

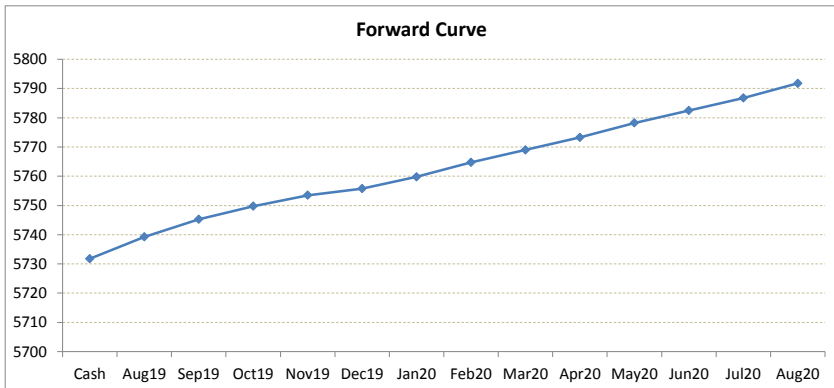
LME Valuation - Copper

Cash - 3M: 23.25c

Date: 2019-08-09

Cash 5731.75
3M 5755.00
 Aug19 5739.25
 Sep19 5745.25
 Oct19 5749.75
 Nov19 5753.50
 Dec19 5755.75
 Jan20 5759.75
 Feb20 5764.75
 Mar20 5769.00
 Apr20 5773.25
 May20 5778.25
 Jun20 5782.50
 Jul20 5786.75
 Aug20 5791.75

	Cash-Aug19	Cash-Sep19	Cash-Oct19	Cash-Nov19	Cash-Dec19	Cash-Jan20	Cash-Feb20	Cash-Mar20	Cash-Apr20	Cash-May20	Cash-Jun20	Cash-Jul20
Cash	7.50c	13.50c	18.00c	21.75c	24.00c	28.00c	33.00c	37.25c	41.50c	46.50c	50.75c	55.00c
	Aug19-3M	Sep19-3M	Oct19-3M	3M-Nov19	3M-Dec19	3M-Jan20	3M-Feb20	3M-Mar20	3M-Apr20	3M-May20	3M-Jun20	3M-Jul20
3M	15.75c	9.75c	5.25c	1.50b	0.75c	4.75c	9.75c	14.00c	18.25c	23.25c	27.50c	31.75c
	Aug19-Sep19	Sep19-Oct19	Oct19-Nov19	Nov19-Dec19	Dec19-Jan20	Jan20-Feb20	Feb20-Mar20	Mar20-Apr20	Apr20-May20	May20-Jun20	Jun20-Jul20	Jul20-Aug20
3rd wed	6.00c	4.50c	3.75c	2.25c	4.00c	5.00c	4.25c	4.25c	5.00c	4.25c	4.25c	5.00c
	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
Aug19	6.00c	10.50c	14.25c	16.50c	20.50c	25.50c	29.75c	34.00c	39.00c	43.25c	47.50c	52.50c
	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
Aug19	6.00c	4.50c	8.25c	10.50c	14.50c	19.50c	23.75c	28.00c	33.00c	37.25c	41.50c	46.50c
	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
Aug19		4.50c	8.25c	10.50c	14.50c	19.50c	23.75c	28.00c	33.00c	37.25c	41.50c	46.50c
	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
Aug19			3.75c	6.00c	10.00c	15.00c	19.25c	23.50c	28.50c	32.75c	37.00c	42.00c
	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
Aug19				2.25c	6.25c	11.25c	15.50c	19.75c	24.75c	29.00c	33.25c	38.25c
	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
Aug19					4.00c	9.00c	13.25c	17.50c	22.50c	26.75c	31.00c	36.00c
	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
Aug19						5.00c	9.25c	13.50c	18.50c	22.75c	27.00c	32.00c
	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
Aug19							4.25c	8.50c	13.50c	17.75c	22.00c	27.00c
	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
Aug19								4.25c	9.25c	13.50c	17.75c	22.75c
	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
Aug19									5.00c	9.25c	13.50c	18.50c
	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
Aug19										4.25c	8.50c	13.50c
	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
Aug19											4.25c	9.25c
	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
Aug19												5.00c



