# Deep Dive

# Bharat Forge

## Diversifying away from its cyclicality

Investor concerns around a slowdown in US Class8 in CY24 to derail BHFC's growth momentum seem overdone, given that the company has multiple growth drivers to offset this slowdown, which include (1) new defence orders which are likely to see this segment revenue ramp up to INR 17bn by FY25E from INR 3.5bn in FY23, (2) strong order backlog in aerospace which would help boost revenues to INR 5bn from INR 1.7bn over next 4 years; (3) steady growth expected in PVs and from industrial exports (4) huge ramp-up potential at JS-Auto Cast, given its capacity is expected to increase by 2x and there is huge demand for AL castings, both in India and abroad. Also, overseas subs would cease to be a drag on its consolidated performance as it ramps up the new Al forgings facilities in the US and Europe, which would in turn help recover their margins back to 10% by FY25E. Management has set targets for FY30, which include: 1) revenue growth of 12-15% CAGR 2) sustainable consolidated EBIDTA margin above 20% 3) consolidated RoCE at 25%. Its target to have stable revenue growth over long term is also testimony to the fact that it has been able to transform itself from a cyclical entity to a stable revenue stream, given its well-diversified mix. Reiterate BUY with a TP of INR 998.

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### Multiple growth drivers to help offset US Class8 weakness

Investor concerns around a slowdown in US Class8 in CY24 to derail BHFC's growth momentum seem a bit overdone, given that BHFC has multiple growth drivers to offset this slowdown, which include 1) new defence orders which are likely to see this segment revenue ramp up to INR 17bn by FY25E from INR 3.5bn in FY23; 2) strong order backlog in aerospace which would help boost revenues to INR 5bn from INR 1.7bn over next 4 years; 3) steady growth expected in PVs and from industrial exports. Hence, despite the expected slowdown in US Class8, we expect the standalone entity to post 13% revenue CAGR over FY23-25E.

### Overseas subs' revival to boost consolidated performance

In FY23, overseas subsidiaries slipped into loss given: 1) start-up costs; 2) the inability to fully pass on rising cost pressure to OEMs. With both these issues almost resolved, management expects the new Europe AL plant to break even in Q1 and the US plant by Q3. On the back of a strong order backlog for AL-based components, we expect overseas subs margin to recover back to 10% by FY25E.

### Valuation and view

Management has set targets for FY30, which include: 1) revenue growth of 12-15% CAGR 2) sustainable consolidated EBIDTA margin above 20% 3) consolidated RoCE at 25%. Its target to have stable revenue growth over long term is also testimony to the fact that it has been able to transform itself from a cyclical entity to a stable revenue stream, given its well-diversified mix. Overall, we expect BHFC's EPS to sharply improve to INR 40 by FY25E, from INR 12 per share in FY23. At 20.5x FY25 earnings, BHFC appears attractive relative to its peers. Maintain Buy with an unchanged TP of INR 998 per share (15x FY25 EPS).

### Financial summary

| Year Ending March | FY21 | FY22 | FY23 | FY24E | FY25E |
|---|---|---|---|---|---|
| Net Sales | 63,362 | 1,04,611 | 1,29,103 | 1,49,040 | 1,63,716 |
| EBITDA | 8,617 | 19,803 | 17,676 | 26,670 | 32,184 |
| APAT | 876 | 9,875 | 5,680 | 14,288 | 18,597 |
| Diluted EPS (Rs) | 1.9 | 21.2 | 12.2 | 30.7 | 39.9 |
| P/E (x) | 435.3 | 38.6 | 67.2 | 26.7 | 20.5 |
| EV / EBITDA (x) | 46.0 | 20.5 | 23.4 | 15.4 | 12.4 |
| RoCE (%) | 2.6 | 11.1 | 7.9 | 13.8 | 17.4 |

Source: Company, HSIE Research

## BUY

| | |
|---|---|
| CMP *(as on 27 Jun 2023)* | INR 819 |
| Target Price | INR 998 |
| NIFTY | 18,817 |

| KEY STOCK DATA | |
|---|---|
| Bloomberg code | BHFC IN |
| No. of Shares (mn) | 466 |
| MCap (INR bn) / ($ mn) | 382/4,667 |
| 6m avg traded value (INR mn) | 927 |
| 52 Week high / low | INR 920/630 |

**STOCK PERFORMANCE (%)**

| | 3M | 6M | 12M |
|---|---|---|---|
| Absolute (%) | 8.3 | (6.1) | 26.6 |
| Relative (%) | (1.7) | (10.2) | 7.3 |

**SHAREHOLDING PATTERN (%)**

| | Mar-23 | Dec-22 |
|---|---|---|
| Promoters | 45.25 | 45.25 |
| FIs & Local MFs | 27.89 | 26.28 |
| FPIs | 16.17 | 17.88 |
| Public & Others | 10.69 | 10.59 |

*Source : BSE*

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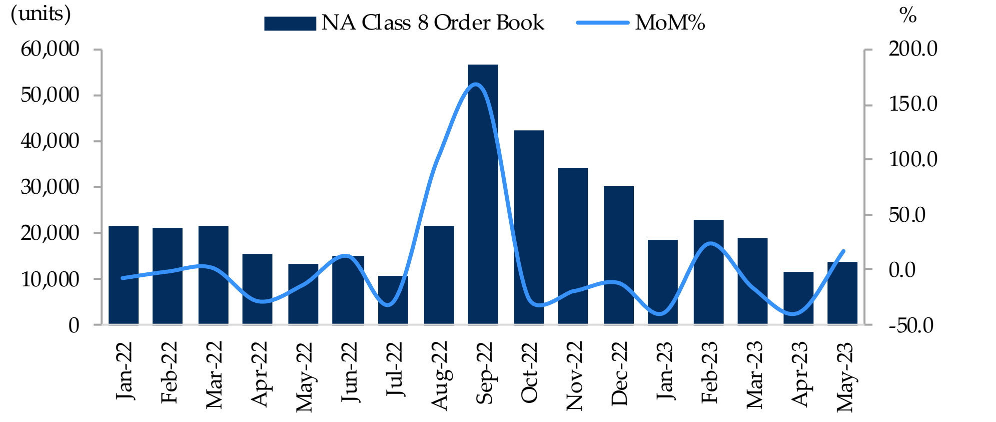
## US Class8 Slowdown to be offset by other segments

As per BHFC management, US Class8 production levels have not changed so far and the order backlog continues to hold strong. Further, as per the FTR intel, the ordering activity has been relatively soft in the last couple of months due to relatively few build slots available for 2023 and given that OEMs have not yet opened up production slots for 2024. Strong order backlogs are keeping build demand strong and FTR doesn't anticipate any negative impact on build activity due to recent soft ordering activity.

