

September 05, 2019

To

The Board of Directors
Titagarh Wagons Limited
756, Anandapur
E M Bypass, Kolkata West
Bengal - 700107
India

The Board of Directors
Cimmco Limited
756, Anandapur
E M Bypass, Kolkata West
Bengal - 700107
India

The Board of Directors
Titagarh Capital Private Limited
756, Anandapur
E M Bypass, Kolkata West
Bengal - 700107
India

Dear Sir,

Sub: Clarification to Valuation Report Dated May 30, 2019 with UDIN Reference Number: 19116349AAAAFX5976 Issued to Recommend the Exchange Ratio for the Merger of Cimmco Limited, Titagarh Capital Private Limited and Titagarh Enterprises Limited into Titagarh Wagons Limited.

We, MSKA & Associates, Chartered Accountants (“MSKA” or “We” or “Us”), had been appointed vide engagement letter dated May 2, 2019, to recommend the exchange ratio for the merger of Cimmco Limited (“Cimmco”), Titagarh Capital Private Limited (“TCPL”) and Titagarh Enterprises Limited (“TEL”) into Titagarh Wagons Limited (“TWL”) (collectively referred to as “Original Scheme of Merger”).

Pursuant to the same, we had issued our signed valuation report along with valuation annexures dated May 30, 2019 with UDIN reference number - 19116349AAAAFX5976 (“Valuation Report”).

Further to that the Board of Directors considered modification in the Original Scheme of Merger and the revised scheme of merger (“Revised Scheme of Merger”), does not consider merger of TEL with TWL. As per the proposed Revised Scheme of Merger following is the final scheme of companies:

- Cimmco Limited is proposed to be merged with Titagarh Wagons Limited, and;
- Titagarh Capital Private Limited is proposed to be merged with Titagarh Wagons Limited.

Pursuant to this we had issued Addendum to UDIN: 19116349AAAAFX5976 dated August 14, 2019 (“Addendum to Valuation Report”) to recommend the exchange ratio.

Further now we are requested to clarify / provide the following:

- Calculation of 26 weeks pricing of shares of listed companies;
- Rationale for not considering the latest financials of the period ending March 31, 2019 for Net Asset Method under Asset Approach (Cost Approach) for listed companies;
- Rationale for not adopting the Income Approach for the valuation exercise; and



- Further, final recommendation of exchange ratio is also requested to present in the required format.

In response to above requested clarifications, we submit hereby that:

- Calculation of 26 weeks pricing of listed companies is given on page 8 to 10 of Valuation Annexures.
- We considered latest provisional financial for the period ending March 31, 2019 for Net Asset Method under Asset Approach (Cost Approach) for listed companies. Page 17 and 23 of Valuation Annexures are mentioning the same for TWL and Cimmco respectively.
- Section 7 - Conclusion on Valuation Approach, page 14 of the Valuation Report and page 4 of Valuation Annexures are explaining the non- adoption of Income Approach for the valuation of respective company. It is also explaining the rationale for using all other respective methods.
- Further, the recommended exchange ratio as per format is given on page 18 of the Valuation Report, page 5 of the Valuation Annexures and 2 & 3 of the Addendum to Valuation Report.

In order to further clarify that same, we are representing the same as below:

In case of merger of Cimmco into TWL, following is the computation of fair equity share exchange ratio:

Valuation Approach	Valuation Method	TWL		Cimmco	
		Value Per Share (INR)	Weights	Value Per Share (INR)	Weights
Asset (Cost) Approach	NAV Method	61.3	20%	48.7	20%
Income Approach (Note 1)	DCF Method	NA	NA	NA	NA
Market Approach	MP Method	70.7	40%	35.7	40%
Market Approach	CCM Method	81.6	40%	38.9	40%
Relative Value Per Share		73.2	100%	39.6	100%
Exchange Ratio (Rounded Off)		13		24	

Note 1: Discounted Cash Flow Method under Income Approach has not been considered as these are listed entities and information related to the future profit and loss account, balance sheet and cash flows is price sensitive.

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Recommendation 1:

Fair Equity Share Exchange Ratio Conclusion 1:

24 equity shares of face value INR 10 each fully paid up of Cimmco will get 13 equity shares of face value INR 2 each fully paid up of TWL.

Recommendation 2:

Fair Equity Share Exchange Ratio Conclusion 2:

In case of merger of TCPL into TWL, TWL shall not be required to issue any equity shares to the shareholders of TCPL, since the entire issued, subscribed and paid-up equity share capital of the TCPL is held by TWL.

This clarification shall be read in conjunction to the Valuation Report. All other terms and conditions & other contents mentioned in the Valuation Report shall remain unchanged and would apply to this clarification to the Valuation Report as well.

For MSKA & Associates

Chartered Accountants

Firm Reg. No. 105047W

Jiger K Saiya



Jiger Kishor Saiya

Partner

M. No. 116349

Addendum to the Valuation Report

Titagarh Wagons Limited

August 2019

MSKA

& Associates

Chartered Accountants

MSKA & Associates
Chartered Accountants
Floor 3, Enterprise Centre, Nehru Road
Near Domestic Airport, Vile Parle (E)
Mumbai - 400099

To

The Board of Directors
Titagarh Wagons Limited
756, Anandapur
E M Bypass, Kolkata West Bengal - 700107
India

The Board of Directors
Cimmco Limited
756, Anandapur
E M Bypass, Kolkata West Bengal - 700107
India

The Board of Directors
Titagarh Capital Private Limited
756, Anandapur
E M Bypass, Kolkata West Bengal - 700107
India

The Board of Directors
Titagarh Enterprises Limited
756, Anandapur
E M Bypass, Kolkata West Bengal - 700107
India

Dear Sir(s)/ Madam(s),

Sub: Addendum to our valuation report dated May 30, 2019 recommending fair equity share exchange ratio for the proposed merger of Cimmco Limited, Titagarh Capital Private Limited and Titagarh Enterprises Limited into Titagarh Wagons Limited.

