

The Copper Journal
Monthly Report
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John E Gross

The Copper Journal
Monthly Price & Inventory Report

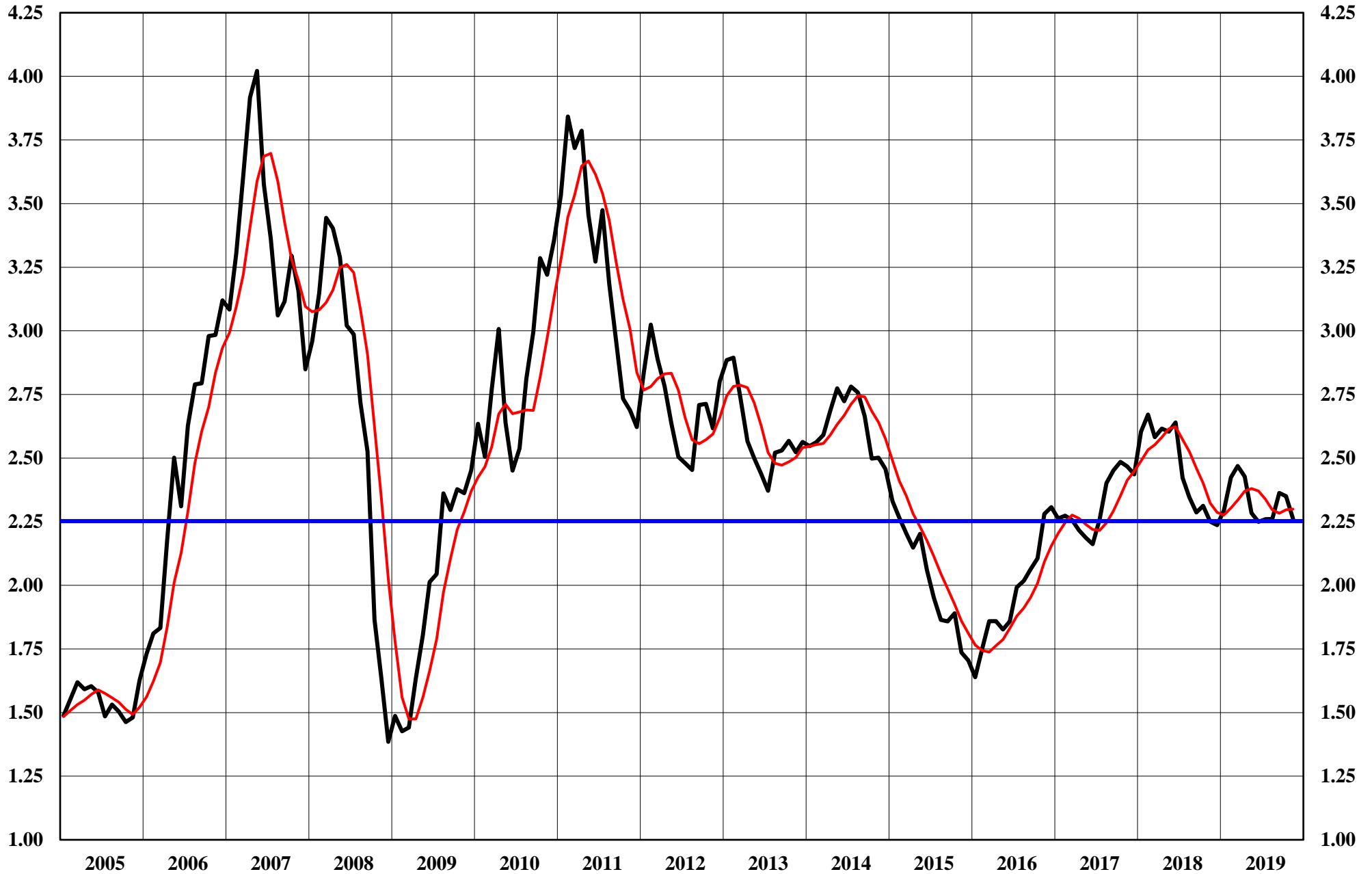
Prices										
Monthly Average				Change						
November 2018	December 2018	October 2019	November 2019	Mo / Mo		YTD		Yr / Yr		
US \$ Index (ICE)	96.63	96.59	97.90	97.94	0.04	0.0%	1.35	1.4%	1.31	1.4%
\$1 US = € Euro	€ 0.8800	€ 0.8787	€ 0.9045	€ 0.9051	€ 0.0006	0.1%	€ 0.0264	3.0%	€ 0.0251	2.9%
1 € Euro = \$ US	\$1.1363	\$1.1380	\$1.1056	\$1.1049	(\$0.0007)	(0.1%)	(\$0.0331)	(2.9%)	(\$0.0314)	(2.8%)
Cx Silver	\$14.30	\$14.71	\$17.59	\$17.11	(\$0.48)	(2.7%)	\$2.40	16.3%	\$2.81	19.7%
Cx Gold	\$1,219.24	\$1,252.25	\$1,493.33	\$1,470.00	(\$23.33)	(1.6%)	\$217.75	17.4%	\$250.76	20.6%
NYM Platinum	\$850.64	\$794.01	\$899.40	\$902.37	\$2.97	0.3%	\$108.36	13.6%	\$51.73	6.1%
NYM Palladium	\$1,137.99	\$1,215.39	\$1,704.80	\$1,740.09	\$35.29	2.1%	\$524.70	43.2%	\$602.10	52.9%
Base Metals Barometer *	2.25	2.24	2.35	2.26	(0.09)	(3.8%)	0.02	0.9%	0.01	0.4%
Cx Copper	\$2.7510	\$2.7234	\$2.6117	\$2.6546	\$0.0429	1.6%	(\$0.0688)	(2.5%)	(\$0.0964)	(3.5%)