**Fig1: US Class8 Order Backlog has been on a downtrend**



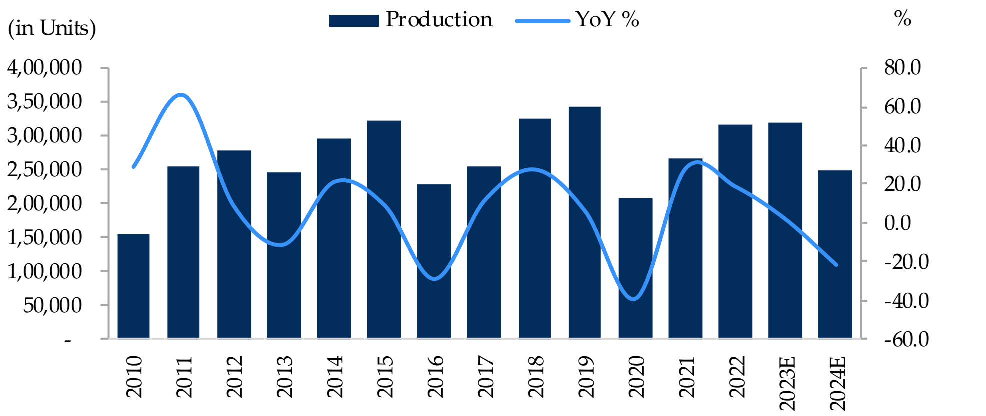

Source: FTR Intel

However, experts expect the positive momentum in US Class8 to slow down in H2-CY23 as carrier profitability is increasingly under pressure in Q1CY23 (with carrier margin down 250bps YoY in Q1). Also, while Class8 backlogs are sufficient for a while, order activity has declined with profitability.

Overall, the industry production outlook for US Class8 for 2023 stands at around 320k units as per expert estimates, which translates to 3.5% YoY growth. Also, as per experts, US Class8 is likely to decline to 250k units by CY24E.

We understand that the slowdown for BHFC's CV exports due to the US Class8 impact is expected from H2FY24 for around 12 months, as per a typical US Class8 cycle. Also, at the BHFC level, the decline in CV exports due to weakness in the US class8 is likely to be much lower as the company is ramping up its presence in other regions like Europe, Latin America, etc., where it is gaining share. As a result, for FY24E, we expect CV exports for BHFC to remain flat YoY, as the partial impact of the US Class8 slowdown (from H2) is likely to be fully offset by its penetration in other regions. For FY25, we expect BHFC's revenue from CV exports to decline by 15% relative to the 22% decline expected in US Class8 in CY24.

**Fig2: US Class 8 Production expected to decline in CY24**




Source: HSIE Research

This weak outlook for US Class8 for 2024 is amongst the key concerns for investors. While it is true that BHFC's fortunes had been tied with the outlook for US Class8 till recently, it is important to highlight that it has been increasingly diversifying its mix over the last few years. The US Class8 segment now contributes to about 18% of its standalone revenues and 10% of consolidated revenues for FY23. And this contribution is likely to decline further as contribution from its other segments rises over our forecast period (we expect its contribution to decline to 12% of standalone revenues by FY25E).

Overall, we expect the decline in US Class8 to be more than offset by multiple growth drivers in its other segments in the coming years. We elaborate on the same below.

**# Defense segment—at an inflection point**

The indigenous 155mm/52 calibre advanced towed artillery gun system (ATAGS), with a maximum strike range of 48 km has been developed by DRDO with BHFC and Tata Advanced Systems as its production partners. ATAG has been developed as a mainline gun for the Indian Army and, as per media reports, there is a total requirement of 1500 ATAGs in the long run. As per management, following extensive trial firings over several years, the production partners (BHFC and Tata Advanced Systems) have now received an Acceptance of Necessity (AON) from Indian Army for the supply of 307 ATAG guns, post which it expects to receive RFQs, which would in turn trigger the ordering process.

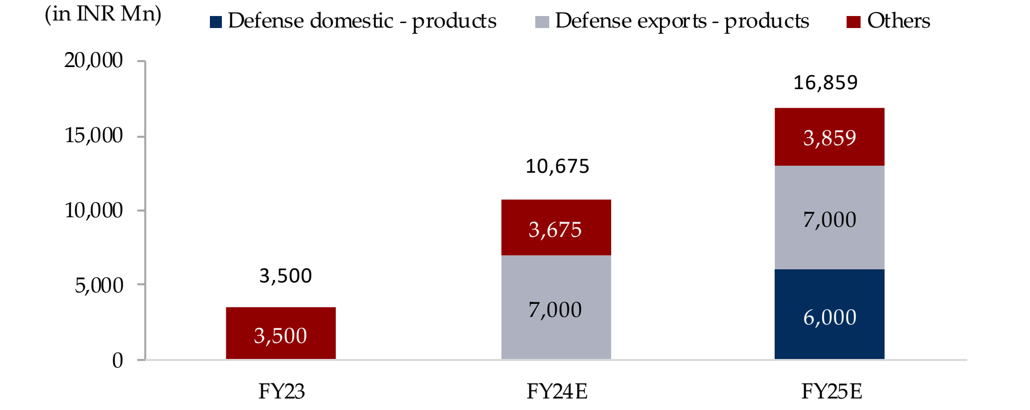
Apart from this, BHFC along with KSSL had won USD155mn worth of export order for the supply of Artillery Gun system to a non-conflict zone. This export order is a testament to BHFC's capabilities in defence, not only within the country but also globally. This order is to be supplied over a 30-month period and BHFC will start executing the same from Q1FY24.

As per DRDO, India has now developed the core competence and technology for developing world-class guns and, hence, there is no need to import artillery systems in the future. As per DRDO personnel, these guns are best globally given that no other country has been able to develop a system built on this high technology with a high rate of firing capability. As per management, there are very few OEMs globally which can make gun barrels that can withstand tremendous pressure and have the capability to shoot at a range of 48 km.

Apart from these ATAG orders, management has indicated that it has won significant new orders on protective vehicles, deterrence systems and components and consumables. The current total order backlog from defence exports is INR19.5bn.

BHFC remains cognizant of being an ESG-compliant company and has indicated that they would not make any banned weapon systems or sub-systems of mass destruction and only sell to entities that are government-approved.

**Fig3: Defence segment – likely at an inflection point**




Source: Company, HSIE Research

BHFC's new defence facility will commercialise production from Apr 2024 which is expected to raise its defence capacity by 3x. They now need minimal incremental investments to set up an assembly facility (INR30-40crs) and execute their current order book.

Given its capabilities and Government's focus on indigenous production, defence components segment seems to be at an inflection point, both for domestic and exports. On the back of their new order wins, we expect the defence business (domestic + exports) revenues to reach almost INR 17bn by FY25E from just INR 3.5bn in FY23. Also, given these are largely 3-4 year orders, BHFC gets that much time to replenish their order book in defence. Further, given that the entire IP in defence is owned by BHFC, the returns on this business are expected to be very healthy.

# **Aerospace segment—poised for strong growth ahead**

Bharat Forge has already established competencies in materials like titanium and super alloys for aerospace products, becoming one of the very few possessing such capabilities. It now has capabilities in engine and aircraft parts and is currently supplying landing gear and engine rotative components to global Engine manufacturer's and OEMs. In the medium term, they would target to get into sub-assemblies like Undercarriage and transmission systems. They want to move into becoming a Tier 1 supplier in this segment in the coming years.

Further, BHFC has recently signed two MOUs with strategic partners in this segment as below.

**Paramount Group**

BHFC has signed an MoU with global aerospace and technology company Paramount Group to develop and produce composite rotor blades, mission systems and store management systems for medium-lift helicopters with a target to support both domestic and global requirements. The demand for indigenously developed medium-lift helicopters may sharply increase in the coming years as India targets to replace the fleets of Air Force's workhorse Mi-17 and other helicopters with the Indian armed forces which will start phasing out over the coming decade.

**GA- ASI**

BHFC has announced its partnership with General Atomics Aeronautical Systems (GA-ASI), a subsidiary of General Atomics, to manufacture mainly landing gear components, sub-assemblies, and assemblies of remotely piloted aircraft in India. It will also help India develop a manufacturing ecosystem for high-end drones.