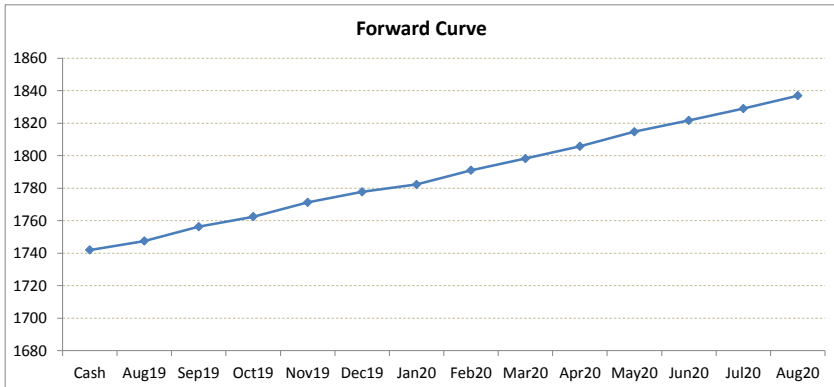
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 ** Source: Reuters

LME Valuation - Aluminium

Cash - 3M: **29.00c**

Date: **2019-08-09**

Cash	1742.00			Cash-Aug19	Cash-Sep19	Cash-Oct19	Cash-Nov19	Cash-Dec19	Cash-Jan20	Cash-Feb20	Cash-Mar20	Cash-Apr20	Cash-May20	Cash-Jun20	Cash-Jul20
3M	1771.00	Cash		5.50c	14.25c	20.50c	29.25c	35.75c	40.25c	49.00c	56.25c	63.75c	72.75c	79.75c	87.00c
Aug19	1747.50														
Sep19	1756.25			Aug19-3M	Sep19-3M	Oct19-3M	3M-Nov19	3M-Dec19	3M-Jan20	3M-Feb20	3M-Mar20	3M-Apr20	3M-May20	3M-Jun20	3M-Jul20
Oct19	1762.50	3M		23.50c	14.75c	8.50c	0.25c	6.75c	11.25c	20.00c	27.25c	34.75c	43.75c	50.75c	58.00c
Nov19	1771.25														
Dec19	1777.75			Aug19-Sep19	Sep19-Oct19	Oct19-Nov19	Nov19-Dec19	Dec19-Jan20	Jan20-Feb20	Feb20-Mar20	Mar20-Apr20	Apr20-May20	May20-Jun20	Jun20-Jul20	Jul20-Aug20
Jan20	1782.25	3rd wed		8.75c	6.25c	8.75c	6.50c	4.50c	8.75c	7.25c	7.50c	9.00c	7.00c	7.25c	8.00c
Feb20	1791.00														
Mar20	1798.25			Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
Apr20	1805.75	Aug19		8.75c	15.00c	23.75c	30.25c	34.75c	43.50c	50.75c	58.25c	67.25c	74.25c	81.50c	89.50c
May20	1814.75			Sep19	6.25c	15.00c	21.50c	26.00c	34.75c	42.00c	49.50c	58.50c	65.50c	72.75c	80.75c
Jun20	1821.75				Oct19	8.75c	15.25c	19.75c	28.50c	35.75c	43.25c	52.25c	59.25c	66.50c	74.50c
Jul20	1829.00					Nov19	6.50c	11.00c	19.75c	27.00c	34.50c	43.50c	50.50c	57.75c	65.75c
Aug20	1837.00						Dec19	4.50c	13.25c	20.50c	28.00c	37.00c	44.00c	51.25c	59.25c
								Jan20	8.75c	16.00c	23.50c	32.50c	39.50c	46.75c	54.75c
									Feb20	7.25c	14.75c	23.75c	30.75c	38.00c	46.00c
										Mar20	7.50c	16.50c	23.50c	30.75c	38.75c
											Apr20	9.00c	16.00c	23.25c	31.25c
												May20	7.00c	14.25c	22.25c
													Jun20	7.25c	15.25c
														Jul20	8.00c
															Aug20