We, MSKA & Associates, Chartered Accountants (“MSKA” or “We” or “Us”), had been appointed vide Engagement Letter dated May 2, 2019 to recommend the fair equity share exchange ratio for the proposed merger of Cimmco Limited (‘Cimmco’), Titagarh Capital Private Limited (‘TCPL’) and Titagarh Enterprises Limited (‘TEL’) into Titagarh Wagons Limited (‘TWL’ or ‘Company’) (collectively referred to as ‘Original Scheme of Merger’).

Pursuant to the same, we had issued the valuation report dated May 30, 2019 with UDIN 19116349AAAFX5976 (“Valuation Report”) for the purpose of complying with relevant provisions of the Securities and Exchange Board of India (‘SEBI’) and to the extent mandatorily required under any applicable laws of India. This Addendum Report shall be read in conjunction to the Valuation Report. All other contents mentioned in the main report shall remain unchanged.

We understand from the management of the Company, that the Board of Directors are considering modification in the Original Scheme of Merger, the salient features of Original Scheme of Merger are detailed herein below:

- A. Cimmco Limited which is a subsidiary company of Titagarh Wagons Limited, was proposed to be merged with Titagarh Wagons Limited;
- B. Titagarh Enterprises Limited, which is an associate company of Titagarh Wagons Limited, was proposed to be merged with Titagarh Wagons Limited;
- C. Titagarh Capital Private Limited, which is a wholly owned subsidiary of Titagarh Wagons Limited, was proposed to be merged with Titagarh Wagons Limited.



The revised scheme of merger (“**Revised Scheme of Merger**”), does not consider merger of TEL with TWL. The salient features of the proposed Revised Scheme of Merger are detailed herein below:

- A. Cimmco Limited is proposed to be merged with Titagarh Wagons Limited, and;
- B. Titagarh Capital Private Limited is proposed to be merged with Titagarh Wagons Limited.

In relation to the above, we have been requested to provide our recommendation on the fair equity share exchange ratio as on April 1, 2019 (“**Valuation Date**”), after considering the Revised Scheme of merger. Hence, we are issuing this addendum to our Valuation Report dated May 30, 2019.

Our recommendation of fair equity share exchange ratio is provided herein below:

Recommendation 1:

In case of Merger of Cimmco into TWL, following is the computation of fair equity share exchange ratio:

Valuation Approach	Valuation Method	TWL		Cimmco	
		Value Per Share (INR)	Weights	Value Per Share (INR)	Weights
Market Approach	MP Method	70.7	40%	35.7	40%
Market Approach	CCM Method	81.6	40%	38.9	40%
Cost Approach	NAV Method	61.3	20%	48.7	20%
Relative Value Per Share		73.2	100%	39.6	100%
Exchange Ratio (Rounded Off)		13		24	

Fair Equity Share Exchange Ratio Conclusion 1 :

24 equity shares of face value INR 10 each fully paid up of Cimmco will get 13 equity shares of face value INR 2 each fully paid up of TWL.

Recommendation 2 :

Fair Equity Share Exchange Ratio Conclusion 2 :

In case of merger of TCPL into TWL, TWL shall not be required to issue any equity shares to the shareholders of TCPL, since the entire issued, subscribed and paid-up equity share capital of the TCPL is held by TWL.



MSKA

& Associates

Chartered Accountants

We believe that this addendum must be considered as a whole, along with the Valuation Report. This Addendum Report shall be read in totality and in conjunction with the Valuation Report, reading of selected portions of our report could lead to undue emphasis on any particular factor.

Yours truly,

For MSKA & Associates

Chartered Accountants

ICAI Firm Reg. No. 105047W

Jiger K. Saiya



Jiger Kishor Saiya

Partner

M. No. 116349

UDIN: 19116349AAAAFX5976

Valuation Annexures

May 2019

MSKA

& Associates

Chartered Accountants

MSKA & Associates
Chartered Accountants
Floor 3, Enterprise Centre, Nehru Road
Near Domestic Airport, Vile Parle (E)
Mumbai - 400099

May 30, 2019

UDIN: 19116349AAAAFX5976

To

The Board of
Directors
**Titagarh Wagons
Limited**
756, Anandapur
E M Bypass, Kolkata
West Bengal - 700107
India

The Board of Directors
Cimmco Limited
756, Anandapur
E M Bypass, Kolkata
West Bengal - 700107
India

The Board of Directors
**Titagarh Capital
Private Limited**
756, Anandapur
E M Bypass, Kolkata
West Bengal - 700107
India

The Board of Directors
**Titagarh Enterprises
Limited**
756, Anandapur
E M Bypass, Kolkata
West Bengal - 700107
India

Dear Sir(s)/ Madam(s),

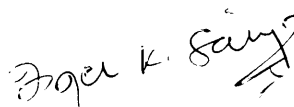
Sub: Valuation Annexures Related to Recommendation of Equity Share Exchange Ratio for the Proposed Amalgamation of Cimmco Limited, Titagarh Capital Private Limited and Titagarh Enterprises Limited into Titagarh Wagons Limited.

This is with reference to MSKA & Associates, Chartered Accountants ('MSKA' or 'Us') report dated May 30, 2019 with UDIN: 19116349AAAAFX5976 ('Report'). Please find enclosed relevant computations based on which our recommendation of the equity share exchange ratio for the proposed amalgamation of Cimmco Limited ('Cimmco'), Titagarh Capital Private Limited ('TCPL') and Titagarh Enterprises Limited ('TEL') into Titagarh Wagons Limited ('TWL' or 'Company') was arrived, refer Annexure 1 to 5.

In this connection, we mention that the computations enclosed herewith need to be viewed in conjunction with the Report and the documents referred to in the Report. The recommendation of the equity share exchange ratio for the proposed amalgamation was arrived on the approach and methodology detailed in the Report and various qualitative factors relevant to each specific company having regard to the information, management representations, key underlying assumptions and limitations as referred in the Report.