On the back of its various initiatives, BHFC has been able to double its revenues from this business to almost INR 1.7bn, which is 11% of the industrial exports division in FY23. Also, given its strong order backlog, we expect this business to scale up to Rs5-6bn pa by FY27E.

Other domestic segments that are seeing steady revenue traction include the below.

# **Domestic commercial vehicles business to grow in line with industry**

While the CV industry is still about 4% below its previous peak in volume terms, it is almost 6% ahead of the previous peak in tonnage terms as higher tonnage vehicles have grown in the mix in the last few years. Some of the positive demand drivers for CVs in India, from here-on, are: 1) government's continued and strong infra push pan India 2) stable to healthy fleet operator profitability, and 3) low inventory with dealers in Q1 and hence an expectation that they would normalize stock in the balance fiscal. Given that the CV industry has seen a 30% volume CAGR over the last couple of years on a low base, we expect the CV industry growth rates to normalise to 7% volume CAGR over FY23-25E. Overall, we expect the BHFC's CV segment to grow largely in line with the industry growth over FY23-25E.

**# Passenger vehicles business momentum to continue**
In India, while car demand remains weak, a decline in CNG prices is expected to help revive fleet demand which would in turn support car demand in the coming quarters. In UVs, many OEMs including M&M, MSIL, and Toyota continue to see a healthy order backlog for their key models as highlighted below.

**Fig4: Top OEMs enjoy healthy order backlog in UVs**

| OEMs | Order book (in Units) |
|---|---|
| Maruti Suzuki | 386k |
| M&M | 292k |
| Toyota Kirloskar | 120k |

Source: HSIE Research

Further, in PV exports, BHFC has a strong order backlog which is likely to drive a steady 15% revenue CAGR over our forecast period. Overall, we expect the PV segment for BHFC (domestic + exports) to post a 14% revenue CAGR over our forecast period.

**# Non-auto exports (ex of oil and gas and defence + aerospace) to post steady growth**
While the outlook for the oil and gas segment is steady, the outlook for other industrial businesses (ex-defence and aerospace) appears healthy, given the strong demand from renewable energy, where a lot of companies are setting up capacities in India to meet both domestic and global demand. The demand from even the construction and mining segments is strong from its key export customers.

Overall, we expect the others industrial segment (ex—oil and gas, aerospace and defence) to grow at a steady 12% revenue CAGR over FY23-25E.

**Fig5: Standalone Entity: Key Segmental Assumptions**

| | FY22 | FY23 | FY24E | FY25E | Comments |
|---|---|---|---|---|---|
| **Domestic** | | | | | |
| CV segment | 7,417 | 10,140 | 10,850 | 11,501 | expected to grow in line with the industry |
| YoY (%) | 45 | 37 | 7 | 6 | |
| PV segment | 2,935 | 3,513 | 3,864 | 4,251 | |
| YoY (%) | 36 | 20 | 10 | 10 | |
| Non Auto segment | 11,665 | 12,978 | 13,627 | 20,308 | new defence orders to boost revenue in FY25 |
| YoY (%) | 57 | 11 | 5 | 49 | |
| Others | 3,826 | 4,490 | 5,029 | 5,532 | |
| YoY (%) | 77 | 17 | 12 | 10 | |
| **Total domestic** | **25,843** | **31,121** | **33,370** | **41,592** | |
| **Exports** | | | | | |
| CV segment | 17,180 | 19,121 | 19,503 | 16,578 | US Class8 slowdown to hurt CV exports |
| YoY (%) | 79 | 11 | 2 | -15 | |
| PV segment | 5,619 | 9,553 | 10,986 | 12,634 | strong order backlog to help boost revenues |
| YoY (%) | 25 | 70 | 15 | 15 | |
| Non-Auto segment | 13,904 | 15,932 | 24,616 | 26,624 | Defence and aerospace to boost sales |
| YoY (%) | 150 | 15 | 55 | 8 | |
| **Total Exports** | **36,703** | **44,606** | **55,105** | **55,836** | |
| **Total** | **62,546** | **75,727** | **88,475** | **97,428** | |
| **YoY (%)** | 71 | 21 | 17 | 10 | Healthy growth forecast despite US Class8 slowdown |
| **Mix (%)** | | | | | |
| Domestic | 41.3 | 41.1 | 37.7 | 42.7 | |
| Exports | 58.7 | 58.9 | 62.3 | 57.3 | |

Source: Company, HSIE Research

Overall, despite the slowdown in the US Class8 segment, we expect the standalone revenue to grow at a healthy 13% revenue CAGR over FY23-25E. Thus, Investor concerns over a slowing US Class8 demand hurting BHFC revenues, seem overdone to us.

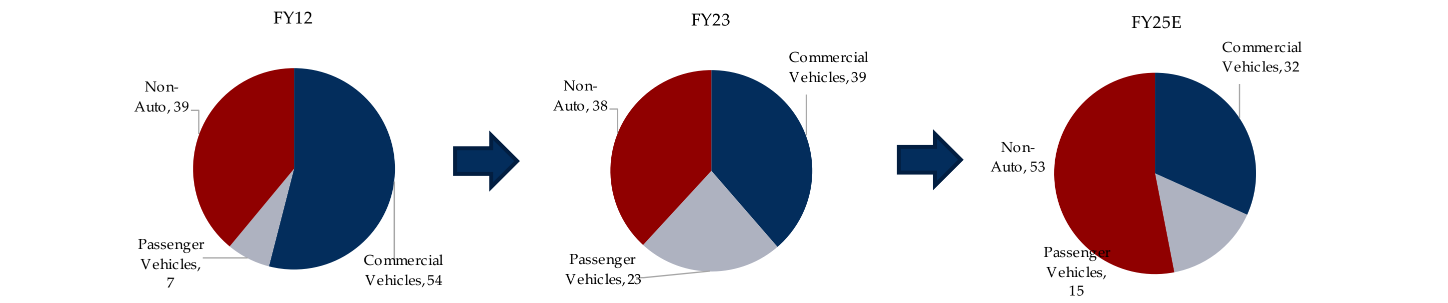
## Well-diversified mix drives away business cyclicality

As highlighted in the previous section, despite an expected slowdown in one of its erstwhile key segments (US Class8), we still expect the company to post a healthy 13% revenue CAGR over FY23-25E. One of the critical factors that have helped drive this trend has been BHFC's constant endeavour to diversify away to different segments, in a bid to reduce the cyclicality of its core business.

We highlight one such example here. BHFC's diversification within Industrial exports can be highlighted by the fact that although its revenues from oil and gas exports declined sharply to USD70mn in FY23 from USD 140mn in FY19, its revenues from non-auto exports have only slipped by 3% in this period. Similarly, BHFC has managed to reduce the dependence on the highly cyclical CV business to 39% of standalone revenues from 54% in FY12 on the back of ramp-up in PV exports. It has also reduced dependence on its overseas subsidiaries to 33% of consolidated revenues in FY23, from 44% in FY12.

