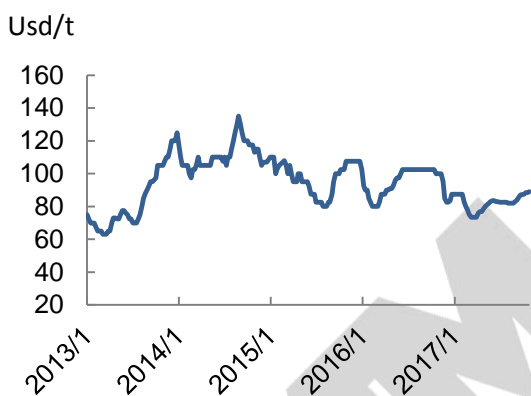


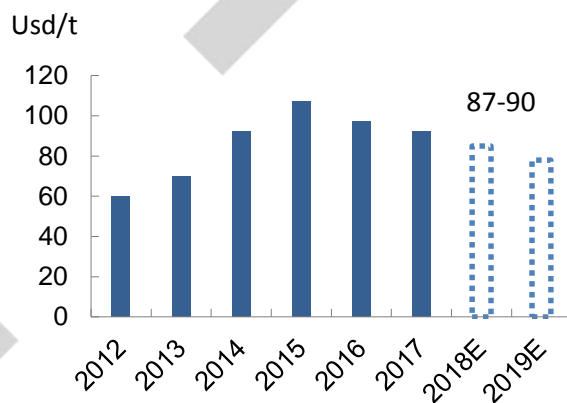
1. Annual TC Possibly to Drop in the Next 3 Years with 2018 TC at \$87-90/ton

SMM expected that 2018 world concentrate copper supply is estimated to increase by 650,000 mt. The new capacity of smelting copper in China is expected to be 1200000 mt, as for the scheduled projects, the expected increment would be 900,000 mt. Whereas the expected demand for the concentrate copper of the scheduled projects would be 600,000 MT due to the project scheduled. According to the policy constraints on copper scrap import and the estimated S&D balance of the year 2017, the tight balance of copper supply would continue to remain same in the incoming 2018. Meanwhile, the estimated annual TC would possibly be 87-90 USD/MT by SMM's forecasting.

1. Spot TC (Usd/t)

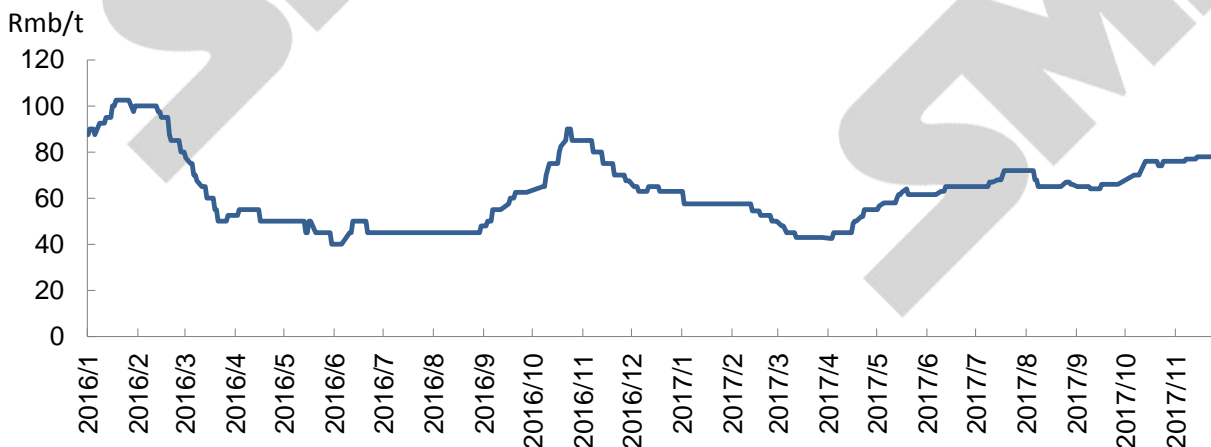


2. 2012-2019E Annual TC Contract (Usd/t)