Thanking you,

For MSKA & Associates
Chartered Accountants
Firm Reg. No. 105047W

**Jiger Kishor Saiya**

Partner

M. No. 116349



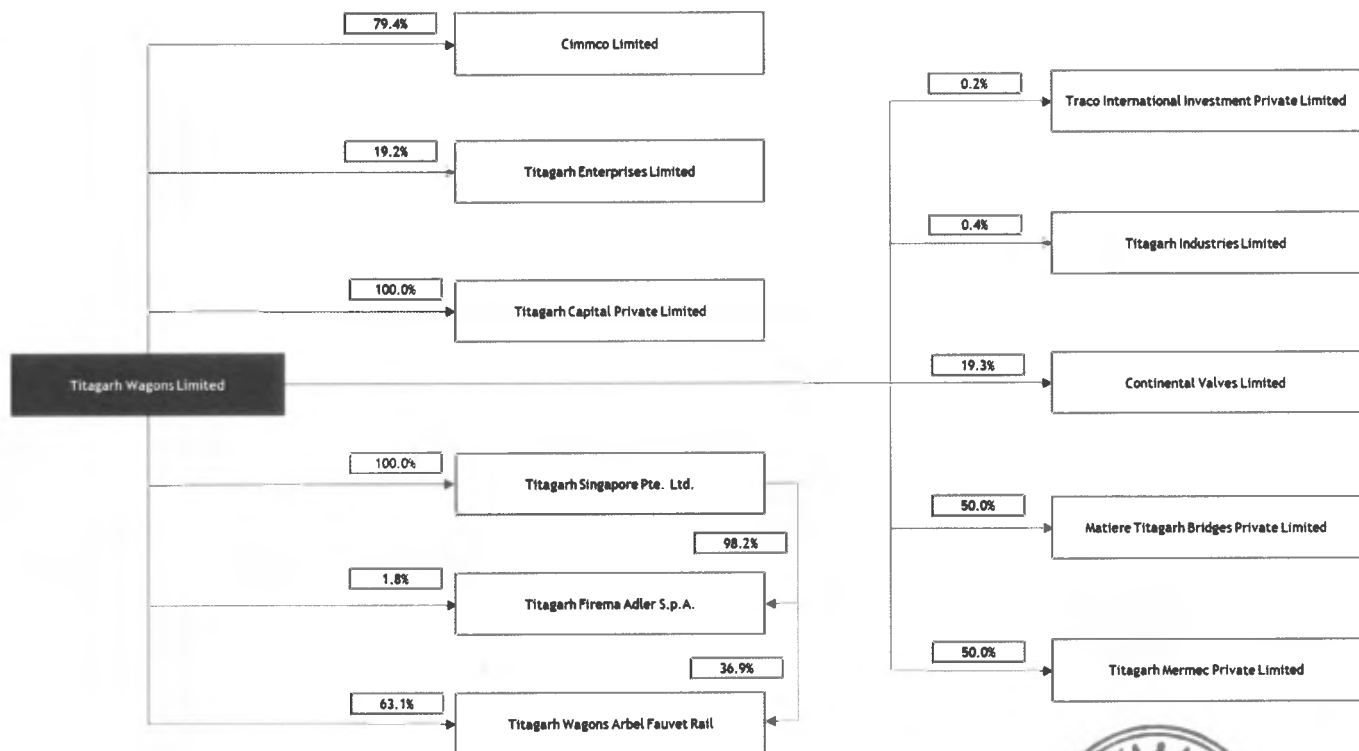
Annexure I: Valuation of the Companies which are involved in proposed amalgamation is explained below

Following is the proposed scheme of amalgamation (it is also referred as ‘Proposed Amalgamation’ or ‘Proposed Merger’) and the valuation date considered is April 1, 2019 (‘Valuation Date’):

- Cimmco Limited, which is a subsidiary company of Titagarh Wagons Limited, is proposed to merge with Titagarh Wagons Limited.
- Titagarh Capital Private Limited, which is a wholly owned subsidiary of Titagarh Wagons Limited, is proposed to merge with Titagarh Wagons Limited.
- Titagarh Enterprises Limited, which is an associate company of Titagarh Wagons Limited, is proposed to merge with Titagarh Wagons Limited.

In order to arrive at the value of companies for the Proposed Amalgamation, we analyzed business of Group Companies including its investment. Following are the companies, its relationship with each other and valuation methodology adopted considering the information base, management representations, key underlying assumptions and limitations.

Group Structure:



Summary of Valuation Approaches & Methodologies used for Valuation Exercise:

Name of Company	Business Description	Cost Approach	Income Approach	Market Approach	Note
Titagarh Wagons Limited ('TWL')	Engaged in manufacturing of railway wagons, bailey bridges, heavy earth moving and mining equipment	✓	X	✓	Refer Note 1
Cimmco Limited ('Cimmco')	Engaged in manufacturing of railway wagons	✓	X	✓	Refer Note 1
Titagarh Enterprises Limited ('TEL')	Engaged in the business of leasing and renting	X	✓	X	Refer Note 2
Titagarh Capital Private Limited ('TCPL')	Non-Banking Financial Company provide finance to group companies	✓	X	X	Refer Note 3

Note 1: Market Price Method and Comparable Companies Multiples Method under the Market Approach and Net Asset Value Method under the Cost Approach have been considered. Further, Discounted Cash Flow Method under Income Approach has not been considered as these are listed entities and information related to the future profit and loss account, balance sheet and cash flows is price sensitive.

(please refer Annexure 2 & 3 for detailed working of TWL & Cimmco respectively)

Note 2: TEL is engaged in the business of leasing and renting and has given its properties on lease to other parties and have land parcel in Kolkata and the true worth of TEL shall be reflected in its future earning potential rather than its underlying net assets. Hence, Discounted Cash Flow Method under Income Approach is used, and Cost Approach is not considered. Further, TEL is an unlisted entity and there are no listed direct comparable companies/transactions of the companies which are engaged in the business similar to TEL. Therefore, Market Approach is not used considering the facts.

(please refer Annexure 4 for detailed working of TEL)

Note 3: TCPL is an unlisted company and does not have significant business operations and cash flows. Hence, only Net Asset Value Method under the Cost Approach has been considered. Income Approach is not considered, the reason being, there are no significant operations and cash flows. Further, there are no listed direct comparable companies/transactions of the companies which are engaged in the business similar to TCPL. Therefore, Market Approach is not considered.