LME Copper	\$2.8088	\$2.7640	\$2.6047	\$2.6577	\$0.0530	2.0%	(\$0.1063)	(3.8%)	(\$0.1511)	(5.4%)
LME Aluminum	\$0.8787	\$0.8759	\$0.7795	\$0.8038	\$0.0243	3.1%	(\$0.0721)	(8.2%)	(\$0.0749)	(8.5%)
LME Lead	\$0.8798	\$0.8913	\$0.9905	\$0.9215	(\$0.0690)	(7.0%)	\$0.0302	3.4%	\$0.0417	4.7%
LME Tin	\$8.68	\$8.72	\$7.53	\$7.42	(\$0.1100)	(1.5%)	(\$1.30)	(14.9%)	(\$1.26)	(14.5%)
LME Nickel	\$5.10	\$4.91	\$7.76	\$6.89	(\$0.8700)	(11.2%)	\$1.98	40.3%	\$1.79	35.1%
LME Zinc	\$1.1758	\$1.1906	\$1.1090	\$1.1033	(\$0.0057)	(0.5%)	(\$0.0873)	(7.3%)	(\$0.0725)	(6.2%)
NYM Crude Oil	\$56.69	\$48.98	\$54.01	\$57.07	\$3.06	5.7%	\$8.09	16.5%	\$0.38	0.7%
NYM Natural Gas	\$4.09	\$3.92	\$2.34	\$2.63	\$0.29	12.4%	(\$1.29)	(32.9%)	(\$1.46)	(35.7%)
S&P 500	2,723	2,567	2,978	3,105	127	4.3%	538	21.0%	382	14.0%
Shanghai Composite	2,630	2,568	2,955	2,925	(30)	(1.0%)	357	13.9%	295	11.2%
2 Year Treasury Bond Yield	2.86%	2.68%	1.55%	1.61%	0.0006	3.9%	(0.0107)	(39.9%)	(0.0125)	(43.7%)
10 Year Treasury Bond Yield	3.12%	2.83%	1.71%	1.81%	0.0010	5.8%	(0.0102)	(36.0%)	(0.0131)	(42.0%)
10 Year Minus 2 Year Yield	0.26%	0.15%	0.16%	0.20%	0.0004	25.0%	0.0005	33.3%	(0.0006)	(23.1%)

