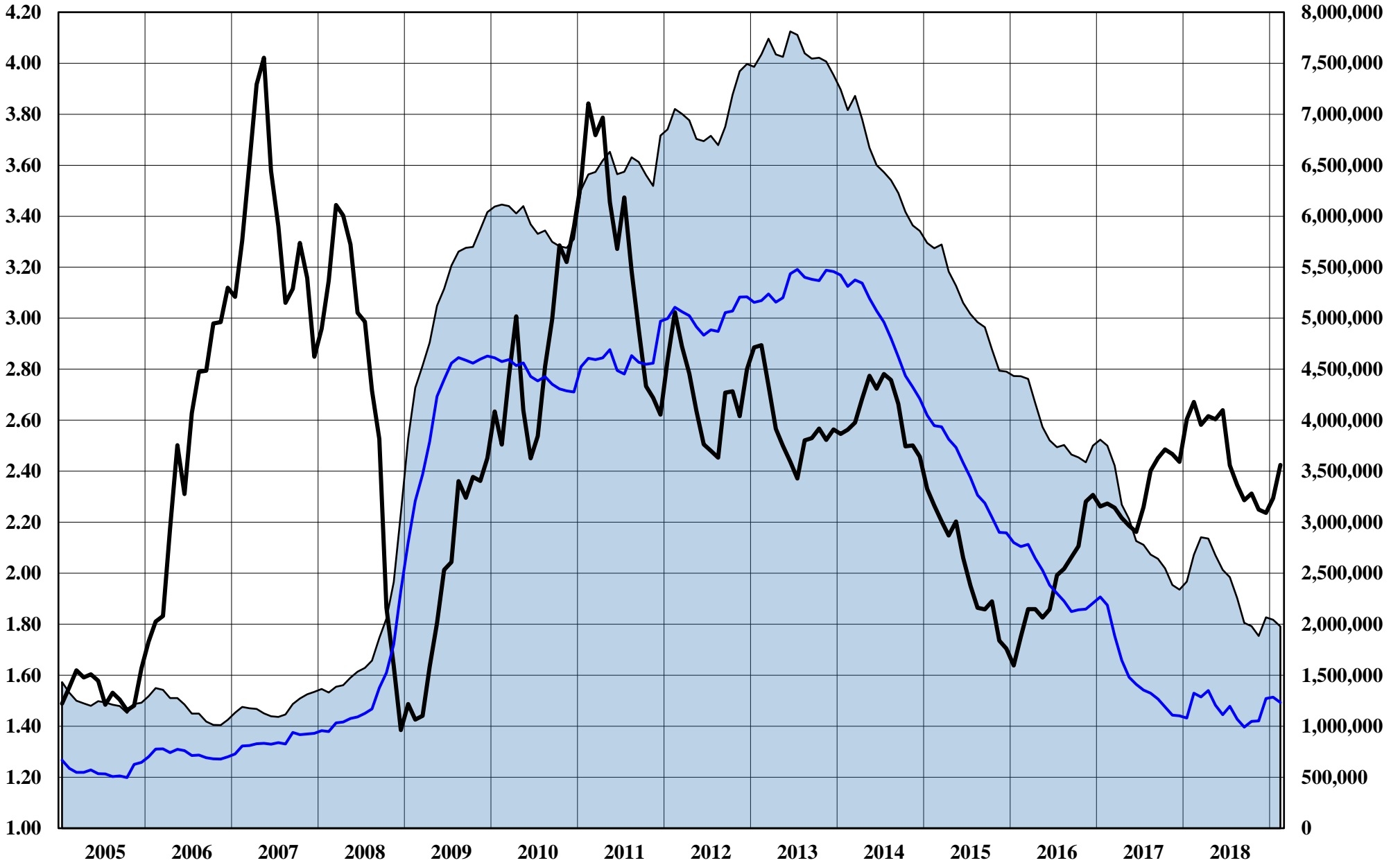


The Copper Journal
Monthly Report
Index Of Charts

- 1** Base Metals Barometer Vs Nonferrous Inventories
- 2** Price & Inventory Report
- 3** U.S. \$ Index
- 4** 1 \$ U.S. = Euro
- 5** 1 Euro = U.S. \$
- 6** Copper Vs Euro
- 7** Base Metals Barometer
- 8** Copper
- 9** Aluminum
- 10** Lead
- 11** Tin
- 12** Nickel
- 13** Zinc
- 14** 260 Brass
- 15** Silver
- 16** Gold
- 17** Platinum
- 18** Palladium
- 19** Crude Oil
- 20** Natural Gas
- 21** 2 Year Treasury Yield
- 22** 10 Year Treasury Yield
- 23** S&P 500
- 24** Shanghai Composite

John E Gross

The Copper Journal
Base Metals Barometer Vs Total Inventories
& Aluminum Inventories
2005 - March 2019



Total Nonferrous Inventories
 BMB
 Aluminum Inventories

JE Gross

The Copper Journal
Monthly Price & Inventory Report

	Prices									
	Monthly Average				Change					
	March 2018	December 2018	February 2019	March 2019	Mo / Mo		YTD		Yr / Yr	
US \$ Index (ICE)	89.72	96.59	96.27	96.54	0.27	0.3%	(0.05)	(0.1%)	6.82	7.6%
\$1 US = € Euro	€ 0.8105	€ 0.8787	€ 0.8813	€ 0.8850	€ 0.0037	0.4%	€ 0.0063	0.7%	€ 0.0745	9.2%
1 € Euro = \$ US	\$1.2338	\$1.1380	\$1.1347	\$1.1299	(\$0.0048)	(0.4%)	(\$0.0081)	(0.7%)	(\$0.1039)	(8.4%)
Cx Silver	\$16.39	\$14.71	\$15.76	\$15.21	(\$0.55)	(3.5%)	\$0.50	3.4%	(\$1.18)	(7.2%)
Cx Gold	\$1,324.28	\$1,252.25	\$1,318.45	\$1,298.53	(\$19.92)	(1.5%)	\$46.28	3.7%	(\$25.75)	(1.9%)
NYM Platinum	\$952.49	\$794.01	\$819.62	\$840.09	\$20.47	2.5%	\$46.08	5.8%	(\$112.40)	(11.8%)
NYM Palladium	\$980.84	\$1,215.39	\$1,442.23	\$1,510.23	\$68.00	4.7%	\$294.84	24.3%	\$529.39	54.0%
Base Metals Barometer *	2.58	2.24	2.42	2.47	0.05	2.1%	0.23	10.3%	(0.11)	(4.3%)
Cx Copper	\$3.0668	\$2.7234	\$2.8557	\$2.8997	\$0.0440	1.5%	\$0.1763	6.5%	(\$0.1671)	(5.4%)
LME Copper	\$3.0823	\$2.7640	\$2.8475	\$2.9258	\$0.0783	2.7%	\$0.1618	5.9%	(\$0.1565)	(5.1%)
LME Aluminum	\$0.9417	\$0.8759	\$0.8433	\$0.8491	\$0.0058	0.7%	(\$0.0268)	(3.1%)	(\$0.0926)	(9.8%)
LME Lead	\$1.0870	\$0.8913	\$0.9351	\$0.9317	(\$0.0034)	(0.4%)	\$0.0404	4.5%	(\$0.1553)	(14.3%)
LME Tin	\$9.62	\$8.72	\$9.64	\$9.72	\$0.0800	0.8%	\$1.00	11.5%	\$0.10	1.0%
LME Nickel	\$6.08	\$4.91	\$5.74	\$5.92	\$0.1800	3.1%	\$1.01	20.6%	(\$0.16)	(2.6%)
LME Zinc	\$1.4878	\$1.1906	\$1.2258	\$1.2932	\$0.0674	5.5%	\$0.1026	8.6%	(\$0.1946)	(13.1%)
NYM Crude Oil	\$62.77	\$48.98	\$54.98	\$58.17	\$3.19	5.8%	\$9.19	18.8%	(\$4.60)	(7.3%)
NYM Natural Gas	\$2.70	\$3.92	\$2.68	\$2.81	\$0.13	4.9%	(\$1.11)	(28.3%)	\$0.11	4.1%
S&P 500	2,703	2,567	2,754	2,804	50	1.8%	237	9.2%	101	3.7%
Shanghai Composite	3,252	2,568	2,779	3,048	269	9.7%	480	18.7%	(204)	(6.3%)
2 Year Treasury Bond Yield	2.28%	2.68%	2.50%	2.41%	(0.0009)	(3.6%)	(0.0027)	(10.1%)	0.0013	5.7%
10 Year Treasury Bond Yield	2.84%	2.83%	2.68%	2.57%	(0.0011)	(4.1%)	(0.0026)	(9.2%)	(0.0027)	(9.5%)