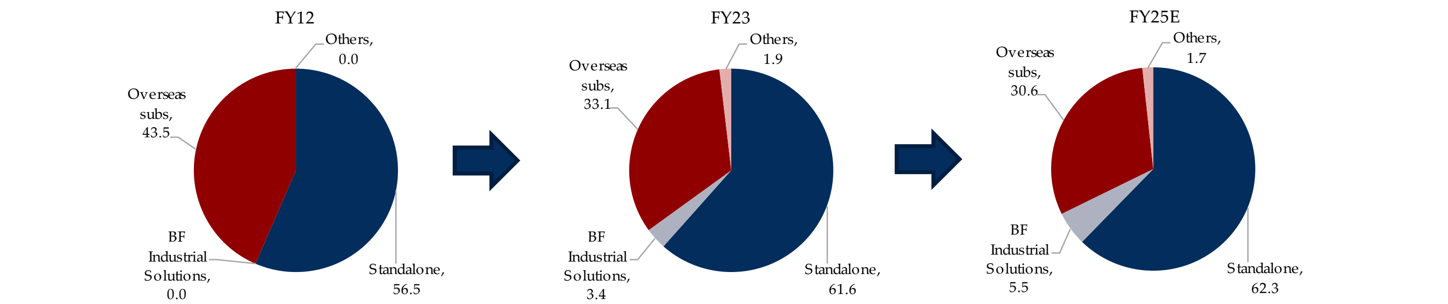
Similarly, with the strong offtake expected from defence and JS Auto Cast, we expect its cyclicality to further reduce in the coming years as highlighted below. We plot below its well-diversified mix and how the same will reduce its cyclicality over our forecast period.

**Fig6: Standalone business diversified away from the highly cyclical CV segment**




Source: Company, HSIE Research

**Fig7: Contribution of overseas subs gradually reducing**




Source: Company, HSIE Research

It is a function of this well-diversified mix that management is now confident of setting bold growth targets for the long term. On the back of its long-term visibility from its various segments, management has now set up an ambitious target for 2030, as below:

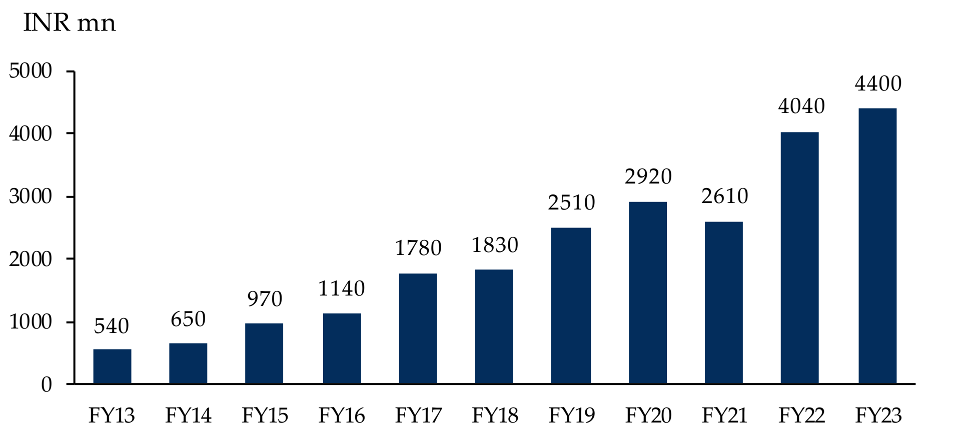
- Revenue CAGR of 12-15%
- Sustained consolidated EBITDA margin above 20%
- 500bps margin improvement in consolidated RoCE from FY22 levels of 20%

<u>This, in a way, also confirms the fact that they are confident of steady long-term growth, irrespective of the cyclicality of the business segments that they remain exposed to. Thus, they have been able to diversify away from the cyclicality of their business very well</u>.

## Huge growth opportunities at JS Auto Cast

BHFC acquired JS Auto Cast in Feb 2022 for INR 4.9bn. JS Auto Cast is a leading manufacturer of machined ductile iron castings up to 400kg in size, which finds applications in wind energy, hydraulics, automotive and power generation sectors. It is a leader in small-sized turbine castings. About 50% of its products are exported and 100% machined in-house. This company has delivered a revenue CAGR of 37% since inception and 23% over the last 10 years.

**Fig8: JS Auto Cast has delivered 37% revenue CAGR since inception**




Source: Company

The need for acquiring this company was led by 1) huge demand for AL castings components, in India and overseas, and both in auto and non-auto segments as global OEMs are looking at India as a critical supply chain partner; 2) inorganic growth helping save up to three years of developing similar capabilities of an established business, especially with like-minded management.

JS Auto Cast recently completed a capacity expansion at its SIPCOT plant which saw its total capacity increase from 50k MT pa to 100k MT pa. Apart from this, it is in the process of acquiring Indo Shell Mould which has an Al casting capacity of 44k MT pa. Indo Shell supplies fully machined critical castings to marquee auto OEMs and will operate as the third manufacturing unit of JS Auto Cast.

One has to note that AL castings have an extremely high demand, both in India and abroad and JS Auto Cast now has the capacity. JS AutoCast already has an order backlog of INR4bn. With BHFC's global customer connect both in auto and non-auto segments and JS Auto's expertise in Aluminum castings, we expect them to ramp up to full capacity in the next 3-4 years.

Accordingly, we expect JS Auto Cast to ramp up to INR7.3bn in revenues by FY25E, from INR 4.3bn (annualised) for FY23. Thus, JS Auto Cast is likely to emerge as one of the key growth drivers for BHFC in the coming years.

**Fig9: BF Industrial Solutions revenues likely to double in two years**

| | FY22 | FY23 | FY24E | FY25E |
|---|---|---|---|---|
| Sanghvi Forgings | 533 | 1,146 | 1,375 | 1,650 |
| YoY (%) | | 115 | 20 | 20 |
| JS Auto Cast | 0 | 3,300* | 5,600 | 7,280 |
| YoY (%) | | | 27.2** | 30 |
| **Total** | **533** | **4,446** | **6,975** | **8,930** |
| YoY (%) | | NM | 25.7** | 28 |

Source: Company, HSIE Research; *consolidated from July2022; **annualised

# Overseas subs' performance set to improve from here on

The global automotive industry has steadily been looking at ways and means to reduce the weight of a car in order to comply with stringent emission regulations. This has also led to the substitution of steel-based components with aluminium-based components in PVs over the years. The transition to EVs globally is also forcing OEMs to increase the Al content in vehicles in a bid to reduce their weight. Further, in EVs, Al finds incremental application in battery housings as well as structural components.

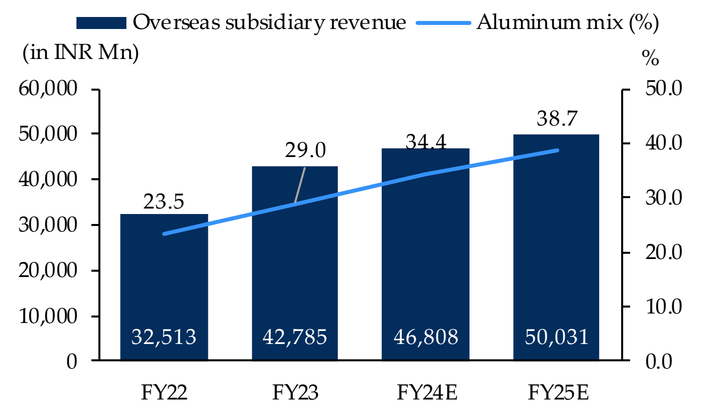
Given its 15+ years' experience and its early investment in the aluminium forgings space, BHFC has now become a leading and critical supplier of Al forgings for premium brands in Europe.

Given the strong demand for AL-based components, BHFC is ramping up its Al forging capacity both in US and Europe to 9mn units pa (from 5mn units pa earlier). Most of BHFC's Al capacities globally are fully booked until FY26. On the back of this strong order backlog, we expect BHFC to ramp up its contribution from Al-based components to 39% of revenue by FY25, from 15% in FY19. Thus, the Al business is expected to see a sizeable rise in revenues in the coming years.

