

The Copper Journal
Monthly Report
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John E Gross

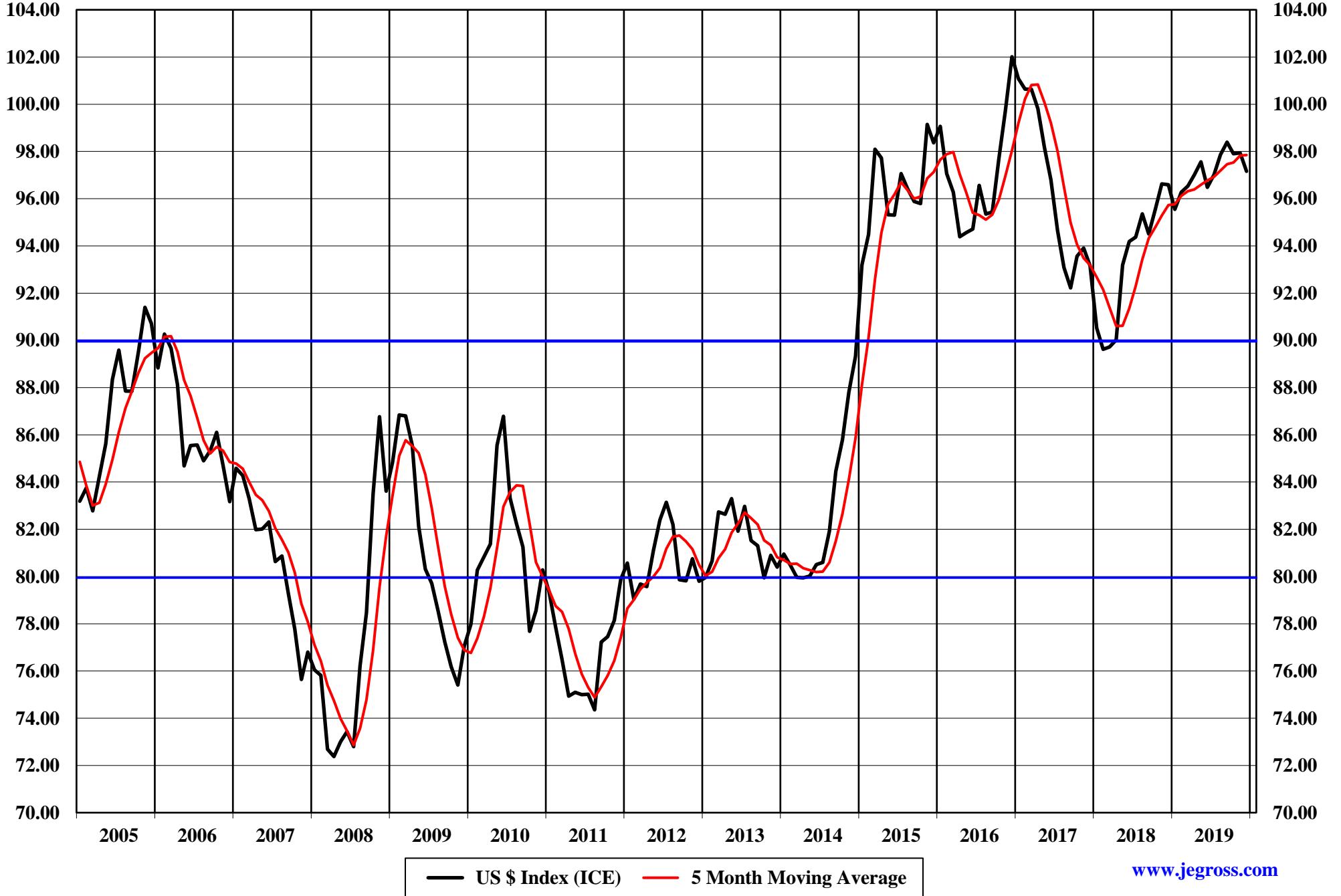
The Copper Journal
Monthly Price & Inventory Report

Prices										
Monthly Average				Change						
December 2018	December 2018	November 2019	December 2019	Mo / Mo		YTD		Yr / Yr		
US \$ Index (ICE)	96.59	96.59	97.94	97.16	(0.78)	(0.8%)	0.57	0.6%	0.57	0.6%
\$1 US = € Euro	€ 0.8787	€ 0.8787	€ 0.9051	€ 0.8994	(€ 0.0057)	(0.6%)	€ 0.0207	2.4%	€ 0.0207	2.4%
1 € Euro = \$ US	\$1.1380	\$1.1380	\$1.1049	\$1.1119	\$0.0070	0.6%	(\$0.0261)	(2.3%)	(\$0.0261)	(2.3%)
Cx Silver	\$14.71	\$14.71	\$17.11	\$17.12	\$0.01	0.1%	\$2.41	16.4%	\$2.41	16.4%
Cx Gold	\$1,252.25	\$1,252.25	\$1,470.00	\$1,480.85	\$10.85	0.7%	\$228.60	18.3%	\$228.60	18.3%
NYM Platinum	\$794.01	\$794.01	\$902.37	\$927.14	\$24.77	2.7%	\$133.13	16.8%	\$133.13	16.8%
NYM Palladium	\$1,215.39	\$1,215.39	\$1,740.09	\$1,873.81	\$133.72	7.7%	\$658.42	54.2%	\$658.42	54.2%
Base Metals Barometer *	2.24	2.24	2.26	2.23	(0.03)	(1.3%)	(0.01)	(0.4%)	(0.01)	(0.4%)
Cx Copper	\$2.7234	\$2.7234	\$2.6546	\$2.7703	\$0.1157	4.4%	\$0.0469	1.7%	\$0.0469	1.7%
LME Copper	\$2.7640	\$2.7640	\$2.6577	\$2.7499	\$0.0922	3.5%	(\$0.0141)	(0.5%)	(\$0.0141)	(0.5%)
LME Aluminum	\$0.8759	\$0.8759	\$0.8038	\$0.8030	(\$0.0008)	(0.1%)	(\$0.0729)	(8.3%)	(\$0.0729)	(8.3%)
LME Lead	\$0.8913	\$0.8913	\$0.9215	\$0.8615	(\$0.0600)	(6.5%)	(\$0.0298)	(3.3%)	(\$0.0298)	(3.3%)
LME Tin	\$8.72	\$8.72	\$7.42	\$7.75	\$0.3300	4.4%	(\$0.97)	(11.1%)	(\$0.97)	(11.1%)
LME Nickel	\$4.91	\$4.91	\$6.89	\$6.26	(\$0.6300)	(9.1%)	\$1.35	27.5%	\$1.35	27.5%
LME Zinc	\$1.1906	\$1.1906	\$1.1033	\$1.0315	(\$0.0718)	(6.5%)	(\$0.1591)	(13.4%)	(\$0.1591)	(13.4%)
NYM Crude Oil	\$48.98	\$48.98	\$57.07	\$59.80	\$2.73	4.8%	\$10.82	22.1%	\$10.82	22.1%
NYM Natural Gas	\$3.92	\$3.92	\$2.63	\$2.29	(\$0.34)	(12.9%)	(\$1.63)	(41.6%)	(\$1.63)	(41.6%)
S&P 500	2,567	2,567	3,105	3,177	72	2.3%	610	23.8%	610	23.8%
Shanghai Composite	2,568	2,568	2,925	2,961	36	1.2%	393	15.3%	393	15.3%
2 Year Treasury Bond Yield	2.68%	2.68%	1.61%	1.61%	0.0000	0.0%	(0.0107)	(39.9%)	(0.0107)	(39.9%)
10 Year Treasury Bond Yield	2.83%	2.83%	1.81%	1.86%	0.0005	2.8%	(0.0097)	(34.3%)	(0.0097)	(34.3%)
10 Year Minus 2 Year Yield	0.15%	0.15%	0.20%	0.25%	0.0005	25.0%	0.0010	66.7%	0.0010	66.7%