	Month End Inventories MT									
	Month Ending				Change					
	March 2018	December 2018	February 2019	March 2019	Mo / Mo		YTD		Yr / Yr	
Cx Copper	212,532	100,226	52,280	40,304	(11,976)	(22.9%)	(59,922)	(59.8%)	(172,228)	(81.0%)
LME Copper	383,075	132,175	126,100	168,525	42,425	33.6%	36,350	27.5%	(214,550)	(56.0%)
Shanghai Copper	306,211	118,686	227,049	261,412	34,363	15.1%	142,726	120.3%	(44,799)	(14.6%)
Total Copper	901,818	351,087	405,429	470,241	64,812	16.0%	119,154	33.9%	(431,577)	(47.9%)
LME Aluminum	1,286,300	1,271,200	1,232,950	1,129,175	(103,775)	(8.4%)	(142,025)	(11.2%)	(157,125)	(12.2%)
LME Lead	129,275	107,450	76,875	78,750	1,875	2.4%	(28,700)	(26.7%)	(50,525)	(39.1%)
LME Tin	2,060	2,175	1,325	1,000	(325)	(24.5%)	(1,175)	(54.0%)	(1,060)	(51.5%)
LME Nickel	320,586	207,330	196,782	182,575	(14,207)	(7.2%)	(24,755)	(11.9%)	(138,011)	(43.0%)
LME Zinc	212,825	129,325	64,550	52,325	(12,225)	(18.9%)	(77,000)	(59.5%)	(160,500)	(75.4%)

* The Base Metals Barometer is a weighted index of non-ferrous metal prices. January 2000 = 1.00