(please refer Annexure 5 for detailed working of TCPL)



In the light of the above, and on consideration of all the relevant factors and circumstances as discussed and outlined in the Report and hereinabove, in our opinion equity share exchange ratio in the event of merger of Cimmco, TCPL and TEL into TWL would be as follows (as per the Report):

- In case of merger of TCPL into TWL, TWL shall not be required to issue any equity shares to the shareholders of TCPL, since the entire issued, subscribed and paid-up equity share capital of the TCPL is held by TWL.
- Further in case of merger of Cimmco into TWL, consideration will be issued by TWL to the equity shareholders of Cimmco in the following manner:

Valuation Approach	Valuation Method	TWL		Cimmco	
		Value Per Share (INR)	Weights	Value Per Share (INR)	Weights
Market Approach	MP Method	70.7	40%	35.7	40%
Market Approach	CCM Method	81.6	40%	38.9	40%
Cost Approach	NAV Method	61.3	20%	48.7	20%
Relative Value Per Share		73.2	100%	39.6	100%
Exchange Ratio (Rounded Off)		13		24	

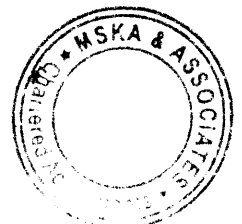
Note: NA means not applicable.

- Further in case of merger of TEL into TWL, consideration will be issued by TWL to the equity shareholders of TEL in the following manner:

Valuation Approach	Valuation Method	TWL		TEL	
		Value Per Share (INR)	Weights	Value Per Share (INR)	Weights
Market Approach	MP Method	70.7	40%	NA	NA
Market Approach	CCM Method	81.6	40%	NA	NA
Cost Approach	NAV Method	61.3	20%	NA	NA
Income Approach	DCF Method	NA	NA	62.2	100%
Relative Value Per Share		73.2	100%	62.2	100%
Exchange Ratio (Rounded Off)		11		13	

Note: NA means not applicable.

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Recommendation:

1. 24 equity shares of face value INR 10 each fully paid up of Cimmco will get 13 equity shares of face value INR 2 each fully paid up of TWL.
2. 13 equity shares of face value INR 10 each fully paid up of TEL will get 11 equity shares of face value INR 2 each fully paid up of TWL.
3. In case of merger of TCPL into TWL, TWL shall not be required to issue any equity shares to the shareholders of TCPL, since the entire issued, subscribed and paid-up equity share capital of the TCPL is held by TWL.



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Annexure 2: Valuation of TWL

Method	Equity Value (INR Mn)	Weights	Annexure
MP Method	8,167.8	40.0%	Annexure 2.1
CCM Method	9,416.2	40.0%	Annexure 2.2
NAV Method	7,076.1	20.0%	Annexure 2.3
Weighted Average of Equity Value	8,448.9		

Particulars			
Weighted Average Equity Value (A)		INR Mn	8,448.9
Add: Dilution Effect of Employee Stock Option (B)		INR Mn	5.6
Adjusted Equity Value (C=A+B)		INR Mn	8,454.5
Number of Equity Shares (D)		Mn	115.5
Add: Dilution Effect of Employee Stock Option (E)		Mn	0.1
Number of Equity Shares (Considering Dilution Effect) (F=D+E)		Mn	115.6
Per Equity Share Value (G=C/F)		INR	73.2

Annexure 2.1: Valuation of TWL using Market Price Method under Market Approach

Particulars			
Market Price Per Share ¹		INR	70.7

¹ We have considered highest price of NSE for our working, being highest volume and frequently traded at NSE.

We have considered relevant guidelines of Issue of Capital and Disclosure Requirements ('ICDR') Regulations, 2018, issued by Securities and Exchange Board of India ('SEBI') for the calculation of Market Price Per Share (for Market Price Method) and the relevant extract of ICDR Regulations, 2018 are as follows:

"If the equity shares of the company have been listed on a recognized stock exchange for a period of twenty-six weeks or more as on the relevant date, the price of the equity shares to be allotted pursuant to the preferential issue shall be not less than higher of the following:

- *the average of the weekly high and low of the volume weighted average price ('VWAP') of the related equity shares quoted on the recognized stock exchange during the twenty-six weeks preceding the Valuation Date; or*
- *the average of the weekly high and low of the volume weighted average prices of the related equity shares quoted on a recognized stock exchange during the two weeks preceding the Valuation Date."*

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The working for market price for market price method is as follows:

Liquidity Analysis

Stock Exchange	Liquidity %	Status	Conclusion
Bombay Stock Exchange ('BSE')	14.1%	Frequently Traded	Market Price Method is considered appropriate.
National Stock Exchange ('NSE')	84.4%	Frequently Traded	

Trade Volume Analysis

Stock Exchange	Trade Volume (No. of Shares in Mn)	Conclusion
BSE	8.1	Trade Volume in NSE is higher than BSE
NSE	48.8	

Market Price Analysis

26 Weeks Average High/Low (BSE)	26 Weeks Average High/Low (NSE)	2 Weeks Average High/Low (BSE)	2 Weeks Average High/Low (NSE)	Higher of BSE	Higher of NSE
69.8	69.8	70.7	70.7	70.7	70.7

Note: Please refer Annexure 2.1.1 & Annexure 2.1.2 for market price analysis working of BSE and NSE respectively. Further, we have considered highest price of NSE for our working, being highest volume and frequently traded at NSE. The date of public announcement is May 30, 2019 and market Price for VWAP calculation are considered till immediately preceding the date of the public announcement as traded on the stock exchange i.e. May 29, 2019.