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** Source: Reuters



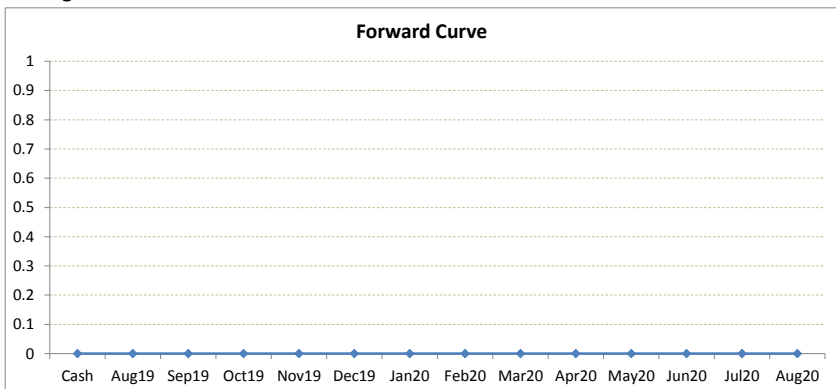
LME Valuation - Nickel

Cash - 3M: #####

Date: 2019-08-09

Cash 0.00
 3M 15550.00
 Aug19 0.00
 Sep19 0.00
 Oct19 0.00
 Nov19 0.00
 Dec19 0.00
 Jan20 0.00
 Feb20 0.00
 Mar20 0.00
 Apr20 0.00
 May20 0.00
 Jun20 0.00
 Jul20 0.00
 Aug20 0.00

Cash	Cash-Aug19	Cash-Sep19	Cash-Oct19	Cash-Nov19	Cash-Dec19	Cash-Jan20	Cash-Feb20	Cash-Mar20	Cash-Apr20	Cash-May20	Cash-Jun20	Cash-Jul20
Cash	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b
3M	Aug19-3M	Sep19-3M	Oct19-3M	3M-Nov19	3M-Dec19	3M-Jan20	3M-Feb20	3M-Mar20	3M-Apr20	3M-May20	3M-Jun20	3M-Jul20
3M	15550.00c	15550.00c	15550.00c	15550.00b	15550.00b	15550.00b	15550.00b	15550.00b	15550.00b	15550.00b	15550.00b	15550.00b
3rd wed	Aug19-Sep19	Sep19-Oct19	Oct19-Nov19	Nov19-Dec19	Dec19-Jan20	Jan20-Feb20	Feb20-Mar20	Mar20-Apr20	Apr20-May20	May20-Jun20	Jun20-Jul20	Jul20-Aug20
3rd wed	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b
Aug19	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
Aug19	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b
May20	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
May20	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b
Jun20	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
Jun20	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b
Jul20	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
Jul20	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b
Aug20	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
Aug20	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b	0.00b