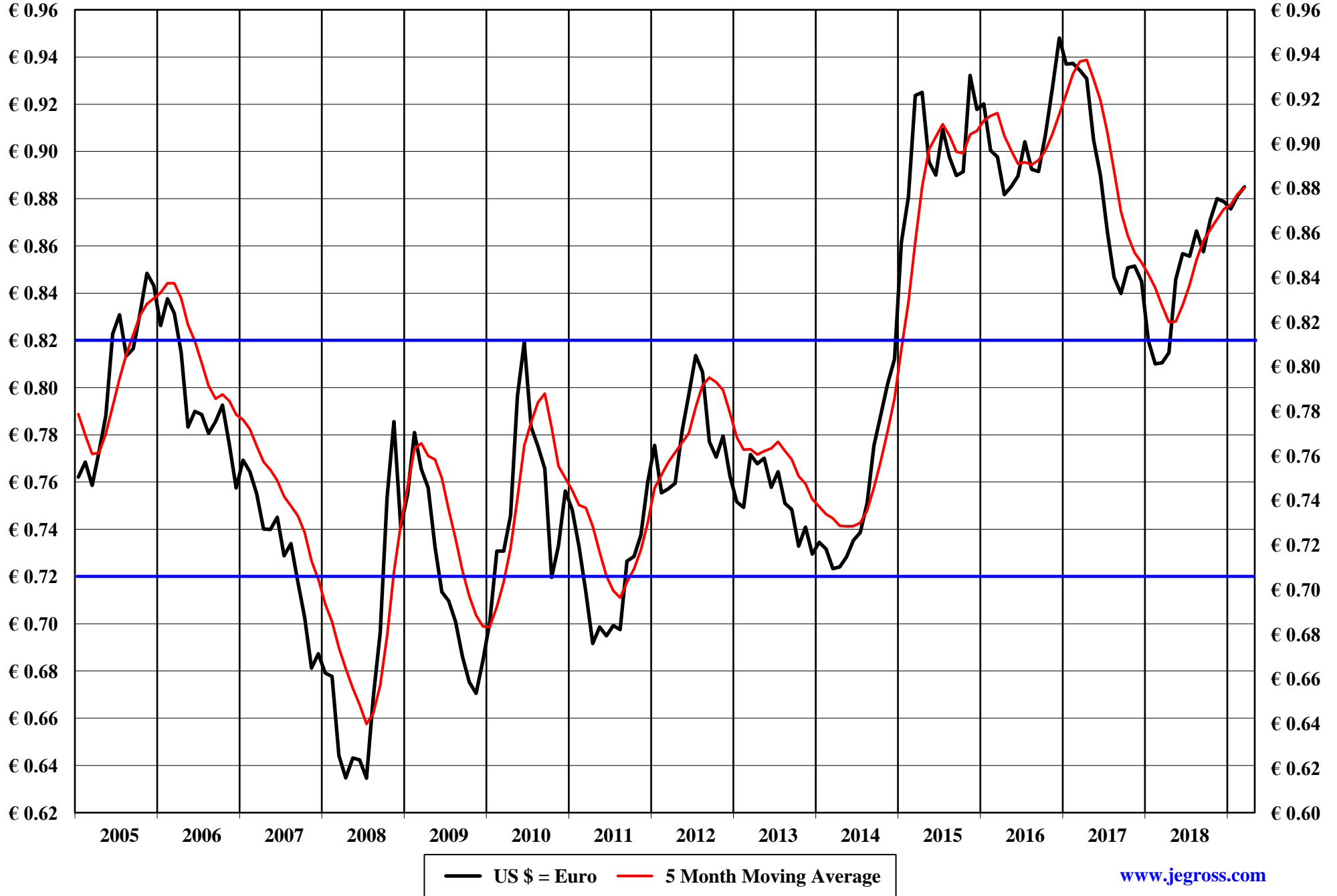
www.jegross.com

The Copper Journal
U.S. Dollar Index (ICE)
2005 - March 2019



— US \$ Index (ICE) — 5 Month Moving Average

The Copper Journal
\$1 U.S. = Euro
2005 - March 2019

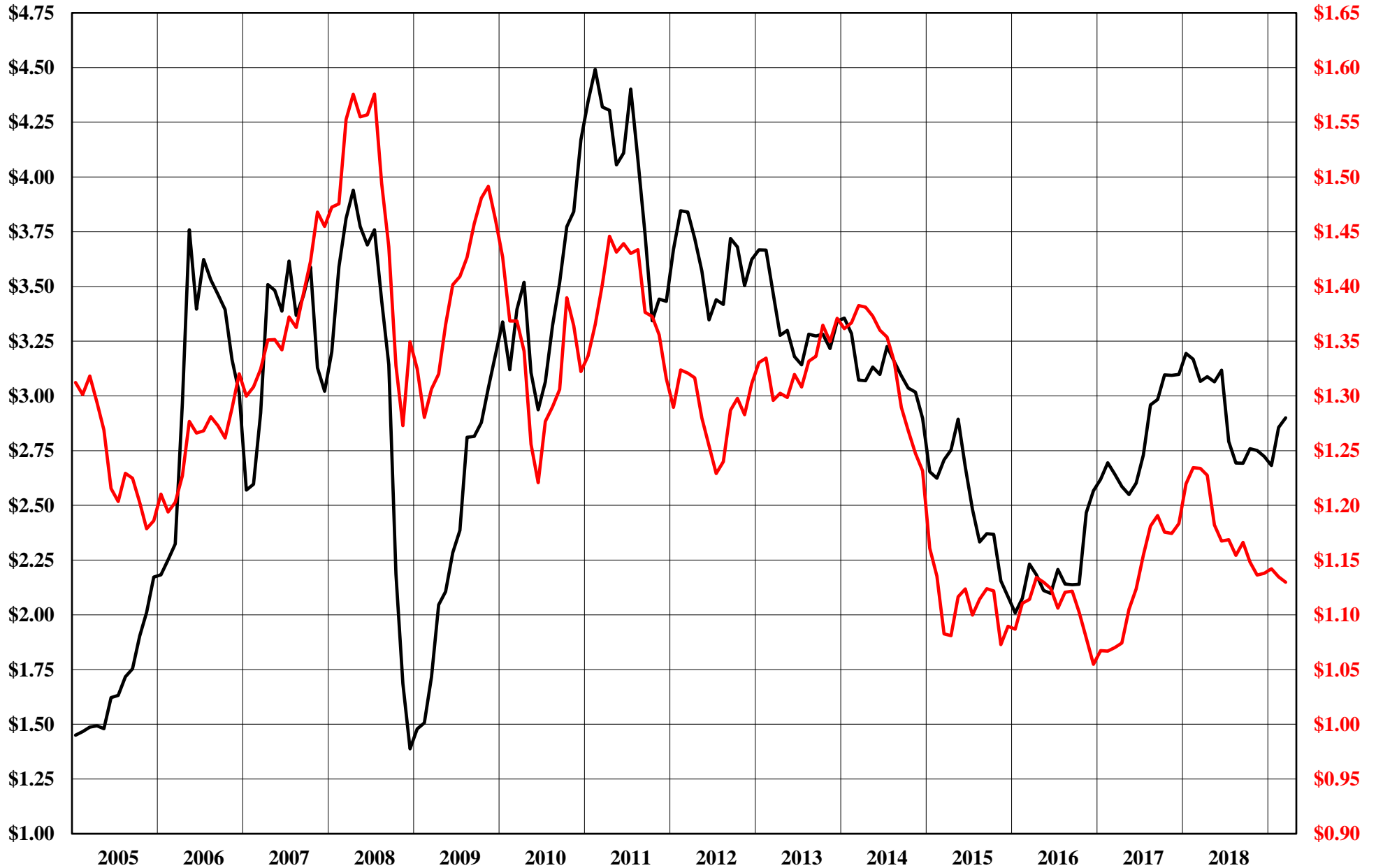


The Copper Journal
1 Euro = \$ U.S.
2005 - March 2019



— Euro = US \$ — 5 Month Moving Average

The Copper Journal
Copper Vs Euro
Monthly Average Price
2005 - March 2019



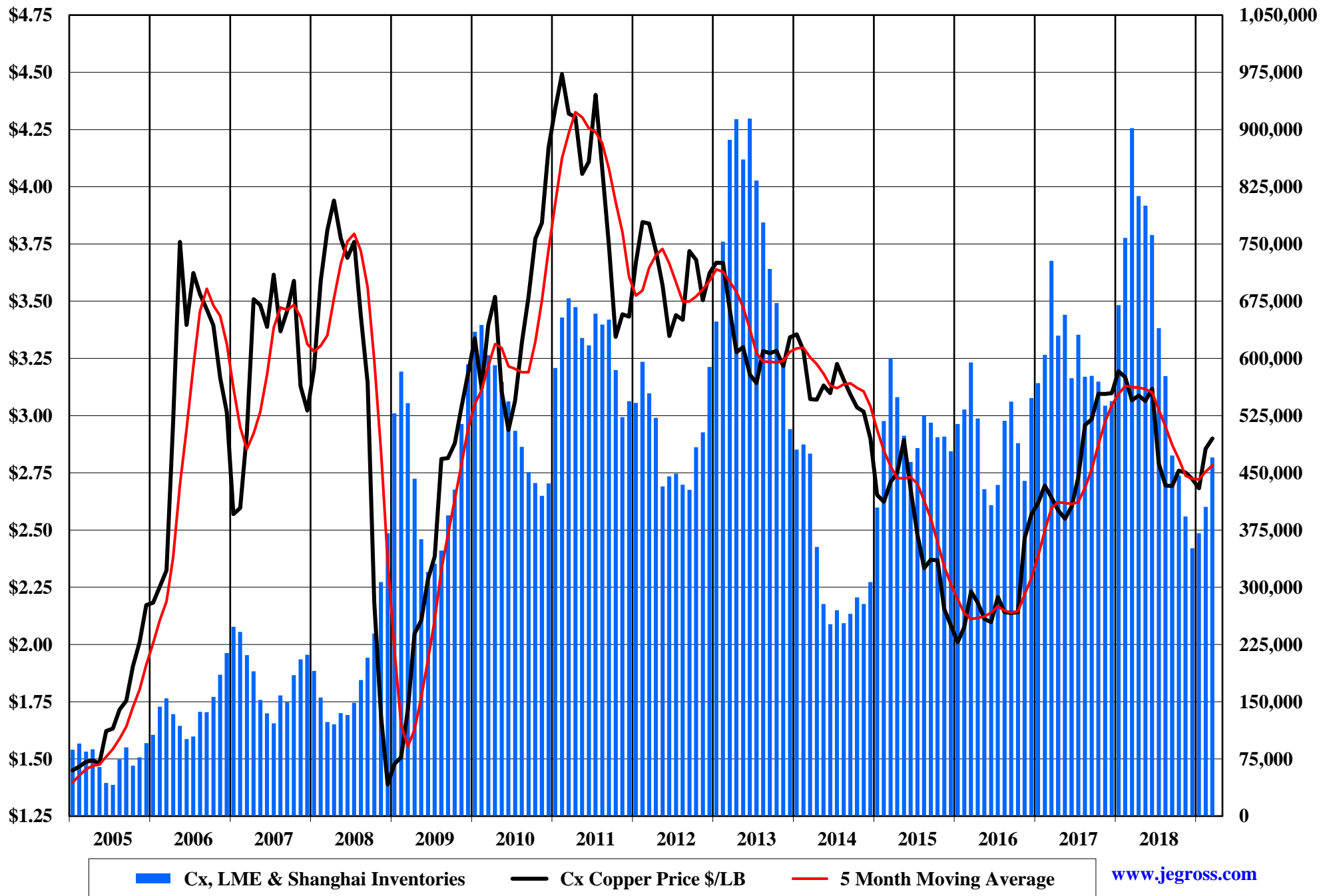
— Copper - \$ Per Pound — Euro = \$ U.S.