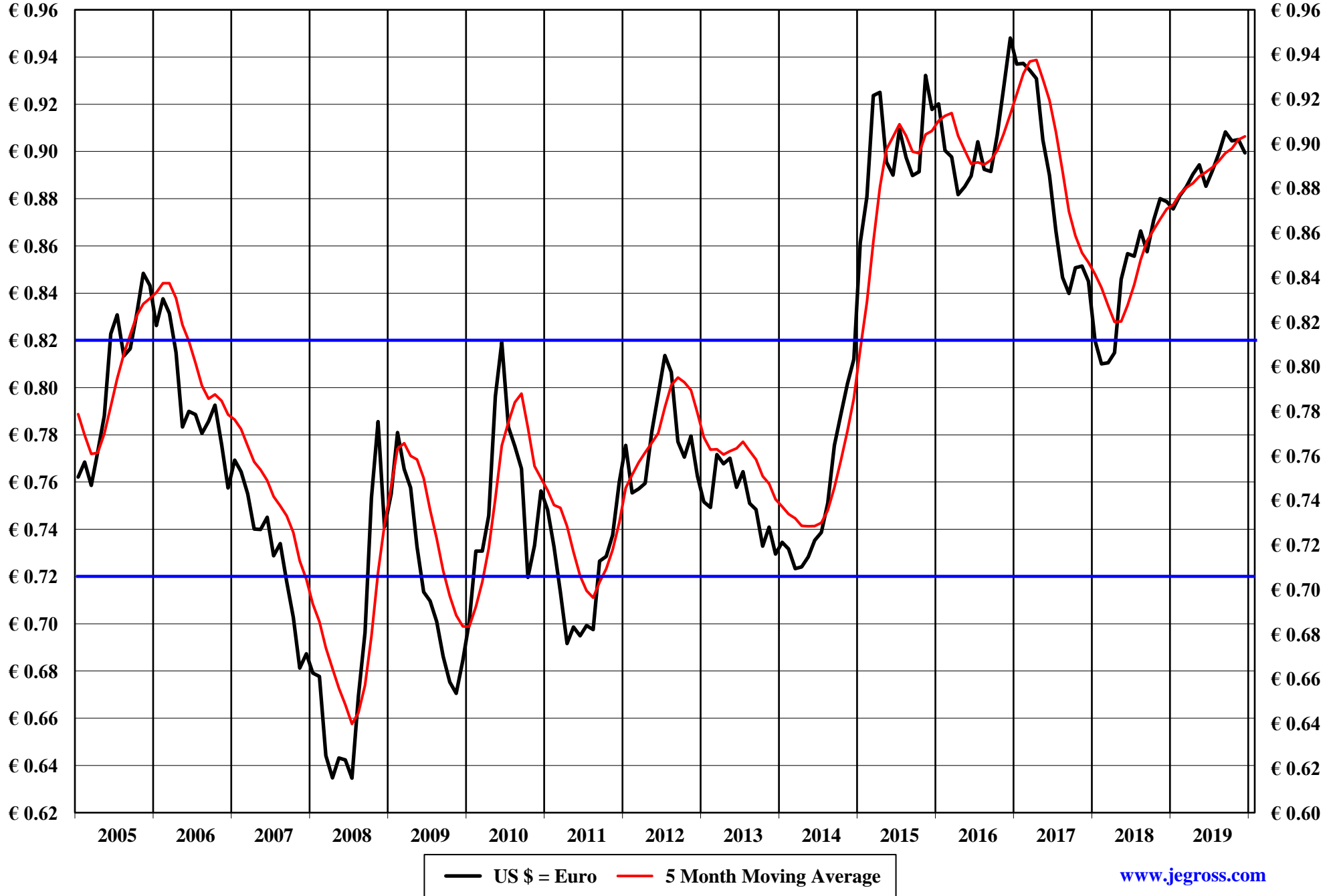
Month End Inventories MT										
Month Ending				Change						
December 2018	December 2018	November 2019	December 2019	Mo / Mo		YTD		Yr / Yr		
Cx Copper	100,226	100,226	36,375	34,065	(2,310)	(6.4%)	(66,161)	(66.0%)	(66,161)	(66.0%)
LME Copper	132,175	132,175	208,625	144,675	(63,950)	(30.7%)	12,500	9.5%	12,500	9.5%
Shanghai Copper	118,686	118,686	120,192	123,647	3,455	2.9%	4,961	4.2%	4,961	4.2%
Total Copper	351,087	351,087	365,192	302,387	(62,805)	(17.2%)	(48,700)	(13.9%)	(48,700)	(13.9%)
LME Aluminum	1,271,200	1,271,200	1,271,650	1,473,025	201,375	15.8%	201,825	15.9%	201,825	15.9%
LME Lead	107,450	107,450	67,150	66,200	(950)	(1.4%)	(41,250)	(38.4%)	(41,250)	(38.4%)
LME Tin	2,175	2,175	6,500	7,130	630	9.7%	4,955	227.8%	4,955	227.8%
LME Nickel	207,330	207,330	68,280	153,318	85,038	124.5%	(54,012)	(26.1%)	(54,012)	(26.1%)
LME Zinc	129,325	129,325	59,350	51,200	(8,150)	(13.7%)	(78,125)	(60.4%)	(78,125)	(60.4%)

