

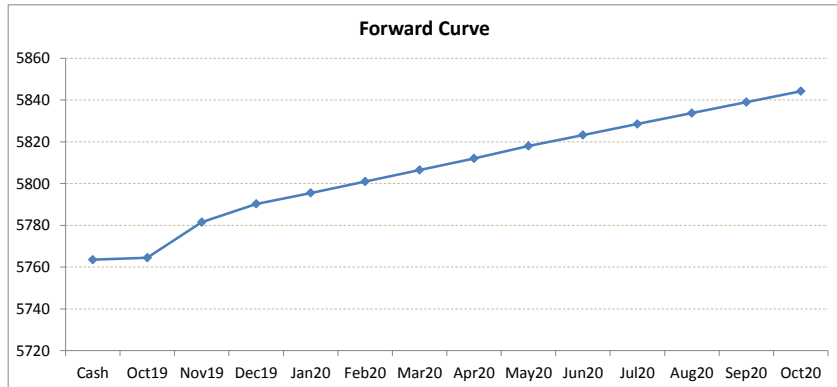
LME Valuation - Copper

Cash - 3M: 32.50c

Date: 2019-10-11

Cash 5763.50
3M 5796.00
 Oct19 5764.50
 Nov19 5781.50
 Dec19 5790.25
 Jan20 5795.50
 Feb20 5801.00
 Mar20 5806.50
 Apr20 5812.00
 May20 5818.00
 Jun20 5823.25
 Jul20 5828.50
 Aug20 5833.75
 Sep20 5839.00
 Oct20 5844.25

	Cash-Oct19	Cash-Nov19	Cash-Dec19	Cash-Jan20	Cash-Feb20	Cash-Mar20	Cash-Apr20	Cash-May20	Cash-Jun20	Cash-Jul20	Cash-Aug20	Cash-Sep20
Cash	1.00c	18.00c	26.75c	32.00c	37.50c	43.00c	48.50c	54.50c	59.75c	65.00c	70.25c	75.50c
	Oct19-3M	Nov19-3M	Dec19-3M	3M-Jan20	3M-Feb20	3M-Mar20	3M-Apr20	3M-May20	3M-Jun20	3M-Jul20	3M-Aug20	3M-Sep20
3M	31.50c	14.50c	5.75c	0.50b	5.00c	10.50c	16.00c	22.00c	27.25c	32.50c	37.75c	43.00c
	Oct19-Nov19	Nov19-Dec19	Dec19-Jan20	Jan20-Feb20	Feb20-Mar20	Mar20-Apr20	Apr20-May20	May20-Jun20	Jun20-Jul20	Jul20-Aug20	Aug20-Sep20	Sep20-Oct20
3rd wed	17.00c	8.75c	5.25c	5.50c	5.50c	5.50c	6.00c	5.25c	5.25c	5.25c	5.25c	5.25c
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
Oct19	17.00c	25.75c	31.00c	36.50c	42.00c	47.50c	53.50c	58.75c	64.00c	69.25c	74.50c	79.75c
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
		8.75c	14.00c	19.50c	25.00c	30.50c	36.50c	41.75c	47.00c	52.25c	57.50c	62.75c
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
			5.25c	10.75c	16.25c	21.75c	27.75c	33.00c	38.25c	43.50c	48.75c	54.00c
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
				5.50c	11.00c	16.50c	22.50c	27.75c	33.00c	38.25c	43.50c	48.75c
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
					5.50c	11.00c	17.00c	22.25c	27.50c	32.75c	38.00c	43.25c
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
						5.50c	11.50c	16.75c	22.00c	27.25c	32.50c	37.75c
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
							6.00c	11.25c	16.50c	21.75c	27.00c	32.25c
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
								5.25c	10.50c	15.75c	21.00c	26.25c
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
									5.25c	10.50c	15.75c	21.00c
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
										5.25c	10.50c	15.75c
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
											5.25c	10.50c
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
												5.25c