The Copper Journal
Base Metals Barometer
2005 - March 2019

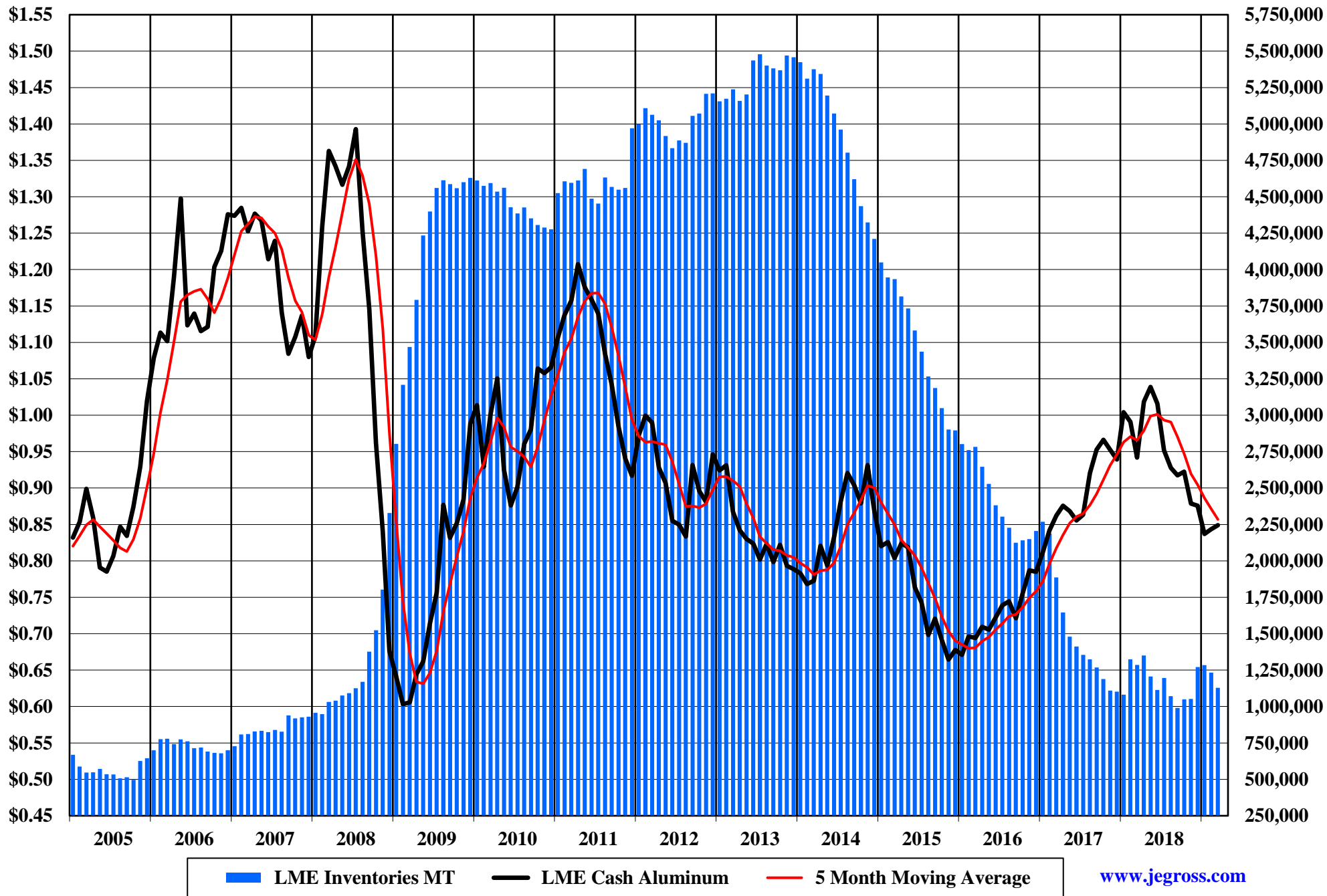


— BMB — 5 Month Moving Average

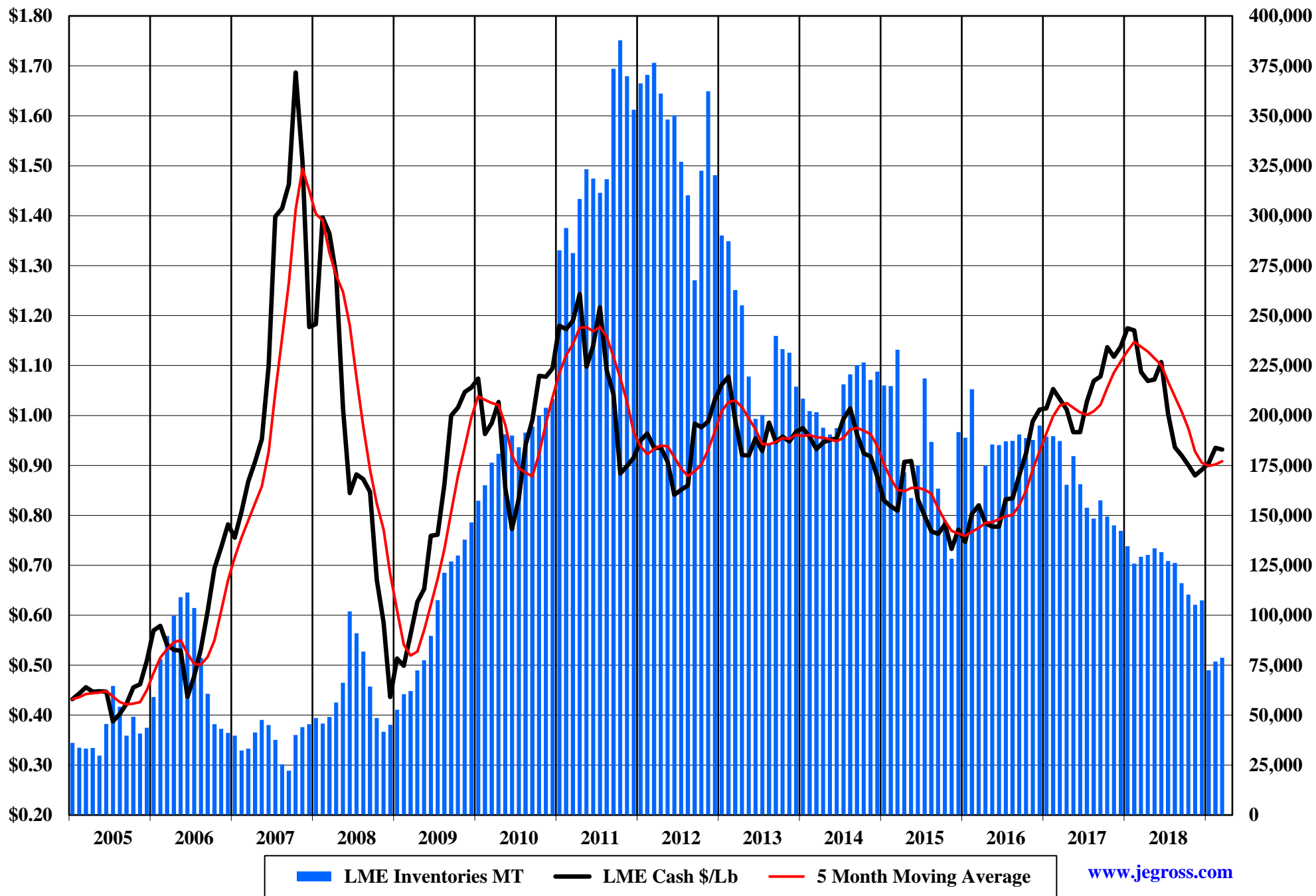
The Copper Journal
Copper
2005 - March 2019