* 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 -December 2019



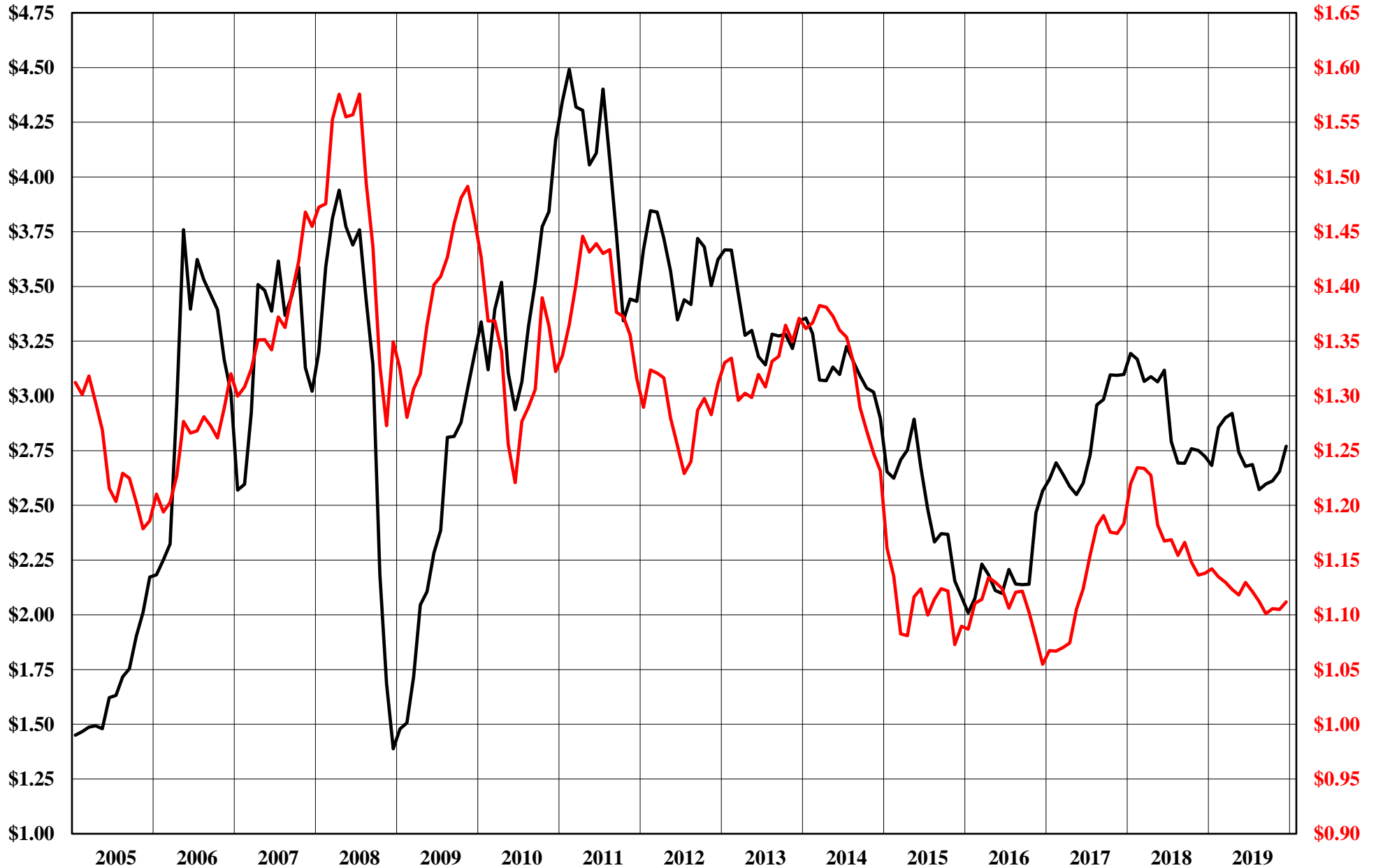
The Copper Journal
\$1 U.S. = Euro
2005 -December 2019



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



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



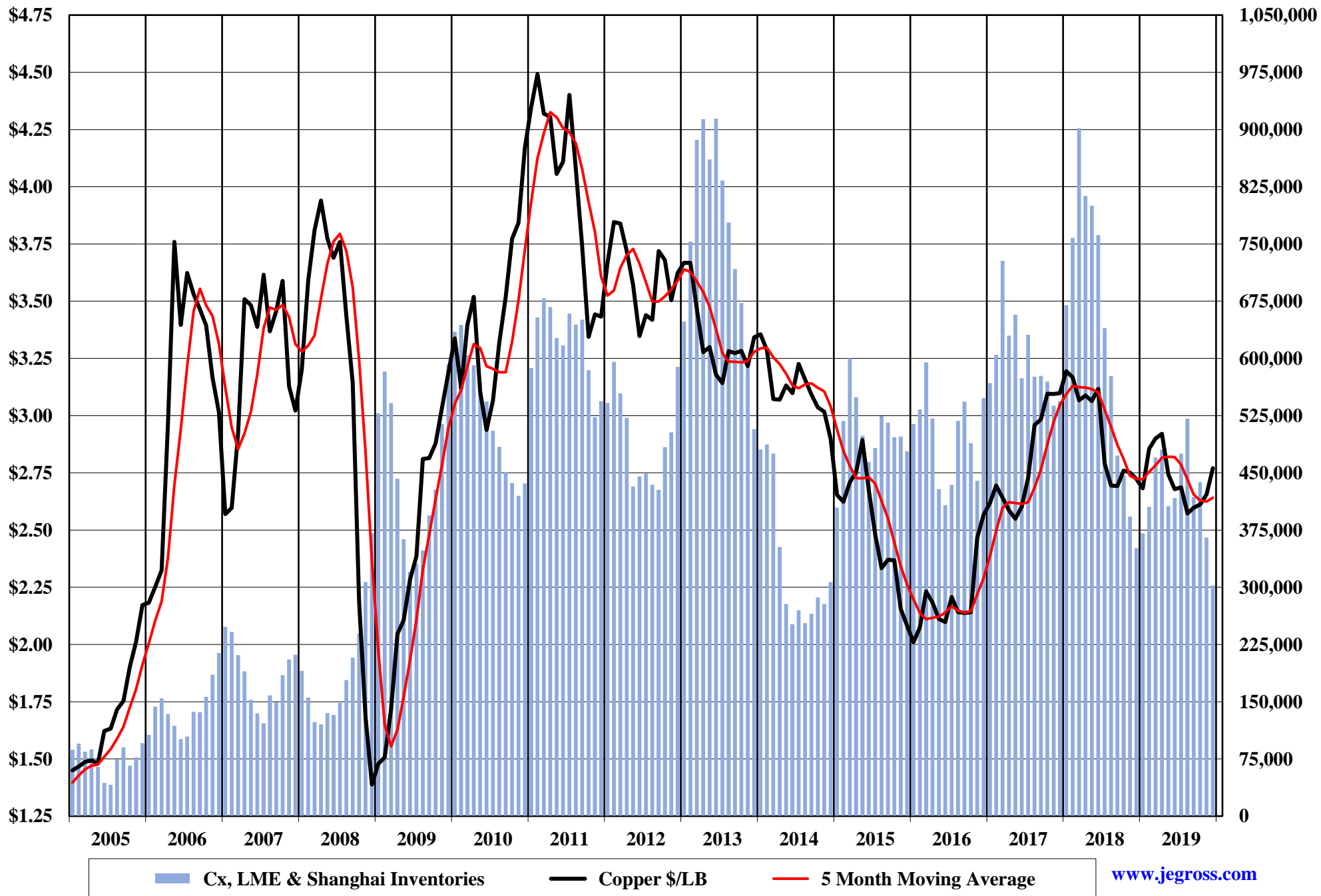
— Copper - \$ Per Pound — Euro = \$ U.S.

