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40. Disclosures on financial instruments

This section gives an overview of the significance of financial instruments for the Company and provides additional information on balance sheet items that contain financial instruments.

The details of significant accounting policies, including the criteria for recognition, basis of measurement and the basis on which income and expenses are recognised in respect of each class of financial asset, financial liability and equity instrument are disclosed in note 2(n), page 234 to the financial statements.

(a) Financial assets and liabilities

The following tables presents the carrying value and fair value of each category of financial assets and liabilities as at March 31, 2020 and March 31, 2019:

As at March 31, 2020

(₹ crore)

	Amortised cost	Fair value through other comprehensive income	Derivative instruments in hedging relationship	Derivative instruments not in hedging relationship	Fair value through profit and loss	Total carrying value	Total fair value
Financial assets:							
Cash and bank balances	1,281.18	-	-	-	-	1,281.18	1,281.18
Trade receivables	1,016.73	-	-	-	-	1,016.73	1,016.73
Investments	-	507.65	-	-	23,010.01	23,517.66	23,517.66
Derivatives	-	-	15.59	356.83	-	372.42	372.42
Loans	1,806.58	-	-	-	-	1,806.58	1,806.58
Other financial assets	236.52	-	-	-	-	236.52	236.52
	4,341.01	**507.65**	**15.59**	**356.83**	**23,010.01**	**28,231.09**	**28,231.09**
Financial liabilities:							
Trade payables	10,600.96	-	-	-	-	10,600.96	10,600.96
Borrowings other than lease obligations	38,113.07	-	-	-	-	38,113.07	38,713.37
Lease obligations	3,309.80	-	-	-	-	3,309.80	3,309.80
Derivatives	-	-	98.07	106.17	-	204.24	204.24
Other financial liabilities	3,511.50	-	-	-	-	3,511.50	3,511.50
	55,535.33	**-**	**98.07**	**106.17**	**-**	**55,739.57**	**56,339.87**

40. Disclosures on financial instruments (Contd.)

As at March 31, 2019

(₹ crore)

	Amortised cost	Fair value through other comprehensive income	Derivative instruments in hedging relationship	Derivative instruments not in hedging relationship	Fair value through profit and loss	Total carrying value	Total fair value
Financial assets:							
Cash and bank balances	753.07	-	-	-	-	753.07	753.07
Trade receivables	1,363.04	-	-	-	-	1,363.04	1,363.04
Investments	-	751.95	-	-	34,217.01	34,968.96	34,968.96
Derivatives	-	-	1.27	22.74	-	24.01	24.01
Loans	287.08	-	-	-	-	287.08	287.08
Other financial assets	1,216.45	-	-	-	-	1,216.45	1,216.45
	3,619.64	**751.95**	**1.27**	**22.74**	**34,217.01**	**38,612.61**	**38,612.61**
Financial liabilities:							
Trade payables	10,969.56	-	-	-	-	10,969.56	10,969.56
Borrowings	29,701.47	-	-	-	-	29,701.47	29,543.97
Derivatives	-	-	3.83	195.56	-	199.39	199.39
Other financial liabilities	3,955.23	-	-	-	-	3,955.23	3,955.23
	44,626.26	**-**	**3.83**	**195.56**	**-**	**44,825.65**	**44,668.15**

(i) Investments in mutual funds and derivative instruments (other than those designated in a hedging relationship) are mandatorily classified as fair value through profit and loss.

(b) Fair value hierarchy

The following table provides an analysis of financial instruments that are measured subsequent to initial recognition at fair value, grouped into Level 1 to Level 3, as described below:

Quoted prices in an active market (Level 1): This level of hierarchy includes financial assets that are measured by reference to quoted prices (unadjusted) in active markets for identical assets or liabilities. This Level consists of investment in quoted equity shares and mutual funds.

Valuation techniques with observable inputs (Level 2): This level of hierarchy includes financial assets and liabilities, measured using inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e., derived from prices). This Level of hierarchy includes the Company's over-the-counter (OTC) derivative contracts.

Valuation techniques with significant unobservable inputs (Level 3): This level of hierarchy includes financial assets and liabilities measured using inputs that are not based on observable market data (unobservable inputs). Fair value is determined in whole or in part, using a valuation model based on assumptions that are neither supported by prices from observable current market transactions in the same instrument nor are they based on available market data. This Level includes investment in unquoted equity shares and preference shares.

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40. Disclosures on financial instruments (Contd.)