Month End Inventories MT										
Month Ending				Change						
November 2018	December 2018	October 2019	November 2019	Mo / Mo		YTD		Yr / Yr		
Cx Copper	125,558	100,226	32,917	36,375	3,458	10.5%	(63,851)	(63.7%)	(89,183)	(71.0%)
LME Copper	136,175	132,175	255,025	208,625	(46,400)	(18.2%)	76,450	57.8%	72,450	53.2%
Shanghai Copper	131,042	118,686	149,911	120,192	(29,719)	(19.8%)	1,506	1.3%	(10,850)	(8.3%)
Total Copper	392,775	351,087	437,853	365,192	(72,661)	(16.6%)	14,105	4.0%	(27,583)	(7.0%)
LME Aluminum	1,052,450	1,271,200	956,200	1,271,650	315,450	33.0%	450	0.0%	219,200	20.8%
LME Lead	105,200	107,450	70,075	67,150	(2,925)	(4.2%)	(40,300)	(37.5%)	(38,050)	(36.2%)
LME Tin	3,000	2,175	6,185	6,500	315	5.1%	4,325	198.9%	3,500	116.7%
LME Nickel	213,570	207,330	66,306	68,280	1,974	3.0%	(139,050)	(67.1%)	(145,290)	(68.0%)
LME Zinc	117,550	129,325	54,500	59,350	4,850	8.9%	(69,975)	(54.1%)	(58,200)	(49.5%)

