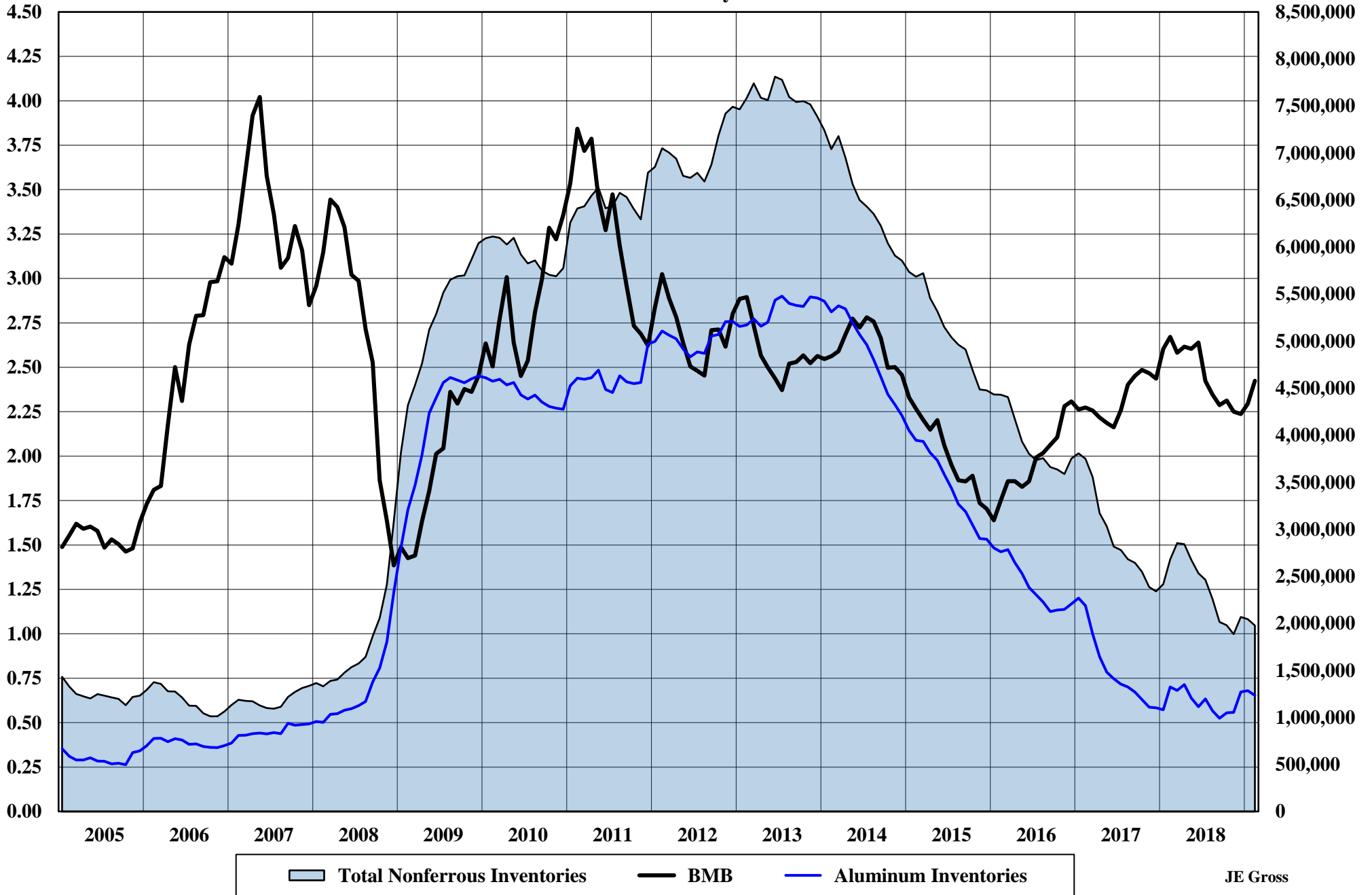


The Copper Journal
Monthly Report
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JE Gross

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



JE Gross

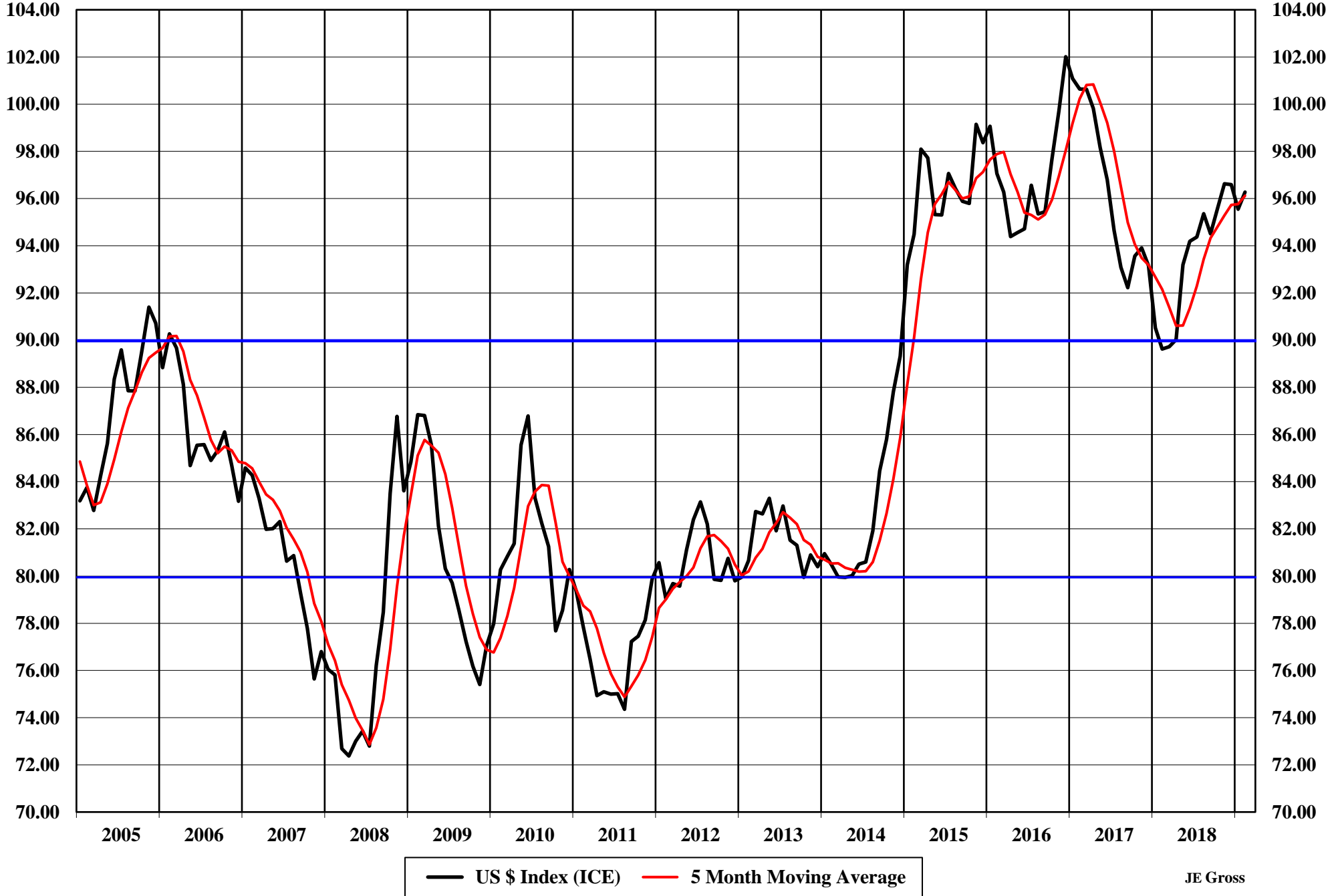
The Copper Journal
Monthly Price & Inventory Report