However, in H2FY23, BHFC witnessed a sharp drop in the margins of overseas subsidiaries. The reasons for the same were: 1) a sharp rise in start-up costs as they were in the midst of ramping up the new Al forging plant in the US and Europe; 2) a sharp rise in operating costs (both input and energy-related) but no commensurate pass-on from OEMs. In the Q4FY23 con call, management clarified that it has been successful in getting the pass-through from many OEMs and it expects the same from balance OEMs by Q1FY24.

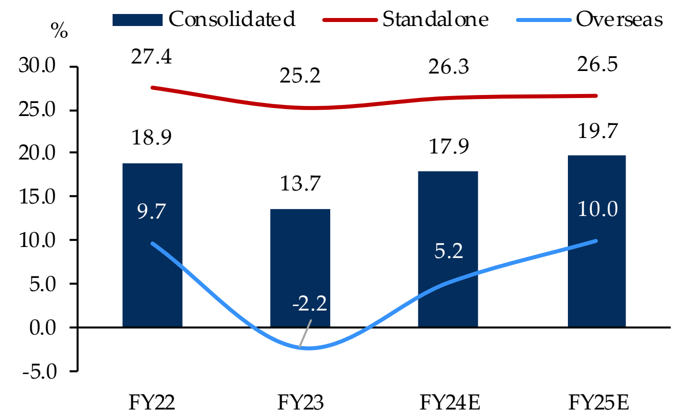
Based on the ramp-up in the last two quarters, management now expects the new European Al forging plant to break even by Q1FY24 and the US plant to break even by Q3FY24. Management has maintained its medium-term EBITDA margin target at overseas subsidiaries in the mid-teens. Overall, we factor in the overseas subsidiary margin to improve to 10% by FY25E, as the high-margin Al-based forgings contribution rises in the mix. More importantly, this will help sharply reduce the drag on BHFC's consolidated performance which reduced profitability for BHFC in FY23.

**Fig10: Al mix would continue to rise in Overseas subs**




Source: Company; HSIE Research

**Fig11: Overseas subs margins set to normalize by FY25E**




Source: Company; HSIE Research

# EV business—at an evolution stage

BHFC's EV business is housed in its 100% owned subsidiary Kalyani PowerTrain Ltd. It is already setting up three plants in this business as it sees enough orders from OEMs for the same. Of the three new plants, two are PLI-compliant for advanced technologies. Its EV foray would include ramping up its presence in the below segments.

**Electronics Components Manufacturing**
Over the last few years, BHFC has developed its competence in manufacturing quite a few power electronics components which find application in 2W and 3W EVs including VCU, DC-DC convertors, OBC, inverters, motor controllers and BMS. SMT machine line for the same is already in place. From the power electronics plant, they have supplied samples for testing to four OEMs and they expect to get feedback for the same very soon. Once cleared by OEMs, they are likely to commence production of these components in this fiscal.

**2W e-bike and 3W kits (Tork Motors)**
Apart from the manufacturing of components, BHFC has also undertaken the assembly of e-bikes for Tork Motors. They have set up a plant which would have an assembly capacity of 60k units pa which would be scalable to 100k units pa. It is important to highlight that the entire bike (except the battery) is made in India and hence meets all localisation norms as set out by the Government. They have already sold 1k bikes so far. The plant began production in Apr2023 and they target to ramp up production to 1500-1800 bikes per month soon and then ramp up further, based on demand requirements.

**Commercial vehicle repowering**
Kalyani Powertrain has already received the AIS 123 certification in India for retro fitment of EV kits to ICE CVs. They already have two vehicle platforms and three model variants ready for field deployment. The company can provide retrofit solutions for CVs upto 12T. Management is most excited about this category as it sees huge interest from customers across logistics businesses for EV retro fitment solutions.

**JV with Harbinger for EV drivetrain solutions**
Bharat Forge signed a JV with Harbinger Motors, namely Electroforge, for developing electric drivetrain solutions for the CV market globally. BHFC would be the exclusive manufacturing partner for their EV powertrains for Harbinger's EV range of CVs within Class4-7. While BHFC is a global supplier of critical chassis and powertrain components, Harbinger Motors is in the development of EV CVs. Harbingers CVs see very good applications for last-mile transport solutions. Electroforge will leverage the expertise of both partners to deliver high-power, low-weight drivetrains with new architecture tailored specifically to meet the durability and performance requirements of CV EVs. The JV will serve as the volume manufacturer of electric powertrains for Harbinger, going forward. Harbinger has recently tied up with one of the largest recreational manufacturers globally for EV solutions. The JV is planning for a soft launch in FY25 and then expects to scale up from FY26 onwards.

Overall, BHFC is commencing a new journey into EV components, as highlighted above. Given that this venture itself is in a very early stage at the moment, we have not factored in any material revenue uptick from this venture in our financial forecast for FY24-25E. However, given the multiple revenue streams, we believe this venture can have a reasonable scalable potential in the long run and help further diversify its mix.

### Key financial assumptions

- As highlighted in the main section, despite a slowdown in US Class8 and a normalisation of demand in domestic CVs, we expect the standalone entity to post a 13% revenue CAGR over FY23-25E. This would largely be driven by strong order inflow from defence (both domestic and exports) and steady growth in PVs as well as the industrial business. On the back of steady revenue growth, we expect standalone margins to improve to 26.5% by FY25E, from 25.2% in FY23.
- JS Auto Cast has almost doubled its capacity recently. This coupled with its acquisition of Indo Shell Mould has led to a sharp rise in capacity to 144k, from 50k MT pa last year. With BHFC's global customer connect both in auto and non-auto segments and JS Auto's expertise in Aluminum castings, we expect them to ramp up to full capacity in the next 3-4 years. Even Sanghvi Forgings is expected to post a healthy 20% revenue CAGR in the next couple of years on the back of its order visibility. Overall, we expect BF Industrial Solutions (the entity that houses both these companies) revenue to double to INR 8.9bn by FY25E from INR 4.4bn in FY23. While Sanghvi Forgings is an 18% margin entity, JS Auto Cast delivered an 11% margin in FY23. We expect JS Auto Cast margins to improve to 14% by FY25E on the back of a sharp ramp-up of its capacity.
- The overseas subsidiaries are likely to post steady 8% revenue CAGR over FY23-25E. Given the strong order backlog for Al-based components, we expect the Al mix at overseas subs to increase to 39% by FY25E, from 29% in FY23. As a result, we expect its margin, which had fallen to -2% in FY23, to recover back to 10% by FY25E.