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 ** Source: Reuters

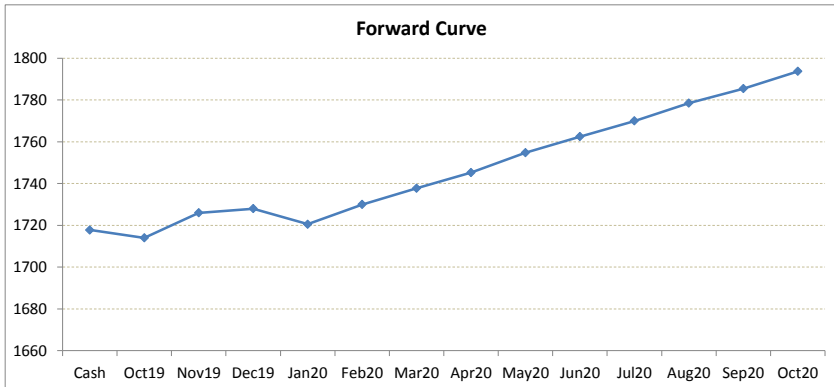
LME Valuation - Aluminium

Cash - 3M: 4.25c

Date: 2019-10-11

Cash 1717.75
3M 1722.00
 Oct19 **1714.00**
 Nov19 **1726.00**
 Dec19 **1728.00**
 Jan20 **1720.50**
 Feb20 **1730.00**
 Mar20 **1737.75**
 Apr20 **1745.25**
 May20 **1754.75**
 Jun20 **1762.50**
 Jul20 **1770.00**
 Aug20 **1778.50**
 Sep20 **1785.50**
 Oct20 **1793.75**

	Cash-Oct19	Cash-Nov19	Cash-Dec19	Cash-Jan20	Cash-Feb20	Cash-Mar20	Cash-Apr20	Cash-May20	Cash-Jun20	Cash-Jul20	Cash-Aug20	Cash-Sep20
Cash	3.75b	8.25c	10.25c	2.75c	12.25c	20.00c	27.50c	37.00c	44.75c	52.25c	60.75c	67.75c
	Oct19-3M	Nov19-3M	Dec19-3M	3M-Jan20	3M-Feb20	3M-Mar20	3M-Apr20	3M-May20	3M-Jun20	3M-Jul20	3M-Aug20	3M-Sep20
3M	8.00c	4.00b	6.00b	1.50b	8.00c	15.75c	23.25c	32.75c	40.50c	48.00c	56.50c	63.50c
	Oct19-Nov19	Nov19-Dec19	Dec19-Jan20	Jan20-Feb20	Feb20-Mar20	Mar20-Apr20	Apr20-May20	May20-Jun20	Jun20-Jul20	Jul20-Aug20	Aug20-Sep20	Sep20-Oct20
3rd wed	12.00c	2.00c	7.50b	9.50c	7.75c	7.50c	9.50c	7.75c	7.50c	8.50c	7.00c	8.25c
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
Oct19	12.00c	14.00c	6.50c	16.00c	23.75c	31.25c	40.75c	48.50c	56.00c	64.50c	71.50c	79.75c
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
Nov19	2.00c	5.50b	4.00c	11.75c	19.25c	28.75c	36.50c	44.00c	52.50c	59.50c	67.75c	
Dec19		7.50b	2.00c	9.75c	17.25c	26.75c	34.50c	42.00c	50.50c	57.50c	65.75c	
Jan20			9.50c	17.25c	24.75c	34.25c	42.00c	49.50c	58.00c	65.00c	73.25c	
Feb20				7.75c	15.25c	24.75c	32.50c	40.00c	48.50c	55.50c	63.75c	
Mar20					7.50c	17.00c	24.75c	32.25c	40.75c	47.75c	56.00c	
Apr20						9.50c	17.25c	24.75c	33.25c	40.25c	48.50c	
May20							7.75c	15.25c	23.75c	30.75c	39.00c	
Jun20								7.50c	16.00c	23.00c	31.25c	
Jul20									8.50c	15.50c	23.75c	
Aug20										7.00c	15.25c	
Sep20											8.25c	
Oct20												8.25c