	Prices									
	Monthly Average				Change					
	February 2018	December 2018	January 2019	February 2019	Mo / Mo		YTD		Yr / Yr	
US \$ Index (ICE)	89.62	96.59	95.55	96.27	0.72	0.8%	(0.32)	(0.3%)	6.65	7.4%
\$1 US = € Euro	€ 0.8100	€ 0.8787	€ 0.8757	€ 0.8813	\$0.0056	0.6%	\$0.0026	0.3%	\$0.0713	8.8%
1 € Euro = \$ US	\$1.2345	\$1.1380	\$1.1420	\$1.1347	(\$0.0073)	(0.6%)	(\$0.0033)	(0.3%)	(\$0.0998)	(8.1%)
Cx Silver	\$16.54	\$14.71	\$15.59	\$15.76	\$0.17	1.1%	\$1.05	7.1%	(\$0.78)	(4.7%)
Cx Gold	\$1,330.06	\$1,252.25	\$1,290.86	\$1,318.45	\$27.59	2.1%	\$66.20	5.3%	(\$11.61)	(0.9%)
NYM Platinum	\$989.42	\$794.01	\$807.22	\$819.62	\$12.40	1.5%	\$25.61	3.2%	(\$169.80)	(17.2%)
NYM Palladium	\$1,016.95	\$1,215.39	\$1,315.08	\$1,442.23	\$127.15	9.7%	\$226.84	18.7%	\$425.28	41.8%
Base Metals Barometer *	2.67	2.24	2.29	2.42	0.13	5.7%	0.18	8.0%	(0.25)	(9.4%)
Cx Copper	\$3.1674	\$2.7234	\$2.6824	\$2.8557	\$0.1733	6.5%	\$0.1323	4.9%	(\$0.3117)	(9.8%)
LME Copper	\$3.1758	\$2.7640	\$2.6905	\$2.8475	\$0.1570	5.8%	\$0.0835	3.0%	(\$0.3283)	(10.3%)
LME Aluminum	\$0.9909	\$0.8759	\$0.8371	\$0.8433	\$0.0062	0.7%	(\$0.0326)	(3.7%)	(\$0.1476)	(14.9%)
LME Lead	\$1.1704	\$0.8913	\$0.9043	\$0.9351	\$0.0308	3.4%	\$0.0438	4.9%	(\$0.2353)	(20.1%)
LME Tin	\$9.83	\$8.72	\$9.29	\$9.64	\$0.3500	3.8%	\$0.92	10.6%	(\$0.19)	(1.9%)
LME Nickel	\$6.16	\$4.91	\$5.19	\$5.74	\$0.5500	10.6%	\$0.83	16.9%	(\$0.42)	(6.8%)
LME Zinc	\$1.6054	\$1.1906	\$1.1605	\$1.2258	\$0.0653	5.6%	\$0.0352	3.0%	(\$0.3796)	(23.6%)
NYM Crude Oil	\$62.18	\$48.98	\$51.55	\$54.98	\$3.43	6.7%	\$6.00	12.2%	(\$7.20)	(11.6%)
NYM Natural Gas	\$2.66	\$3.92	\$3.09	\$2.68	(\$0.41)	(13.3%)	(\$1.24)	(31.6%)	\$0.02	0.8%
S&P 500	2,705	2,567	2,607	2,754	147	5.6%	187	7.3%	49	1.8%
Shanghai Composite	3,296	2,568	2,556	2,779	223	8.7%	211	8.2%	(517)	(15.7%)
2 Year Treasury Bond Yield	2.18%	2.68%	2.54%	2.50%	(0.0004)	(1.6%)	(0.0018)	(6.7%)	0.0032	14.7%
10 Year Treasury Bond Yield	2.86%	2.83%	2.71%	2.68%	(0.0003)	(1.1%)	(0.0015)	(5.3%)	(0.0018)	(6.3%)

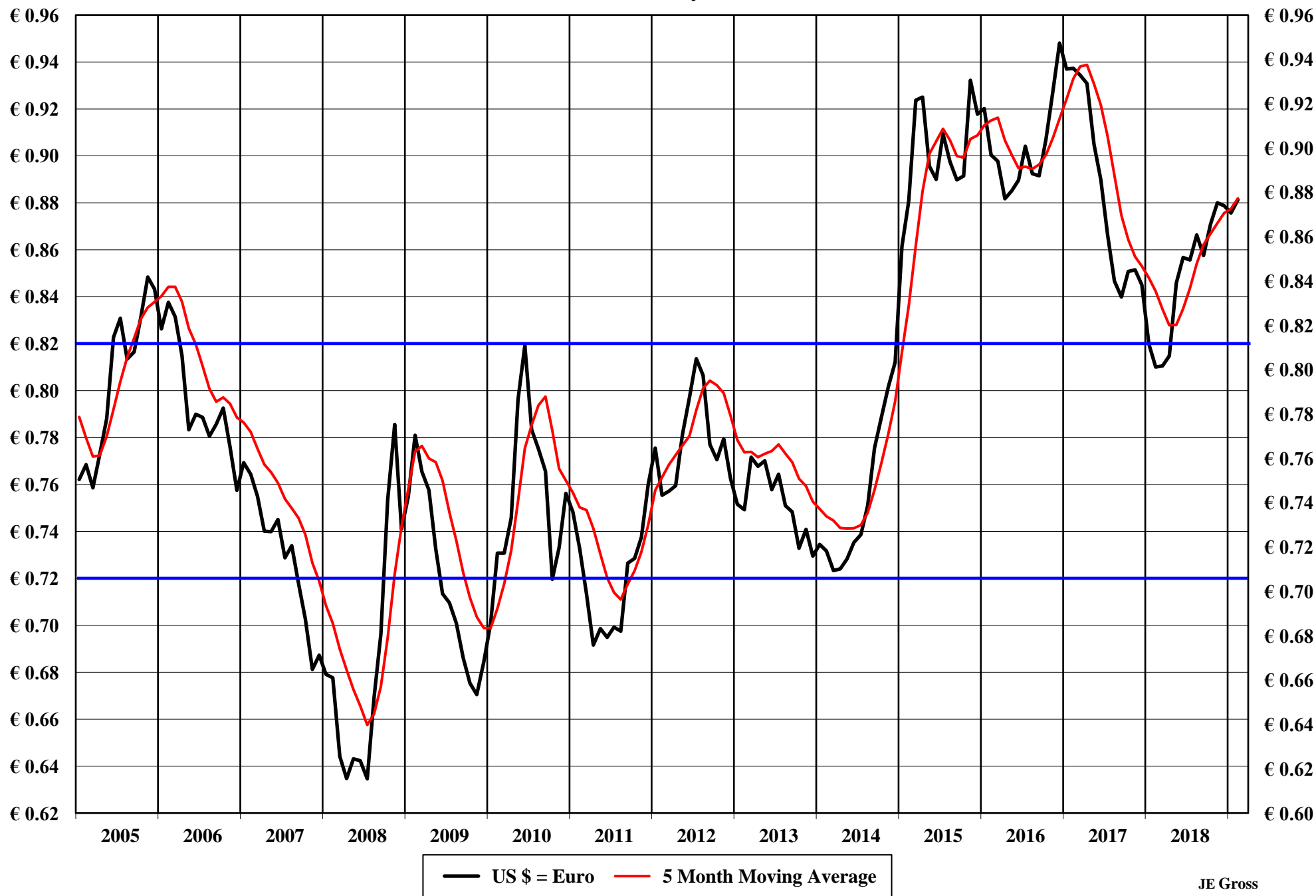
	Month End Inventories MT									
	Month Ending				Change					
	February 2018	December 2018	January 2019	February 2019	Mo / Mo		YTD		Yr / Yr	
Cx Copper	208,740	100,226	77,991	52,280	(25,711)	(33.0%)	(47,946)	(47.8%)	(156,460)	(75.0%)
LME Copper	330,800	132,175	149,950	126,100	(23,850)	(15.9%)	(6,075)	(4.6%)	(204,700)	(61.9%)
Shanghai Copper	218,532	118,686	142,727	227,049	84,322	59.1%	108,363	91.3%	8,517	3.9%
Total Copper	758,072	351,087	370,668	405,429	34,761	9.4%	54,342	15.5%	(352,643)	(46.5%)
LME Aluminum	1,324,475	1,271,200	1,284,125	1,232,950	(51,175)	(4.0%)	(38,250)	(3.0%)	(91,525)	(6.9%)
LME Lead	125,800	107,450	72,450	76,875	4,425	6.1%	(30,575)	(28.5%)	(48,925)	(38.9%)
LME Tin	1,795	2,175	1,845	1,325	(520)	(28.2%)	(850)	(39.1%)	(470)	(26.2%)
LME Nickel	335,280	207,330	201,702	196,782	(4,920)	(2.4%)	(10,548)	(5.1%)	(138,498)	(41.3%)
LME Zinc	134,435	129,325	113,200	64,550	(48,650)	(43.0%)	(64,775)	(50.1%)	(69,885)	(52.0%)