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

The Copper Journal Base Metals Barometer 2005 -December 2019

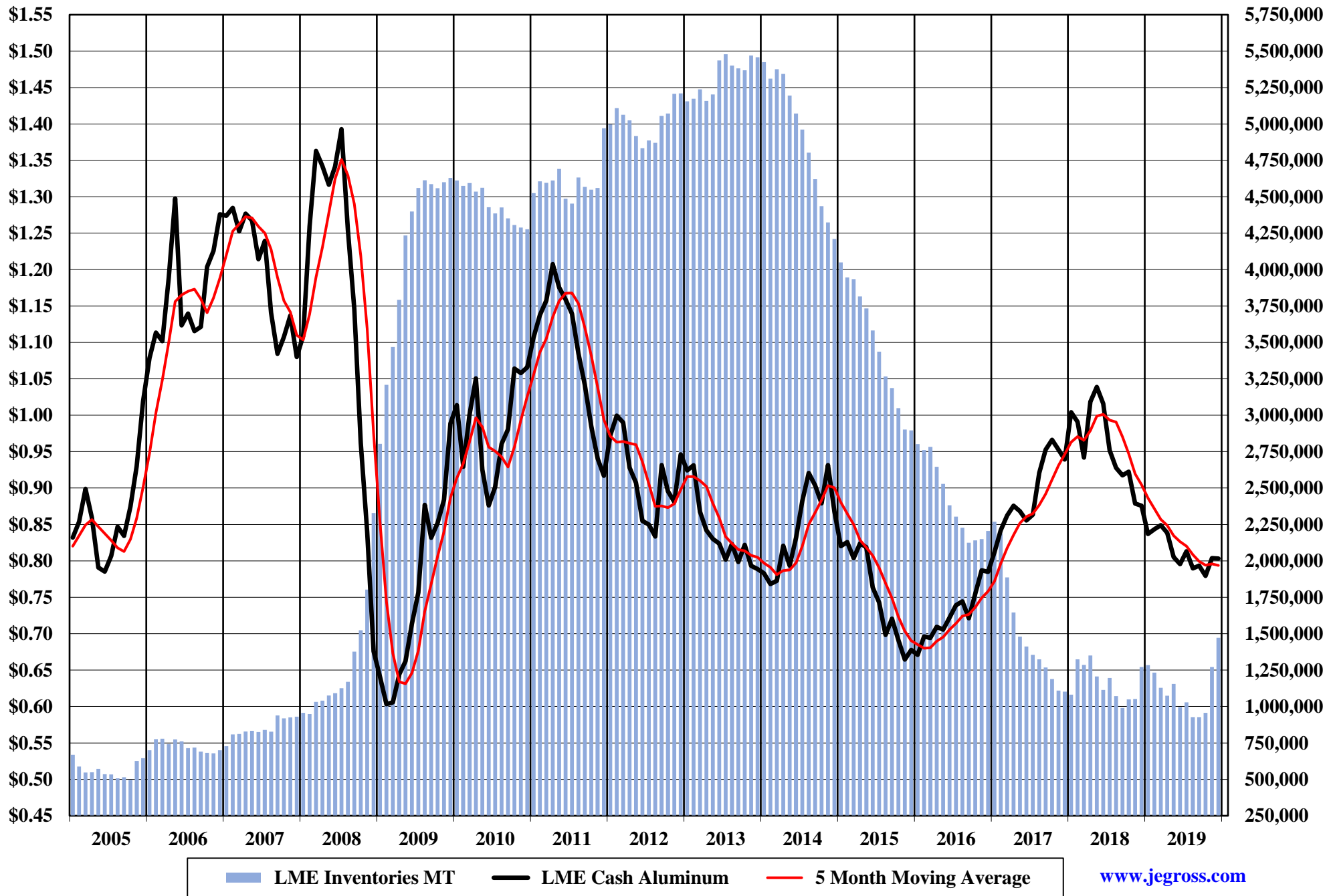


The Copper Journal