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 ** Source: Reuters



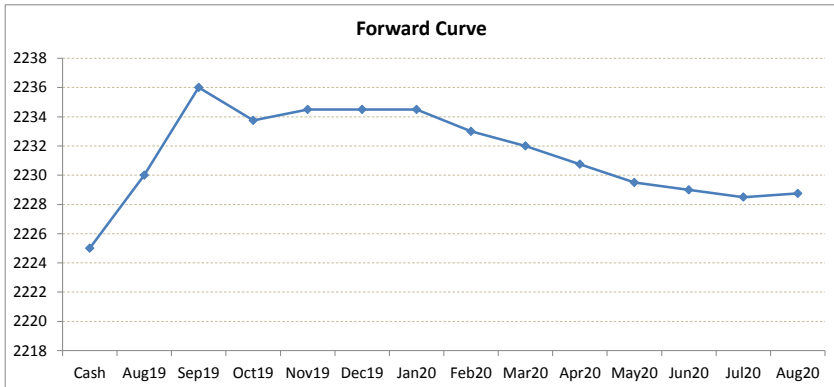
LME Valuation - Zinc

Cash - 3M: 9.00c

Date: 2019-08-09

Cash 2225.00
3M 2234.00
 Aug19 2230.00
 Sep19 2236.00
 Oct19 2233.75
 Nov19 2234.50
 Dec19 2234.50
 Jan20 2234.50
 Feb20 2233.00
 Mar20 2232.00
 Apr20 2230.75
 May20 2229.50
 Jun20 2229.00
 Jul20 2228.50
 Aug20 2228.75

	Cash-Aug19	Cash-Sep19	Cash-Oct19	Cash-Nov19	Cash-Dec19	Cash-Jan20	Cash-Feb20	Cash-Mar20	Cash-Apr20	Cash-May20	Cash-Jun20	Cash-Jul20
Cash	5.00c	11.00c	8.75c	9.50c	9.50c	9.50c	8.00c	7.00c	5.75c	4.50c	4.00c	3.50c
	Aug19-3M	Sep19-3M	Oct19-3M	3M-Nov19	3M-Dec19	3M-Jan20	3M-Feb20	3M-Mar20	3M-Apr20	3M-May20	3M-Jun20	3M-Jul20
3M	4.00c	2.00b	0.25c	0.50c	0.50c	0.50c	1.00b	2.00b	3.25b	4.50b	5.00b	5.50b
	Aug19-Sep19	Sep19-Oct19	Oct19-Nov19	Nov19-Dec19	Dec19-Jan20	Jan20-Feb20	Feb20-Mar20	Mar20-Apr20	Apr20-May20	May20-Jun20	Jun20-Jul20	Jul20-Aug20
3rd wed	6.00c	2.25b	0.75c	0.00b	0.00b	1.50b	1.00b	1.25b	1.25b	0.50b	0.50b	0.25c
	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
Aug19	6.00c	3.75c	4.50c	4.50c	4.50c	3.00c	2.00c	0.75c	0.50b	1.00b	1.50b	1.25b
	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
		2.25b	1.50b	1.50b	1.50b	3.00b	4.00b	5.25b	6.50b	7.00b	7.50b	7.25b
	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
			0.75c	0.75c	0.75c	0.75b	1.75b	3.00b	4.25b	4.75b	5.25b	5.00b
	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
				0.00b	0.00b	1.50b	2.50b	3.75b	5.00b	5.50b	6.00b	5.75b
	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
					0.00b	1.50b	2.50b	3.75b	5.00b	5.50b	6.00b	5.75b
	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
						1.50b	2.50b	3.75b	5.00b	5.50b	6.00b	5.75b
	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
							1.00b	2.25b	3.50b	4.00b	4.50b	4.25b
	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
								1.25b	2.50b	3.00b	3.50b	3.25b
	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
									1.25b	1.75b	2.25b	2.00b
	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
										0.50b	1.00b	0.75b
	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
											0.50b	0.25c
	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
												0.25c



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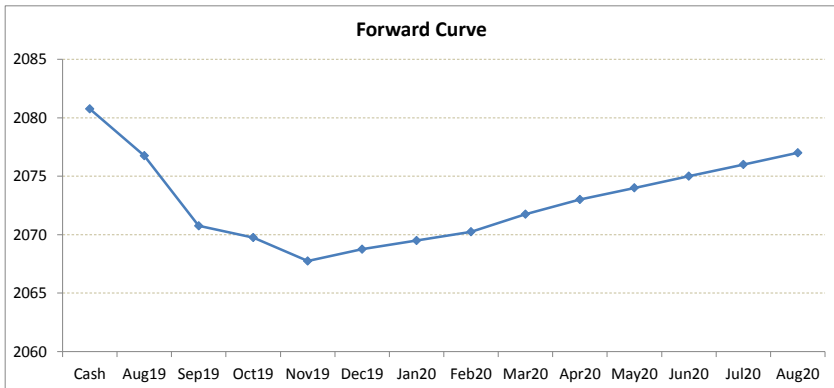
LME Valuation - Lead