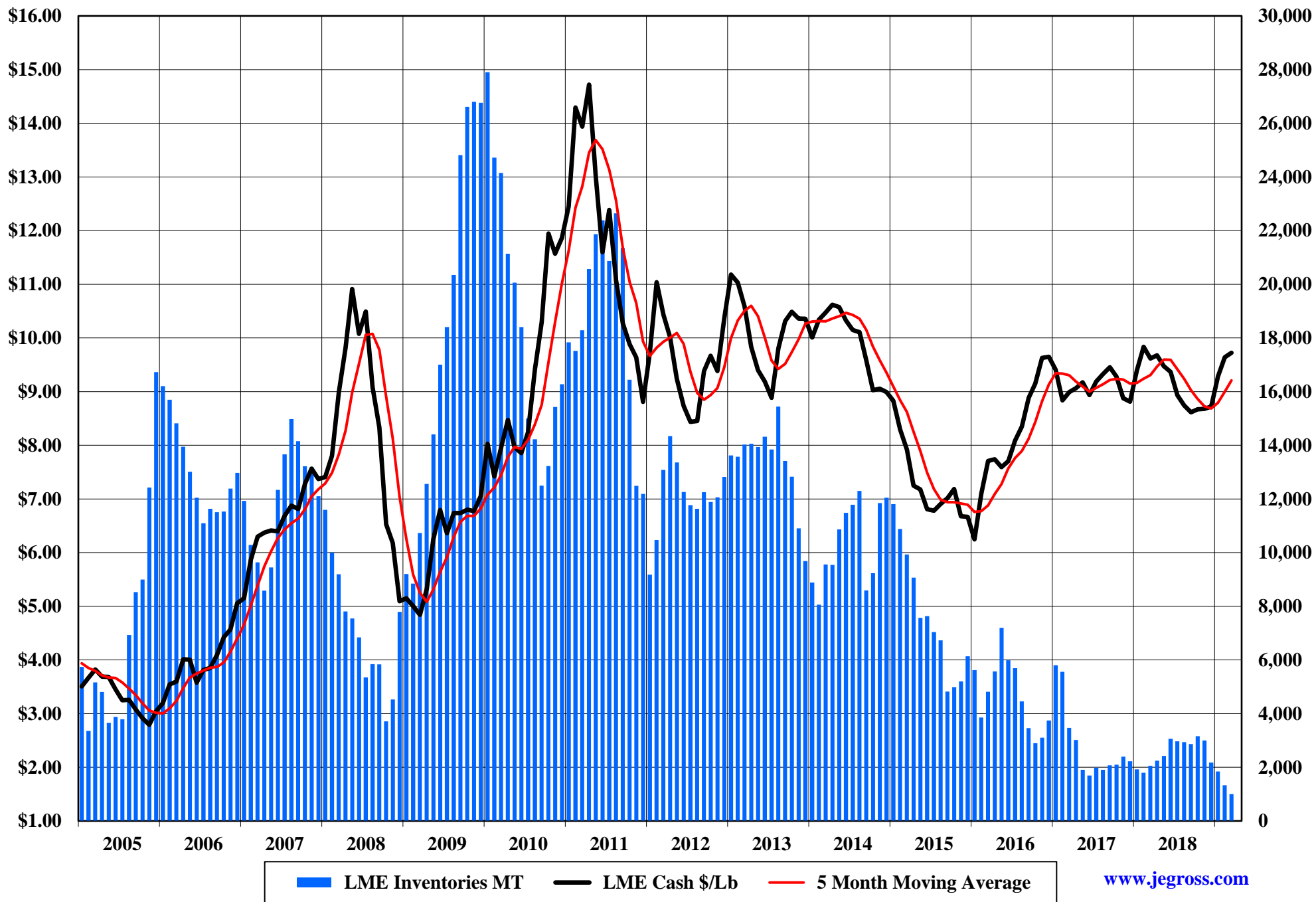
The Copper Journal
Aluminum
2005 - March 2019



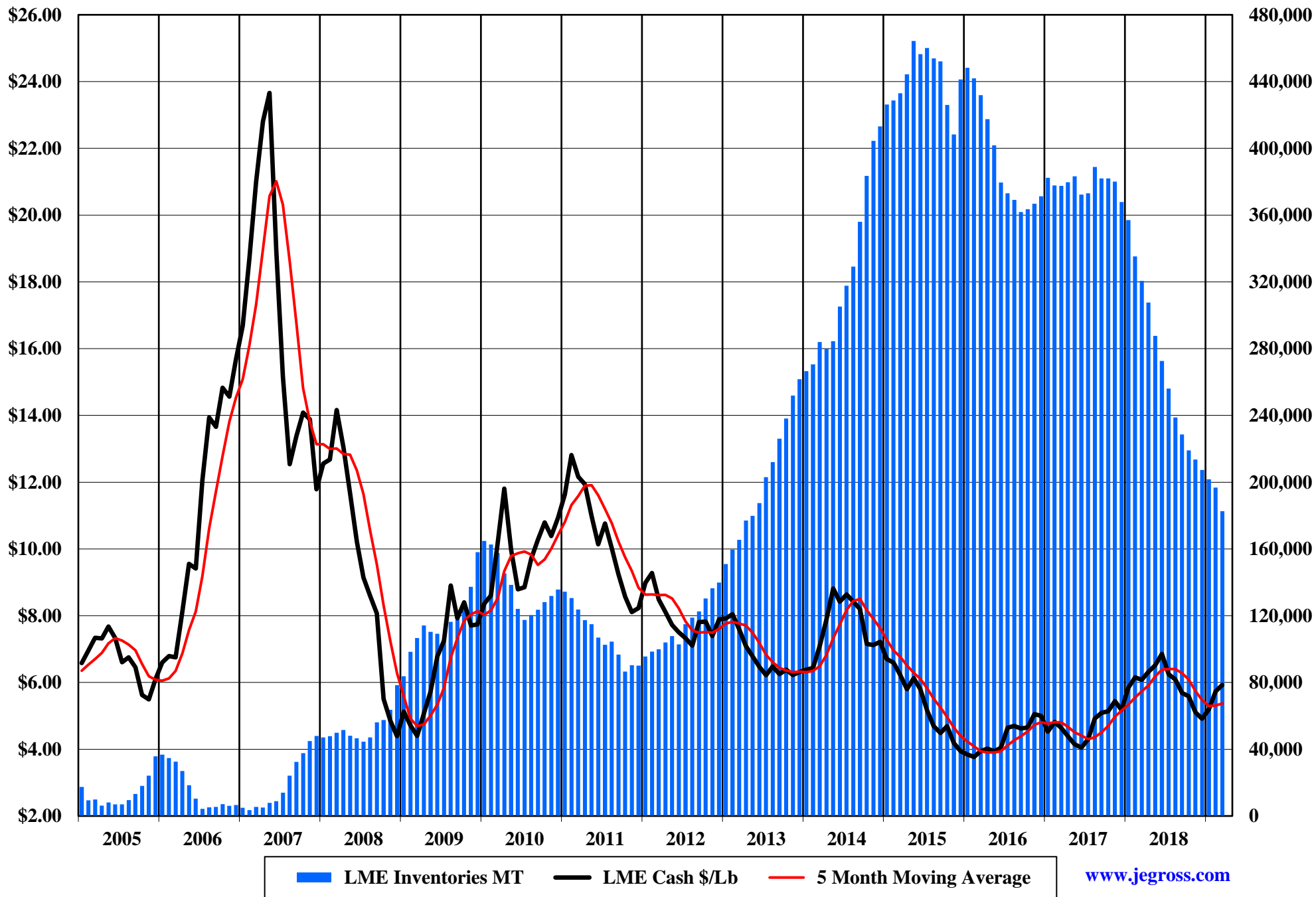
The Copper Journal
Lead
2005 - March 2019