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

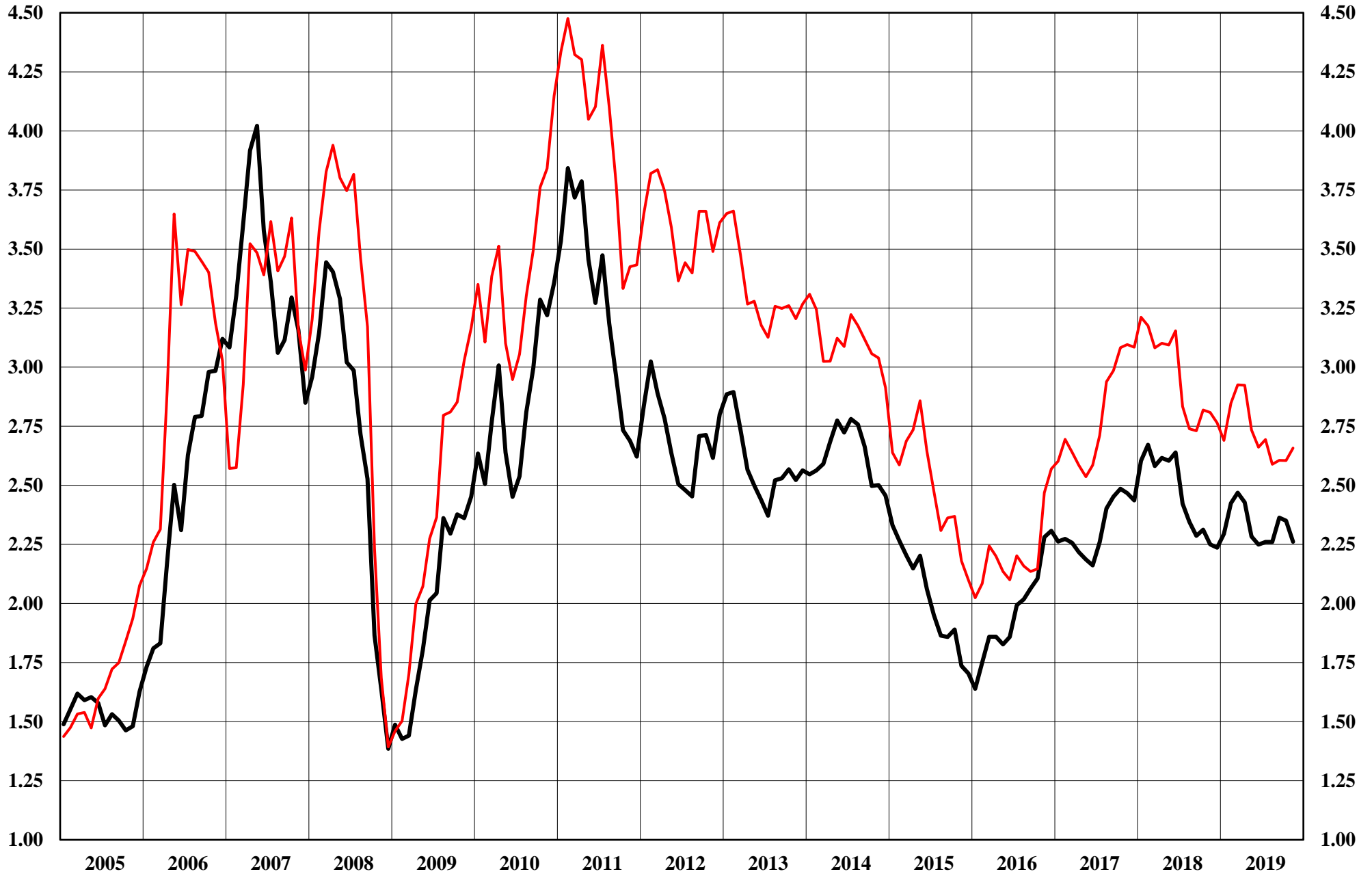
The Base Metals Barometer is a weighted index of non-ferrous metal prices.
January 2000 = 1.00