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 ** Source: Reuters

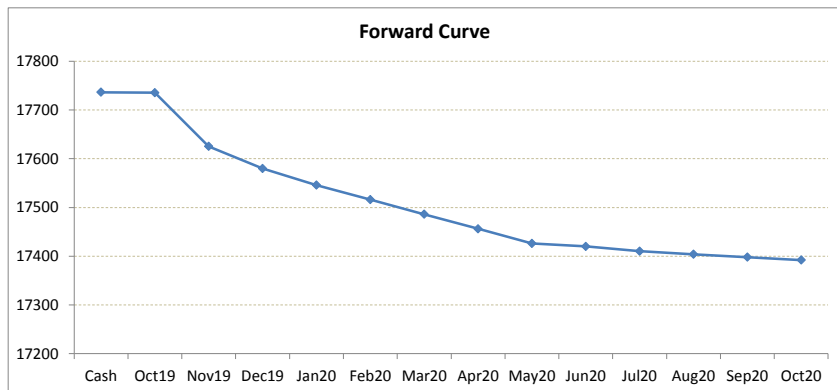
LME Valuation - Nickel

Cash - 3M: **186.50b**

Date: **2019-10-11**

Cash 17736.50
3M 17550.00
 Oct19 **17735.50**
 Nov19 **17625.50**
 Dec19 **17580.00**
 Jan20 **17546.00**
 Feb20 **17516.00**
 Mar20 **17486.00**
 Apr20 **17456.00**
 May20 **17426.00**
 Jun20 **17420.00**
 Jul20 **17410.00**
 Aug20 **17404.00**
 Sep20 **17398.00**
 Oct20 **17392.00**

	Cash-Oct19	Cash-Nov19	Cash-Dec19	Cash-Jan20	Cash-Feb20	Cash-Mar20	Cash-Apr20	Cash-May20	Cash-Jun20	Cash-Jul20	Cash-Aug20	Cash-Sep20
Cash	1.00b	111.00b	156.50b	190.50b	220.50b	250.50b	280.50b	310.50b	316.50b	326.50b	332.50b	338.50b
	Oct19-3M	Nov19-3M	Dec19-3M	3M-Jan20	3M-Feb20	3M-Mar20	3M-Apr20	3M-May20	3M-Jun20	3M-Jul20	3M-Aug20	3M-Sep20
3M	185.50b	75.50b	30.00b	4.00b	34.00b	64.00b	94.00b	124.00b	130.00b	140.00b	146.00b	152.00b
	Oct19-Nov19	Nov19-Dec19	Dec19-Jan20	Jan20-Feb20	Feb20-Mar20	Mar20-Apr20	Apr20-May20	May20-Jun20	Jun20-Jul20	Jul20-Aug20	Aug20-Sep20	Sep20-Oct20
3rd wed	110.00b	45.50b	34.00b	30.00b	30.00b	30.00b	30.00b	6.00b	10.00b	6.00b	6.00b	6.00b
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
Oct19	110.00b	155.50b	189.50b	219.50b	249.50b	279.50b	309.50b	315.50b	325.50b	331.50b	337.50b	343.50b
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
Nov19		45.50b	79.50b	109.50b	139.50b	169.50b	199.50b	205.50b	215.50b	221.50b	227.50b	233.50b
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
Dec19			34.00b	64.00b	94.00b	124.00b	154.00b	160.00b	170.00b	176.00b	182.00b	188.00b
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
Jan20				30.00b	60.00b	90.00b	120.00b	126.00b	136.00b	142.00b	148.00b	154.00b
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
Feb20					30.00b	60.00b	90.00b	96.00b	106.00b	112.00b	118.00b	124.00b
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
Mar20						30.00b	60.00b	66.00b	76.00b	82.00b	88.00b	94.00b
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
Apr20							30.00b	36.00b	46.00b	52.00b	58.00b	64.00b
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
May20								6.00b	16.00b	22.00b	28.00b	34.00b
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
Jun20									10.00b	16.00b	22.00b	28.00b
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
Jul20										6.00b	12.00b	18.00b
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
Aug20											6.00b	12.00b
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
Sep20												6.00b
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
Oct20												