Copper
2005 -December 2019

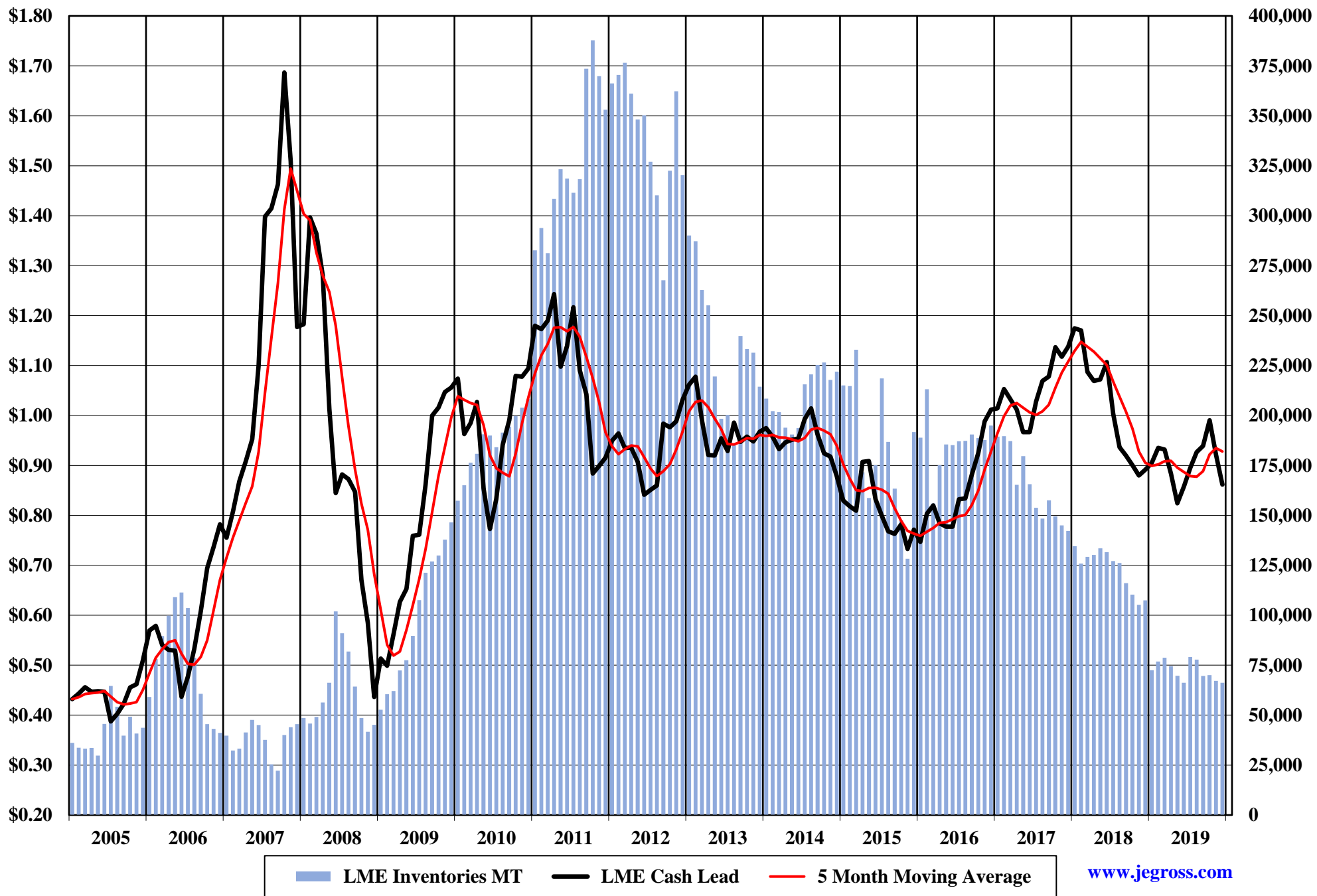


The Copper Journal Aluminum

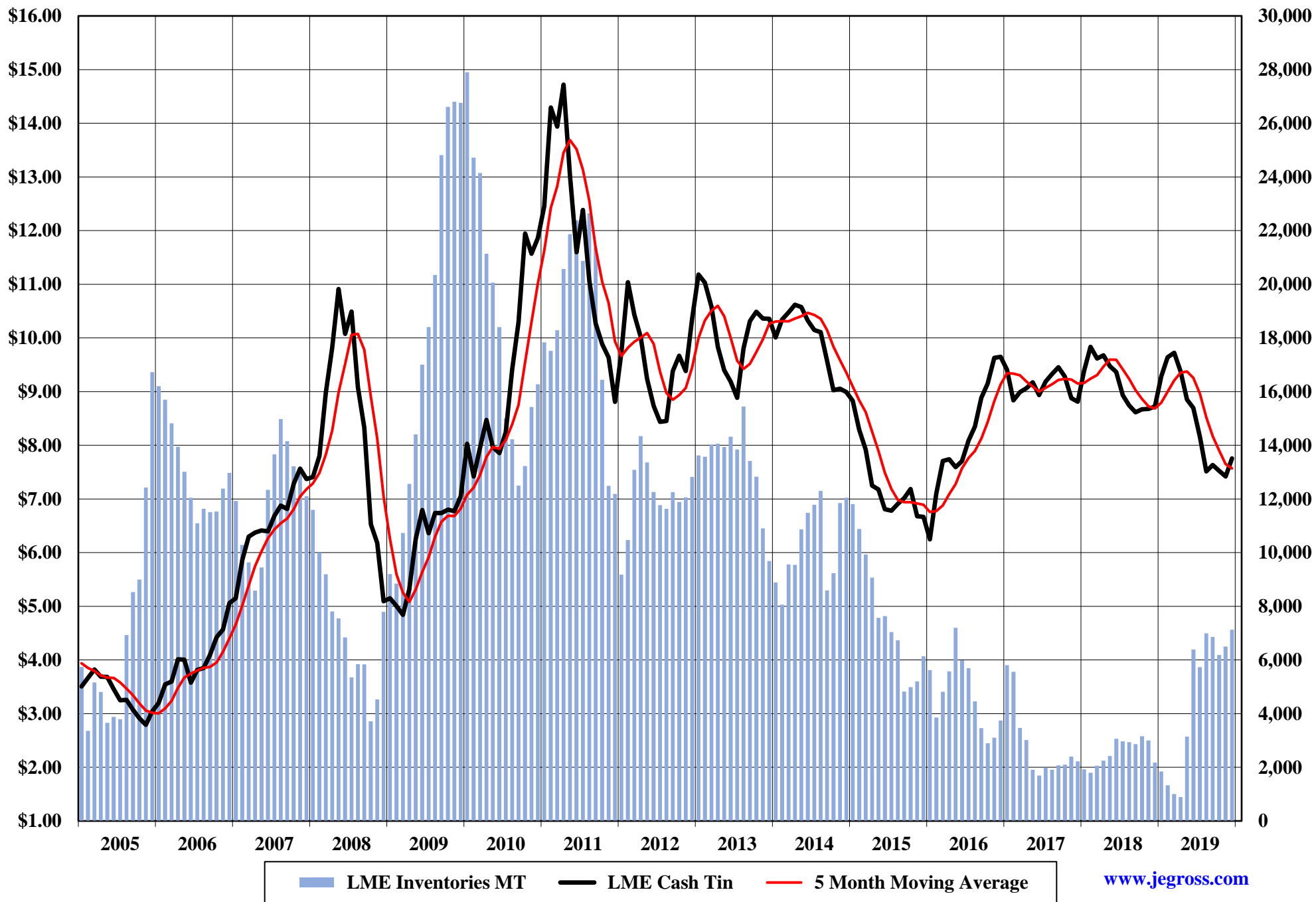
2005 -December 2019