**Fig12: BHFC Segmental assumptions (Consolidated)**

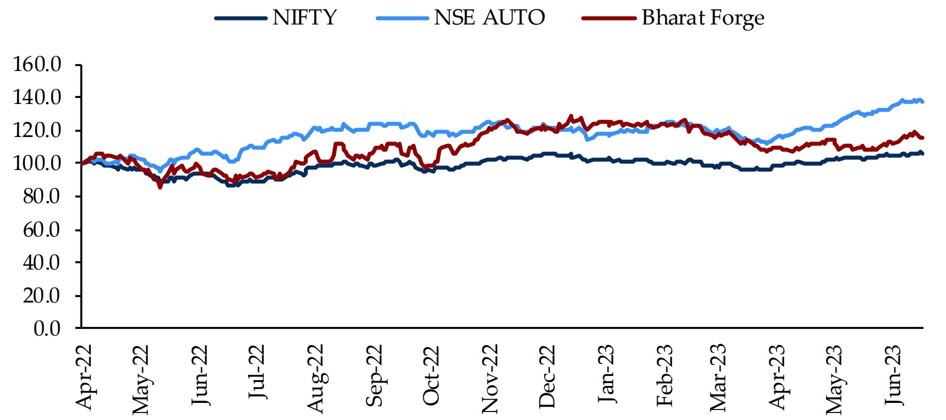
| | FY21 | FY22 | FY23 | FY24E | FY25E |
|---|---|---|---|---|---|
| **BHFC + BFIL** | | | | | |
| Revenue INR mn | 38,997 | 62,225 | 79,473 | 92,596 | 1,01,960 |
| YoY (%) | -25 | 60 | 28 | 17 | 10 |
| EBIDTA INR mn | 7,415 | 15,994 | 18,993 | 23,149 | 25,735 |
| Margin (%) | 19.0 | 25.7 | 23.9 | 25.0 | 25.2 |
| | | | | | |
| **Overseas subs** | | | | | |
| Revenue INR mn | 23,361 | 32,513* | 42,785 | 46,808 | 50,031 |
| YoY (%) | -16 | 39 | 32 | 9 | 7 |
| EBIDTA INR mn | 1,221 | 3,158* | -961 | 2,440 | 5,009 |
| Margin (%) | 5.2 | 9.7 | -2.2 | 5.2 | 10.0 |
| | | | | | |
| **BF Industrial Solutions** | | | | | |
| Revenue INR mn | | 533 | 4,446 | 6,975 | 8,930 |
| YoY (%) | | | NM | 56.9 | 28.0 |
| EBIDTA INR mn | | 43 | 515 | 948 | 1,300 |
| Margin (%) | | 8.1 | 11.6 | 13.6 | 14.6 |
| | | | | | |
| **Consolidated** | | | | | |
| Revenue INR mn | 63,362 | 1,04,611 | 1,29,103 | 1,49,040 | 1,63,716 |
| YoY (%) | -21 | 65 | 23 | 15 | 10 |
| EBIDTA INR mn | 8,617 | 19,803 | 17,676 | 26,670 | 32,184 |
| Margin (%) | 13.6 | 18.9 | 13.7 | 17.9 | 19.7 |

Source: Company, HSIE Research; *annualised

# Valuation and view

Over the last 12 months, while BHFC has outperformed the Nifty by 10%, it has underperformed the auto index by 21%, as highlighted in the chart below.

**Fig13: BHFC has underperformed auto index over 12M**




Source: Bloomberg; HSIE Research

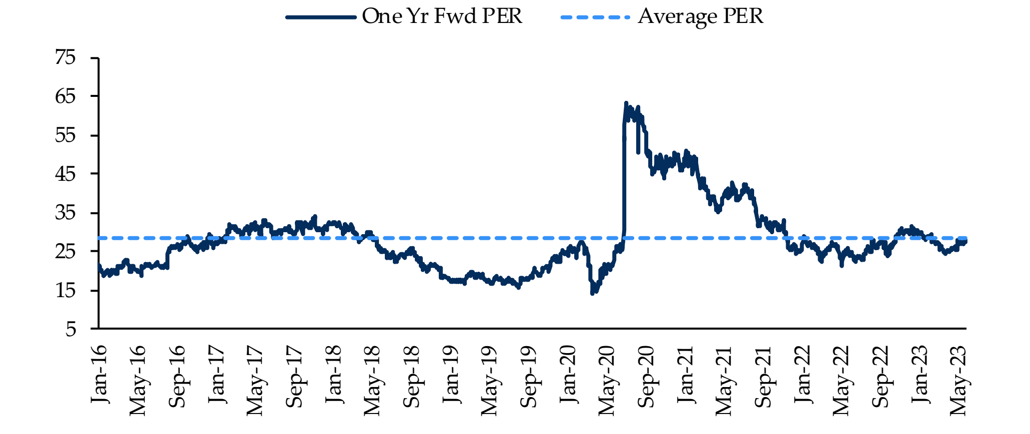
The key reason for underperformance is investor concerns around the expected slowdown in US Class8 vehicle demand from FY25 onwards, which contributes to about 18% of BHFC's standalone revenues. While the US Class8 cycle is likely to be in a downturn in CY24, we are not too perturbed by this, given that the company enjoys multiple growth drivers, which are expected to help offset this slowdown. Some of these growth drivers include 1) a sharp uptick from the defence business, both domestic and exports; 2) strong growth expected from aerospace; 3) a strong ramp-up expected from PV exports and industrial segments—both domestic and exports. Apart from this, the ramp-up at JS Auto Cast would also help boost consolidated performance. More importantly, overseas subsidiaries are expected to break even in FY24 and return to around 10% margin by FY25E. This would provide a strong fillip to consolidated earnings over our forecast period.

**Fig14: Bharat Forge appears attractive relative to some of its large cap peers**

| Companies | Market Cap (in Rs Bn) | EBITDA Margin (%) | | | EPS CAGR FY23-25E | P/E(x) | | EV/EBITDA | | ROE (%) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | FY23 | FY24E | FY25E | | FY24E | FY25E | FY24E | FY25E | FY24E | FY25E |
| Bharat Forge | 381 | 13.7 | 17.9 | 19.7 | 81.0 | 26.7 | 20.5 | 15.4 | 12.4 | 18.7 | 20.5 |
| Bosch | 548 | 12.4 | 13.5 | 14.0 | 19.1 | 30.9 | 27.2 | 22.8 | 19.9 | 15.9 | 16.3 |
| Endurance Technologies | 218 | 11.7 | 13.6 | 14.4 | 39.2 | 29.6 | 23.1 | 15.4 | 12.7 | 15.4 | 17.4 |
| Uno Minda | 330 | 11.1 | 11.9 | 12.1 | 27.4 | 38.9 | 31.5 | 21.9 | 18.5 | 18.1 | 18.9 |
| SKF India | 248 | 18.0 | 18.4 | 18.5 | 13.6 | 38.0 | 33.6 | 26.1 | 23.2 | 23.7 | 22.5 |

Source: Bloomberg; HSIE Research

**Fig15: Bharat Forge: one-year forward PER**




Source: Bloomberg

Further, given the strong earnings revival and minimal need for capex, we expect management to focus on debt reduction in the coming years (we factor in debt reduction of INR 22bn over FY23-25E).

One other factor to highlight is that on the back of its long-term visibility from its various segments, management has now set up an ambitious target for 2030, as below:

- Revenue CAGR of 12-15%
- Sustained consolidated EBITDA margin above 20%
- 500bps margin improvement in consolidated RoCE above FY22 level of 20%

Its long-term target should help substantially boost investor confidence in our view, given that an expectation of a long term steady revenue growth would mean management seems to have transformed BHFC from a cyclical company to a much more stable growth company, given its well-diversified base.

Overall, we expect BHFC to post a 13% revenue CAGR over FY23-25E (see table above for details). We also expect its consolidated margin to normalise back to ~20%, from 14% in FY23. As a result, we expect BHFC's EPS to sharply improve to INR 40 from INR 12 in FY23. At 20.5x FY25 earnings, BHFC appears attractive relative to its peers.

We value BHFC at 25x FY25E earnings to arrive at our TP of INR 998 per share. Maintain our Buy rating. BHFC remains our top pick in the auto ancillary space.

