 2030 and 100% by 2040.
- Waste: divert 95% of its waste from landfill by 2025 and 100% by 2030.
- Employee diversity: target 33% female at executive and board level (Dowlais PLC board 40% female on listing).

We note that the latest ratings agency scores for Melrose (including the Dowlais operations) were: MSCI 'A', Sustainalytics ESG Risk Management score 53.6 and ESG Risk Exposure score 34.2, and CDP 'C'.

Financials

Forecast assumptions

Our automotive volumes and mix assumptions to 2026 are shown in Exhibit 28. This suggests that the market will return to 2019 volumes in 2025, although Europe is still likely to be below 2019 levels given the extent of the decline (30%).

Automotive is notorious for its 'price down' pressures. However, in the current inflation environment we have allowed for a 2% pass-through increase in the current year. In Powder Metallurgy we have assumed a reduction of 8% in metal prices return to 2021 levels by 2025. While this may not occur, management's 14% margin target is based on such a scenario.

Exhibit 40: Profit and loss forecasts (£m)

Year to December	2020	2021	2022	2023e	2024e	2025e	2026e
Organic growth:							
Automotive				5.0%	6.0%	2.0%	4.0%
Powder Metallurgy				2.0%	3.0%	2.0%	4.0%
Group organic growth				4.4%	5.4%	2.0%	4.0%
Turnover:							
Automotive	3,806	3,756	4,223	4,434	4,700	4,794	4,986
Powder Metallurgy	905	975	1,022	1,042	1,074	1,095	1,139
Hydrogen	0	0	1	10	25	50	100
Revenue	4,711	4,731	5,246	5,487	5,799	5,939	6,225
Associates turnover	(585)	(608)	(651)	(684)	(725)	(739)	(769)
Reported turnover	4,126	4,123	4,595	4,803	5,074	5,200	5,456
Operating margin:							
Automotive	2.2%	4.6%	5.9%	6.6%	7.7%	8.8%	9.5%
Powder Metallurgy	4.3%	9.3%	9.4%	9.1%	10.0%	11.0%	12.0%
Hydrogen			N/A	N/A	N/A	0	0
Group operating margin (ex hydrogen)	2.2%	5.3%	6.6%	6.5%	7.6%	8.7%	9.4%
Group operating margin (ex H_2/central costs)			6.6%	7.1%	8.1%	9.2%	10.0%
Operating profit:							
Automotive	82.0	172.0	250.0	292.7	361.9	421.9	473.7
Powder Metallurgy	39.0	91.0	96.0	94.9	107.4	120.5	136.7
Hydrogen	0.0	(7.0)	(14.0)	(15.0)	(15.0)	0.0	0.0
Central costs	0.0	(8.0)	(9.0)	(30.0)	(31.6)	(32.3)	(33.5)
LTIP	(17.0)	(6.0)	10.0				
Group underlying operating profit	104.0	242.0	333.0	342.5	422.7	510.1	576.8
Associates (PAT) adjustment	(30.0)	(28.0)	(29.0)	(30.5)	(32.3)	(32.9)	(34.2)
Intangible amortisation	(199.0)	(191.0)	(198.0)	(198.0)	(198.0)	(198.0)	(198.0)
Exceptionals:							
Profit/(loss) on disposal of fixed assets		9.0	(3.0)				
Reorganisation costs	(108.0)	(165.0)	(54.0)	(90.0)	(100.0)	(70.0)	(60.0)
Write downs	(51.0)		(20.0)				
Other	28.0	12.0	29.0				
EBIT (reported)	(256.0)	(121.0)	58.0	24.1	92.4	209.2	284.6
Financing charges	32.0	(133.0)	(121.0)	(83.3)	(86.1)	(83.5)	(77.6)
PBT reported	(224.0)	(254.0)	(63.0)	(59.2)	6.3	125.7	207.0
PBT before exceptionals	136.0	109.0	212.0	259.3	336.6	426.7	499.2
Tax rate underlying	25%	25%	25%	24%	24%	24%	24%
Reported profit after tax	(196.0)	(298.0)	(77.0)	(52.3)	(3.0)	87.7	149.1
Adjusted profit after tax	94.5	74.8	151.8	189.7	248.1	316.4	371.2
Minority interest				(5.0)	(5.0)	(5.0)	(5.0)
Reported	(196.0)	(298.0)	(77.0)	(57.3)	(8.0)	82.7	144.1
EPS reported (p)				(4.1)	(0.6)	5.9	10.3
EPS adjusted (p)				13.3	17.4	22.4	26.3
Average shares (m)				1393	1393	1393	1393
DPS (p)				4.0	5.2	6.7	7.9
Dividend cover (x)				3.3	3.3	3.3	3.3