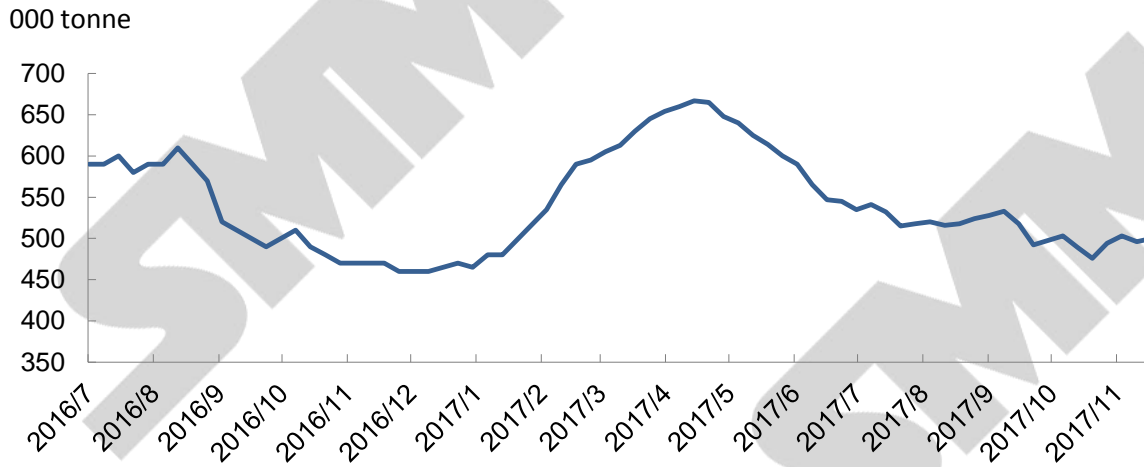
Source: SMM

3. Yangshan Copper Premium (Rmb/t)



Source: SMM

1. Free Trade Zone inventory (000 tonne)



Source: SMM

2. TC Sensitivity Analysis

SMM's analysis of the sensitivity to TC of three domestic smelters, which is based on 2018 TC forecast, reveals 1) Jiangxi Copper, with a high self-sufficiency ratio, will see low sensitivity in 2018 as copper prices are expected to edge up in 2018. 2) Tongling Nonferrous Metal's sensitivity to TC will be also low since its revenue from lithium battery copper foil business will increase after the commissioning of its 15,000 mt per annum of lithium battery copper foil project in 2018.

Table 1: TC Sensitivity Analysis for 2018 Expected Net Income

Company Name	Self-Sufficiency Rate (%)	2017 Expected Net Income	2018 Expected Annual TC (Usd/t)				
			70	75	80	85	90
Jiangxi Copper	16.20%	2198.57	2484.83	2510.8	2536.77	2562.74	2588.71
Tongling Nonferrous	4.07%	508.76	521.87	554.55	587.23	619.91	652.59
Yunnan Copper	9.30%	341.07	332.87	371.88	410.89	449.91	488.92

Source : SMM

Taking advantage of SHFE Zinc future calendar arbitrage opportunity

Trading strategy:

In 28th Dec, SHFE ZN1805 contract traded 14040 contracts and its turnover amounted to 1.74billion, which received an 0.912 billion increment compared to the last trading day.

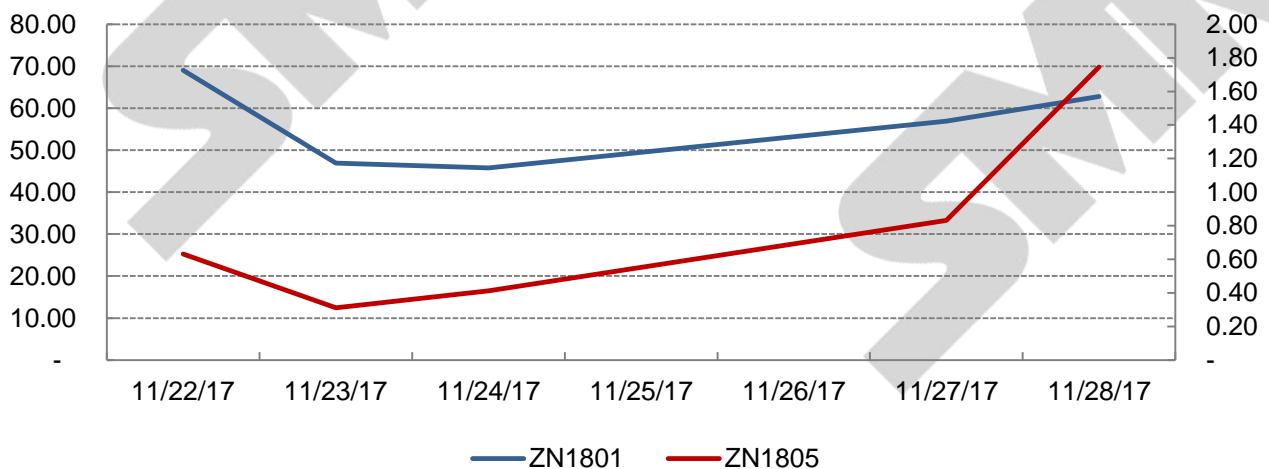
The mean of the corresponding spread has experienced an upwards shift through the last five days and broken the 10-day peak in 29th Dec.

This is mainly caused by the far-month future contract (SHFE ZN1805) has declined a larger drop than the dominant contract (SHFE ZN1801)

Suggested Strategy: Long low short high

Spread	Type	Ratio	Date	Intraday Price Interval	Last Five-day Price Interval
ZN1801-ZN1805	Calendar Arbitrage	1:01	11/23	[-65,10]	[-35,105]
			11/24	[-55,25]	[-65,105]
			11/27	[-40,45]	[-65,105]
			11/28	[-35,140]	[-65,105]
			11/29	[100,200]	[-65,140]

Contract Trading Turnover (Billion)



Remarks:

- 1) Please focus on the liquidity risk of the far-month contract
- 2) China's environment crackdown effects on Zinc supply and demand