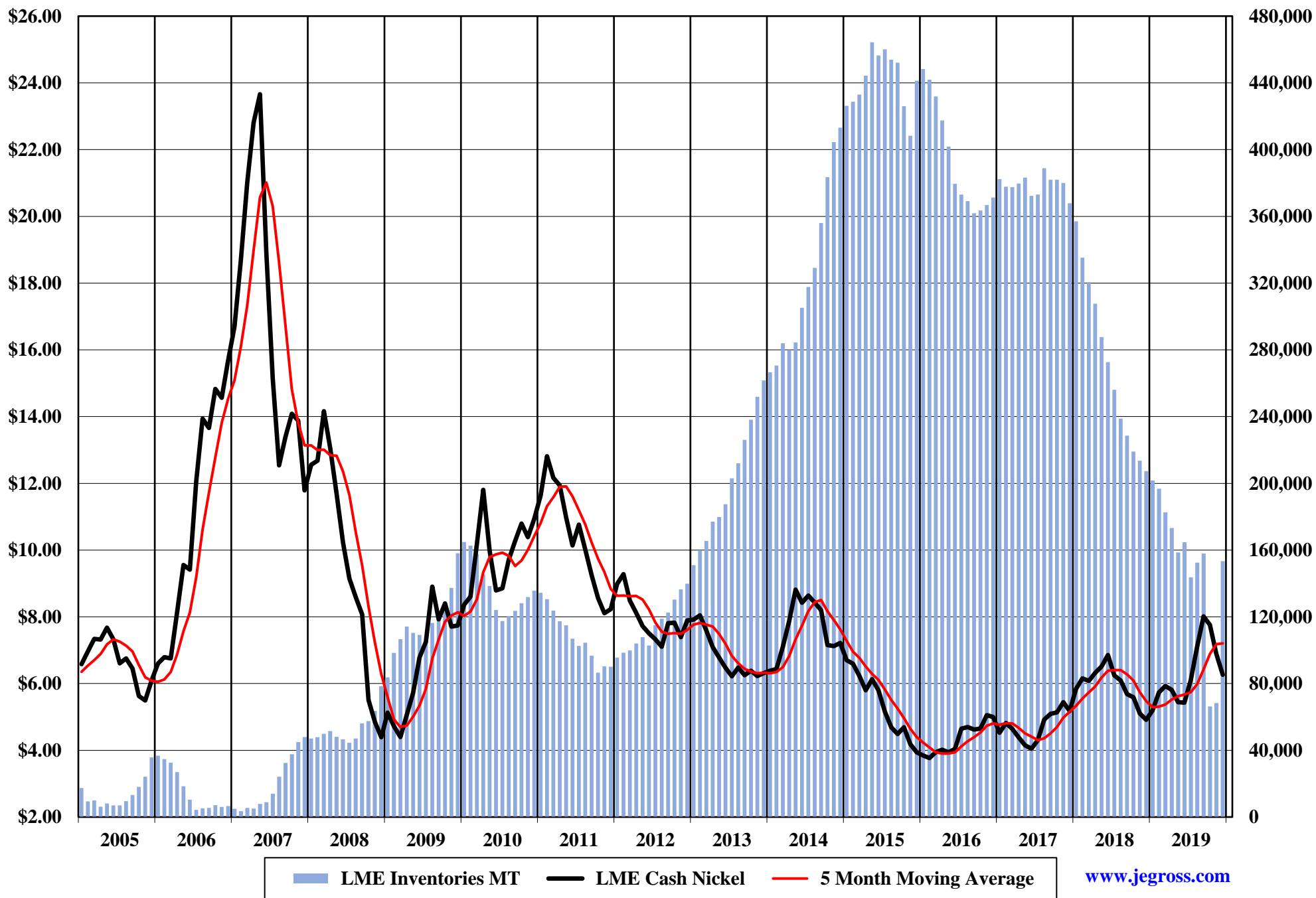
The Copper Journal Lead 2005 -December 2019



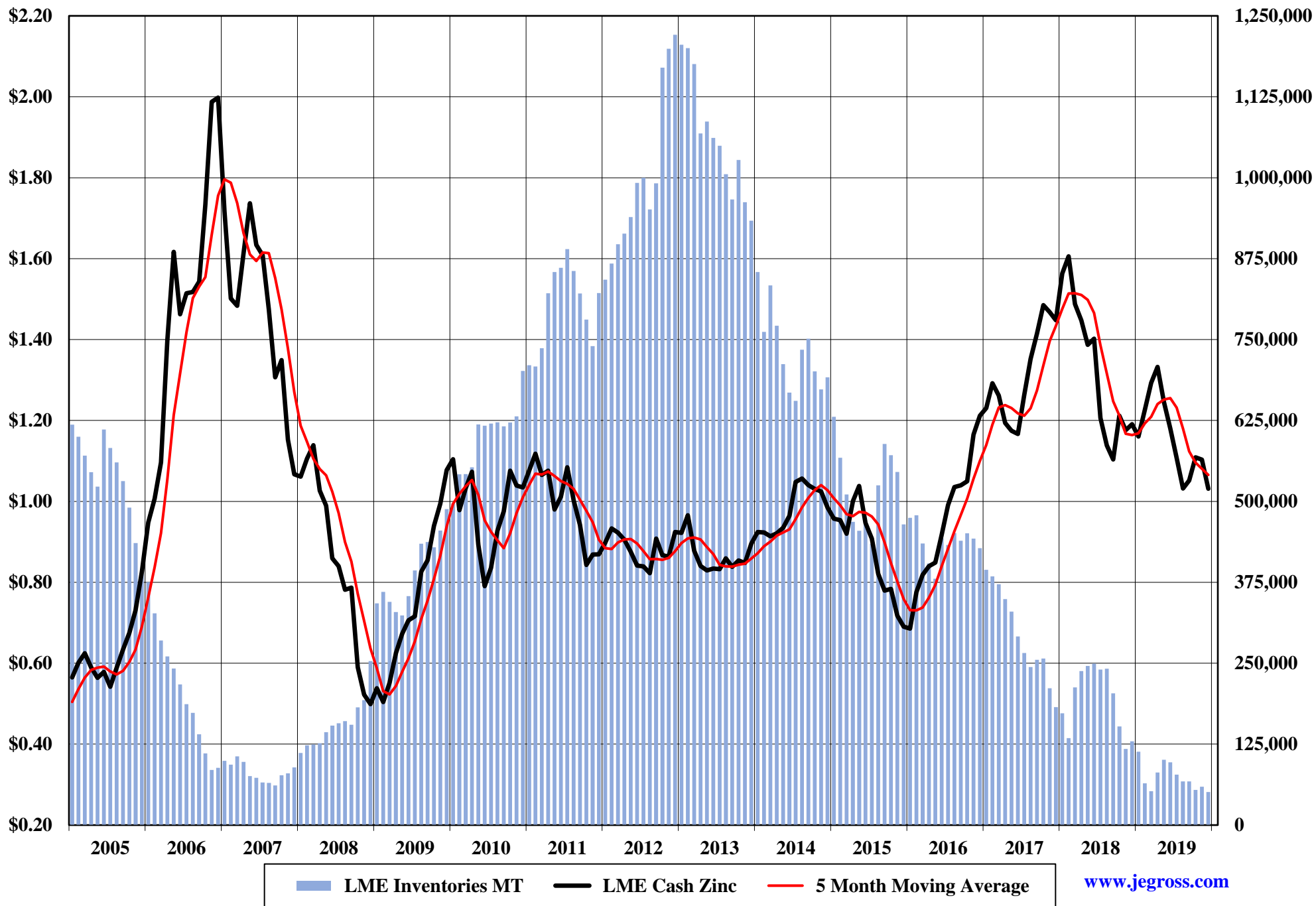
The Copper Journal
Tin
2005 -December 2019