Source: Dowlais, Edison Investment Research

Cash flow

Exhibit 41: Cash flow forecasts (£m)

Year to 31 December	2020	2021	2022	2023e	2024e	2025e	2026e
Operating profit (pre exc & g/w)	104.0	242.0	333.0	342.5	422.7	510.1	576.8
Amortisation inc development costs/IT	11.0	8.0	10.0	10.0	10.0	10.0	10.0
Depreciation	276.0	265.0	251.0	270.0	280.0	280.0	280.0
Underlying EBITDA	391.0	515.0	594.0	622.5	712.7	800.1	866.8
Equity accounted investments	(62.0)	(66.0)	(78.0)	(67.0)	(71.0)	(72.4)	(75.3)
Underlying operating EBITDA	329.0	449.0	516.0	555.5	641.7	727.7	791.5
Net change in WC	157.0	6.0	(32.0)	(10.1)	(13.0)	(5.1)	(10.3)
Charge for share schemes							
Restructuring	(55.0)	(141.0)	(147.0)	(90.0)	(70.0)	(60.0)	(60.0)
Pension etc	(52.0)	(40.0)	(40.0)	(35.0)	(35.0)	(35.0)	(35.0)
Other inc demerger				(10.0)	(10.0)	(10.0)	(10.0)
Operating cash flow	379.0	274.0	297.0	380.4	513.6	617.6	676.2
Net interest	(8.0)	(9.0)	(9.0)	(83.3)	(86.1)	(83.5)	(77.6)
Dividends received (Ass & JV's)	54.0	52.0	59.0	57.9	61.3	62.6	65.1
Tax paid	22.0	(37.0)	(72.0)	(76.5)	(97.4)	(121.3)	(140.8)
Net capex	(178.0)	(159.0)	(199.0)	(325.0)	(280.0)	(287.0)	(294.0)
Free cash flow	269.0	121.0	76.0	(46.5)	111.5	188.4	228.8
Acquisitions & disposals	(19.0)	(13.0)	(3.0)	0.0	0.0	0.0	0.0
Equity dividends paid	0.0	0.0	0.0	(21.0)	(63.8)	(82.2)	(101.4)
Shares issued / (repurchased)							
Net cash flow	250.0	108.0	73.0	(67.5)	47.8	106.1	127.4
Exchange rate differences	(80.0)						
Net cash/(debt) b/fwd		754.0	862.0	(834.0)	(901.5)	(853.7)	(747.6)
Movement in net debt	170.0	108.0	73.0	(67.5)	47.8	106.1	127.4
Net cash/(debt)	754.0	862.0	(834.0)	(901.5)	(853.7)	(747.6)	(620.2)
Net debt/EBITDA			1.4	1.4	1.2	0.9	0.7

Source: Dowlais, Edison Investment Research

As a manufacturing business, the group is relatively capital intensive with capex/depreciation running at around 6% of sales. Trade working capital was £249m or 6% of sales in 2021, down from £476m and 9% of sales in 2019. This reflects tight management control as well as the benefits of high inventory turns required in just-in-time manufacturing for the automotive sector and standard payment terms of OEMs. This will limit the cash requirement as the top line recovers.