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

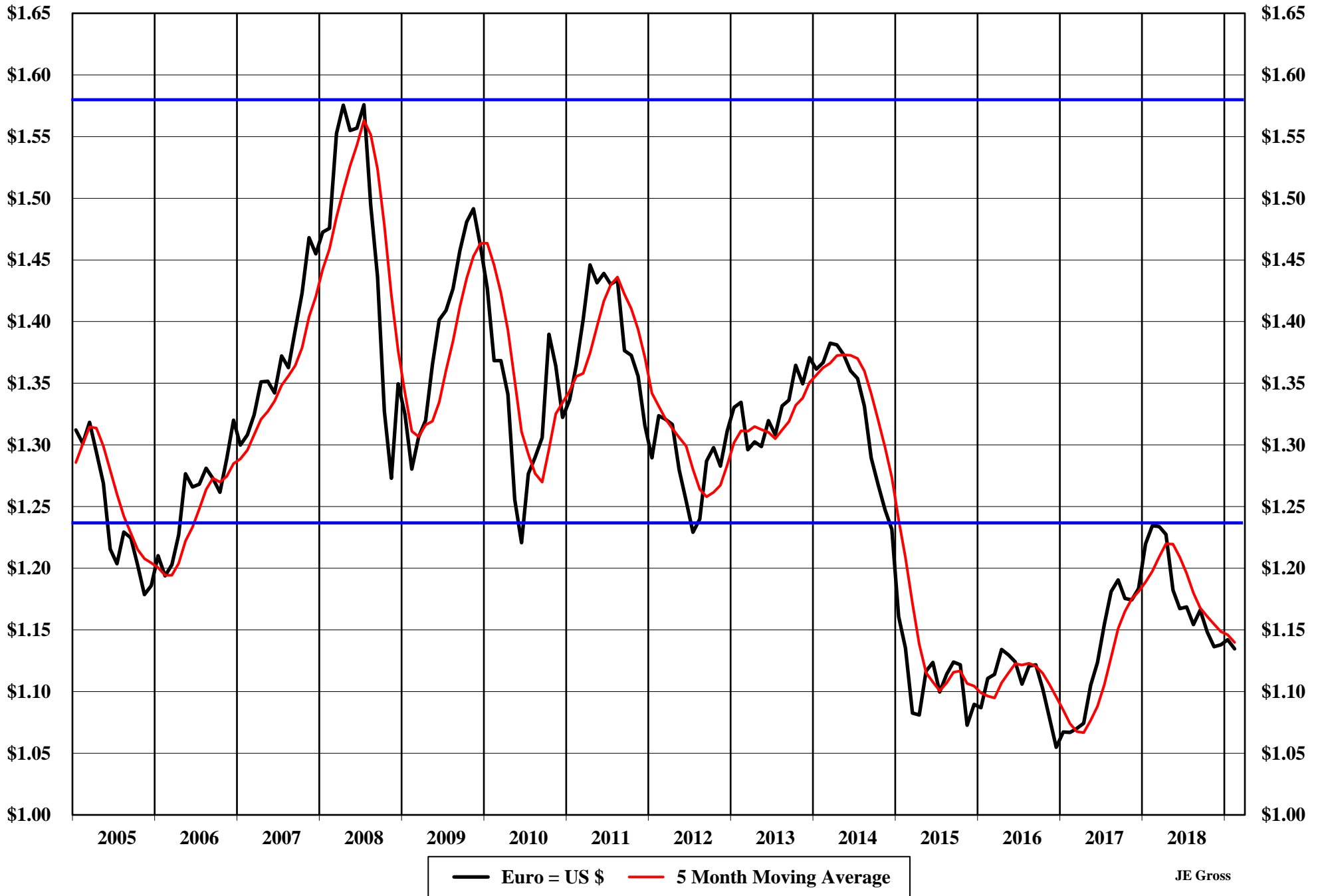
The Copper Journal
U.S. Dollar Index (ICE)
2005 - February 2019



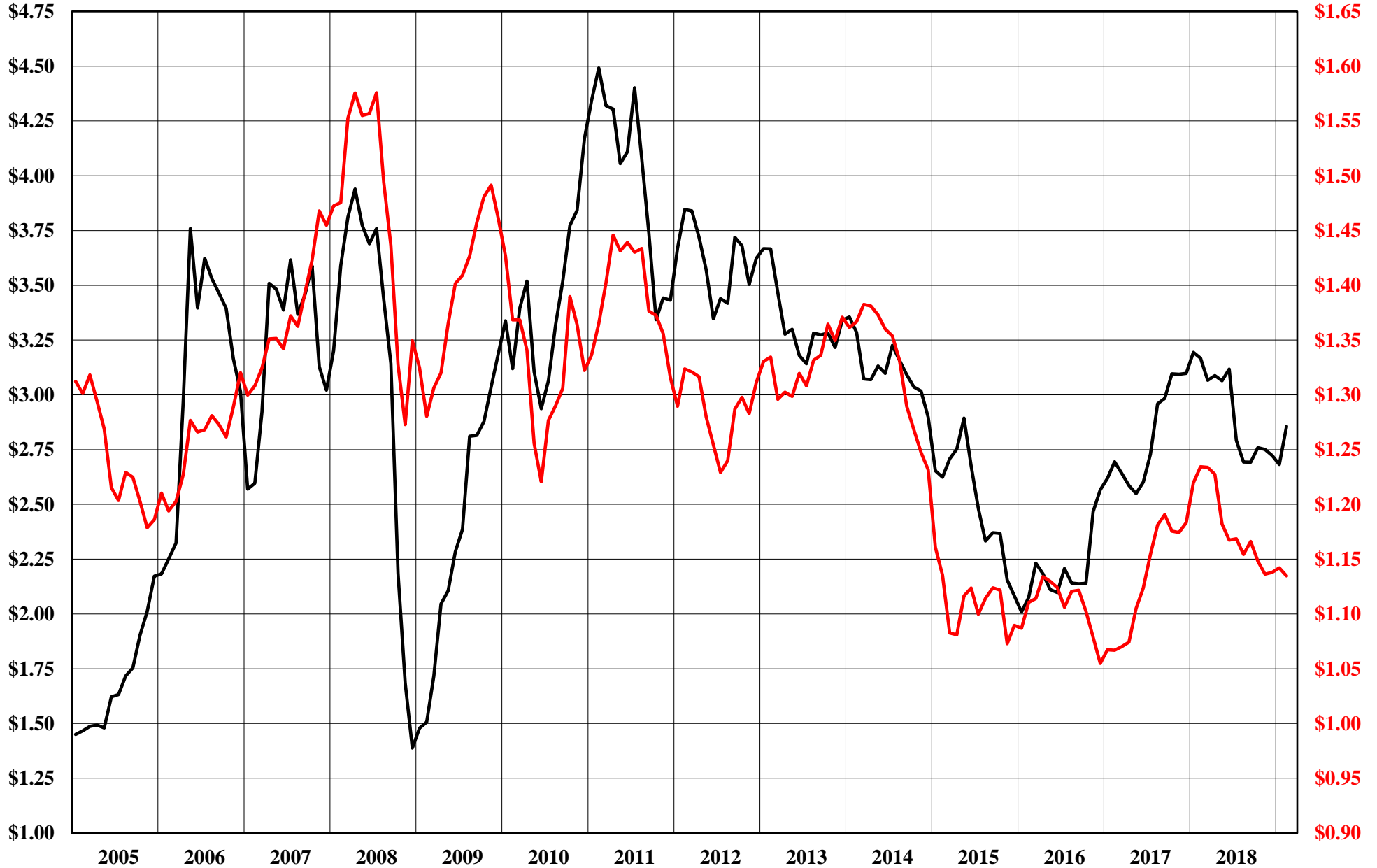
The Copper Journal
\$1 U.S. = Euro
2005 - February 2019



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



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



Copper - \$ Per Pound

Euro = \$ U.S.