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Annexure 2.1.1: TWL - Market Price Analysis - BSE

Week Ending Date	Weekly High of VWAP	Weekly Low of VWAP	Average of Weekly High Low	26 Weeks Average High/Low (NSE)	2 Weeks Average High/Low (NSE)
29-May-19	74.5	73.8	74.2	69.8	70.7
24-May-19	70.0	64.4	67.2		
17-May-19	62.6	60.1	61.4		
10-May-19	60.4	58.0	59.2		
03-May-19	62.5	62.0	62.3		
26-Apr-19	67.5	64.2	65.8		
18-Apr-19	69.0	68.4	68.7		
12-Apr-19	69.0	67.0	68.0		
05-Apr-19	71.2	67.8	69.5		
29-Mar-19	70.1	68.6	69.4		
22-Mar-19	70.8	69.4	70.1		
15-Mar-19	75.5	71.5	73.5		
08-Mar-19	72.5	70.2	71.4		
01-Mar-19	65.7	63.0	64.4		
22-Feb-19	63.2	58.6	60.9		
15-Feb-19	59.3	56.0	57.7		
08-Feb-19	65.7	61.5	63.6		
01-Feb-19	69.6	67.0	68.3		
25-Jan-19	77.7	70.6	74.2		
18-Jan-19	81.4	79.1	80.3		
11-Jan-19	80.0	77.4	78.7		
04-Jan-19	81.9	79.2	80.5		
28-Dec-18	82.7	80.2	81.5		
21-Dec-18	84.7	79.3	82.0		
14-Dec-18	80.4	66.3	73.4		
07-Dec-18	71.3	67.8	69.5		

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Annexure 2.1.2: TWL - Market Price Analysis - NSE

Week Ending Date	Weekly High of VWAP	Weekly Low of VWAP	Average of Weekly High Low	26 Weeks Average High/Low (NSE)	2 Weeks Average High/Low (NSE)
29-May-19	74.8	73.8	74.3	69.8	70.7
24-May-19	70.0	64.2	67.1		
17-May-19	62.5	60.0	61.2		
10-May-19	60.3	58.1	59.2		
03-May-19	62.3	62.1	62.2		
26-Apr-19	67.6	64.2	65.9		
18-Apr-19	69.06	68.42	68.7		
12-Apr-19	69.1	66.8	67.9		
05-Apr-19	70.9	68.3	69.6		
29-Mar-19	70.2	68.7	69.4		
22-Mar-19	70.8	69.5	70.1		
15-Mar-19	75.8	70.8	73.3		
08-Mar-19	72.7	69.8	71.3		
01-Mar-19	65.8	62.9	64.3		
22-Feb-19	63.1	58.2	60.7		
15-Feb-19	59.5	56.3	57.9		
08-Feb-19	65.7	61.5	63.6		
01-Feb-19	69.4	66.9	68.1		
25-Jan-19	77.7	70.8	74.2		
18-Jan-19	81.4	79.0	80.2		
11-Jan-19	80.2	77.2	78.7		
04-Jan-19	81.8	79.0	80.4		
28-Dec-18	82.9	80.3	81.6		
21-Dec-18	84.6	79.1	81.9		
14-Dec-18	80.7	66.1	73.4		
07-Dec-18	71.3	67.8	69.6		

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Annexure 2.2: Valuation of TWL using Comparable Companies Method under Market Approach

Particulars	Weightage		
Present Value of EBITDA for FY19	66.7%	INR Mn	537.8
Present Value of EBITDA for FY20	33.3%	INR Mn	1,330.7
Weighted Average of EBITDA		INR Mn	802.1
EV/EBITDA Multiple ¹		Times	10.3x
Enterprise Value		INR Mn	8,261.4
Add:			
Cash & Cash Equivalent		INR Mn	182.0
Value of Other Surplus Assets		INR Mn	198.5
Non-Current Investments ²		INR Mn	3,497.2
Less:			
Debt		INR Mn	1,781.5
Expected Contingent Liabilities		INR Mn	941.2
Equity Value (A)		INR Mn	9,416.2
Number of Equity Shares (B)		Mn	115.5
Per Equity Share Value (C=A/B)		INR	81.6

¹ Please refer Annexure 2.2.1 for EV/EBITDA multiple working.

² Please refer Annexure 2.2.2 for detailed working of non-current investments.

Annexure 2.2.1: TWL - CCM Multiple Working for CCM Method

EV/EBITDA		
BEML Limited	Times	17.1x
Texmaco Rail & Engineering Limited	Times	10.4x
Median	Times	13.7x
Adjusted for Size and Other Factors	%	20%
Adjusted EV/EBITDA	Times	10.3x

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Annexure 2.2.2: TWL - Valuation of Non-Current Investments

TWL has investment in Cimmco, TEL, TCPL and other group companies. The detailed valuation working for Cimmco, TEL and TCPL are provided in Annexure 3, 4 & 5 respectively. The details and valuation methodology adopted for investment in other group companies are summarized below:

Name of Company	Business Description	Cost Approach	Income Approach	Market Approach	Note
Titagarh Singapore Pte. Ltd. ('TSPL')	Investment company with no operations.	✓	X	X	Refer Note 4
Titagarh Firema Adler S.p.A. ('TFSA')	Engaged in manufacturing of railway locomotives	X	✓	X	Refer Note 5
Titagarh Wagons Arbel Fauvet Rail ('TWAFR')	Involved in designing and manufacturing freight wagons	X	✓	X	Refer Note 6
Titagarh Industries Limited ('TIL')	Incorporated in 2004 with Corporate Identification Number: U36999WB2004PLC098250	✓	X	X	
Continental Valves Limited ('CVL')	Manufactures and supplies control valves.	✓	X	X	
Matiere Titagarh Bridges Private Limited ('MTBPL')	Manufacturing, marketing and selling all types of bridges including Matiere Panel Bridge, Unibridge and auxiliary products	✓	X	X	Refer Note 7
Traco International Investment Private Limited ('Traco')	Carrying out business of Non-Banking Financial activities.	✓	X	X	
Titagarh Mermec Private Limited ('TMPL')	Incorporated on July 18, 2018 and has not started any operation till date.	NA	NA	NA	Refer Note 8

Note 4: It is an investment company incorporated in Singapore. Hence, only Net Asset Value Method under the Cost Approach has been considered.