Balance sheet

Exhibit 42: Balance sheet (£m)

Year to December	2020	2021	2022	2023e	2024e	2025e	2026e
Tangible fixed assets/PP&E	1,972	1,742	1,813	1,843	1,813	1,788	1,768
Intangible assets & Goodwill	3,382	3,098	3,075	2,965	2,855	2,745	2,635
Loans from associated parties	3,295	3,378					
Deferred tax assets	141	87	99	99	99	99	99
Pension surplus		75	42	42	42	42	42
Other receivables	10	12	30	30	30	30	30
Investments	422	422	424	424	424	424	424
Total fixed assets	9,222	8,814	5,483	5,403	5,263	5,128	4,998
Stocks/Inventories	437	436	498	520	548	559	581
Debtors/Trade & other receivables	607	505	638	666	702	716	745
Income tax receivable	14	7	20	20	20	20	20
Other	10	7	24	24	24	24	24
Cash & cash equivalents	141	275	270	270	270	270	270
Current assets	1,209	1,230	1,450	1,500	1,564	1,589	1,640
Bank loans & overdraft				(100)	(100)	(100)	(100)
Loans to related parties	(2,602)	(2,547)					
Creditors/ Trade Payables	(1,131)	(1,008)	(1,188)	(1,240)	(1,308)	(1,334)	(1,387)
Income tax payable	(120)	(111)	(109)	(109)	(109)	(109)	(109)
Provisions	(207)	(173)	(140)	(125)	(132)	(134)	(140)
Leases	(23)	(23)	(25)	(25)	(25)	(25)	(25)
(Dividend payable)/Other payables	(8)	(77)	(10)	(37)	(49)	(62)	(73)
Creditors: due within one year	(4,091)	(3,939)	(1,472)	(1,636)	(1,722)	(1,764)	(1,834)
Bank loans			(1,104)	(1,071)	(1,024)	(918)	(790)
Trade & other payables	(13)	(26)	(28)	(28)	(28)	(28)	(28)
Post-retirement/ employee benefits	(748)	(603)	(503)	(477)	(451)	(424)	(398)
Leases	(149)	(140)	(134)	(134)	(134)	(134)	(134)
Deferred tax	(260)	(268)	(293)	(293)	(293)	(293)	(293)
Provisions (Restructuring)	(284)	(230)	(186)	(96)	4	74	134
Derivative financial instrument	(82)	(3)	(2)	(2)	(2)	(2)	(2)
Creditors: due after one year	(1,536)	(1,270)	(2,250)	(2,101)	(1,927)	(1,725)	(1,511)
Net assets	**4,804**	**4,835**	**3,211**	**3,166**	**3,178**	**3,228**	**3,293**
Equity shareholders' funds	4,775	4,802	3,172	3,128	3,140	3,189	3,227
Minority interest (equity)	29	33	39	38	38	39	41
Capital & reserves	**4,804**	**4,835**	**3,211**	**3,166**	**3,178**	**3,228**	**3,293**

Source: Dowlais, Edison Investment Research

Debt

The group was refinanced as part of the demerger process, providing it with muti-currency facilities of c £1.8bn. Pro-forma net debt stands at £834m (gross debt £1,104m). Key covenants for the senior facilities are: for interest cover, consolidated EBITDA to net finance charges of at least 4.0x (2022 pro-forma 7.5x); and for debt cover, net debt to consolidated EBITDA less than 3.5x (2022 pro-forma 1.4x).

Pensions

Significant progress has been made in reducing the deficit of the UK defined benefit pension schemes including additional cash contributions and buy-outs. In the UK, the size of the fund (liabilities) has reduced from c £1bn to c £650m, with an accounting surplus of £15m based on a full actuarial review carried out in April 2022 and updated for the financial year end. The most significant schemes are arguably in Europe where unfunded pension schemes are the norm. The overall group deficit at 31 December 2022 was £461m (31 December 2021: £528m; 31 December 2020: £748m).