JE Gross

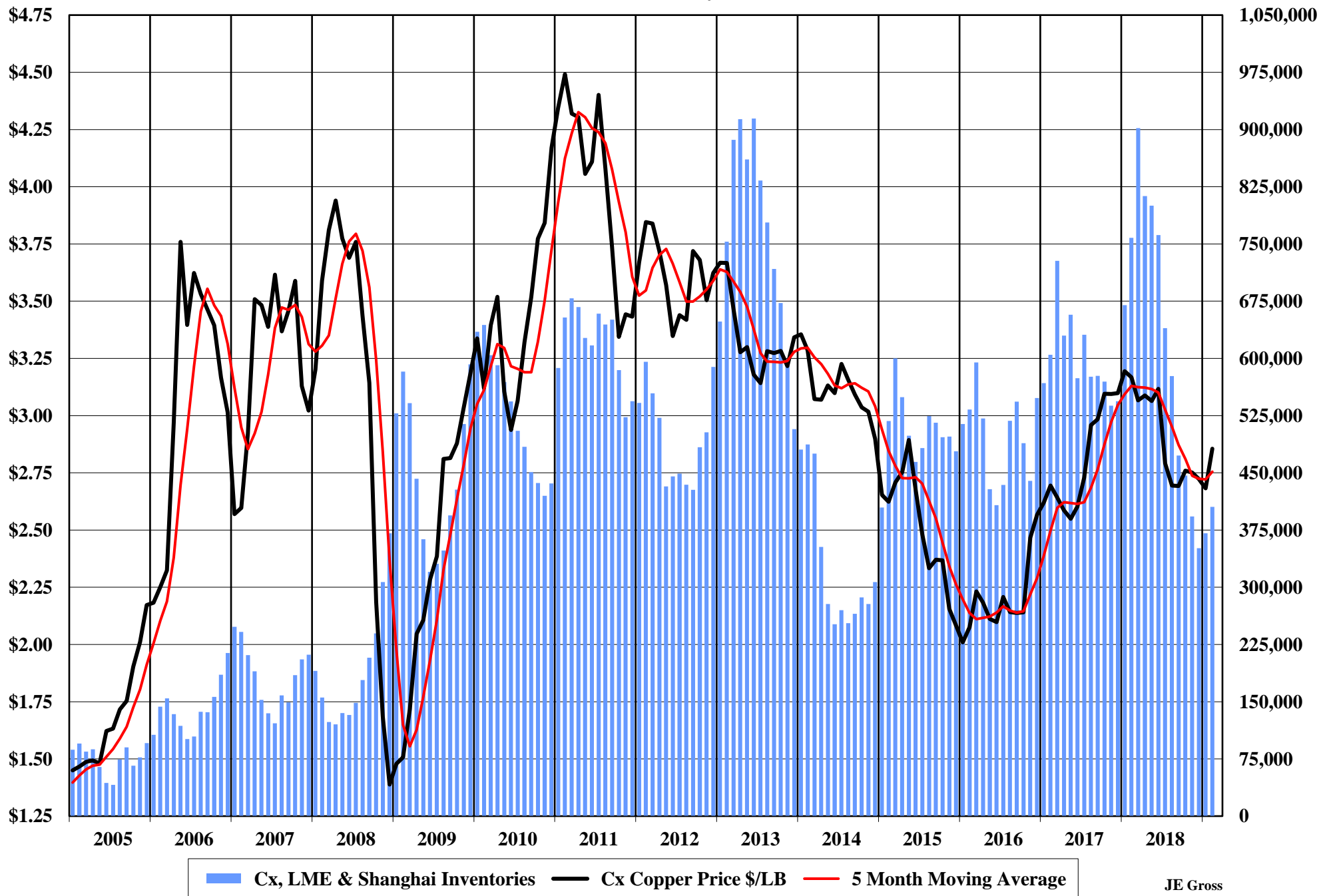
The Copper Journal
Base Metals Barometer
2005 - February 2019



— BMB — 5 Month Moving Average

JE Gross

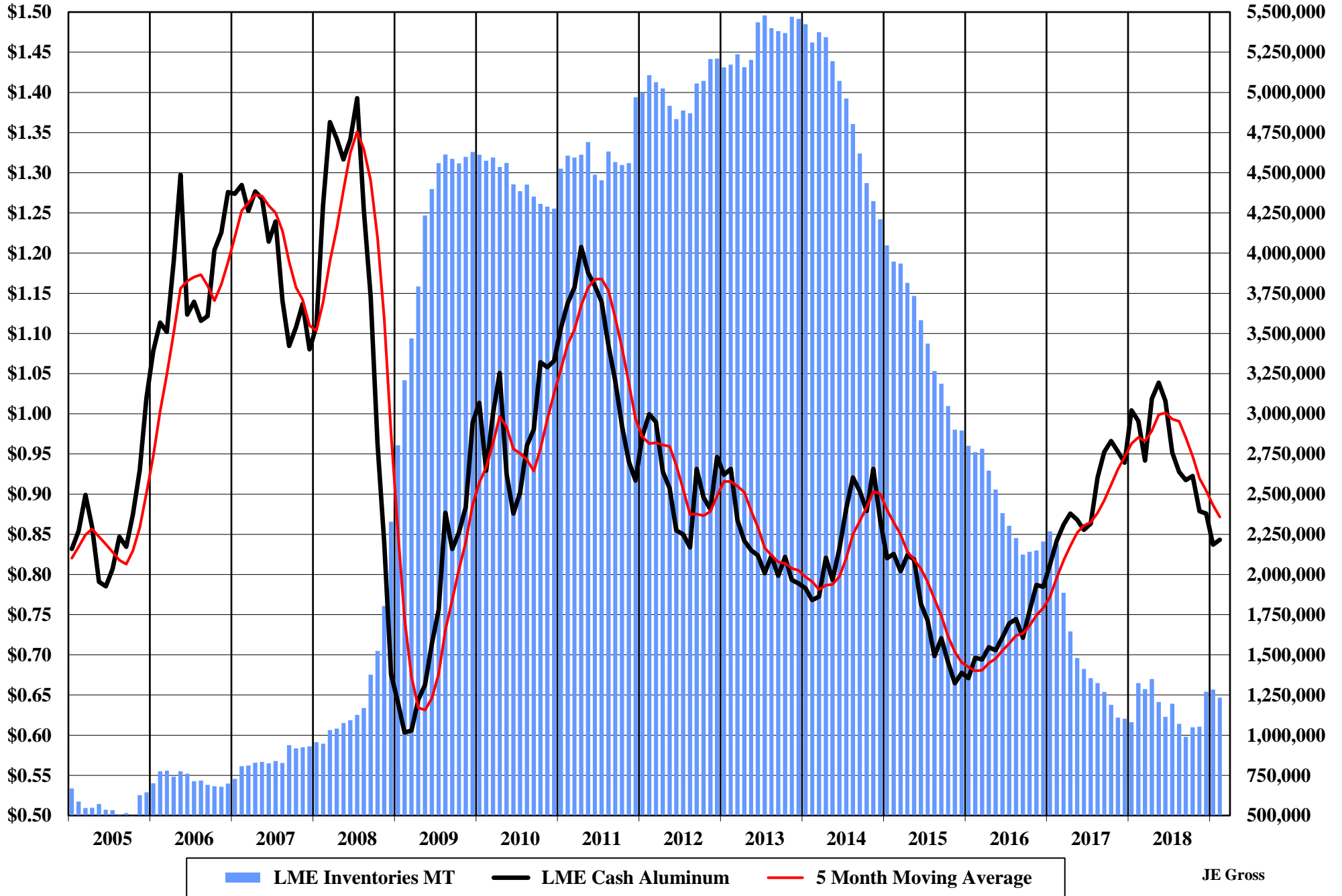
The Copper Journal
Copper
2005 - February 2019