(₹ crore)

	As at March 31, 2020			
	Level 1	Level 2	Level 3	Total
Financial assets:				
Investment in mutual funds	3,235.16	-	-	3,235.16
Investment in equity shares	204.31	-	303.34	507.65
Investment in debentures	-	49.74	-	49.74
Investment in preference shares	-	-	19,725.11	19,725.11
Derivative financial assets	-	372.42	-	372.42
	3,439.47	**422.16**	**20,028.45**	**23,890.08**
Financial liabilities:				
Derivative financial liabilities	-	204.24	-	204.24
	-	**204.24**	**-**	**204.24**

(₹ crore)

	As at March 31, 2019			
	Level 1	Level 2	Level 3	Total
Financial assets:				
Investment in mutual funds	477.47	-	-	477.47
Investment in equity shares	448.61	-	303.34	751.95
Investment in debentures	-	49.74	-	49.74
Investment in preference shares	-	-	33,689.80	33,689.80
Derivative financial assets	-	24.01	-	24.01
	926.08	**73.75**	**33,993.14**	**34,992.97**
Financial liabilities:				
Derivative financial liabilities	-	199.39	-	199.39
	-	**199.39**	**-**	**199.39**

(i) Current financial assets and liabilities are stated at carrying value which is approximately equal to their fair value.

(ii) Derivatives are fair valued using market observable rates and published prices together with forecasted cash flow information where applicable.

(iii) Investments carried at fair value are generally based on market price quotations. Investments in equity shares included in Level 3 of the fair value hierarchy have been valued using the cost approach to arrive at their fair value. Cost of unquoted equity instruments has been considered as an appropriate estimate of fair value because of a wide range of possible fair value measurements and cost represents the best estimate of fair value within that range.

Fair value of investment in preference shares is estimated through a valuation model incorporating assumptions which includes unobservable market data and by discounting the expected future cash flows using a discount rate equivalent to the expected rate of return for a similar instrument and maturity as on the reporting date. Key inputs to the valuation model are expected cash flows and discount rate expected for an instrument with similar terms and maturity as on the reporting date.

(iv) Fair value of investments in preference share of Tata Steel BSL Limited is dependent on its profitability and cash flows available for distribution. The expected cash flows have been discounted considering a pre-tax discount rate of **11.90**%. The fair value is sensitive to changes in discount rate and profitability. An increase in cash flow by 1% would lead to an increase in fair value of preference shares by ₹**169.30** crore and increase in discount rate by 1% would lead to decrease in fair value by ₹**1,444.90** crore.

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40. Disclosures on financial instruments (Contd.)

(v) Fair value of borrowings which have a quoted market price in an active market is based on its market price which is categorised as Level1. Fair value of borrowings which do not have an active market or are unquoted is estimated by discounting expected future cash flows using a discount rate equivalent to the risk-free rate of return adjusted for credit spread considered by lenders for instruments of similar maturities which is categorised as Level 2 in the fair value hierarchy.

(iv) Management uses its best judgement in estimating the fair value of its financial instruments. However, there are inherent limitations in any estimation technique. Therefore, for substantially all financial instruments, the fair value estimates presented above are not necessarily indicative of the amounts that the Company could have realised or paid in sale transactions as of respective dates. As such, fair value of financial instruments subsequent to the reporting dates may be different from the amounts reported at each reporting date.

(vii) There have been no transfers between Level 1 and Level 2 for the years ended March 31, 2020 and March 31, 2019.

(viii) Reconciliation of Level 3 fair value measurement is as below:

(₹ crore)

	Year ended March 31, 2020	Year ended March 31, 2019
Balance at the beginning of the year	33,993.14	5,423.37
Additions during the year	-	28,698.08
Fair value changes through profit or loss	106.26	(111.31)
Reclassification within investments*	(14,070.95)	(17.00)
Balance at the end of the year	**20,028.45**	**33,993.14**

* represents investment held in preference shares of a subsidiary converted into equity shares during the year. During the year ended March 31, 2019, reclassification represents investments in Subarnarekha Port Private Limited which had become a subsidiary.

(c) Derivative financial instruments

Derivative instruments used by the Company include forward exchange contracts, interest rate swaps, currency swaps, options and interest rate caps and collars. These financial instruments are utilised to hedge future transactions and cash flows and are subject to hedge accounting under Ind AS 109 "Financial Instruments" wherever possible. The Company does not hold or issue derivative financial instruments for trading purposes. All transactions in derivative financial instruments are undertaken to manage risks arising from underlying business activities.

The following table sets out the fair value of derivatives held by the Company as at the end of each reporting period:

(₹ crore)

	As at March 31, 2020		As at March 31, 2019	
	Assets	Liabilities	Assets	Liabilities
(i) Foreign currency forwards, swaps and options	372.42	105.29	19.93	199.32
(ii) Interest rate swaps and collars	-	98.95	4.08	0.07
	372.42	**204.24**	**24.01**	**199.39**
Classified as:				
Non-current	162.46	122.55	9.05	59.82
Current	209.96	81.69	14.96	139.57

As at the end of the reporting period total notional amount of outstanding foreign currency contracts, interest rate swaps and collars that the Company has committed to is as below:

(US$ million)

	As at March 31, 2020	As at March 31, 2019
(i) Foreign currency forwards, swaps and options	1,345.71	1,148.92
(ii) Interest rate swaps and collars	367.50	150.00
	1,713.21	**1,298.92**

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40. Disclosures on financial instruments (Contd.)