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 ** Source: Reuters

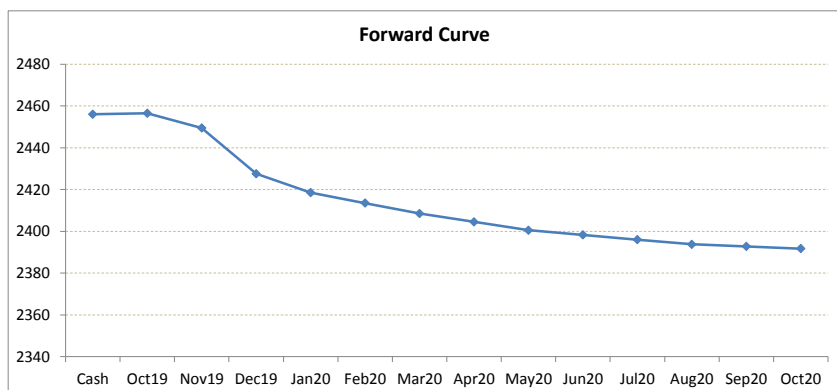
LME Valuation - Zinc

Cash - 3M: **37.00b**

Date: **2019-10-11**

Cash 2456.00
3M 2419.00
 Oct19 **2456.50**
 Nov19 **2449.50**
 Dec19 **2427.50**
 Jan20 **2418.50**
 Feb20 **2413.50**
 Mar20 **2408.50**
 Apr20 **2404.50**
 May20 **2400.50**
 Jun20 **2398.25**
 Jul20 **2396.00**
 Aug20 **2393.75**
 Sep20 **2392.75**
 Oct20 **2391.75**

	Cash-Oct19	Cash-Nov19	Cash-Dec19	Cash-Jan20	Cash-Feb20	Cash-Mar20	Cash-Apr20	Cash-May20	Cash-Jun20	Cash-Jul20	Cash-Aug20	Cash-Sep20
Cash	0.50c	6.50b	28.50b	37.50b	42.50b	47.50b	51.50b	55.50b	57.75b	60.00b	62.25b	63.25b
	Oct19-3M	Nov19-3M	Dec19-3M	3M-Jan20	3M-Feb20	3M-Mar20	3M-Apr20	3M-May20	3M-Jun20	3M-Jul20	3M-Aug20	3M-Sep20
3M	37.50b	30.50b	8.50b	0.50b	5.50b	10.50b	14.50b	18.50b	20.75b	23.00b	25.25b	26.25b
	Oct19-Nov19	Nov19-Dec19	Dec19-Jan20	Jan20-Feb20	Feb20-Mar20	Mar20-Apr20	Apr20-May20	May20-Jun20	Jun20-Jul20	Jul20-Aug20	Aug20-Sep20	Sep20-Oct20
3rd wed	7.00b	22.00b	9.00b	5.00b	5.00b	4.00b	4.00b	2.25b	2.25b	2.25b	1.00b	1.00b
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
Oct19	7.00b	29.00b	38.00b	43.00b	48.00b	52.00b	56.00b	58.25b	60.50b	62.75b	63.75b	64.75b
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
Nov19		22.00b	31.00b	36.00b	41.00b	45.00b	49.00b	51.25b	53.50b	55.75b	56.75b	57.75b
Dec19			9.00b	14.00b	19.00b	23.00b	27.00b	29.25b	31.50b	33.75b	34.75b	35.75b
Jan20				5.00b	10.00b	14.00b	18.00b	20.25b	22.50b	24.75b	25.75b	26.75b
Feb20					5.00b	9.00b	13.00b	15.25b	17.50b	19.75b	20.75b	21.75b
Mar20						4.00b	8.00b	10.25b	12.50b	14.75b	15.75b	16.75b
Apr20							4.00b	6.25b	8.50b	10.75b	11.75b	12.75b
May20								2.25b	4.50b	6.75b	7.75b	8.75b
Jun20									2.25b	4.50b	5.50b	6.50b
Jul20										2.25b	3.25b	4.25b
Aug20											1.00b	2.00b
Sep20												1.00b
Oct20												