JE Gross

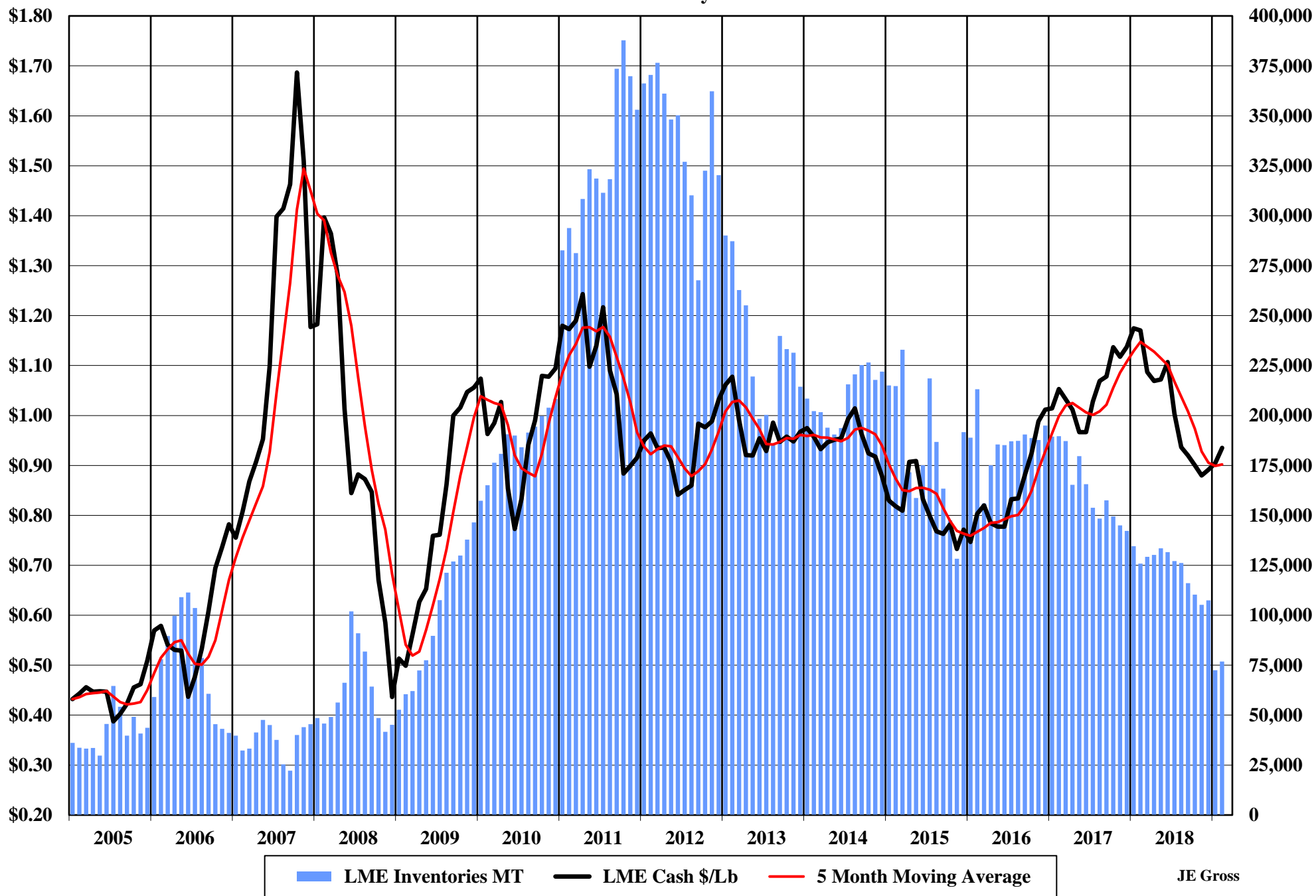
The Copper Journal Aluminum

2005 - February 2019

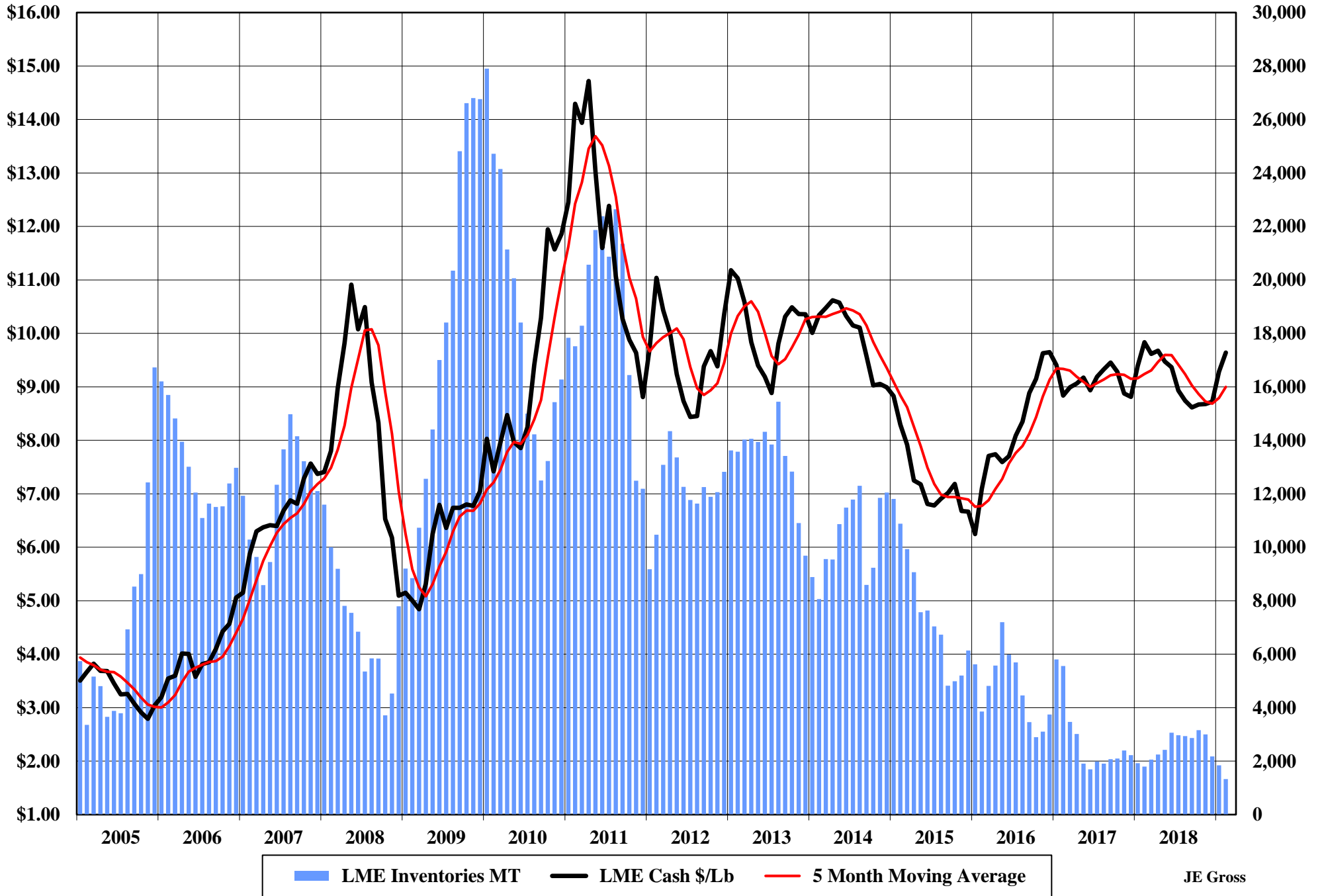


The Copper Journal Lead

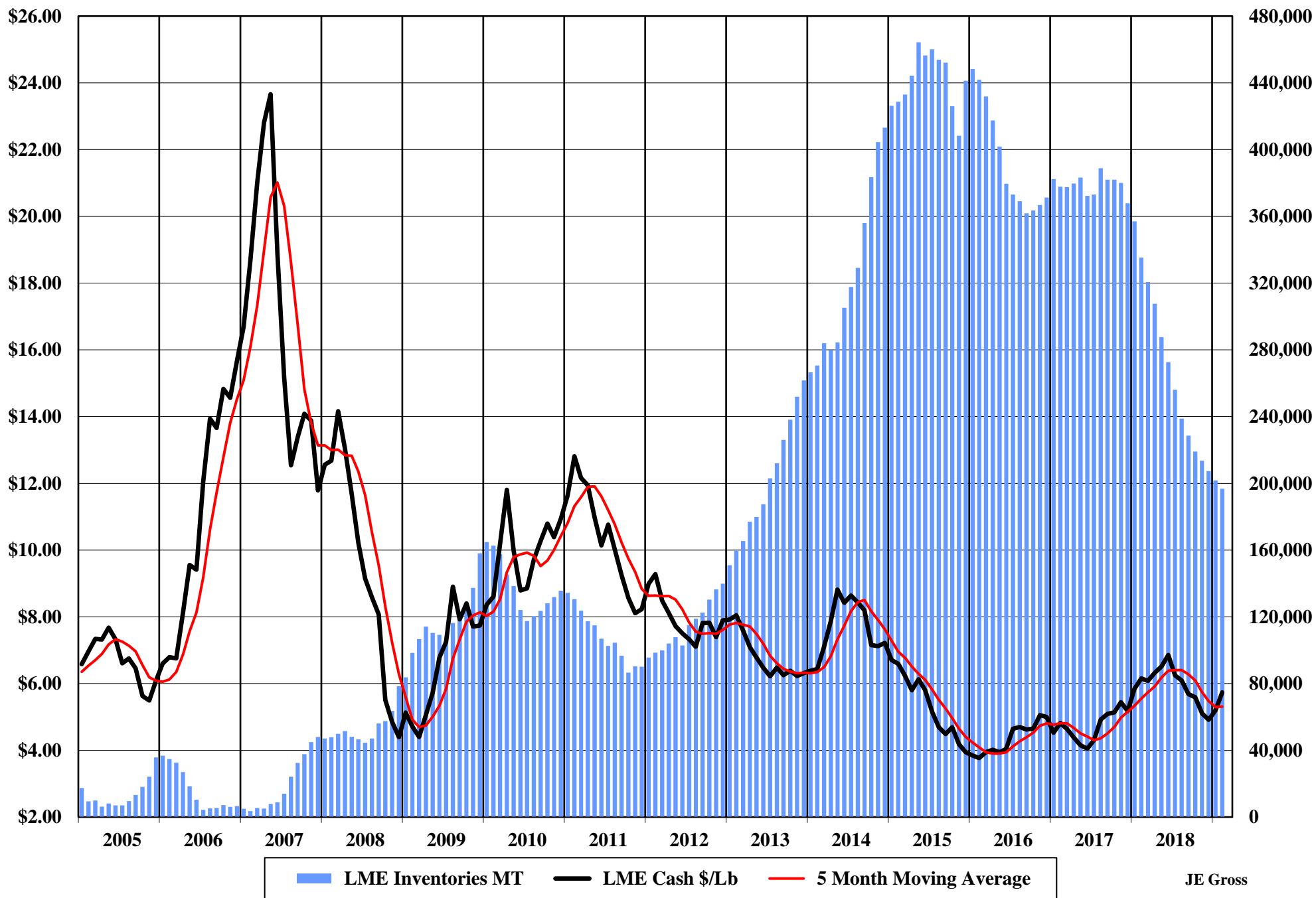
2005 - February 2019