# Financials

## Income Statement

| Year ending March | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24E | FY25E |
|---|---|---|---|---|---|---|---|---|
| **Net Revenues** | **79,654** | **96,103** | **75,850** | **63,362** | **1,04,611** | **1,29,103** | **1,49,040** | **1,63,716** |
| *Growth (%)* | 28.6 | 20.7 | -21.1 | -16.5 | 65.1 | 23.4 | 15.4 | 9.8 |
| Material Expenses | 32,811 | 42,143 | 35,765 | 26,342 | 42,160 | 59,614 | 64,902 | 68,740 |
| Employee Expenses | 10,892 | 12,463 | 11,955 | 10,711 | 14,647 | 15,631 | 17,289 | 18,827 |
| Other Operating Expenses | 22,088 | 26,567 | 21,449 | 17,693 | 28,001 | 36,183 | 40,179 | 43,964 |
| **EBITDA** | **17,786** | **20,284** | **11,389** | **8,617** | **19,803** | **17,676** | **26,670** | **32,184** |
| ***EBITDA Margin (%)*** | **22.3** | **21.1** | **15.0** | **13.6** | **18.9** | **13.7** | **17.9** | **19.7** |
| ***EBITDA Growth (%)*** | **39.9** | **14.0** | **-43.9** | **-24.3** | **129.8** | **-10.7** | **50.9** | **20.7** |
| Depreciation | 4,669 | 5,208 | 5,477 | 6,122 | 7,303 | 7,356 | 7,797 | 8,265 |
| **EBIT** | **13,117** | **15,076** | **5,912** | **2,495** | **12,500** | **10,320** | **18,873** | **23,919** |
| Other Income (Including EO Items) | -90 | 2,300 | 848 | -1,373 | 3,239 | 2,186 | 1,988 | 2,187 |
| Interest | 1,065 | 1,272 | 1,713 | 1,077 | 1,604 | 2,986 | 1,798 | 1,438 |
| **PBT** | **11,961** | **16,104** | **5,046** | **45** | **14,135** | **9,520** | **19,063** | **24,668** |
| Tax (Incl Deferred) | 4,418 | 5,664 | 1,125 | 1,015 | 3,035 | 3,186 | 4,575 | 5,920 |
| **Share of profit from associates** | 4 | 114 | 420 | 297 | 330 | 334 | 200 | 150 |
| **RPAT** | **7,540** | **10,326** | **3,501** | **-1,267** | **10,771** | **6,000** | **14,288** | **18,597** |
| EO (Loss) / Profit (Net Of Tax) | -1,511 | 272 | -1,031 | -3,062 | 1,280 | 458 | 0 | 0 |
| **APAT** | **9,050** | **10,054** | **4,223** | **876** | **9,875** | **5,680** | **14,288** | **18,597** |
| ***APAT Growth (%)*** | **43.4** | **11.1** | **-58.0** | **-79.3** | **1026.9** | **-42.5** | **151.6** | **30.2** |
| **Adjusted EPS (Rs)** | **19.4** | **21.6** | **9.1** | **1.9** | **21.2** | **12.2** | **30.7** | **39.9** |
| ***EPS Growth (%)*** | **43** | **11** | **-58** | **-79** | **1027** | **-42** | **152** | **30** |

Source: Company, HSIE Research

## Balance Sheet

| As at March | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24E | FY25E |
|---|---|---|---|---|---|---|---|---|
| SOURCES OF FUNDS | | | | | | | | |
| Share Capital - Equity | 931 | 931 | 931 | 931 | 931 | 931 | 931 | 931 |
| Reserves | 45,586 | 52,829 | 51,266 | 53,219 | 64,775 | 66,124 | 76,687 | 90,628 |
| **Total Shareholders' Funds** | 46,517 | 53,761 | 52,197 | 54,150 | 65,707 | 67,055 | 77,618 | 91,559 |
| Total Debt | 27,111 | 37,728 | 38,784 | 45,798 | 56,545 | 68,523 | 57,523 | 46,523 |
| Net Deferred Taxes | 2,147 | 2,062 | 507 | 1,445 | 1,718 | 658 | 658 | 658 |
| **TOTAL SOURCES OF FUNDS** | **76,069** | **93,850** | **91,807** | **1,01,710** | **1,24,531** | **1,36,597** | **1,36,160** | **1,39,101** |
| **APPLICATION OF FUNDS** | | | | | | | | |
| Net Block | 34,568 | 35,897 | 39,650 | 47,173 | 48,191 | 58,699 | 58,402 | 57,637 |
| CWIP | 3,438 | 8,307 | 11,427 | 9,001 | 11,248 | 6,964 | 6,964 | 6,964 |
| Goodwill | 429 | 349 | 370 | 323 | 506 | 2,955 | 2,955 | 2,955 |
| Investments | 15,011 | 15,237 | 16,180 | 26,070 | 26,040 | 25,691 | 25,691 | 25,691 |
| Other Non-Current Assets | | | | | | | | |
| **Total Non-current Assets** | **53,446** | **59,789** | **67,627** | **82,568** | **85,985** | **94,309** | **92,438** | **90,095** |
| **Cash & Equivalents** | **3,041** | **4,755** | **5,751** | **4,729** | **6,030** | **10,395** | **2,350** | **1,855** |
| Inventories | 13,599 | 18,447 | 17,347 | 17,939 | 27,105 | 31,263 | 35,933 | 39,471 |
| Debtors | 19,371 | 21,478 | 14,938 | 14,096 | 21,736 | 30,988 | 34,708 | 38,126 |
| Other Current Assets | 10,311 | 11,314 | 9,161 | 11,545 | 14,063 | 15,392 | 16,153 | 16,951 |
| **Total Current Assets** | **46,322** | **55,993** | **47,197** | **48,309** | **68,934** | **88,038** | **90,644** | **99,403** |
| Creditors | 13,268 | 13,664 | 10,309 | 12,068 | 16,314 | 21,513 | 24,836 | 27,281 |
| Other Current Liabilities & Provns | 10,431 | 8,269 | 12,707 | 17,099 | 14,074 | 24,236 | 22,159 | 23,267 |
| **Total Current Liabilities** | **23,699** | **21,933** | **23,017** | **29,167** | **30,387** | **45,749** | **46,995** | **50,548** |
| **Net Current Assets** | **22,623** | **34,060** | **24,181** | **19,142** | **38,546** | **42,288** | **43,649** | **48,855** |
| **TOTAL APPLICATION OF FUNDS** | **76,069** | **93,850** | **91,807** | **1,01,710** | **1,24,531** | **1,36,597** | **1,36,160** | **1,39,101** |