Note 5: It is engaged in manufacturing of railway locomotives & have customer orders in hand as on the Valuation Date and the true worth of TFSA shall be reflected in its future earning potential rather than its underlying net assets. Hence, Discounted Cash Flow Method under Income Approach is used, and Cost Approach is not considered. Further, TFSA is an unlisted entity and there are no listed direct comparable companies/ transactions of the companies which are engaged in the business similar to TFSA. Therefore, Market Approach is not used.

Note 6: TWAFR has incurred loss due to technical problem witnessed in the bogies used in the supply of Wagons in the past, impacting production in FY18. The steps have been taken to bring back the European operations to normalcy in FY18-19 but the situation remains the same. Therefore, "Going Concern" assumption is not appropriate. Hence, only Net Asset Value Method under the Cost

Approach has been considered, Income Approach and Market Approach have not been used considering the facts. Further, the management has carried out impairment testing steps for this investment and concluded for provisioning of this investment. We have also accordingly considered that effect in our valuation exercise as appropriate.

Note 7: *These companies do not have any significant business operations and cash flows. Hence, only Net Asset Value Method under the Cost Approach has been considered. Income Approach is not considered, the reason being, there are no significant operations and cash flows. Further, there are no listed direct comparable companies/transactions of the companies which are engaged in the business similar to these companies. Therefore, Market Approach is not used considering the facts.*

Note 8: *TMPL was incorporated on July 18, 2018 and has not started its operation till date. Further, we are not provided with provisional financials of TMPL for the period ending March 31, 2019. Therefore, we have not valued TMPL and have assigned nil value.*



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Summary of Valuation of Non - Current Investment of TWL is tabulated below:

Investment in	Total Value (INR Mn)	Stake (%)	Value of Investment (INR Mn)	Annexure
Cimmco (Equity Shares)	1,080.9	79.4%	857.9	3
Cimmco (Preference Shares) ¹	355.1	62.5%	221.9	NA
TEL	1,601.2	19.2%	306.7	4
TCPL	237.0	100.0%	237.0	5
TSPL ²	(1,087.1)	100.0%	(1,087.1)	2.2.2.1
TFSA ²	2368.8	100.0%	2368.8	2.2.2.2
TWAFR ^{2 & 3}	-	100.0%	-	NA
MTBPL	6.7	50.0%	3.4	2.2.2.1
CVL	14.2	19.3%	2.7	2.2.2.1
TIL	893.2	0.4%	3.8	2.2.2.1
Traco ⁴	-	0.2%	-	NA
TMPL ⁵	-	50.0%	-	NA
Investment in Quoted Tax-Free Bonds	582.0	NA	582.0	NA
Total Value of Non-Current Investments			3,497.2	

¹ Fair valuation of preference share is arrived considering the Fixed Income Money Market and Derivatives Association of India ("FIMMDA") guidelines.

² TSPL is a wholly owned subsidiary of TWL, TWL along with TSPL directly or indirectly holds 100% Stake in TFSA and TWAFR (refer page no. 3 for group structure). Therefore, non-current investment by TSPL is directly considered here and adjusted for while valuing TSPL individually.

³ The management has carried out impairment testing steps for investment in TWAFR and concluded for the provisioning of this investment. Therefore, we have considered Nil value for TWAFR, considering all facts and circumstances.

⁴ Traco does not have significant operations and the net worth of these companies has significantly eroded. Therefore, we have considered Nil value for Traco for our valuation purpose, considering the information available, the facts and circumstances.

⁵ TMPL was incorporated on July 18, 2018 and has not started its operation till date. Further, we are not provided with provisional financials of TMPL. Therefore, we have assigned nil value for our analysis.



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Annexure 2.2.2.1: Valuation of Non-Current Investments using NAV Method under Cost Approach
Valuation of Matiere Titagarh Bridges Private Limited, Continental Valves Limited and Titagarh Industries Limited using NAV Method under Cost Approach are as follows:

Particulars		MTBPL	CVL ²	TIL
Net Assets	INR Mn	6.7	14.2	201.4
Add/Less:				
Net Adjustments ¹	INR Mn	-	-	706.0
Expected Contingent Liabilities	INR Mn	-	-	(10.2)
Equity Value	INR Mn	6.7	14.2	893.2

¹ Primarily comprising adjustment to arrive at value of investment, debt, land, cash & cash equivalent and other loans and advances.

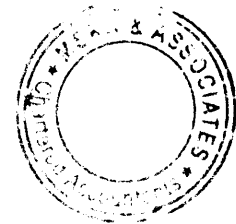
² We are provided with audited financials for FY18 only, we have considered same for our valuation exercise.

Valuation of Titagarh Singapore Pte. Ltd. using NAV Method under Cost Approach are as follows:

Particulars		TSPL
Net Assets	Euro Mn	16.9
Add/Less:		
Net Adjustments ¹	Euro Mn	(30.4)
Expected Contingent Liabilities	Euro Mn	-
Equity Value	Euro Mn	(13.5)
Equity Value²	INR Mn	(1,087.1)

¹ Value of Investment in TSFA and TWAFR is directly considered in non-current investments of TWL and the same is adjusted here.

² We have considered average of INR/Euro Rate for last 1 year from the Valuation Date for conversion of equity value as on the Valuation Date.



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Annexure 2.2.2.2: Valuation of Non-Current Investments using DCF Method under Income Approach

Valuation of Titagarh Firema Adler S.p.A. using DCF Method under Income Approach are as follows:

We have considered the projected financials of TFSA as provided by the representative of TWL for the period from April 1, 2019 to March 31, 2024. We have used Free Cash Flows to the Firm ('FCFF') model of DCF Method and Weighted Average Cost of Capital ('WACC') of 9.3% and terminal growth rate of 1.0% are considered for valuation of TFSA.