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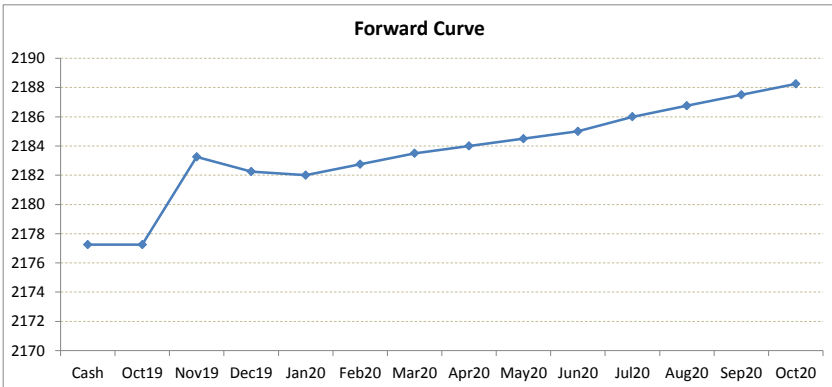
** Source: Reuters

LME Valuation - Lead

Cash - 3M: 4.75c

Date: 2019-10-11

Cash	2177.25	Cash-Oct19	Cash-Nov19	Cash-Dec19	Cash-Jan20	Cash-Feb20	Cash-Mar20	Cash-Apr20	Cash-May20	Cash-Jun20	Cash-Jul20	Cash-Aug20	Cash-Sep20
3M	2182.00	0.00b	6.00c	5.00c	4.75c	5.50c	6.25c	6.75c	7.25c	7.75c	8.75c	9.50c	10.25c
Oct19	2177.25												
Nov19	2183.25	Oct19-3M	Nov19-3M	Dec19-3M	3M-Jan20	3M-Feb20	3M-Mar20	3M-Apr20	3M-May20	3M-Jun20	3M-Jul20	3M-Aug20	3M-Sep20
Dec19	2182.25	4.75c	1.25b	0.25b	0.00b	0.75c	1.50c	2.00c	2.50c	3.00c	4.00c	4.75c	5.50c
Jan20	2182.00												
Feb20	2182.75	Oct19-Nov19	Nov19-Dec19	Dec19-Jan20	Jan20-Feb20	Feb20-Mar20	Mar20-Apr20	Apr20-May20	May20-Jun20	Jun20-Jul20	Jul20-Aug20	Aug20-Sep20	Sep20-Oct20
Mar20	2183.50	6.00c	1.00b	0.25b	0.75c	0.75c	0.50c	0.50c	0.50c	1.00c	0.75c	0.75c	0.75c
Apr20	2184.00												
May20	2184.50	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
Jun20	2185.00	6.00c	5.00c	4.75c	5.50c	6.25c	6.75c	7.25c	7.75c	8.75c	9.50c	10.25c	11.00c
Jul20	2186.00	Nov19	1.00b	1.25b	0.50b	0.25c	0.75c	1.25c	1.75c	2.75c	3.50c	4.25c	5.00c
Aug20	2186.75		Dec19	0.25b	0.50c	1.25c	1.75c	2.25c	2.75c	3.75c	4.50c	5.25c	6.00c
Sep20	2187.50			Jan20	0.75c	1.50c	2.00c	2.50c	3.00c	4.00c	4.75c	5.50c	6.25c
Oct20	2188.25				Feb20	0.75c	1.25c	1.75c	2.25c	3.25c	4.00c	4.75c	5.50c
						Mar20	0.50c	1.00c	1.50c	2.50c	3.25c	4.00c	4.75c
							Apr20	0.50c	1.00c	2.00c	2.75c	3.50c	4.25c
								May20	0.50c	1.50c	2.25c	3.00c	3.75c
									Jun20	1.00c	1.75c	2.50c	3.25c
										Jul20	0.75c	1.50c	2.25c
											Aug20	0.75c	1.50c
												Sep20	0.75c
													Oct20



