



**BSE**

|                 |   |
|-----------------|---|
| Estimate change | ↓ |
| TP change       | ↑ |
| Rating change   | ↔ |

**CMP: INR687 TP: INR 680 (-1%) Neutral**

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**In line revenue, PAT misses our estimate due to a MTM loss**

| Bloomberg             | BSE IN     |
|-----------------------|------------|
| Equity Shares (m)     | 135        |
| M.Cap.(INRb)/(USDb)   | 92.8 / 1.2 |
| 52-Week Range (INR)   | 1047 / 341 |
| 1, 6, 12 Rel. Per (%) | 4/-5/55    |
| 12M Avg Val (INR M)   | 1977       |

- BSE reported an operating revenue growth of 13% YoY (down 10% QoQ) to INR1.7b in 1QFY23. Revenue was broadly in line with our estimate.
- Operating expense stood at INR1.3b in 1QFY23, 2% higher than our estimate, on account of higher technology cost.
- PAT fell 23% YoY and 44% QoQ to INR400m in 1QFY23.
- While BSE has multiple levers for growth from a surge in Star MF revenue to scale up of operations in new areas such as INX, Power Exchange, Spot Gold, among others, we find valuations fair at 32.4x FY24E P/E. We maintain our Neutral rating.

**Lower investment income impacts performance**

- Income from transactions stood at INR538m, down 8% YoY and 23% QoQ.
- Services to corporates surged 22% YoY and 2% QoQ.
- The Star MF platform grew 52% YoY, but remained flat sequentially.
- Investment income stood at INR247m (est. INR350m), a decline of 25% YoY and 40% on account of MTM losses on investments.
- EBITDA margin stood at 26.1% (est. 27%). PAT stood at INR400m (est. INR557m) on account of a lower share of associates at INRINR109m (est. INR169m) and a higher tax rate in 1QFY23.

**Financials & Valuations (INR b)**

| Y/E Mar       | FY22 | FY23E | FY24E |
|---------------|------|-------|-------|
| Net Sales     | 7.4  | 7.4   | 8.2   |
| EBITDA        | 2.1  | 1.7   | 2.1   |
| PAT           | 2.4  | 2.3   | 2.8   |
| EPS (INR)     | 18.1 | 17.0  | 21.0  |
| EPS Gr (%)    | 56.7 | -6.3  | 23.5  |
| BV / Sh (INR) | 197  | 202   | 208   |

**Ratios (%)**

|              |      |      |      |
|--------------|------|------|------|
| RoE          | 9.2  | 8.4  | 10.1 |
| Payout ratio | 74.4 | 70.0 | 70.0 |

**Valuations**

|          |      |      |      |
|----------|------|------|------|
| P/E (x)  | 37.9 | 40.4 | 32.7 |
| P/BV (x) | 3.5  | 3.4  | 3.3  |

**Key highlights from the management commentary**

- Revision in its listing fees, with effect from Apr'22, is translating in a better growth in listing fees.
- It launched its Power Exchange on 6<sup>th</sup> Jul'22. It began with the Contingency Market segment, where it has already managed to gain 20% market share. In the last week of Jul'22, BSE launched other market segments such as Green Contingency contracts. Currently, it is offering promotional discounts to participants.

**Shareholding pattern (%)**

| As On    | Jun-22 | Mar-22 | Jun-21 |
|----------|--------|--------|--------|
| Promoter | 0.0    | 0.0    | 0.0    |
| DII      | 1.0    | 1.0    | 4.3    |
| FII      | 37.2   | 39.3   | 37.6   |
| Others   | 61.8   | 59.7   | 58.2   |

FII Includes depository receipts

**Reasonable valuations, Maintain Neutral**

BSE has multiple levers for growth in revenue and earnings over the medium term such as: 1) continued momentum in the Star MF business, 2) levy of charges on derivatives, 3) levy of charges on the INX platform, 4) possibility of levying a fee for listing of debt securities, 5) start of operations at its Power Exchange, and 6) commencement of revenue from its Gold Spot exchange. On the core business front, while we see some challenges to book building fees, cash segment volumes can normalize as the impact of new margin norms is now in the base. We have cut our FY23/FY24 EPS estimate by 10%/6%. We find valuations reasonable and assign a Neutral rating with a one-year TP of INR680 (based on SoTP valuation). The slight increase in our TP is led by roll over to Sep'24E for its core earnings, but was offset by a cut in our estimates.