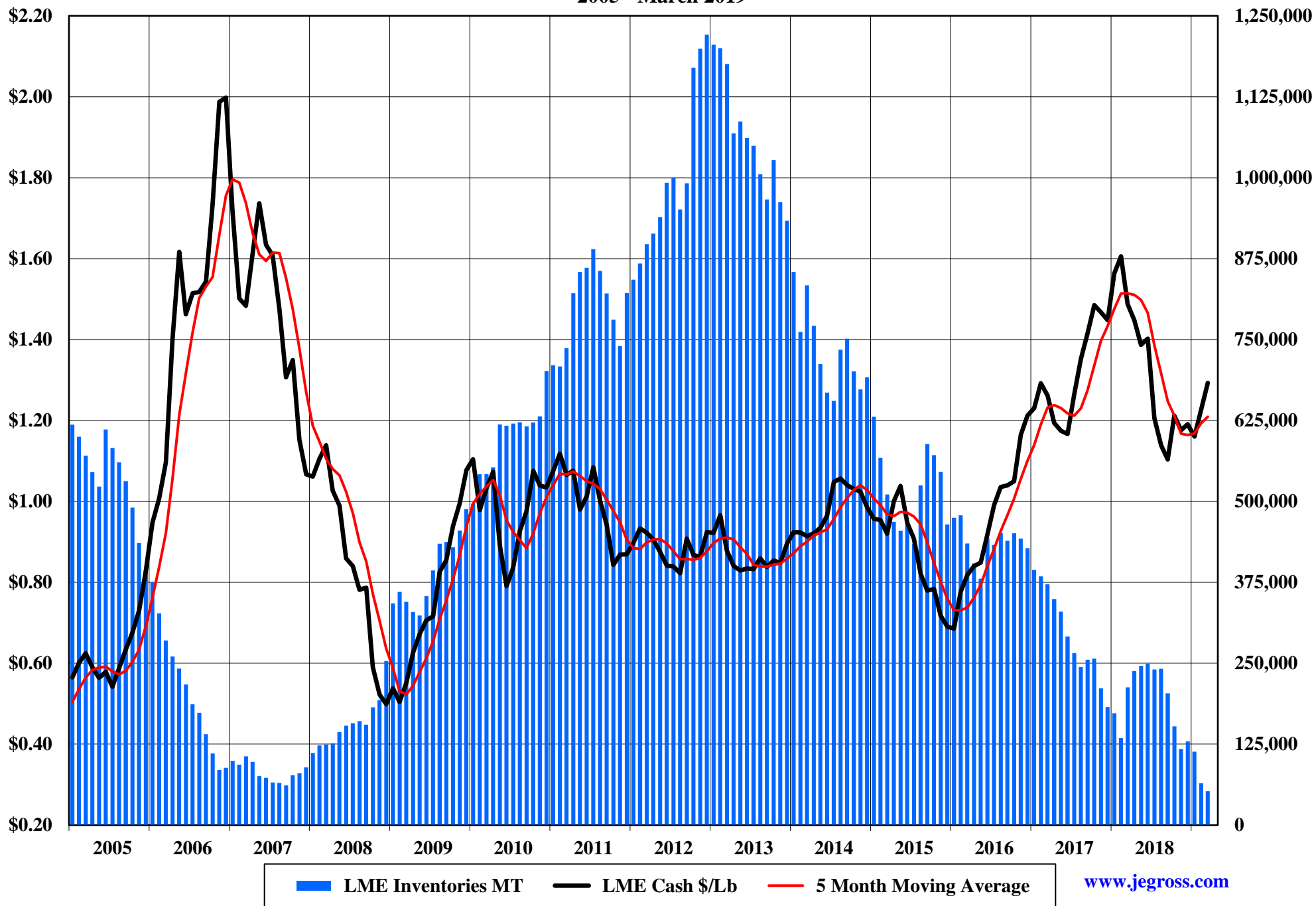
The Copper Journal
Tin
2005 - March 2019