The Copper Journal
Nickel
2005 -December 2019

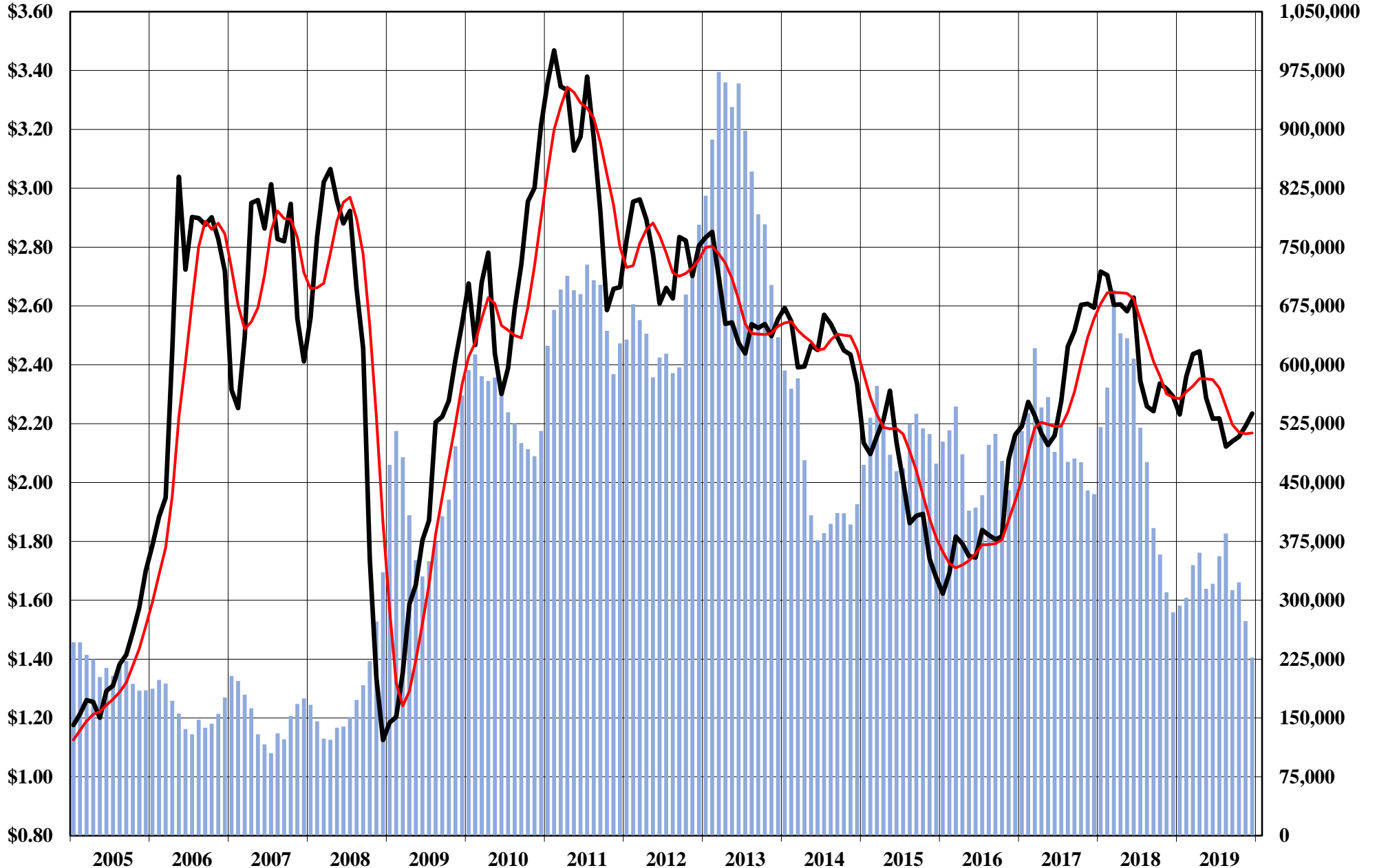


The Copper Journal
Zinc
2005 -December 2019



The Copper Journal
260 Brass
2005 -December 2019

70% Copper & 30% Zinc



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

The Copper Journal
Silver
2005 -December 2019



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

The Copper Journal
Gold
2005 -December 2019



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

The Copper Journal
Platinum
2005 -December 2019



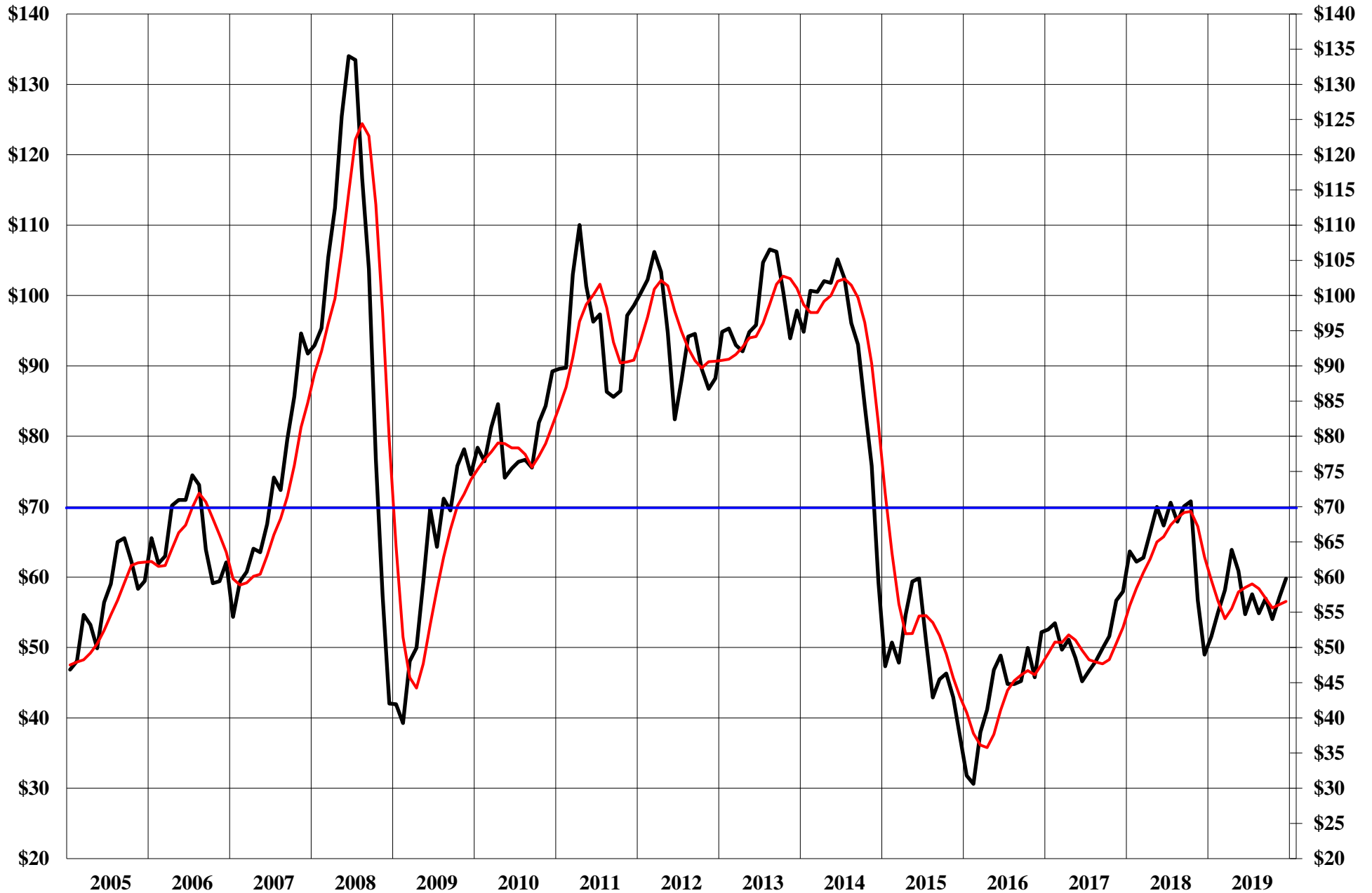
Nymex Monthly Average Price - \$ Per Troy Ounce 5 Month Moving Average

The Copper Journal
Palladium
2005 -December 2019