## Cons. Quarterly perf.

(INR m)

| Y/E March                      | FY22         |              |              |              | FY23E        |              |              |              | FY22         | FY23         | Est. 1Q      | Var. (%/bp)  |
|--------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                                | 1Q           | 2Q           | 3Q           | 4Q           | 1Q           | 2Q           | 3Q           | 4Q           |              |              |              |              |
| <b>Revenue from operations</b> | <b>1,527</b> | <b>1,818</b> | <b>1,840</b> | <b>1,922</b> | <b>1,731</b> | <b>1,812</b> | <b>1,912</b> | <b>1,955</b> | <b>7,107</b> | <b>7,410</b> | <b>1,708</b> | <b>1.3</b>   |
| YoY Change (%)                 | 47.9         | 41.6         | 55.7         | 29.8         | 13.4         | -0.3         | 3.9          | 1.7          | 42.7         | 4.3          | 12           | 150bp        |
| Total Expenditure              | 1,063        | 1,278        | 1,262        | 1,349        | 1,279        | 1,310        | 1,348        | 1,335        | 4,952        | 5,271        | 1,255        | 1.9          |
| <b>EBITDA</b>                  | <b>464</b>   | <b>540</b>   | <b>578</b>   | <b>573</b>   | <b>452</b>   | <b>502</b>   | <b>564</b>   | <b>620</b>   | <b>2,156</b> | <b>2,139</b> | <b>453</b>   | <b>-0.2</b>  |
| Margins (%)                    | 30.4         | 29.7         | 31.4         | 29.8         | 26.1         | 27.7         | 29.5         | 31.7         | 30.3         | 28.9         | 27           | -40bp        |
| Depreciation                   | 116          | 117          | 123          | 127          | 104          | 105          | 106          | 159          | 483          | 475          | 117          | -11.0        |
| Interest                       | 42           | 52           | 52           | 76           | 76           | 55           | 56           | 34           | 222          | 222          | 52           | 46.5         |
| Investment income              | 331          | 440          | 346          | 412          | 247          | 284          | 298          | 375          | 1,529        | 1,204        | 350          | -29.5        |
| <b>PBT before EO expense</b>   | <b>637</b>   | <b>811</b>   | <b>750</b>   | <b>782</b>   | <b>519</b>   | <b>626</b>   | <b>700</b>   | <b>802</b>   | <b>2,980</b> | <b>2,646</b> | <b>634</b>   | <b>-18.2</b> |
| Liquidity enhancement expense  | 94           | 79           | 89           | 88           | 93           | 100          | 110          | 117          | 350          | 420          | 95           | -2.4         |
| <b>PBT</b>                     | <b>543</b>   | <b>733</b>   | <b>660</b>   | <b>694</b>   | <b>426</b>   | <b>526</b>   | <b>590</b>   | <b>685</b>   | <b>2,630</b> | <b>2,226</b> | <b>539</b>   | <b>-21.0</b> |
| Tax                            | 161          | 280          | 244          | 139          | 135          | 147          | 165          | 175          | 823          | 667          | 151          | -10.6        |
| Rate (%)                       | 29.6         | 38.2         | 36.9         | 20.1         | 31.7         | 28.0         | 28.0         | 25.6         | 31.3         | 30.0         | 28           | 367bp        |
| P/L of Asso. Cos.              | 136          | 176          | 169          | 161          | 109          | 114          | 120          | 394          | 642          | 738          | 169          | -35.5        |
| <b>Reported PAT</b>            | <b>519</b>   | <b>629</b>   | <b>586</b>   | <b>716</b>   | <b>400</b>   | <b>493</b>   | <b>545</b>   | <b>904</b>   | <b>2,449</b> | <b>2,297</b> | <b>557</b>   | <b>-28.2</b> |
| YoY Change (%)                 | 59.8         | 36.6         | 86.2         | 125.4        | -22.9        | -21.6        | -6.9         | 26.3         | 60.0         | -2.6         | 7            |              |
| Margins (%)                    | 27.7         | 28.6         | 26.0         | 30.5         | 18.8         | 22.7         | 24.0         | 31.2         | 40.7         | 38.0         | 25           | -668bp       |