The Copper Journal
Nickel
2005 - March 2019

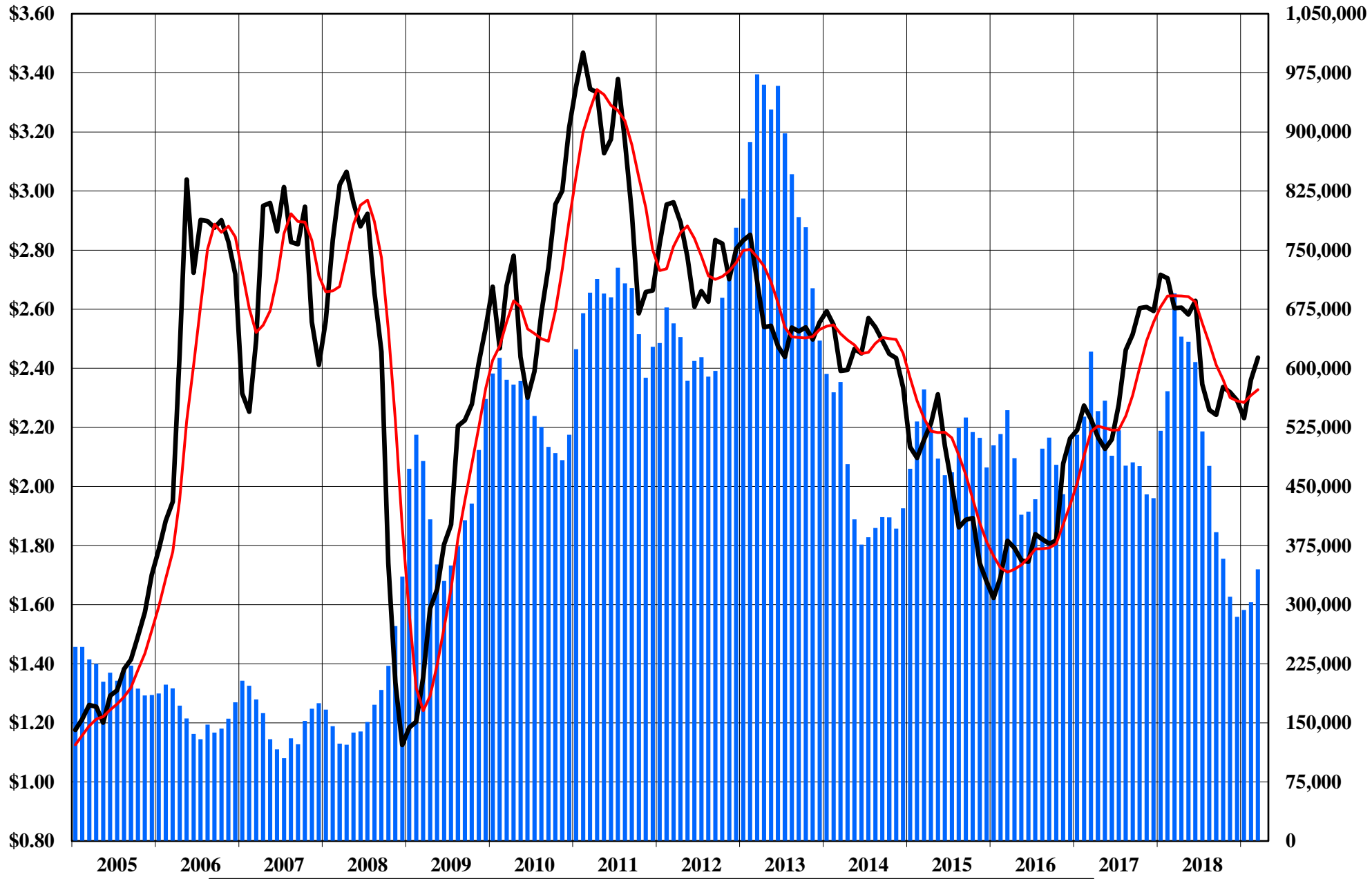


The Copper Journal
Zinc
2005 - March 2019



The Copper Journal
260 Brass
2005 - March 2019

70% Copper & 30% Zinc



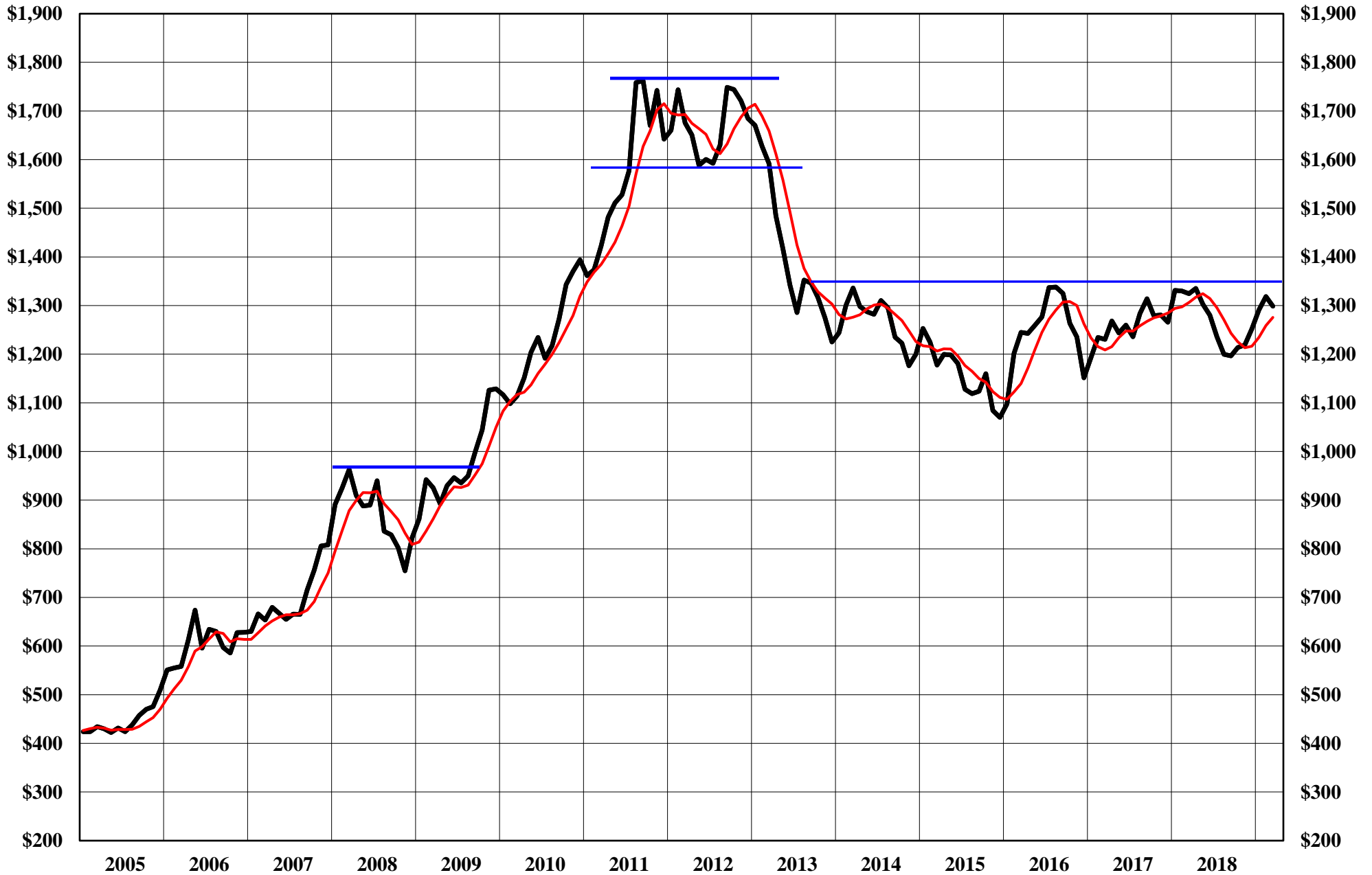
■ 260 Inventory Equalivent MT — 260 Brass — 5 Month Moving Average

The Copper Journal
Silver
2005 - March 2019



Comex Monthly Average - \$ Per Troy Ounce 5 Month Moving Average

The Copper Journal
Gold
2005 - March 2019



Comex Monthly Average Price - \$ Per Troy Ounce 5 Month Moving Average

The Copper Journal
Platinum
2005 - March 2019



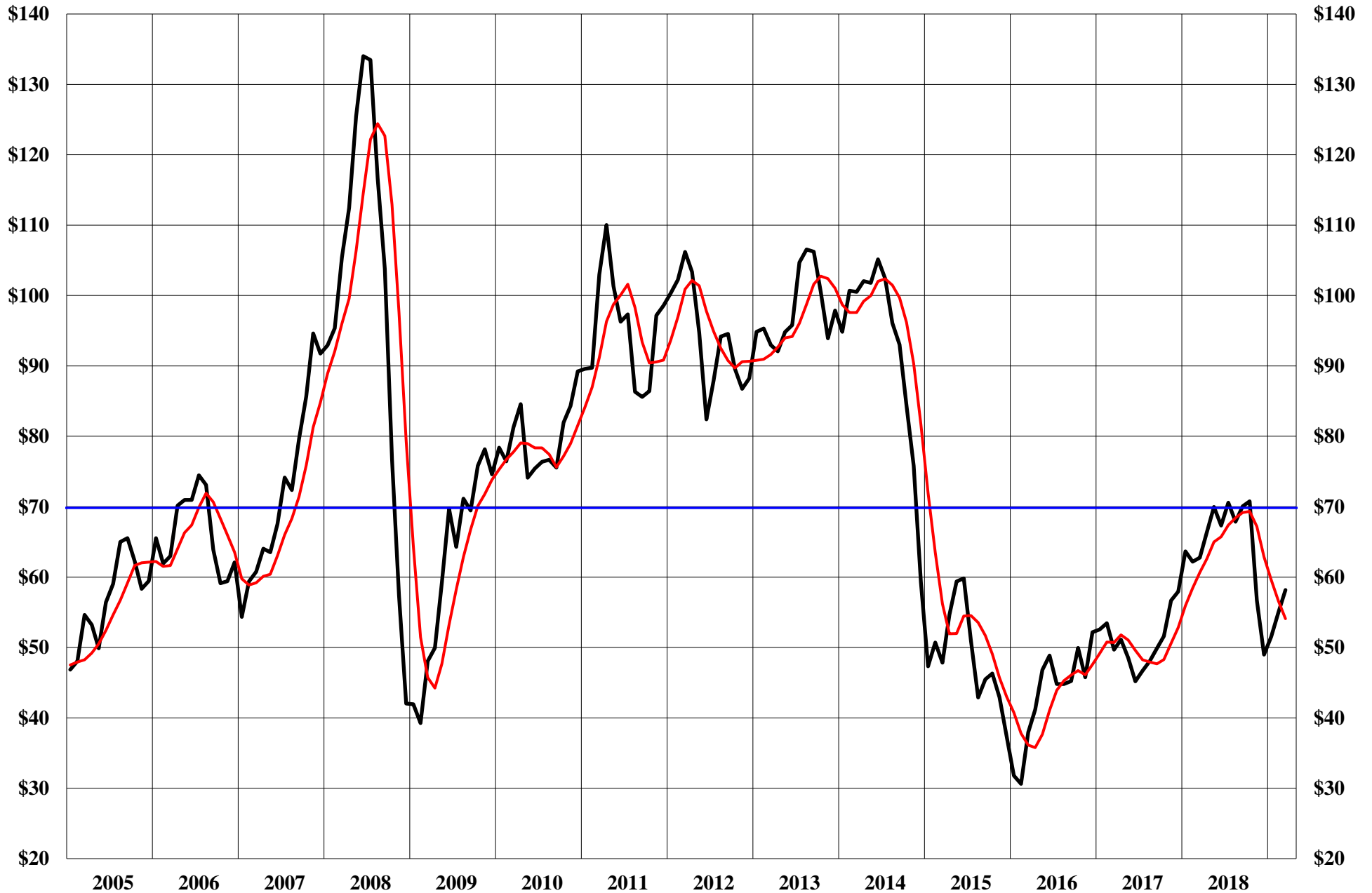
Nymex Monthly Average Price - \$ Per Troy Ounce 5 Month Moving Average