The Copper Journal Base Metals Barometer 2005 -November 2019



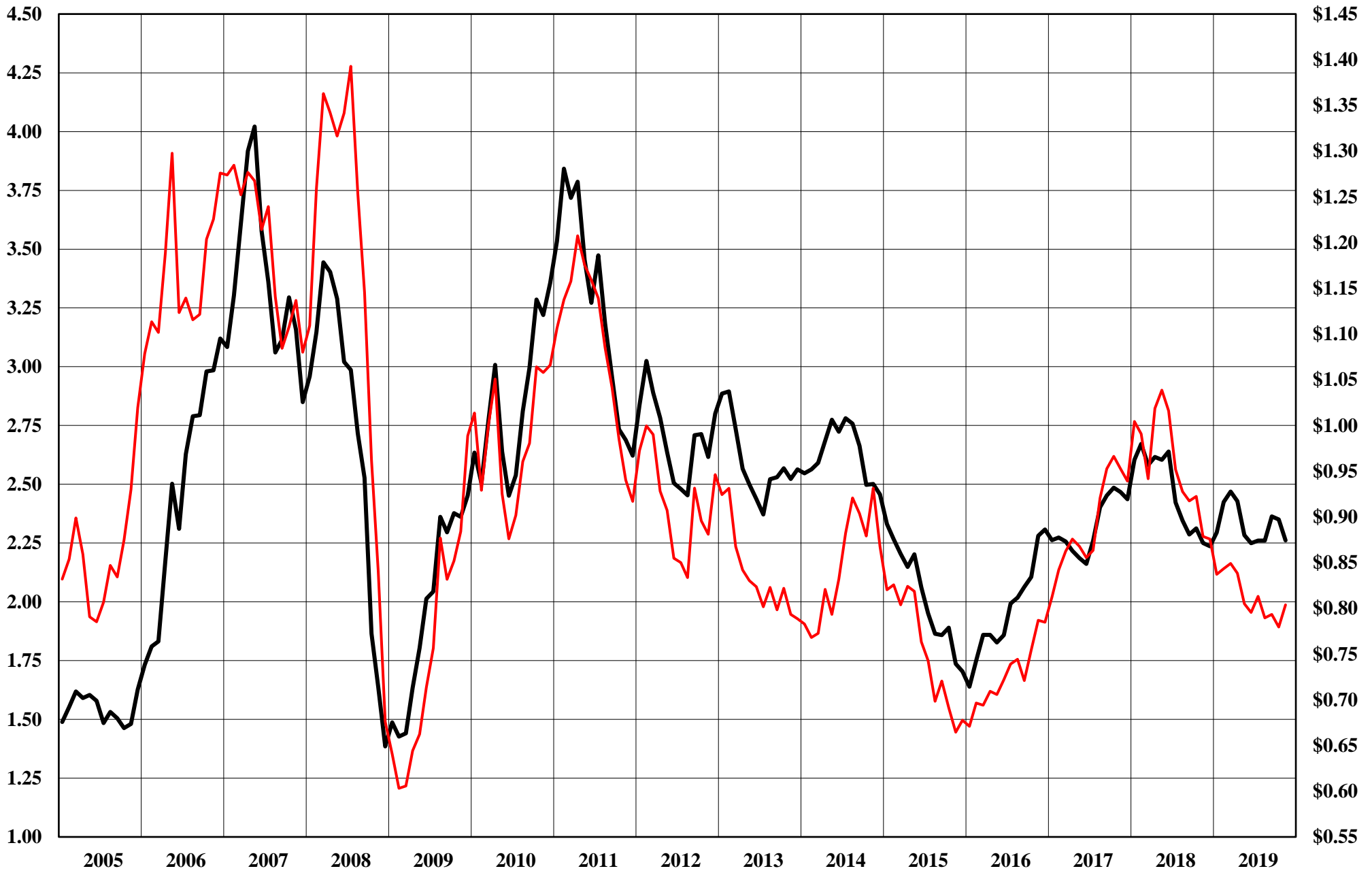
— BMB — 5 Month Moving Average

The Copper Journal
Base Metals Barometer Vs Copper
2005 -November 2019