## Key Perform. Indicators

| Y/E March  | FY22 |     |     |     | FY23 |
|--|------|-----|-----|-----|------|
|  | 1Q   | 2Q  | 3Q  | 4Q  | 1Q   |
| <b>INR m</b>                                       |      |     |     |     |      |
| Transaction charges                                | 584  | 680 | 630 | 695 | 538  |
| Services to corporates                             | 586  | 764 | 815 | 699 | 714  |
| Listing Fees                                       | 371  | 376 | 424 | 388 | 412  |
| Listing processing and other listing fees          | 119  | 192 | 148 | 184 | 145  |
| Book building fees                                 | 85   | 166 | 218 | 91  | 137  |
| Other services to corporates                       | 10   | 30  | 24  | 34  | 19   |
| Transaction charges income - Equity                | 471  | 545 | 475 | 530 | 368  |
| Transaction charges income - currency derivatives  | 14   | 13  | 17  | 18  | 18   |
| Transaction charges income - interest rate futures | 0    | 0   | 0   | 0   | 0    |
| Listing fees                                       | 490  | 568 | 572 | 572 | 557  |
| Book building and other services                   | 95   | 196 | 242 | 125 | 156  |
| SME Listing fees                                   | 0    | 0   | 0   | 0   | 0    |
| Star MF platform                                   | 99   | 120 | 135 | 150 | 150  |



## Key highlights from management commentary

## Business

- The process of finding the next CEO is on and separate committee has been set-up. The process is on track and will be completed sooner than expected.
- BSE revised its listing fees w.e.f. April '22, translating to stronger growth in listing fees.
- BSE launched its Power exchange on 6th July'22. They have started with Contingency market segment wherein they have already managed to gain 20% of market share. During last week of July, BSE also launched other market segments such as Green Contingency contracts. Currently, BSE is providing promotional discount to participants.
- The company has applied to SEBI for EGR approval. The technology for ESR is ready. The segment will get operationalized once the final approval is received.
- BSE wants to focus on expanding its product suite and to on-board the right kind of stakeholders on the market platform. They will begin charging revenue once there is higher liquidity.

**Star MF**

- Pricing of Star MF is based on tier structure. Therefore with higher volumes, realization has seen some decline
- The pricing in Star MF has remained same since the past two years.
- Star MF makes ~ 33% of profit margin.
- Currency derivative market share got impact during the quarter on back of some challenges. However the same has been resolved now.

**Financials**

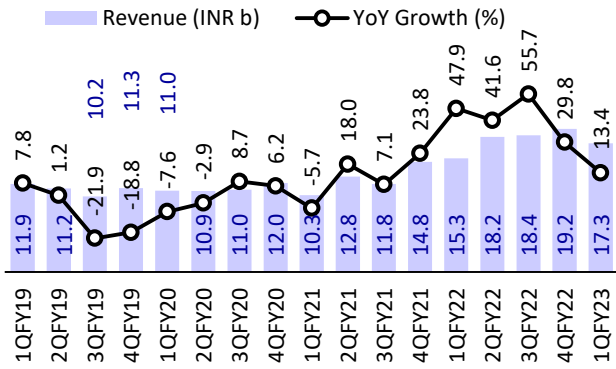
- BSE has seen decrease in non-exclusive equity realization on back of one-time transaction charges received to the tune of INR10m in 4QFY22.
- Other security charges consist of infrastructure charges levied to market participants. The same is a reimbursement in nature and is offset by technology cost. Therefore, there was growth in other security charges as well as technology cost.
- There was an increase in expenses on YoY basis on back (1) During COVID, there were lot of provisions created on receivables. The same was reversed to the tune of INR46m in 1QFY22. However the provision reversal in 1QFY23 was lower by INR30m. (2) Post implementation of interoperability clearing expenses are paid to the other clearing house where the trade is settled (3) SGF contribution for the quarter was INR 22m which was nil in 1QFY22.
- Lower investment income during the quarter was on back of MTM loss.
- Increasing minority loss is on back of growing operation in other businesses like EBIX and BASL.