The Copper Journal
Palladium
2005 - March 2019



Nymex Monthly Average Price - \$ Per Troy Ounce — 5 Month Moving Average

The Copper Journal
Crude Oil
2005 - March 2019



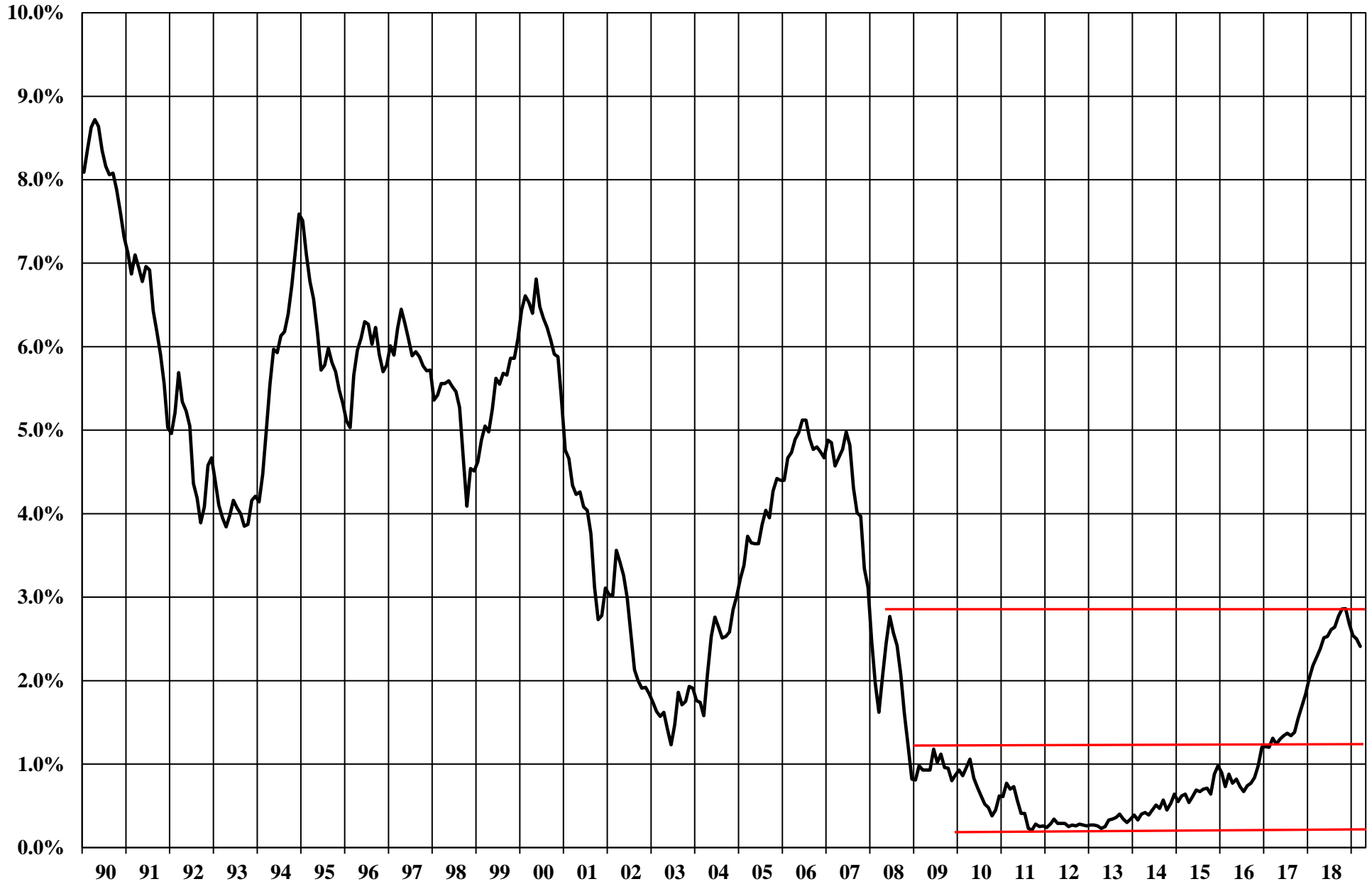
Nymex Monthly Average Price - \$ Per Barrel — 5 Month Moving Average

The Copper Journal
Natural Gas
2005 - March 2019



Nymex Monthly Average Price - \$ MM Btu — 5 Month Moving Average

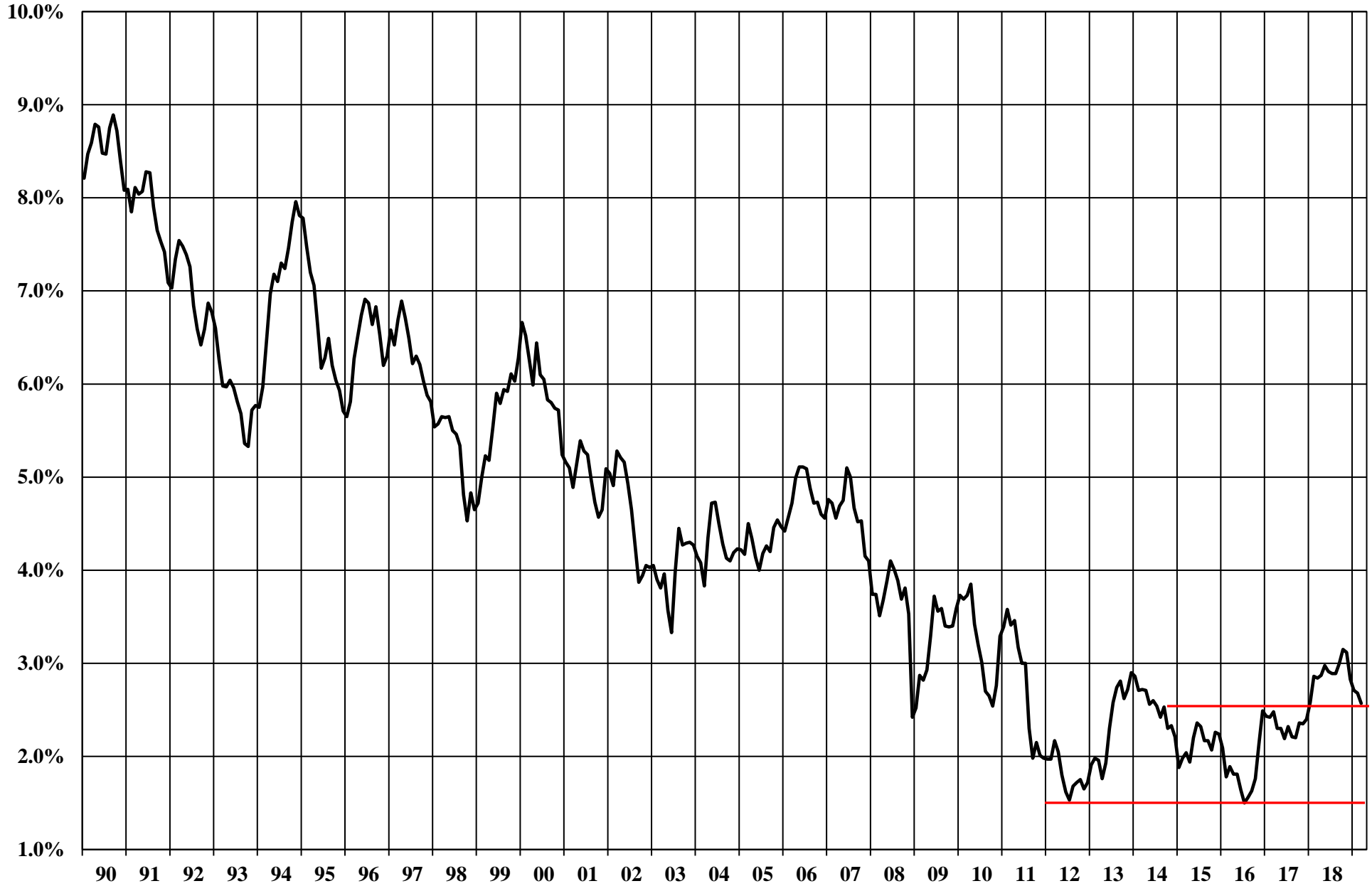
The Copper Journal
2 Year Treasury Bond Yield
Monthly Average
1990 - March 2019



Source: Federal Reserve Bank of St. Louis

www.jegross.com

The Copper Journal
10 Year Treasury Bond Yield
Monthly Average
1990 - March 2019



Source: Federal Reserve Bank of St. Louis

www.jegross.com

The Copper Journal
S&P 500
2005 - March 2019



— Monthly Average — 5 Month Moving Average

The Copper Journal
Shanghai Composite
2011 - March 2019



— Monthly Average — 5 Month Moving Average