Cash - 3M: **13.75b**

Date: **2019-08-09**

Cash 2080.75
3M 2067.00
 Aug19 **2076.75**
 Sep19 **2070.75**
 Oct19 **2069.75**
 Nov19 **2067.75**
 Dec19 **2068.75**
 Jan20 **2069.50**
 Feb20 **2070.25**
 Mar20 **2071.75**
 Apr20 **2073.00**
 May20 **2074.00**
 Jun20 **2075.00**
 Jul20 **2076.00**
 Aug20 **2077.00**

	Cash-Aug19	Cash-Sep19	Cash-Oct19	Cash-Nov19	Cash-Dec19	Cash-Jan20	Cash-Feb20	Cash-Mar20	Cash-Apr20	Cash-May20	Cash-Jun20	Cash-Jul20
Cash	4.00b	10.00b	11.00b	13.00b	12.00b	11.25b	10.50b	9.00b	7.75b	6.75b	5.75b	4.75b
	Aug19-3M	Sep19-3M	Oct19-3M	3M-Nov19	3M-Dec19	3M-Jan20	3M-Feb20	3M-Mar20	3M-Apr20	3M-May20	3M-Jun20	3M-Jul20
3M	9.75b	3.75b	2.75b	0.75c	1.75c	2.50c	3.25c	4.75c	6.00c	7.00c	8.00c	9.00c
	Aug19-Sep19	Sep19-Oct19	Oct19-Nov19	Nov19-Dec19	Dec19-Jan20	Jan20-Feb20	Feb20-Mar20	Mar20-Apr20	Apr20-May20	May20-Jun20	Jun20-Jul20	Jul20-Aug20
3rd wed	6.00b	1.00b	2.00b	1.00c	0.75c	0.75c	1.50c	1.25c	1.00c	1.00c	1.00c	1.00c
	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
Aug19	6.00b	7.00b	9.00b	8.00b	7.25b	6.50b	5.00b	3.75b	2.75b	1.75b	0.75b	0.25c
	Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
Aug19	1.00b	3.00b	2.00b	1.25b	0.50b	1.00c	2.25c	3.25c	4.25c	5.25c	6.25c	6.25c
	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	
Aug19	2.00b	1.00b	1.00c	1.75c	2.50c	4.00c	5.25c	6.25c	7.25c	8.25c	9.25c	
	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20			
Aug19	0.75c	1.50c	3.00c	4.25c	5.25c	6.25c	7.25c	8.25c				
	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20					
Aug19	0.75c	2.25c	3.50c	4.50c	5.50c	6.50c	7.50c					
	Mar20	Apr20	May20	Jun20	Jul20	Aug20						
Aug19	1.50c	2.75c	3.75c	4.75c	5.75c	6.75c						
	Apr20	May20	Jun20	Jul20	Aug20							
Aug19	1.25c	2.25c	3.25c	4.25c	5.25c							
	May20	Jun20	Jul20	Aug20								
Aug19	1.00c	2.00c	3.00c	4.00c								
	Jun20	Jul20	Aug20									
Aug19	1.00c	2.00c	3.00c									
	Jul20	Aug20										
Aug19	1.00c	2.00c										
	Aug20											
Aug19	1.00c											