**Exhibit 1: Revision in estimates**

| INR b     | Old Estimates |       | New Estimates |       | Change |       |
|-----------|---------------|-------|---------------|-------|--------|-------|
|           | FY23E         | FY24E | FY23E         | FY24E | FY23E  | FY24E |
| Net Sales | 7.4           | 8.2   | 7.5           | 8.4   | -1.2%  | -1.9% |
| EBITDA    | 1.7           | 2.0   | 1.8           | 2.2   | -5.0%  | -7.0% |
| PAT       | 2.3           | 2.9   | 2.6           | 3.0   | -10.4% | -5.6% |

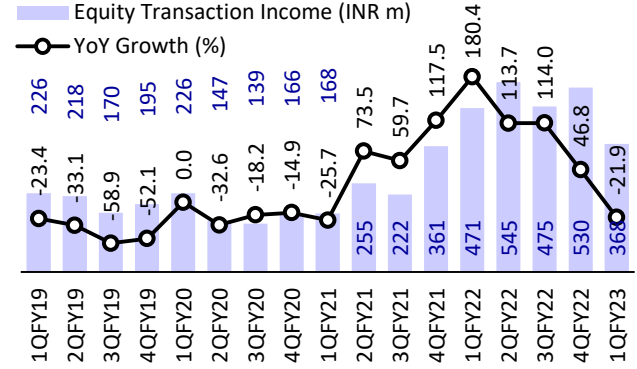
Key exhibits

Exhibit 2: Muted revenue growth...