(d) Transfer of financial assets

The Company transfers certain trade receivables under discounting arrangements with banks/financial institutions. Some of such arrangements do not qualify for de-recognition due to recourse arrangements being in place. Consequently, the proceeds received from transfer are recorded as short-term borrowings from banks and financial institutions. As at March 31, 2020 and March 31, 2019, there has been no such transfer of trade receivables.

(e) Financial risk management

In the course of its business, the Company is exposed primarily to fluctuations in foreign currency exchange rates, interest rates, equity prices, liquidity and credit risk, which may adversely impact the fair value of its financial instruments.

The Company has a risk management policy which not only covers the foreign exchange risks but also other risks associated with the financial assets and liabilities such as interest rate risks and credit risks. The risk management policy is approved by the Board of Directors. The risk management framework aims to:

(i) create a stable business planning environment by reducing the impact of currency and interest rate fluctuations on the Company's business plan.

(ii) achieve greater predictability to earnings by determining the financial value of the expected earnings in advance.

(i) Market risk:

Market risk is the risk of any loss in future earnings, in realisable fair values or in future cash flows that may result from a change in the price of a financial instrument. The value of a financial instrument may change as a result of changes in interest rates, foreign currency exchange rates, equity price fluctuations, liquidity and other market changes. Future specific market movements cannot be normally predicted with reasonable accuracy.

(a) Market risk - Foreign currency exchange rate risk:

The fluctuation in foreign currency exchange rates may have a potential impact on the statement of profit and loss and equity, where any transaction references more than one currency or where assets/liabilities are denominated in a currency other than the functional currency of the Company.

The Company, as per its risk management policy, uses foreign exchange and other derivative instruments primarily to hedge foreign exchange and interest rate exposure. Any weakening of the functional currency may impact the Company's cost of imports and cost of borrowings and consequently may increase the cost of financing the Company's capital expenditures. Such movements may also impact the fair value of preference shares investments held by the Company in its foreign subsidiaries.

A 10% appreciation/depreciation of foreign currencies with respect to functional currency of the Company would result in an increase/decrease in the Company's net profit/equity before considering tax impacts by approximately ₹**158.75** crore for the year ended March 31, 2020 (2018-19: ₹1,491.07 crore) and an increase/decrease in carrying value of property, plant and equipment (before considering depreciation) by approximately ₹**109.94** crore as at March 31, 2020 (March 31, 2019: ₹145.38 crore).

The foreign exchange rate sensitivity is calculated by assuming a simultaneous parallel foreign exchange rates shift of all the currencies by 10% against the functional currency of the Company.

The sensitivity analysis has been based on the composition of the Company's financial assets and liabilities as at March 31, 2020 and March 31, 2019 excluding trade payables, trade receivables, other derivative and non-derivative financial instruments (except investment in preference shares and loans receivable) not forming part of debt and which do not present a material exposure. The period end balances are not necessarily representative of the average balance outstanding during the period.

(b) Market risk - Interest rate risk:

Interest rate risk is measured by using the cash flow sensitivity for changes in variable interest rates. Any movement in the reference rates could have an impact on the Company's cash flows as well as costs. The Company is subject to variable interest rates on some of its interest bearing liabilities. The Company's interest rate exposure is mainly related to debt obligations.

Based on the composition of debt as at March 31, 2020 and March 31, 2019, a 100 basis points increase in interest rates would increase the Company's finance costs (before considering interest eligible for capitalisation) and thereby consequently reduce net profit/equity before considering tax impacts by approximately ₹**149.37** crore for the year ended March 31, 2020 (2018-19: ₹128.33 crore).

40. Disclosures on financial instruments (Contd.)

The risk estimates provided assume a parallel shift of 100 basis points interest rate across all yield curves. This calculation also assumes that the change occurs at the balance sheet date and has been calculated based on risk exposures outstanding as at that date. The period end balances are not necessarily representative of the average debt outstanding during the period.

(c) Market risk - Equity price risk:

Equity price risk is related to change in market reference price of investments in equity securities held by the Company.

The fair value of quoted investments held by the Company exposes the Company to equity price risks. In general, these investments are not held for trading purposes.

The fair value of quoted investments in equity, classified as fair value through other comprehensive income as at March 31, 2020 and March 31, 2019 was ₹**204.31** crore and ₹448.61 crore, respectively.

A 10% change in equity prices of such securities held as at March 31, 2020 and March 31, 2019, would result in an impact of ₹**20.43** crore and ₹44.86 crore respectively on equity before considering tax impact.