The Copper Journal
Tin
2005 - February 2019

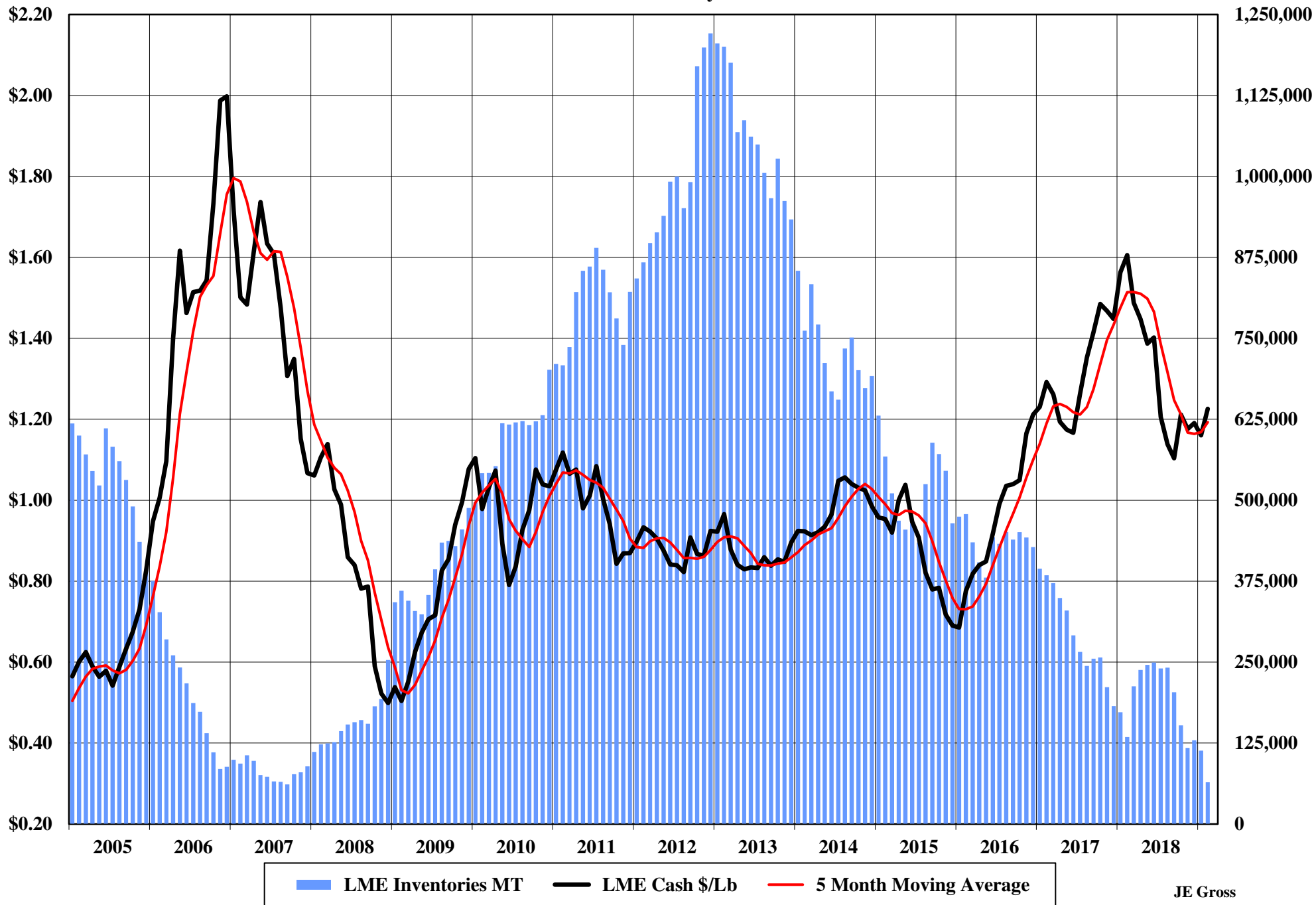


The Copper Journal
Nickel
2005 - February 2019



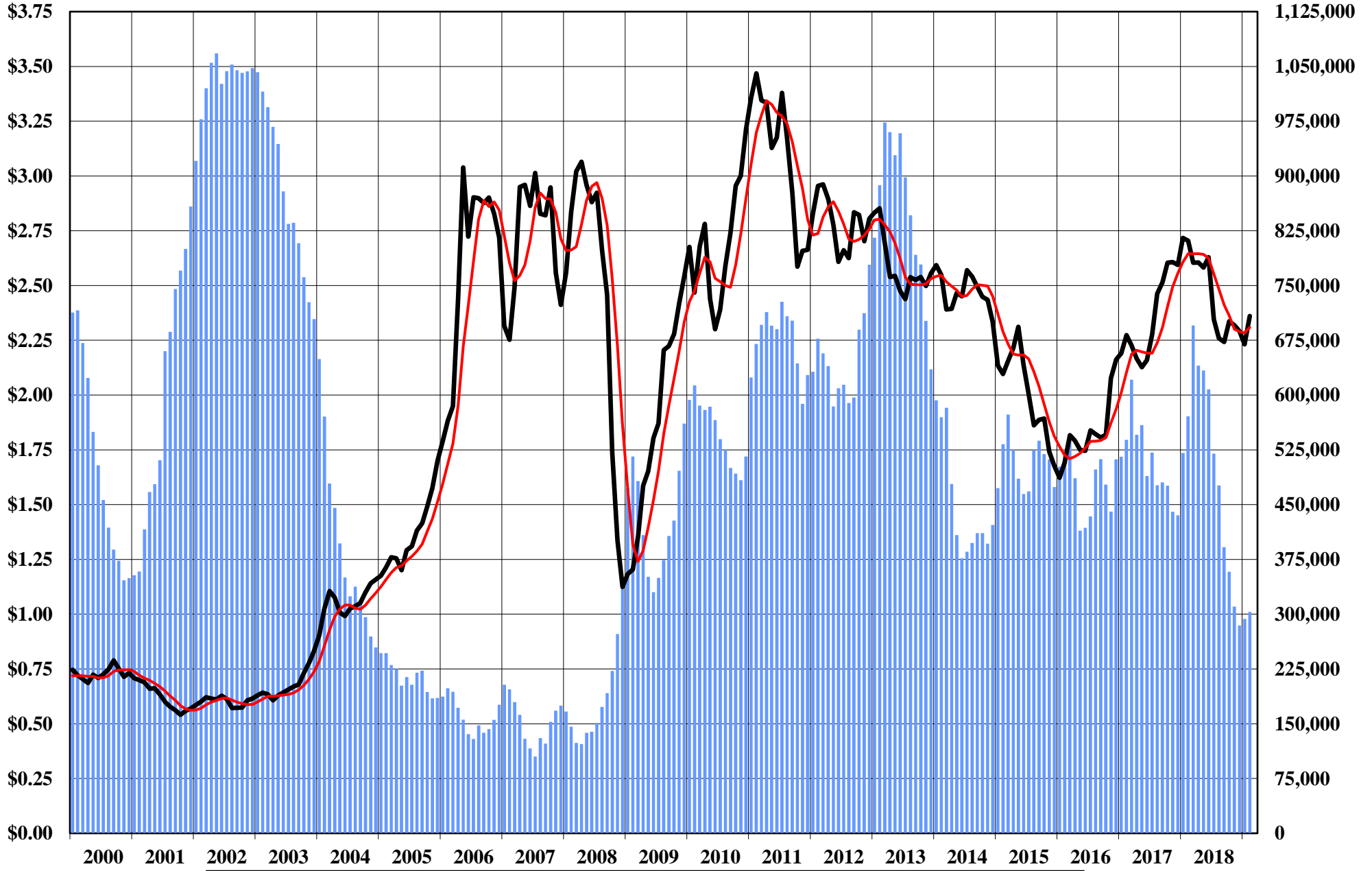
JE Gross

The Copper Journal
Zinc
2005 - February 2019