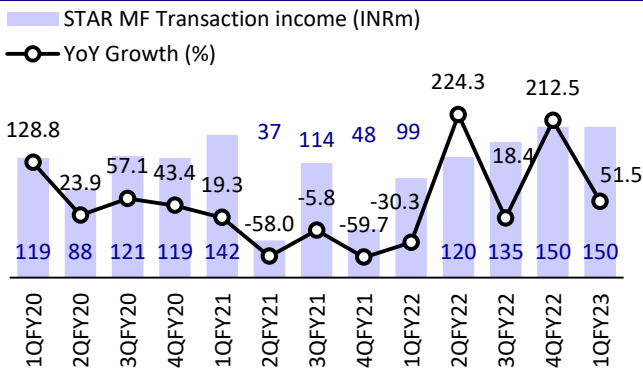
Source: MOFSL, Company

Exhibit 3: .. led by lower Equity Transaction revenue



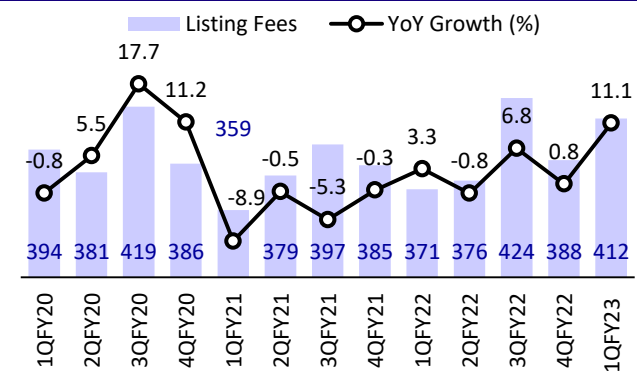
Source: MOFSL, Company

Exhibit 4: Revenue from Star MF remains flattish



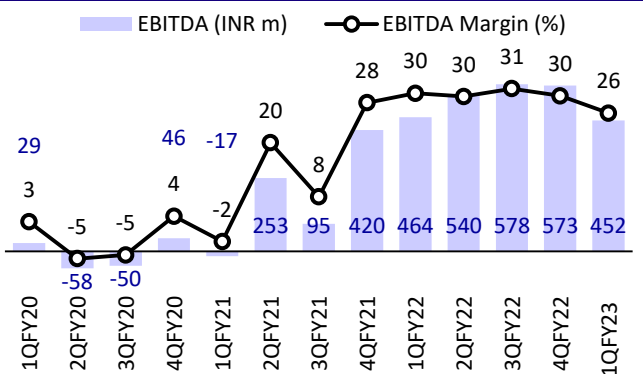
Source: MOFSL, Company

Exhibit 5: However, listing fees grew by 11% YoY



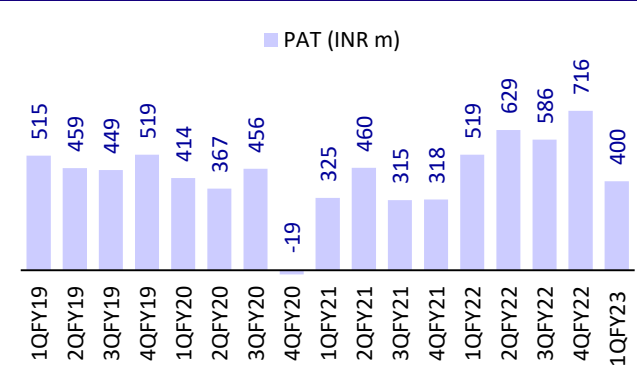
Source: MOFSL, Company

Exhibit 6: EBITDA and Margins decline sequentially



Source: MOFSL, Company

Exhibit 7: Volatility in PAT continues



Source: MOFSL, Company

## Financials and valuations

| Income Statement                    |              |              |              |               |              |              |              |              |              |
|-------------------------------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|
| (INR M)                             |              |              |              |               |              |              |              |              |              |
| Y/E March                           | 2017         | 2018         | 2019         | 2020          | 2021         | 2022         | 2023E        | 2024E        | 2025E        |
| Revenue                             | 5,172        | 5,072        | 4,503        | 4,505         | 5,014        | 7,432        | 7,410        | 8,218        | 9,133        |
| <b>Change (%)</b>                   | <b>21.8</b>  | <b>-1.9</b>  | <b>-11.2</b> | <b>0.0</b>    | <b>11.3</b>  | <b>48.2</b>  | <b>-0.3</b>  | <b>10.9</b>  | <b>11.1</b>  |
| Employee expenses                   | 1,415        | 1,201        | 1,392        | 1,512         | 1,487        | 1,773        | 1,844        | 1,991        | 2,151        |
| Technology expenses                 | 1,056        | 1,111        | 1,134        | 1,176         | 948          | 969          | 1,027        | 1,109        | 1,198        |
| Admin & Others                      | 1,733        | 1,684        | 1,811        | 2,132         | 1,854        | 2,182        | 2,400        | 2,592        | 2,800        |
| Liquidity enhancement expenses      | 0            | 21           | 130          | 178           | 337          | 377          | 422          | 473          | 529          |
| <b>EBITDA</b>                       | <b>968</b>   | <b>1,055</b> | <b>36</b>    | <b>-493</b>   | <b>388</b>   | <b>2,131</b> | <b>1,717</b> | <b>2,052</b> | <b>2,455</b> |
| <b>EBITDA %</b>                     | <b>18.7</b>  | <b>20.8</b>  | <b>0.8</b>   | <b>-10.9</b>  | <b>7.7</b>   | <b>28.7</b>  | <b>23.2</b>  | <b>25.0</b>  | <b>26.9</b>  |
| Depreciation / Amortization         | 540          | 455          | 511          | 510           | 579          | 483          | 475          | 492          | 510          |
| <b>EBIT</b>                         | <b>429</b>   | <b>601</b>   | <b>-474</b>  | <b>-1,003</b> | <b>-190</b>  | <b>1,648</b> | <b>1,242</b> | <b>1,560</b> | <b>1,946</b> |
| <b>EBIT %</b>                       | <b>9.7</b>   | <b>11.8</b>  | <b>-10.5</b> | <b>-22.3</b>  | <b>-3.8</b>  | <b>22.2</b>  | <b>16.8</b>  | <b>19.0</b>  | <b>21.3</b>  |
| Finance costs                       | 10           | 10           | 9            | 24            | 103          | 222          | 222          | 222          | 222          |
| Other Income                        | 2,835        | 1,917        | 2,371        | 1,795         | 1,533        | 1,203        | 1,204        | 1,498        | 1,591        |
| <b>PBT</b>                          | <b>3,254</b> | <b>2,508</b> | <b>1,888</b> | <b>768</b>    | <b>1,240</b> | <b>2,630</b> | <b>2,224</b> | <b>2,836</b> | <b>3,315</b> |
| Tax                                 | 406          | 555          | 234          | 149           | 109          | 823          | 667          | 851          | 994          |
| <b>ETR %</b>                        | <b>12.5</b>  | <b>22.1</b>  | <b>12.4</b>  | <b>19.4</b>   | <b>8.8</b>   | <b>31.3</b>  | <b>30.0</b>  | <b>30.0</b>  | <b>30.0</b>  |
| <b>PAT before associate profits</b> | <b>2,848</b> | <b>1,953</b> | <b>1,655</b> | <b>619</b>    | <b>1,131</b> | <b>1,806</b> | <b>1,557</b> | <b>1,985</b> | <b>2,320</b> |
| Share of Associates profit          | 11           | 199          | 292          | 267           | 432          | 642          | 738          | 849          | 976          |
| <b>PAT after Associate profits</b>  | <b>2,859</b> | <b>2,152</b> | <b>1,947</b> | <b>886</b>    | <b>1,562</b> | <b>2,448</b> | <b>2,295</b> | <b>2,834</b> | <b>3,296</b> |
| <b>Change (%)</b>                   | <b>38.5</b>  | <b>-24.7</b> | <b>-9.5</b>  | <b>-54.5</b>  | <b>76.4</b>  | <b>56.7</b>  | <b>-6.3</b>  | <b>23.5</b>  | <b>16.3</b>  |
| <b>PAT margin %</b>                 | <b>55.3</b>  | <b>42.4</b>  | <b>43.2</b>  | <b>19.7</b>   | <b>31.2</b>  | <b>32.9</b>  | <b>31.0</b>  | <b>34.5</b>  | <b>36.1</b>  |
| Exceptional items                   | 208          | 5            | 5            | -320          | 145          | 0            | 0            | 0            | 0            |
| <b>PAT after exceptional items</b>  | <b>2,651</b> | <b>2,148</b> | <b>1,941</b> | <b>1,206</b>  | <b>1,417</b> | <b>2,448</b> | <b>2,295</b> | <b>2,834</b> | <b>3,296</b> |