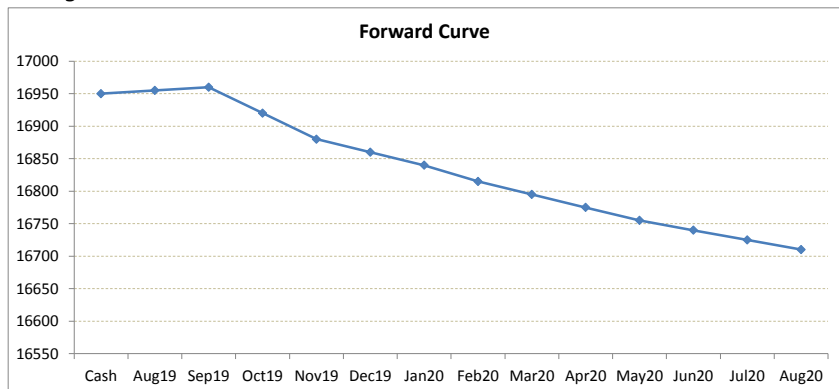
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 ** Source: Reuters

LME Valuation - Tin

Cash - 3M: 50.00b

Date: **2019-08-09**

Cash	16950.00		Cash-Aug19	Cash-Sep19	Cash-Oct19	Cash-Nov19	Cash-Dec19	Cash-Jan20	Cash-Feb20	Cash-Mar20	Cash-Apr20	Cash-May20	Cash-Jun20	Cash-Jul20
3M	16900.00	Cash	5.00c	10.00c	30.00b	70.00b	90.00b	110.00b	135.00b	155.00b	175.00b	195.00b	210.00b	225.00b
Aug19	16955.00													
Sep19	16960.00		Aug19-3M	Sep19-3M	Oct19-3M	3M-Nov19	3M-Dec19	3M-Jan20	3M-Feb20	3M-Mar20	3M-Apr20	3M-May20	3M-Jun20	3M-Jul20
Oct19	16920.00	3M	55.00b	60.00b	20.00b	20.00b	40.00b	60.00b	85.00b	105.00b	125.00b	145.00b	160.00b	175.00b
Nov19	16880.00													
Dec19	16860.00		Aug19-Sep19	Sep19-Oct19	Oct19-Nov19	Nov19-Dec19	Dec19-Jan20	Jan20-Feb20	Feb20-Mar20	Mar20-Apr20	Apr20-May20	May20-Jun20	Jun20-Jul20	Jul20-Aug20
Jan20	16840.00	3rd wed	5.00c	40.00b	40.00b	20.00b	20.00b	25.00b	20.00b	20.00b	20.00b	15.00b	15.00b	15.00b
Feb20	16815.00													
Mar20	16795.00		Sep19	Oct19	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20
Apr20	16775.00	Aug19	5.00c	35.00b	75.00b	95.00b	115.00b	140.00b	160.00b	180.00b	200.00b	215.00b	230.00b	245.00b
May20	16755.00		Sep19	40.00b	80.00b	100.00b	120.00b	145.00b	165.00b	185.00b	205.00b	220.00b	235.00b	250.00b
Jun20	16740.00			Oct19	40.00b	60.00b	80.00b	105.00b	125.00b	145.00b	165.00b	180.00b	195.00b	210.00b
Jul20	16725.00				Nov19	20.00b	40.00b	65.00b	85.00b	105.00b	125.00b	140.00b	155.00b	170.00b
Aug20	16710.00					Dec19	20.00b	45.00b	65.00b	85.00b	105.00b	120.00b	135.00b	150.00b
							Jan20	25.00b	45.00b	65.00b	85.00b	100.00b	115.00b	130.00b
								Feb20	20.00b	40.00b	60.00b	75.00b	90.00b	105.00b
									Mar20	20.00b	40.00b	55.00b	70.00b	85.00b
										Apr20	20.00b	35.00b	50.00b	65.00b
											May20	15.00b	30.00b	45.00b
												Jun20	15.00b	30.00b
													Jul20	15.00b
														Aug20



*본 자료는 LME에서 공시하는 Valuation을 토대로 작성된 것으로 실제 거래 시의 스프레드와는 무관합니다.

** Source: Reuters