The Copper Journal
260 Brass
2005 - February 2019

70% Copper & 30% Zinc



260 Inventory Equalivent MT 260 Brass 5 Month Moving Average

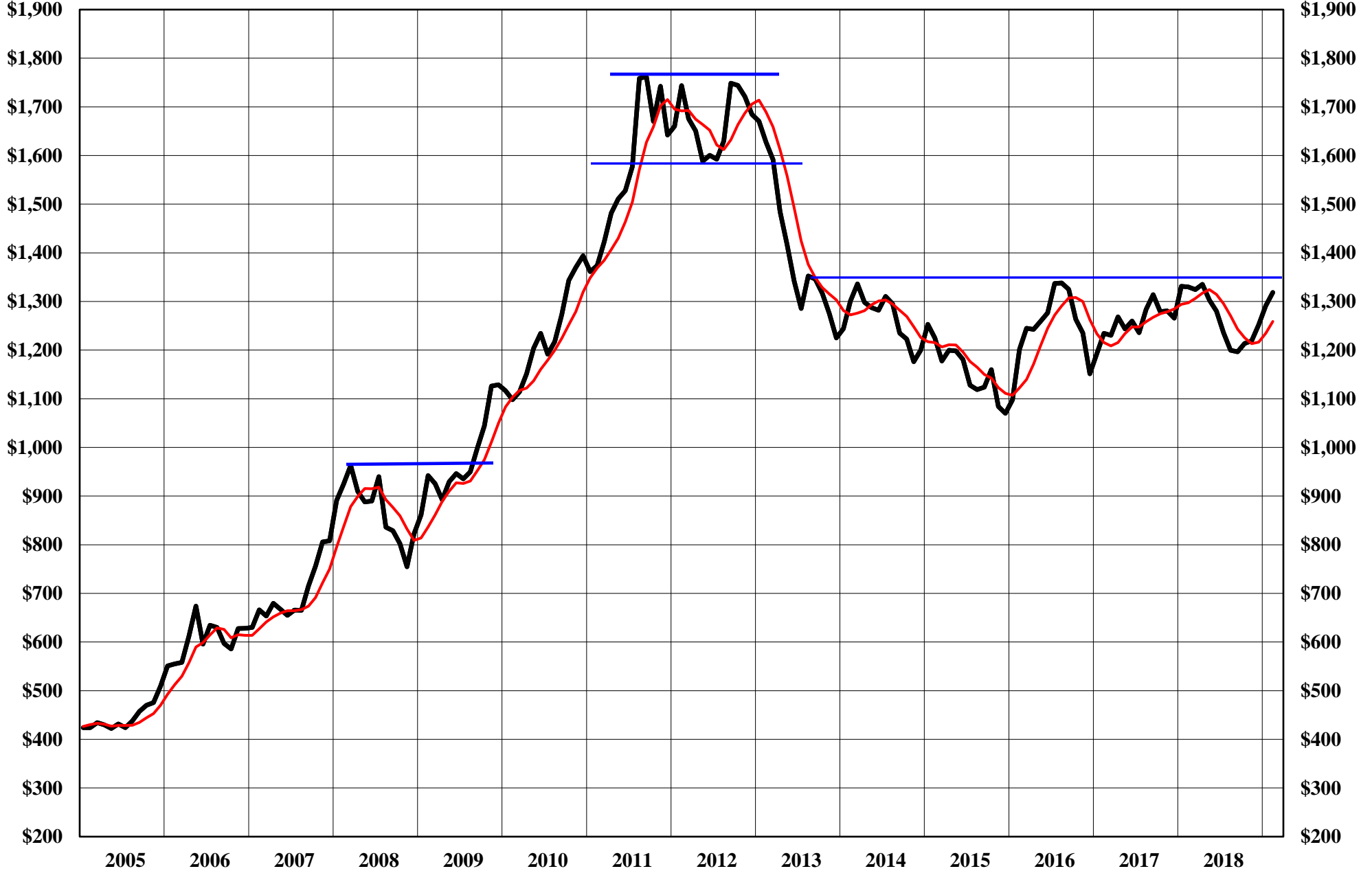
The Copper Journal
Silver
2005 - February 2019