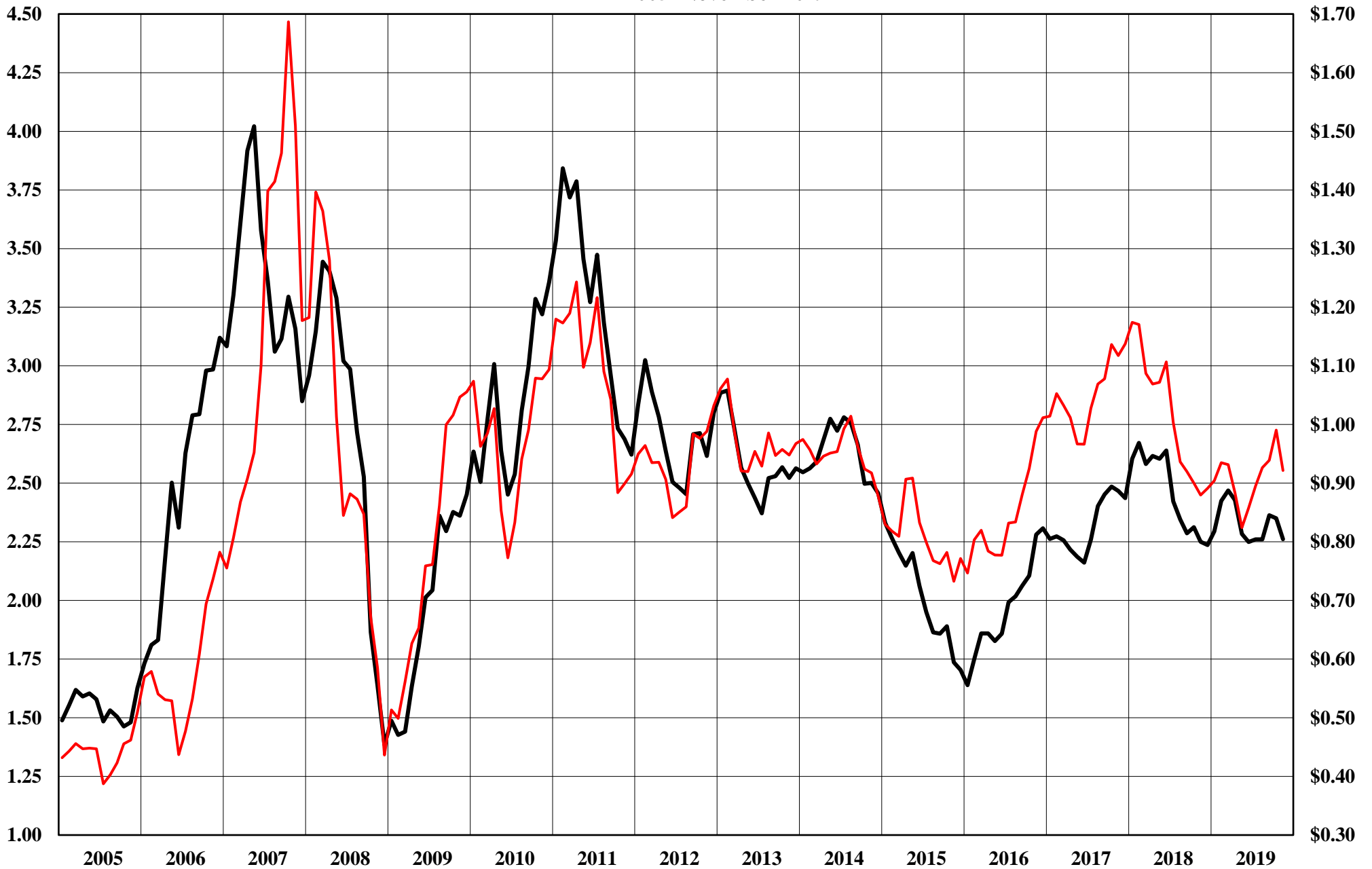
— BMB — LME Cash Copper

The Copper Journal
Base Metals Barometer Vs Aluminum
2005 -November 2019



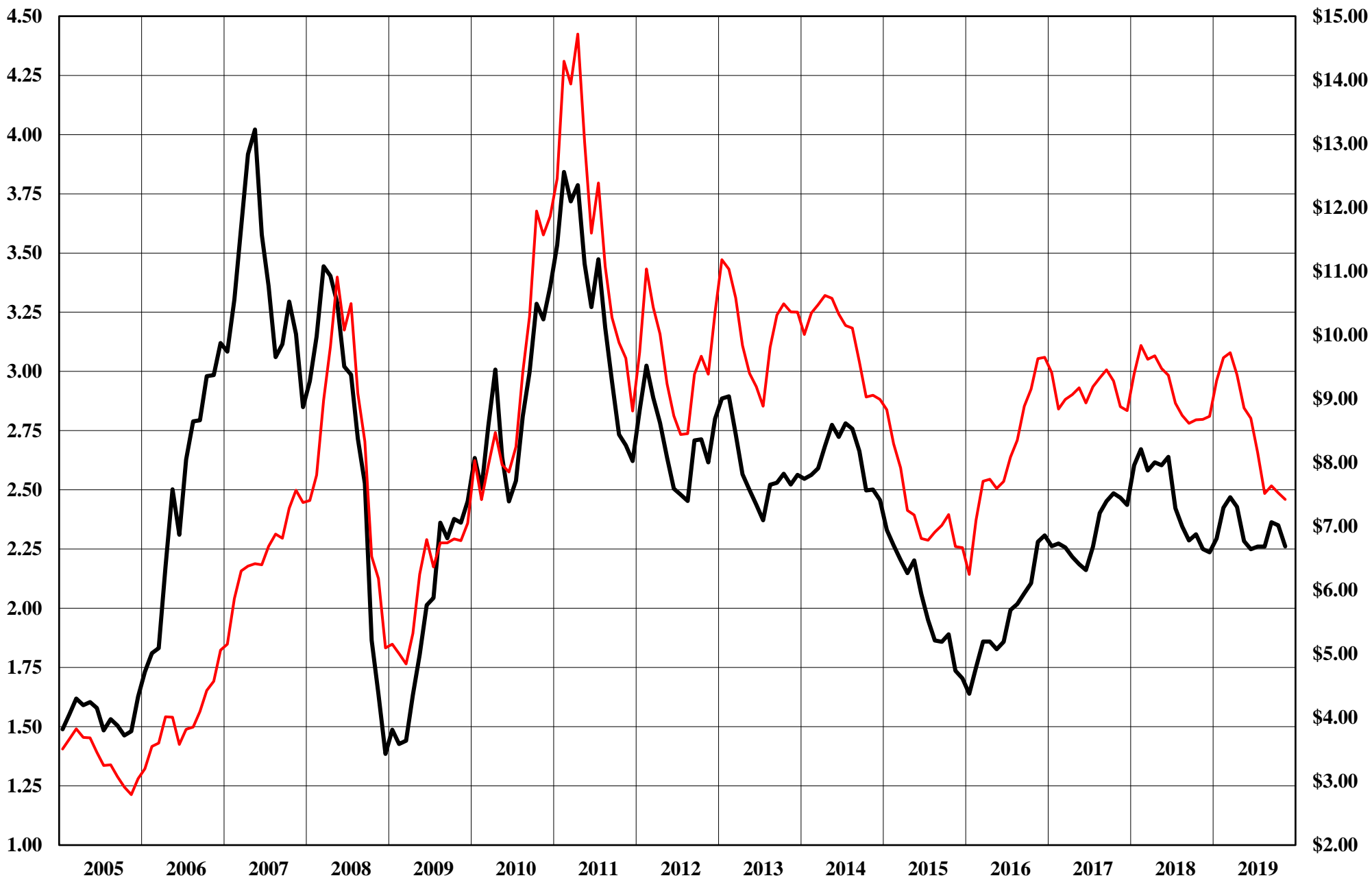
— BMB — LME Cash Aluminum