Source: Company, HSIE Research

## Cash Flow

| Year ending March | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24E | FY25E |
|---|---|---|---|---|---|---|---|---|
| Reported PBT | 13,117 | 15,076 | 5,912 | 2,495 | 12,500 | 10,320 | 18,873 | 23,919 |
| Non-operating & EO Items | -1,511 | 272 | -1,031 | -3,062 | 1,280 | 458 | 0 | 0 |
| Interest Expenses | 1,420 | 2,028 | 1,879 | 1,689 | 1,959 | 1,729 | 1,988 | 2,187 |
| Depreciation | 4,669 | 5,208 | 5,477 | 6,122 | 7,303 | 7,356 | 7,797 | 8,265 |
| Working Capital Change | -5,078 | -9,724 | 10,876 | 4,016 | -18,103 | 623 | -7,905 | -4,201 |
| Tax Paid | -4,877 | -5,748 | -2,681 | -77 | -2,762 | -4,246 | -4,575 | -5,920 |
| Others | 194 | 4 | 22 | -3 | 244 | -200 | 0 | 0 |
| **OPERATING CASH FLOW ( a )** | **7,934** | **7,116** | **20,454** | **11,180** | **2,422** | **16,039** | **16,178** | **24,250** |
| Capex | -5,801 | -11,326 | -12,371 | -11,173 | -10,750 | -16,029 | -7,500 | -7,500 |
| Free Cash Flow (FCF) | 2,133 | -4,210 | 8,083 | 8 | -8,328 | 10 | 8,678 | 16,750 |
| Investments | -3,096 | -225 | -944 | -9,890 | 30 | 349 | 0 | 0 |
| **INVESTING CASH FLOW ( b )** | **-8,897** | **-11,551** | **-13,315** | **-21,063** | **-10,720** | **-15,680** | **-7,500** | **-7,500** |
| Debt Issuance/(Repaid) | 3,898 | 10,618 | 1,055 | 7,014 | 10,748 | 11,978 | -11,000 | -11,000 |
| Interest Expenses | -1,065 | -1,272 | -1,713 | -1,077 | -1,604 | -2,986 | -1,798 | -1,438 |
| FCFE | **4,966** | **5,136** | **7,425** | **5,944** | **816** | **9,002** | **-4,120** | **4,312** |
| Dividend | -2,435 | -2,706 | -1,965 | -931 | -2,561 | -2,561 | -3,725 | -4,656 |
| Others | 245 | -490 | -3,519 | 3,855 | 3,017 | -2,425 | -200 | -150 |
| **FINANCING CASH FLOW ( c )** | **643** | **6,150** | **-6,143** | **8,860** | **9,599** | **4,006** | **-16,723** | **-17,245** |
| **NET CASH FLOW (a+b+c)** | **-320** | **1,714** | **996** | **-1,023** | **1,301** | **4,365** | **-8,045** | **-495** |
| Oepning Cash Balance | 3,361 | 3,041 | 4,755 | 5,751 | 4,729 | 6,030 | 10,395 | 2,350 |
| Closing Cash & Equivalents | 3,041 | 4,755 | 5,751 | 4,728 | 6,030 | 10,395 | 2,350 | 1,855 |

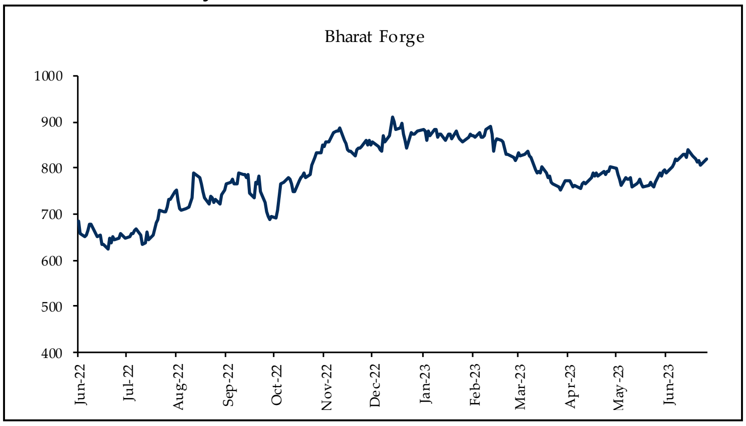
Source: Company, HSIE Research

## Key Ratios

| | FY18 | FY19 | FY20 | FY21 | FY22E | FY23 | FY24E | FY25E |
|---|---|---|---|---|---|---|---|---|
| **PROFITABILITY (%)** | | | | | | | | |
| GPM | 60.7 | 58.5 | 55.6 | 58.4 | 59.7 | 53.8 | 56.5 | 58.0 |
| EBITDA Margin | 21.3 | 20.0 | 14.1 | 13.6 | 18.9 | 13.7 | 17.9 | 19.7 |
| APAT Margin | 10.8 | 9.9 | 5.2 | 1.4 | 9.4 | 4.4 | 9.6 | 11.4 |
| RoE | 16.2 | 19.4 | 7.5 | -1.8 | 16.9 | 9.4 | 18.7 | 20.5 |
| RoIC (or Core RoCE) | 19.2 | 18.6 | 6.8 | 2.7 | 11.6 | 8.4 | 14.5 | 17.6 |
| RoCE | 18.3 | 17.7 | 6.4 | 2.6 | 11.1 | 7.9 | 13.8 | 17.4 |
| **EFFICIENCY** | | | | | | | | |
| Tax Rate (%) | 36.9 | 35.2 | 22.3 | 2276.6 | 21.5 | 33.5 | 24.0 | 24.0 |
| Fixed Asset Turnover (x) | 1.0 | 1.1 | 0.8 | 0.6 | 0.9 | 1.0 | 1.0 | 1.1 |
| Inventory (days) | 75 | 83 | 92 | 120 | 117 | 102 | 107 | 110 |
| Debtors (days) | 88 | 82 | 72 | 81 | 76 | 88 | 85 | 85 |
| Other Current Assets (days) | 47 | 43 | 44 | 67 | 49 | 44 | 40 | 38 |
| Payables (days) | 148 | 118 | 105 | 167 | 141 | 132 | 140 | 145 |
| Other Current Liab & Provns (days) | 48 | 31 | 61 | 98 | 49 | 69 | 54 | 52 |
| Cash Conversion Cycle (days) | 15 | 58 | 41 | 2 | 51 | 33 | 38 | 36 |
| Debt/EBITDA (x) | 1.5 | 1.9 | 3.4 | 5.3 | 2.9 | 3.9 | 2.2 | 1.4 |
| Net D/E (x) | 0.5 | 0.6 | 0.6 | 0.8 | 0.8 | 0.9 | 0.7 | 0.5 |
| Interest Coverage (x) | 12 | 12 | 3 | 2 | 8 | 3 | 10 | 17 |
| **PER SHARE DATA (Rs)** | | | | | | | | |
| EPS | 19 | 22 | 9 | 2 | 21 | 12 | 31 | 40 |
| CEPS | 29 | 33 | 21 | 15 | 37 | 28 | 47 | 58 |
| Dividend | 5 | 5 | 4 | 2 | 6 | 6 | 8 | 10 |
| Book Value | 100 | 115 | 112 | 116 | 141 | 144 | 167 | 197 |
| **VALUATION** | | | | | | | | |
| P/E (x) | 42.1 | 37.9 | 90.3 | 435.3 | 38.6 | 67.2 | 26.7 | 20.5 |
| P/BV (x) | 8.2 | 7.1 | 7.3 | 7.0 | 5.8 | 5.7 | 4.9 | 4.2 |
| EV/EBITDA (x) | 22.0 | 19.7 | 35.0 | 46.0 | 20.5 | 23.4 | 15.4 | 12.4 |
| EV/Revenues (x) | 4.9 | 4.2 | 5.3 | 6.3 | 3.9 | 3.2 | 2.8 | 2.4 |
| OCF/EV (%) | 1.0 | 0.9 | 2.5 | 1.3 | 0.3 | 1.9 | 1.9 | 2.8 |
| FCF/EV (%) | 0.3 | -0.5 | 1.0 | 0.0 | -1.0 | 0.0 | 1.0 | 1.9 |
| FCFE/Mkt Cap (%) | 1.3 | 1.3 | 1.9 | 1.6 | 0.2 | 2.4 | -1.1 | 1.1 |
| Dividend Yield (%) | 0.5 | 0.6 | 0.4 | 0.2 | 0.7 | 0.7 | 1.0 | 1.2 |

Source: Company, HSIE Research

### 1 Yr Price History




### Rating Criteria

| | |
|---|---|
| BUY: | >+15% return potential |
| ADD: | +5% to +15% return potential |
| REDUCE: | -10% to +5% return potential |
| SELL: | >10% Downside return potential |

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