Particulars		TSFA
Present Value of Cash Flows for Projected Period	Euro Mn	10.5
Present Value of Cash Flows for Perpetuity	Euro Mn	65.1
Enterprise Value	Euro Mn	75.6
<u>Add:</u>		
Cash & Cash Equivalent	Euro Mn	11.5
<u>Less:</u>		
Debt	Euro Mn	52.5
Equity Value Pre-Illiquidity Discount	Euro Mn	34.6
Illiquidity Discount ¹	Euro Mn	5.2
Equity Value Post Illiquidity Discount	Euro Mn	29.4
Equity Value Post Illiquidity Discount ²	INR Mn	2,368.8

¹ Adjustment on account of lack of marketability, limited exit option for investors and restrictions on the transfer of shares, which are likely to have a depressing effect on the Equity Value. Generally, a closely held company can attract an illiquidity discount in the range of 10-20%. We have considered an illiquidity discount of 15% for the purpose of valuation considering its industry and current business operations.

² We have considered average of INR/Euro Rate for last 1 year from the Valuation Date for conversion of equity value as on the Valuation Date.



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Annexure 2.3: Valuation of TWL using NAV Method under Cost Approach

In order to value TWL using NAV Method, we have considered provisional consolidated financials of TWL for the period ending March 31, 2019. These financial statements are prepared as per applicable Ind AS (IFRS converged) which are based on "Fair Value" concept.

Particulars		TWL
Net Assets (Consolidated - TWL)	INR Mn	8,888.8
<u>Less:</u>		
Expected Contingent Liabilities	INR Mn	1,086.5
Minority Interest	INR Mn	726.2
Adjusted Equity Value (A)	INR Mn	7,076.1
Number of Equity Shares (B)	Mn	115.5
Per Equity Share Value (C=A/B)	INR	61.3



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Annexure 3: Valuation of Cimmco

Method	Equity Value (INR Mn)	Weights	Annexure
MP Method	974.8	40%	Annexure 3.1
CCM Method	1,061.8	40%	Annexure 3.2
NAV Method	1,331.1	20%	Annexure 3.3
Weighted Average of Equity Value	1,080.9		

Particulars			
Weighted Average Equity Value (A)		INR Mn	1,080.9
Number of Equity Shares (B)		Mn	27.3
Per Equity Share Value (C=A/B)		INR	39.6

Annexure 3.1: Valuation of Cimmco by using Market Price Method under Market Approach

Particulars			
Market Price Per Share ¹		INR	35.7

¹ We have considered highest price of NSE for our working, being highest volume and frequently traded at NSE.

We have considered Issue of Capital and Disclosure Requirements ('ICDR') Regulations, 2018 issued by Securities and Exchange Board of India ('SEBI') for the calculation of Market Price Per Share for Market Price Method and the relevant extract of ICDR Regulations, 2018 are as follows:

"If the equity shares of the company have been listed on a recognized stock exchange for a period of twenty-six weeks or more as on the relevant date, the price of the equity shares to be allotted pursuant to the preferential issue shall be not less than higher of the following:

- *the average of the weekly high and low of the volume weighted average price ('VWAP') of the related equity shares quoted on the recognized stock exchange during the twenty-six weeks preceding the Valuation Date; or*
- *the average of the weekly high and low of the volume weighted average prices of the related equity shares quoted on a recognized stock exchange during the two weeks preceding the Valuation Date."*



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The working for market price for market price method is as follows:

Liquidity Analysis

Stock Exchange	Liquidity %	Status	Conclusion
BSE	2.9%	Not Frequently Traded	Market Price Method is considered appropriate.
NSE	19.4%	Frequently Traded	

Trade Volume Analysis

Stock Exchange	Trade Volume (No. of Shares in Mn)	Conclusion
BSE	0.4	Trade Volume in NSE is higher than BSE
NSE	3.4	

Market Price Analysis

26 Weeks Average High/Low (BSE)	26 Weeks Average High/Low (NSE)	2 Weeks Average High/Low (BSE)	2 Weeks Average High/Low (NSE)	Higher of BSE	Higher of NSE
35.6	35.6	34.3	34.5	35.6	35.6

Note: Please refer Annexure 3.1.1 & Annexure 3.1.2 for market price analysis working of BSE and NSE respectively. Further we have considered highest price of NSE for our working, being highest volume and frequently traded at NSE. The date of public announcement is May 30, 2019 and market Price for VWAP calculation are considered till immediately preceding the date of the public announcement as traded on the stock exchange i.e. May 29, 2019.



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Annexure 3.1.1: Cimmco - Market Price Analysis - BSE

Week Ending Date	Weekly High of VWAP	Weekly Low of VWAP	Average of Weekly High Low	26 Weeks Average High/Low (NSE)	2 Weeks Average High/Low (NSE)
29-May-19	35.8	34.7	35.3	35.6	34.3
24-May-19	33.7	33.0	33.3		
17-May-19	33.6	31.3	32.4		
10-May-19	33.7	32.6	33.2		
03-May-19	33.3	31.1	32.2		
26-Apr-19	33.5	31.4	32.5		
18-Apr-19	34.5	33.8	34.2		
12-Apr-19	34.7	33.5	34.1		
05-Apr-19	35.3	33.3	34.3		
29-Mar-19	33.3	32.0	32.6		
22-Mar-19	35.4	33.2	34.3		
15-Mar-19	37.5	35.0	36.2		
08-Mar-19	37.5	35.9	36.7		
01-Mar-19	33.2	32.3	32.7		
22-Feb-19	31.8	28.7	30.3		
15-Feb-19	30.4	29.6	30.0		
08-Feb-19	33.6	31.6	32.6		
01-Feb-19	33.2	32.2	32.7		
25-Jan-19	36.0	33.8	34.9		
18-Jan-19	39.3	37.7	38.5		
11-Jan-19	40.2	38.8	39.5		
04-Jan-19	43.2	39.6	41.4		
28-Dec-18	44.3	39.2	41.8		
21-Dec-18	46.7	43.7	45.2		
14-Dec-18	43.9	39.5	41.7		
07-Dec-18	43.4	41.0	42.2		

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Annexure 3.1.2: Cimmco - Market Price Analysis - NSE