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

JE Gross

The Copper Journal
Gold
2005 - February 2019



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

JE Gross

The Copper Journal
Platinum
2005 - February 2019



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

JE Gross

The Copper Journal
Palladium
2005 - February 2019



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

JE Gross

The Copper Journal
Crude Oil
2005 - February 2019



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

JE Gross

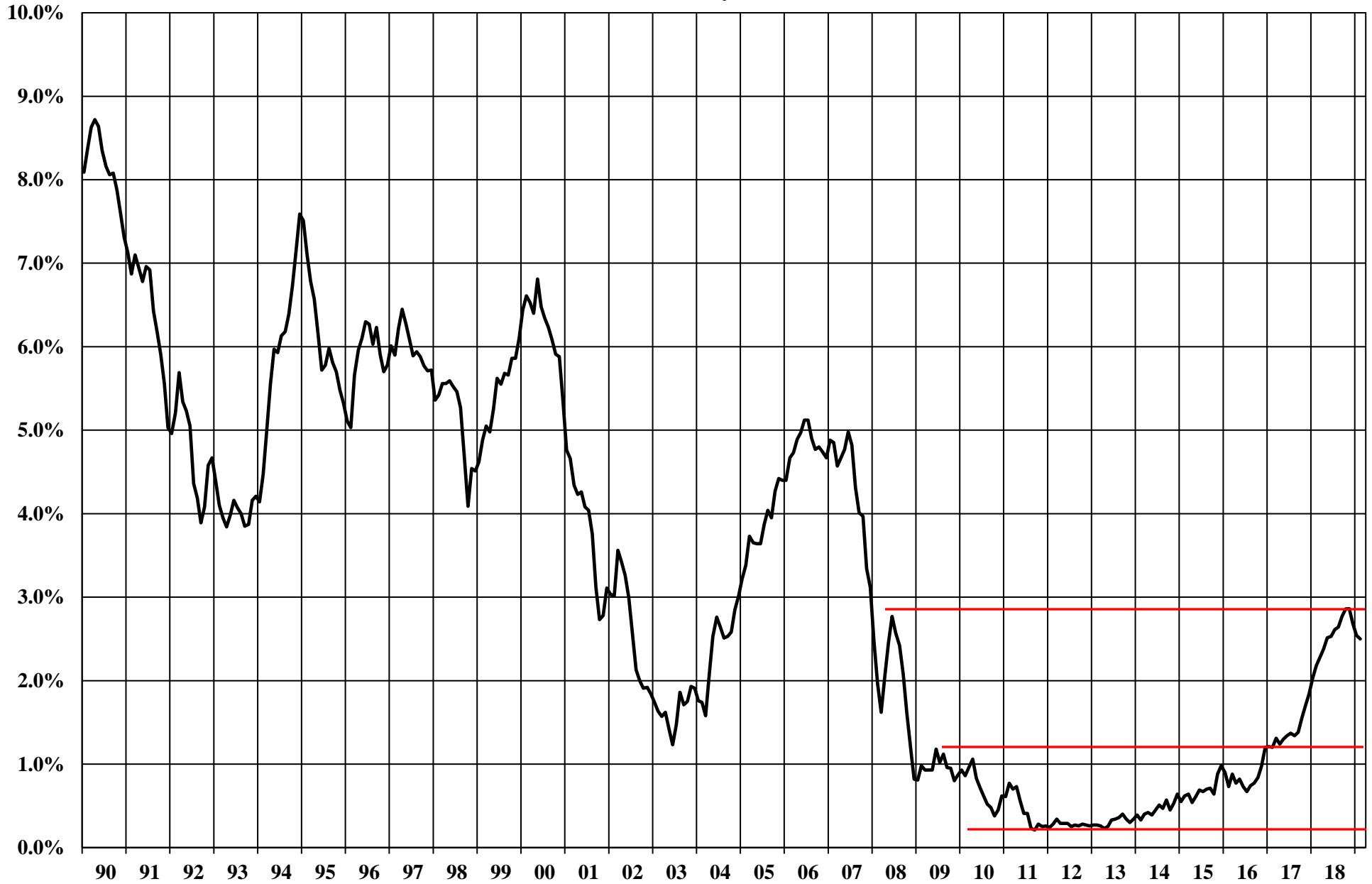
The Copper Journal
Natural Gas
2005 - February 2019



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

JE Gross

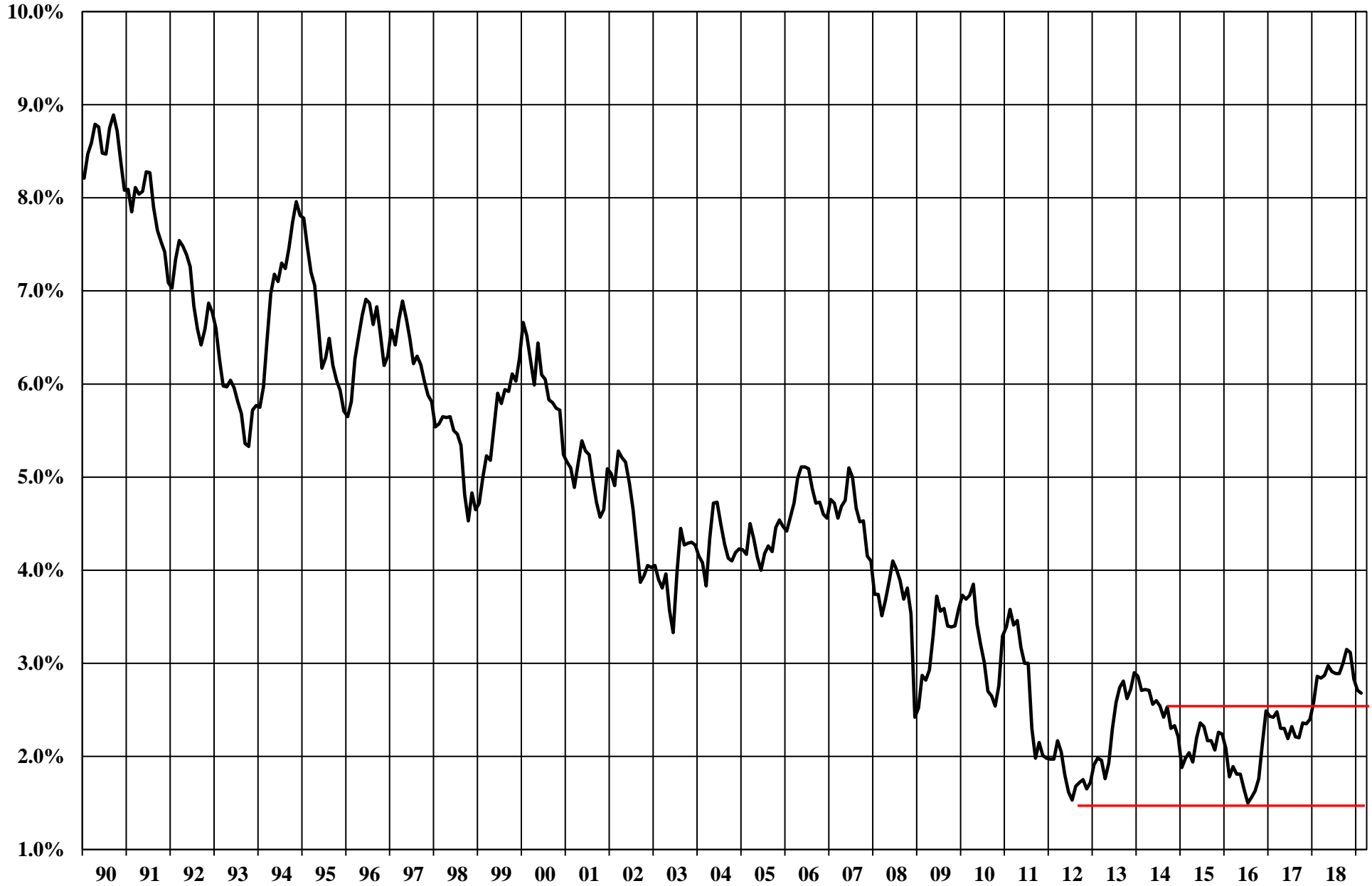
The Copper Journal
2 Year Treasury Bond Yield
Monthly Average
1990 - January 2019



Source: Federal Reserve Bank of St. Louis

JE Gross

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



Source: Federal Reserve Bank of St. Louis

JE Gross

The Copper Journal
S&P 500
2005 - February 2019



— Monthly Average — 5 Month Moving Average

JE Gross

The Copper Journal
Shanghai Composite
2011 - February 2019