| Balance Sheet                        |               |               |               |               |               |               |               |               |               |
|--------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| (INR M)                              |               |               |               |               |               |               |               |               |               |
| Y/E March                            | 2017          | 2018          | 2019          | 2020          | 2021          | 2022          | 2023E         | 2024E         | 2025E         |
| Total fixed assets                   | 2,519         | 2,142         | 2,181         | 2,085         | 1,843         | 1,681         | 1,731         | 1,781         | 1,831         |
| Non-current investments              | 17,478        | 17,598        | 13,096        | 9,252         | 8,005         | 6,298         | 6,613         | 6,944         | 7,291         |
| Other non-current assets             | 1,128         | 1,676         | 1,830         | 4,207         | 4,914         | 4,339         | 4,426         | 4,515         | 4,605         |
| <b>Total non-current assets</b>      | <b>21,125</b> | <b>21,415</b> | <b>17,108</b> | <b>15,543</b> | <b>14,762</b> | <b>12,318</b> | <b>12,770</b> | <b>13,239</b> | <b>13,727</b> |
| Cash & Current investments           | 24,258        | 19,826        | 15,481        | 16,092        | 19,269        | 35,117        | 36,917        | 39,457        | 42,362        |
| Trade receivables                    | 687           | 549           | 490           | 700           | 876           | 634           | 1,186         | 1,315         | 1,461         |
| Other current assets                 | 5,760         | 8,191         | 11,960        | 12,425        | 11,364        | 13,785        | 14,463        | 15,175        | 15,922        |
| <b>Total current assets</b>          | <b>30,705</b> | <b>28,566</b> | <b>27,931</b> | <b>29,216</b> | <b>31,509</b> | <b>49,535</b> | <b>52,566</b> | <b>55,947</b> | <b>59,746</b> |
| <b>TOTAL ASSETS</b>                  | <b>51,830</b> | <b>49,980</b> | <b>45,039</b> | <b>44,759</b> | <b>46,271</b> | <b>61,854</b> | <b>65,336</b> | <b>69,186</b> | <b>73,473</b> |
| Share Capital                        | 321           | 311           | 320           | 270           | 270           | 271           | 270           | 270           | 270           |
| R&S                                  | 26,303        | 30,495        | 29,037        | 23,981        | 24,796        | 26,275        | 26,963        | 27,813        | 28,802        |
| <b>Shareholders equity</b>           | <b>26,624</b> | <b>30,806</b> | <b>29,357</b> | <b>24,251</b> | <b>25,066</b> | <b>26,545</b> | <b>27,233</b> | <b>28,083</b> | <b>29,072</b> |
| Core SGF                             | 2,045         | 3,585         | 3,945         | 4,354         | 5,391         | 6,409         | 6,409         | 6,409         | 6,409         |
| Minority Interest                    | 2,909         | 0             | 0             | 186           | 235           | 1,352         | 1,352         | 1,352         | 1,352         |
| Deferred tax liabilities             | 0             | 142           | 0             | 1             | 0             | 0             | 0             | 0             | 0             |
| LT borrowings                        | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| Other LT liabilities                 | 88            | 95            | 114           | 111           | 124           | 81            | 81            | 81            | 81            |
| <b>Total non-current liabilities</b> | <b>88</b>     | <b>236</b>    | <b>114</b>    | <b>113</b>    | <b>124</b>    | <b>81</b>     | <b>81</b>     | <b>81</b>     | <b>81</b>     |
| Outstanding dues to creditors        | 563           | 629           | 419           | 758           | 982           | 729           | 860           | 931           | 1,007         |
| Other current liabilities            | 19,601        | 14,725        | 11,205        | 15,098        | 14,473        | 26,739        | 29,402        | 32,330        | 35,552        |
| <b>Total current liabilities</b>     | <b>20,164</b> | <b>15,354</b> | <b>11,623</b> | <b>15,856</b> | <b>15,455</b> | <b>27,467</b> | <b>30,261</b> | <b>33,261</b> | <b>36,559</b> |
| <b>TOTAL LIABILITIES</b>             | <b>51,830</b> | <b>49,981</b> | <b>45,039</b> | <b>44,759</b> | <b>46,271</b> | <b>61,854</b> | <b>65,336</b> | <b>69,186</b> | <b>73,473</b> |