Week Ending Date	Weekly High of VWAP	Weekly Low of VWAP	Average of Weekly High Low	26 Weeks Average High/Low (NSE)	2 Weeks Average High/Low (NSE)
29-May-19	35.4	34.8	35.1	35.6	34.5
24-May-19	34.6	33.4	34.0		
17-May-19	33.9	31.9	32.9		
10-May-19	34.0	33.1	33.5		
03-May-19	33.0	31.7	32.3		
26-Apr-19	33.4	31.4	32.4		
18-Apr-19	34.48	33.83	34.2		
12-Apr-19	34.8	33.7	34.3		
05-Apr-19	35.3	34.0	34.7		
29-Mar-19	33.1	32.2	32.7		
22-Mar-19	35.4	33.6	34.5		
15-Mar-19	37.0	35.1	36.1		
08-Mar-19	37.5	36.4	36.9		
01-Mar-19	33.7	31.7	32.7		
22-Feb-19	31.5	29.0	30.2		
15-Feb-19	30.3	29.5	29.9		
08-Feb-19	33.6	32.1	32.8		
01-Feb-19	33.2	32.1	32.7		
25-Jan-19	36.5	34.2	35.4		
18-Jan-19	39.4	37.9	38.6		
11-Jan-19	40.2	39.0	39.6		
04-Jan-19	43.2	39.4	41.3		
28-Dec-18	44.0	39.3	41.6		
21-Dec-18	46.8	44.0	45.4		
14-Dec-18	43.6	38.9	41.2		
07-Dec-18	43.1	40.6	41.8		

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Annexure 3.2: Valuation of Cimmco using Comparable Companies Method under Market Approach

Particulars	Weightage		
Present Value of EBITDA for FY19 ¹	66.7%	INR Mn	8.1
Present Value of EBITDA for FY20	33.3%	INR Mn	245.6
Weighted Average of EBITDA		INR Mn	87.3
EV/EBITDA Multiple ²		Times	10.3x
Enterprise Value		INR Mn	898.7
<u>Add:</u>			
Cash & Cash Equivalent		INR Mn	45.7
Value of Other Surplus Land		INR Mn	1,816.6
Non-Current Investments		INR Mn	0.0
<u>Less:</u>			
Debt		INR Mn	1,201.4
Preference Shares ³		INR Mn	355.1
Expected Contingent Liabilities		INR Mn	142.7
Equity Value (A)		INR Mn	1,061.8
Number of Equity Shares (B)		Mn	27.3
Per Equity Share Value (C=A/B)		INR	38.9

¹ Company's claims of INR 236.1 Mn towards lease rental and interest thereon receivable from the Indian Railways, which is recognized in the provisional books based on the order from the Hon'ble High Court of Delhi dated March 15, 2019. Adjustment is made for this, being extraordinary item.

² Please refer Annexure 3.2.1 for CCM multiple working.

³ Fair valuation of preference share is arrived considering the Fixed Income Money Market and Derivatives Association of India ("FIMMDA") guidelines.

Annexure 3.2.1: Cimmco - CCM Multiple Working for CCM Method

EV/EBITDA		
BEML Limited	Times	17.1x
Texmaco Rail & Engineering Limited	Times	10.4x
Median	Times	13.7x
Adjusted for Size and Other Factors	%	20%
Adjusted EV/EBITDA	Times	10.3x

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Annexure 3.3: Valuation of Cimmco using NAV Method under Cost Approach

In order to value Cimmco using NAV Method, we have considered provisional financials of Cimmco for the period ending March 31, 2019. These financial statements are prepared as per applicable Ind AS (IFRS converged) which are based on "Fair Value" concept.

Particulars		
Net Assets	INR Mn	2,301.8
Less:		
Non-Convertible Preference Shares ¹	INR Mn	591.9
Expected Contingent Liabilities	INR Mn	142.7
Other Adjustment ²	INR Mn	236.1
Adjusted Equity Value	INR Mn	1,331.1
Number of Equity Shares (B)	Mn	27.3
Per Equity Share Value (C=A/B)	INR	48.7

¹ Non-Convertible Preference Shares as per books.

² Company's claims of INR 236.1 Mn towards lease rental and interest thereon receivable from the Indian Railways, which is recognized in the books based on the order from the Hon'ble High Court of Delhi dated March 15, 2019. Adjustment is made for this, being extraordinary item.



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Annexure 4: Valuation of TEL using DCF Method under Income Approach

We have considered the projected financials of TEL as provided by the management of TWL for the period from April 1, 2019 to March 31, 2024. We have used Free Cash Flows to the Firm ('FCFF') model of DCF Method and Weighted Average Cost of Capital ('WACC') of 8.4% and terminal growth rate of 3.0% are considered for valuation of TEL.

Particulars		
Present Value of Cash Flows for Projected Period	INR Mn	210.3
Present Value of Cash Flows for Perpetuity	INR Mn	796.1
Enterprise Value	INR Mn	1,006.4
Add:		
Cash & Cash Equivalent	INR Mn	23.5
Value of Surplus Land	INR Mn	777.0
Less:		
Optionally Fully Convertible Debentures ('OFCDs') ¹	INR Mn	203.1
Expected Contingent Liabilities	INR Mn	2.5
Equity Value (A)	INR Mn	1,601.2
Number of Equity Shares (B)	Mn	25.8
Per Equity Share Value (C=A/B)	INR	62.2

¹ As per the proposed scheme, OFCDs are to be repaid. Hence, we have not considered dilution effect of OFCDs and considered same as a debt.



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Annexure 5: Valuation of TCPL by using NAV Method under Cost Approach

Particulars		
Net Assets	INR Mn	253.8
Add/Less:		
Net Adjustments ¹	INR Mn	(16.8)
Expected Contingent Liabilities	INR Mn	-
Equity Value (A)	INR Mn	237.0
Number of Equity Shares (considering dilution effect) (B) ²	Mn	4.0
Per Equity Share Value (C=A/B)	INR	59.2

¹ Adjustment to arrive at fair value of investment.

² We have considered dilution effect of Non-Cumulative Compulsorily Convertible Preference Shares carries non-cumulative dividend @ 1% per annum and compulsorily convertible into equity shares at par by August 27, 2022.



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