Exhibit 43: Pension and healthcare plans (£m)

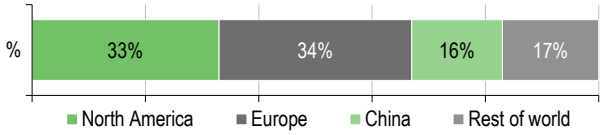
	UK plans	US plans	European plans	Other	Total
Plan assets	666	73	19	21	779
Plan liabilities	(651)	(127)	(433)	(29)	(1,240)
Net assets/(liabilities)	15	(54)	(414)	(8)	(461)

Source: Dowlais

Exhibit 44: Financial summary (£m)

	2021	2022	2023e	2024e	2025e	2026e
Year to 31 December	IFRS	IFRS	IFRS	IFRS	IFRS	IFRS
INCOME STATEMENT						
Revenue	4,731.0	5,246.0	5,486.6	5,798.9	5,939.4	6,225.0
Cost of Sales	(3,542.0)	(3,937.0)	(4,608.7)	(4,813.1)	(4,870.3)	(5,042.2)
Gross Profit	1,189.0	1,309.0	877.9	985.8	1,069.1	1,182.7
EBITDA	515.0	594.0	622.5	712.7	800.1	866.8
Normalised operating profit	242.0	333.0	342.5	422.7	510.1	576.8
Amortisation of acquired intangibles	(191.0)	(198.0)	(198.0)	(198.0)	(198.0)	(198.0)
Exceptionals	(144.0)	(48.0)	(90.0)	(100.0)	(70.0)	(60.0)
Associate adjustment	(28.0)	(29.0)	(30.5)	(32.3)	(32.9)	(34.2)
Reported operating profit	(121.0)	58.0	24.1	92.4	209.2	284.6
Net Interest	(133.0)	(121.0)	(83.3)	(86.1)	(83.5)	(77.6)
Profit Before Tax (norm)	109.0	212.0	259.3	336.6	426.7	499.2
Profit Before Tax (reported)	(254.0)	(63.0)	(59.2)	6.3	125.7	207.0
Reported tax	(44.0)	(14.0)	6.9	(9.3)	(38.1)	(57.9)
Profit After Tax (norm)	74.8	151.8	189.7	248.1	316.4	371.2
Profit After Tax (reported)	(298.0)	(77.0)	(52.3)	(3.0)	87.7	149.1
Minority interests	0.0	0.0	(5.0)	(5.0)	(5.0)	(5.0)
Discontinued operations	0.0	0.0	0.0	0.0	0.0	0.0
Net income (normalised)	74.8	151.8	184.7	243.1	311.4	366.2
Net income (reported)	(298.0)	(77.0)	(57.3)	(8.0)	82.7	144.1
Basic average number of shares (m)	0	0	1,393	1,393	1,393	1,393
EPS - basic normalised (p)	N/A	N/A	13.26	17.45	22.35	26.29
EPS - diluted normalised (p)	N/A	N/A	13.26	17.45	22.35	26.29
EPS - basic reported (p)	N/A	N/A	(4.11)	(0.57)	5.93	10.34
Dividend (p)	0.00	0.00	3.98	5.23	6.71	7.89
Revenue growth (%)	0.0	0.0	4.4	5.4	2.0	4.0
Gross Margin (%)	25.1	25.0	16.0	17.0	18.0	19.0
EBITDA Margin (%)	10.9	11.3	11.3	12.3	13.5	13.9
Normalised Operating Margin	5.1	6.3	6.2	7.3	8.6	9.3
BALANCE SHEET						
Fixed Assets	8,814.0	5,483.0	5,403.0	5,263.0	5,128.0	4,998.0
Intangible Assets	6,476.0	3,075.0	2,965.0	2,855.0	2,745.0	2,635.0
Tangible Assets	1,742.0	1,813.0	1,843.0	1,813.0	1,788.0	1,768.0
Investments & other	596.0	595.0	595.0	595.0	595.0	595.0
Current Assets	1,230.0	1,450.0	1,500.1	1,564.4	1,589.3	1,639.9
Stocks	436.0	498.0	520.0	548.2	559.1	581.3
Debtors	505.0	638.0	666.2	702.3	716.2	744.7
Cash & cash equivalents	275.0	270.0	270.0	270.0	270.0	270.0
Other	14.0	44.0	44.0	44.0	44.0	44.0
Current Liabilities	(1,392.0)	(1,472.0)	(1,636.4)	(1,722.1)	(1,764.4)	(1,833.6)
Creditors	(1,008.0)	(1,188.0)	(1,240.4)	(1,307.7)	(1,333.7)	(1,386.6)
Tax and social security	(111.0)	(109.0)	(109.0)	(109.0)	(109.0)	(109.0)
Short term borrowings	0.0	0.0	(100.0)	(100.0)	(100.0)	(100.0)
Other	(273.0)	(175.0)	(186.9)	(205.4)	(221.7)	(238.0)
Long Term Liabilities	(1,270.0)	(2,250.0)	(2,101.2)	(1,927.2)	(1,724.8)	(1,511.2)
Long term borrowings	0.0	(1,104.0)	(1,071.5)	(1,023.7)	(917.6)	(790.2)
Other long term liabilities	(1,270.0)	(1,146.0)	(1,029.8)	(903.5)	(807.3)	(721.0)
Net Assets	7,382.0	3,211.0	3,165.5	3,178.2	3,228.1	3,293.2
Minority interests	33.0	39.0	37.9	38.2	39.4	41.0
Shareholders' equity	7,349.0	3,172.0	3,127.6	3,140.0	3,188.7	3,252.2
CASH FLOW						
Op Cash Flow before WC and tax	449.0	516.0	555.5	641.7	727.7	791.5
Working capital	6.0	(32.0)	(10.1)	(13.0)	(5.1)	(10.3)
Exceptional & other	(181.0)	(187.0)	(165.0)	(115.0)	(105.0)	(105.0)
Tax	(37.0)	(72.0)	(76.5)	(97.4)	(121.3)	(140.8)
Net operating cash flow	237.0	225.0	303.9	416.3	496.3	535.3
Capex	(159.0)	(199.0)	(325.0)	(280.0)	(287.0)	(294.0)
Acquisitions/disposals	(13.0)	(3.0)	0.0	0.0	0.0	0.0
Net interest	43.0	50.0	(25.4)	(24.8)	(20.9)	(12.6)
Equity financing	0.0	0.0	0.0	0.0	0.0	0.0
Dividends	0.0	0.0	(21.0)	(63.8)	(82.2)	(101.4)
Net Cash Flow	108.0	73.0	(67.5)	47.8	106.1	127.4
Other non-cash/refinancing	176.0	(1945.0)				
Opening net debt/(cash)	754.0	1038.0	(834.0)	(901.5)	(853.7)	(747.6)
FX	0.0	0.0	0.0	0.0	0.0	0.0
Other non-cash movements	0.0	0.0	0.0	0.0	0.0	0.0
Closing net debt/(cash)	1038.0	(834.0)	(901.5)	(853.7)	(747.6)	(620.2)