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

The Copper Journal
Crude Oil
2005 -December 2019



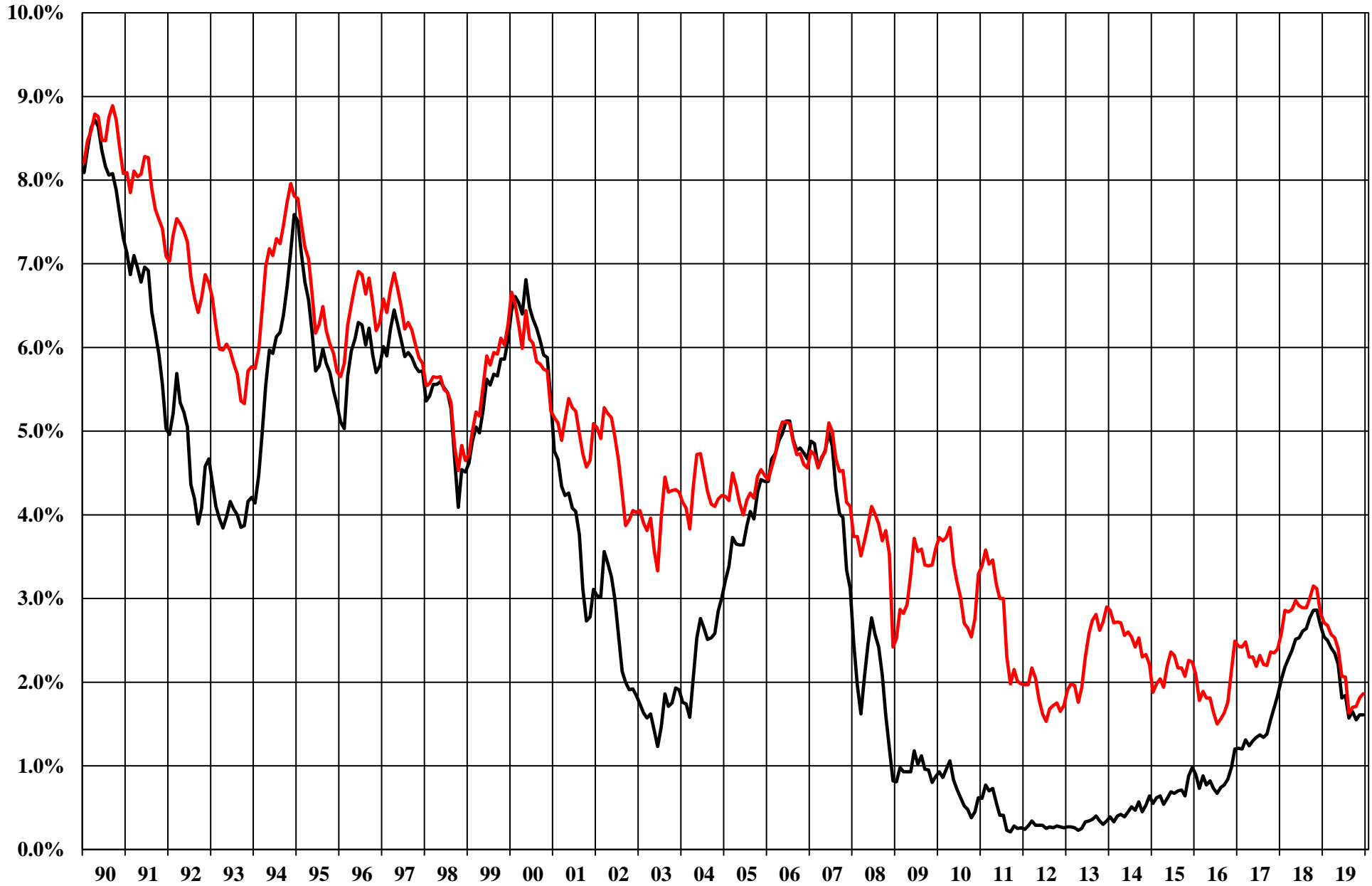
Nymex Monthly Average Price - \$ Per Barrel 5 Month Moving Average

The Copper Journal
Natural Gas
2005 -December 2019



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

The Copper Journal
2 Year & 10 Year Treasury Bond Yields
Monthly Average
1990 - December 2019



Source: Federal Reserve Bank of St. Louis

— 2 Year — 10 Year

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The Copper Journal
S&P 500
2005 -December 2019



— Monthly Average — 5 Month Moving Average

The Copper Journal
Shanghai Composite
2011 - December 2019