## Financials and valuations

| <b>Ratios</b>                   |             |             |             |             |             |             |              |              |              |
|---------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|
| <b>Y/E March</b>                | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023E</b> | <b>2024E</b> | <b>2025E</b> |
| <b>Basic (INR)</b>              |             |             |             |             |             |             |              |              |              |
| <b>EPS</b>                      | <b>19.6</b> | <b>15.9</b> | <b>14.4</b> | <b>8.9</b>  | <b>10.5</b> | <b>18.1</b> | <b>17.0</b>  | <b>21.0</b>  | <b>24.4</b>  |
| <b>EPS (excl EOI)</b>           | <b>21.2</b> | <b>15.9</b> | <b>14.4</b> | <b>6.6</b>  | <b>11.6</b> | <b>18.1</b> | <b>17.0</b>  | <b>21.0</b>  | <b>24.4</b>  |
| Cash EPS                        | 20.6        | 16.7        | 15.3        | 9.9         | 11.6        | 19.0        | 17.9         | 21.9         | 25.4         |
| Book Value                      | 197.2       | 228.2       | 217.5       | 179.6       | 185.7       | 196.6       | 201.7        | 208.0        | 215.4        |
| DPS                             | 13.6        | 17.4        | 14.1        | 5.8         | 7.1         | 13.5        | 11.9         | 14.7         | 17.1         |
| Payout %                        | 69.4        | 109.3       | 97.9        | 64.6        | 67.9        | 74.4        | 70.0         | 70.0         | 70.0         |
| <b>Valuation (x)</b>            |             |             |             |             |             |             |              |              |              |
| P/E                             | 35.0        | 43.2        | 47.8        | 76.9        | 65.5        | 37.9        | 40.4         | 32.7         | 28.1         |
| Cash P/E                        | 33.3        | 41.0        | 44.8        | 69.5        | 59.4        | 36.1        | 38.4         | 31.4         | 27.1         |
| Price/Book Value                | 3.5         | 3.0         | 3.2         | 3.8         | 3.7         | 3.5         | 3.4          | 3.3          | 3.2          |
| Dividend Yield (%)              | 2.0         | 2.5         | 2.0         | 0.8         | 1.0         | 2.0         | 1.7          | 2.1          | 2.5          |
| <b>Profitability Ratios (%)</b> |             |             |             |             |             |             |              |              |              |
| RoE                             | 10.0        | 7.0         | 6.6         | 5.0         | 5.7         | 9.2         | 8.4          | 10.1         | 11.3         |
| RoCE                            | 12.3        | 8.2         | 6.5         | 3.3         | 5.4         | 10.7        | 9.0          | 10.9         | 12.2         |

| Explanation of Investment Rating |  |
|----------------------------------|--|
| Investment Rating                | Expected return (over 12-month)  |
| BUY                              | >=15%  |
| SELL                             | < - 10%  |
| NEUTRAL                          | < - 10 % to 15%  |
| UNDER REVIEW                     | Rating may undergo a change  |
| NOT RATED                        | We have forward looking estimates for the stock but we refrain from assigning recommendation |

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