Source: Dowlais, Edison Investment Research

Contact details	Revenue by geography
2nd Floor Nova North 11 Bressenden Place London SW1E 5BY United Kingdom +44 (0)204 551 33833 www.dowlais.com	

Management team

Chief executive officer: Liam Butterworth	Chief financial officer: Roberto Fioroni
Liam Butterworth started at Lucas Industries, a British automotive and aerospace components group, before moving to FCI Automotive, a manufacturer of auto connectors, which was acquired by Delphi in 2012. He subsequently joined Delphi Automotive and became CEO of Delphi Technologies in December 2017 prior to its demerger and admission to the New York Stock Exchange. He joined GKN Automotive as CEO in 2018. He is a non-executive director of United Utilities.	Roberto Fioroni held a number of senior positions across General Electric (GE) within the Security and Consumer & Industrial divisions before joining Goodyear's Europe, Middle East and Africa business unit as vice president, finance. In June 2018 he became CFO of WABCO (a US-listed company focused on braking and steering for commercial vehicles), which agreed to a take-over by ZF in March 2019. He joined GKN Automotive in May 2019 and was instrumental in the development and execution of GKN Automotive's margin expansion plan, and was appointed CFO in 2022.
Executive director: Simon Peckham	**Executive director: Geoffrey Martin**
Simon Peckham has been chief executive officer at Melrose since 2012, having previously served as chief operating officer from May 2003.	Geoffrey Martin has been group finance director at Melrose since 2005.

Principal shareholders	(%)
The Capital Group	14.55
BlackRock	6.45
Select Equity Group	4.89
Norges Bank	3.91
Aviva	3.23
Melrose Industries	3.00

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