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 ** Source: Reuters

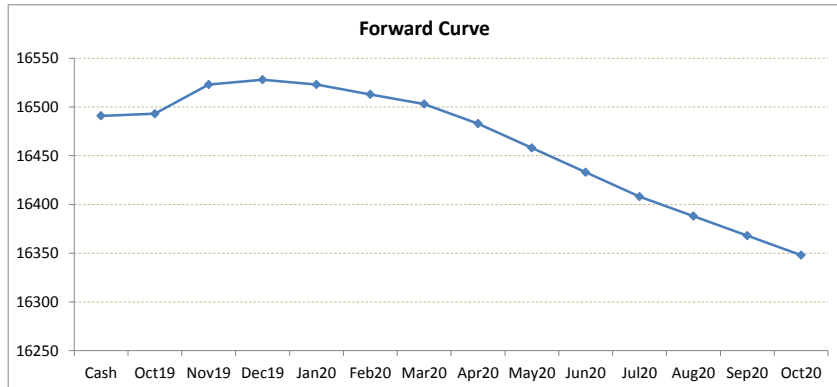
LME Valuation - Tin

Cash - 3M: 34.00c

Date: 2019-10-11

Cash 16491.00
3M 16525.00
 Oct19 **16493.00**
 Nov19 **16523.00**
 Dec19 **16528.00**
 Jan20 **16523.00**
 Feb20 **16513.00**
 Mar20 **16503.00**
 Apr20 **16483.00**
 May20 **16458.00**
 Jun20 **16433.00**
 Jul20 **16408.00**
 Aug20 **16388.00**
 Sep20 **16368.00**
 Oct20 **16348.00**

	Cash-Oct19	Cash-Nov19	Cash-Dec19	Cash-Jan20	Cash-Feb20	Cash-Mar20	Cash-Apr20	Cash-May20	Cash-Jun20	Cash-Jul20	Cash-Aug20	Cash-Sep20
Cash	2.00c	32.00c	37.00c	32.00c	22.00c	12.00c	8.00b	33.00b	58.00b	83.00b	103.00b	123.00b
	Oct19-3M	Nov19-3M	Dec19-3M	3M-Jan20	3M-Feb20	3M-Mar20	3M-Apr20	3M-May20	3M-Jun20	3M-Jul20	3M-Aug20	3M-Sep20
3M	32.00c	2.00c	3.00b	2.00b	12.00b	22.00b	42.00b	67.00b	92.00b	117.00b	137.00b	157.00b
	Oct19-Nov19	Nov19-Dec19	Dec19-Jan20	Jan20-Feb20	Feb20-Mar20	Mar20-Apr20	Apr20-May20	May20-Jun20	Jun20-Jul20	Jul20-Aug20	Aug20-Sep20	Sep20-Oct20
3rd wed	30.00c	5.00c	5.00b	10.00b	10.00b	20.00b	25.00b	25.00b	25.00b	20.00b	20.00b	20.00b
	Nov19	Dec19	Jan20	Feb20	Mar20	Apr20	May20	Jun20	Jul20	Aug20	Sep20	Oct20
Oct19	30.00c	35.00c	30.00c	20.00c	10.00c	10.00b	35.00b	60.00b	85.00b	105.00b	125.00b	145.00b
	Nov19	5.00c	0.00b	10.00b	20.00b	40.00b	65.00b	90.00b	115.00b	135.00b	155.00b	175.00b
		Dec19	5.00b	15.00b	25.00b	45.00b	70.00b	95.00b	120.00b	140.00b	160.00b	180.00b
			Jan20	10.00b	20.00b	40.00b	65.00b	90.00b	115.00b	135.00b	155.00b	175.00b
				Feb20	10.00b	30.00b	55.00b	80.00b	105.00b	125.00b	145.00b	165.00b
					Mar20	20.00b	45.00b	70.00b	95.00b	115.00b	135.00b	155.00b
						Apr20	25.00b	50.00b	75.00b	95.00b	115.00b	135.00b
							May20	25.00b	50.00b	70.00b	90.00b	110.00b
								Jun20	25.00b	45.00b	65.00b	85.00b
									Jul20	20.00b	40.00b	60.00b
										Aug20	20.00b	40.00b
											Sep20	20.00b
												Oct20



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