(ii) Credit risk:

Credit risk is the risk of financial loss arising from counter-party failure to repay or service debt according to the contractual terms or obligations. Credit risk encompasses both the direct risk of default and the risk of deterioration of credit worthiness as well as concentration risks.

The Company has a policy of dealing only with credit worthy counter parties and obtaining sufficient collateral, where appropriate as a means of mitigating the risk of financial loss from defaults.

Financial instruments that are subject to credit risk and concentration thereof principally consist of trade receivables, loans receivables, investments in debt securities and mutual funds, balances with bank, bank deposits, derivatives and financial guarantees provided by the Company. None of the financial instruments of the Company result in material concentration of credit risk except preference shares investments, the Company made in its subsidiary companies.

The carrying value of financial assets represents the maximum credit risk. The maximum exposure to credit risk was ₹**27,722.94** crore and ₹37,584.12 crore, as at March 31, 2020 and March 31, 2019 respectively, being the total carrying value of trade receivables, balances with bank, bank deposits, investments in debt securities, mutual funds, loans, derivative assets and other financial assets.

The risk relating to trade receivables is presented in note 14, page 263.

The Company's exposure to customers is diversified and no single customer, other than a subsidiary, contributes to more than 10% of outstanding trade receivables as at March 31, 2020 and March 31, 2019.

In respect of financial guarantees provided by the Company to banks/financial institutions, the maximum exposure which the Company is exposed to is the maximum amount which the Company would have to pay if the guarantee is called upon. Based on the expectation at the end of the reporting period, the Company considers that it is more likely than not that such an amount will not be payable under the guarantees provided.

(iii) Liquidity risk:

Liquidity risk refers to the risk that the Company cannot meet its financial obligations. The objective of liquidity risk management is to maintain sufficient liquidity and ensure that funds are available for use as per requirements.

The Company has obtained fund and non-fund based working capital lines from various banks. Furthermore, the Company have access to undrawn lines of committed and uncommitted borrowing/ facilities, funds from debt markets through commercial paper programs, non-convertible debentures and other debt instruments. The Company invests its surplus funds in bank fixed deposits and in mutual funds, which carry low market risk. The Company has also invested 15% of the non-convertible debentures (issued by the Company) falling due for repayment in the next 12 months in bank deposits, to meet the regulatory norms of liquidity requirements. The Company also constantly monitors funding options available in the debt and capital markets with a view to maintaining financial flexibility.

The Company's liquidity position remains strong at ₹**8,315.34** crore as at March 31, 2020, comprising ₹**4,516.34** crore in the form of current investments, cash and cash equivalents and other balances with banks (including non-current earmarked balances) and ₹**3,799.00** crore in committed undrawn bank lines.

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40. Disclosures on financial instruments (Contd.)

The following table shows a maturity analysis of the anticipated cash flows including interest obligations for the Company's derivative and non-derivative financial liabilities on an undiscounted basis, which therefore differ from both carrying value and fair value. Floating rate interest is estimated using the prevailing interest rate at the end of the reporting period. Cash flows in foreign currencies are translated using the period end spot rates.

(₹ crore)

	As at March 31, 2020				
	Carrying value	Contractual cash flows	Less than one year	Between one to five years	More than five years
Non-derivative financial liabilities:					
Borrowings other than lease obligation including interest obligations	38,461.28	53,465.41	11,715.26	19,407.02	22,343.13
Lease obligations including interest obligations	3,346.83	6,478.00	753.36	2,008.44	3,716.20
Trade payables	10,600.96	10,600.96	10,600.96	-	-
Other financial liabilities	3,126.26	3,126.26	2,832.67	191.49	102.10
	55,535.33	**73,670.63**	**25,902.25**	**21,606.95**	**26,161.43**
Derivative financial liabilities	**204.24**	**204.24**	**81.69**	**115.42**	**7.13**

(₹ crore)

	As at March 31, 2019				
	Carrying value	Contractual cash flows	Less than one year	Between one to five years	More than five years
Non-derivative financial liabilities:					
Borrowings including interest obligations	30,270.83	47,984.98	5,366.27	18,284.95	24,333.76
Trade payables	10,969.56	10,969.56	10,969.56	-	-
Other financial liabilities	3,385.88	3,385.88	3,260.81	15.47	109.60
	44,626.27	**62,340.42**	**19,596.64**	**18,300.42**	**24,443.36**
Derivative financial liabilities	**199.39**	**199.39**	**139.57**	**59.82**	**-**

41. Segment reporting

The Company is primarily engaged in the business of manufacture and distribution of steel products and is operated out of India. In accordance with Ind AS 108 "Operating Segments", the Company has presented segment information on the basis of its consolidated financial statements which forms part of this report.