The Copper Journal
Base Metals Barometer Vs Lead
2005 -November 2019



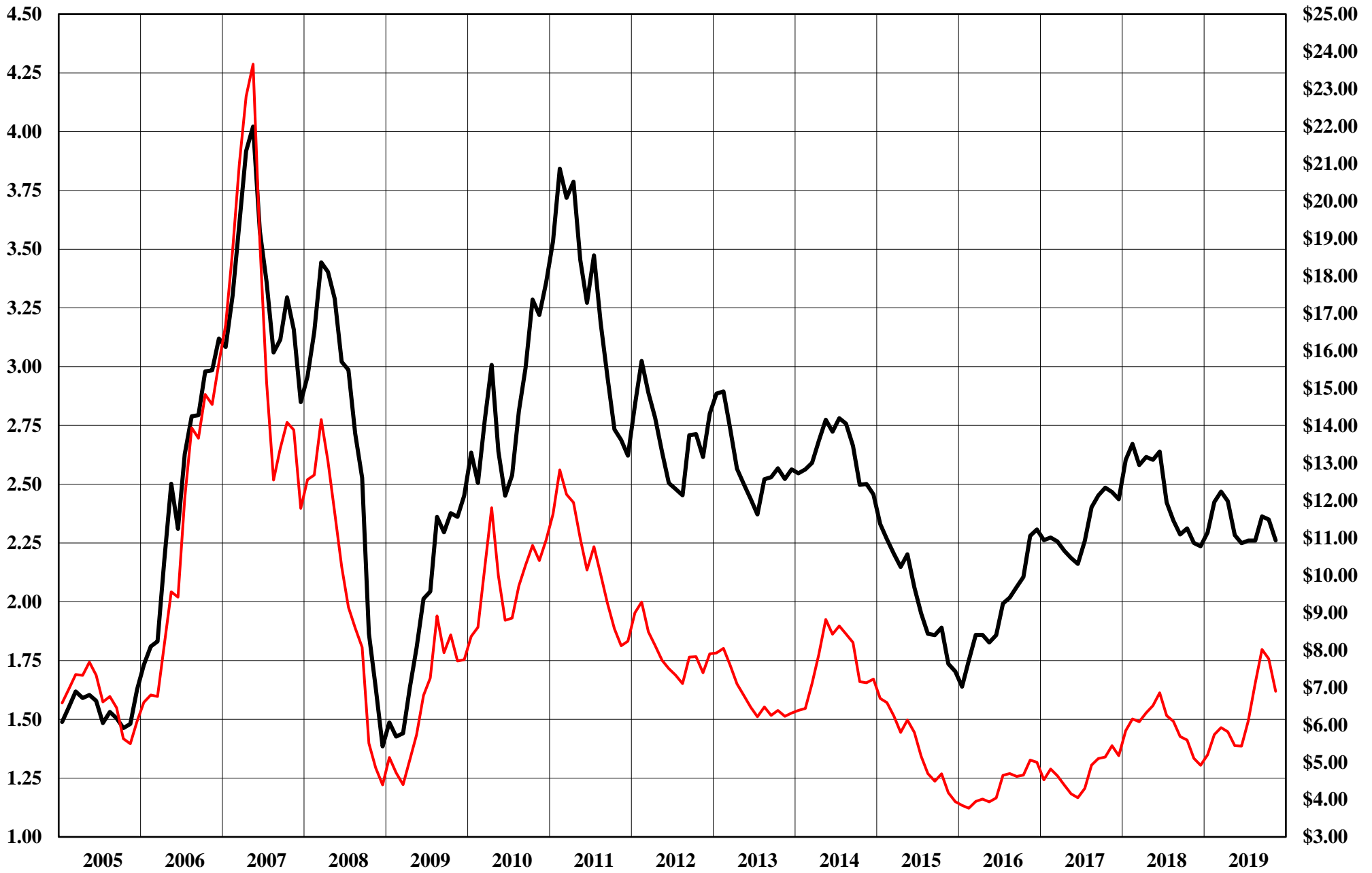
— BMB — LME Cash Lead

The Copper Journal
Base Metals Barometer Vs Tin
2005 -November 2019



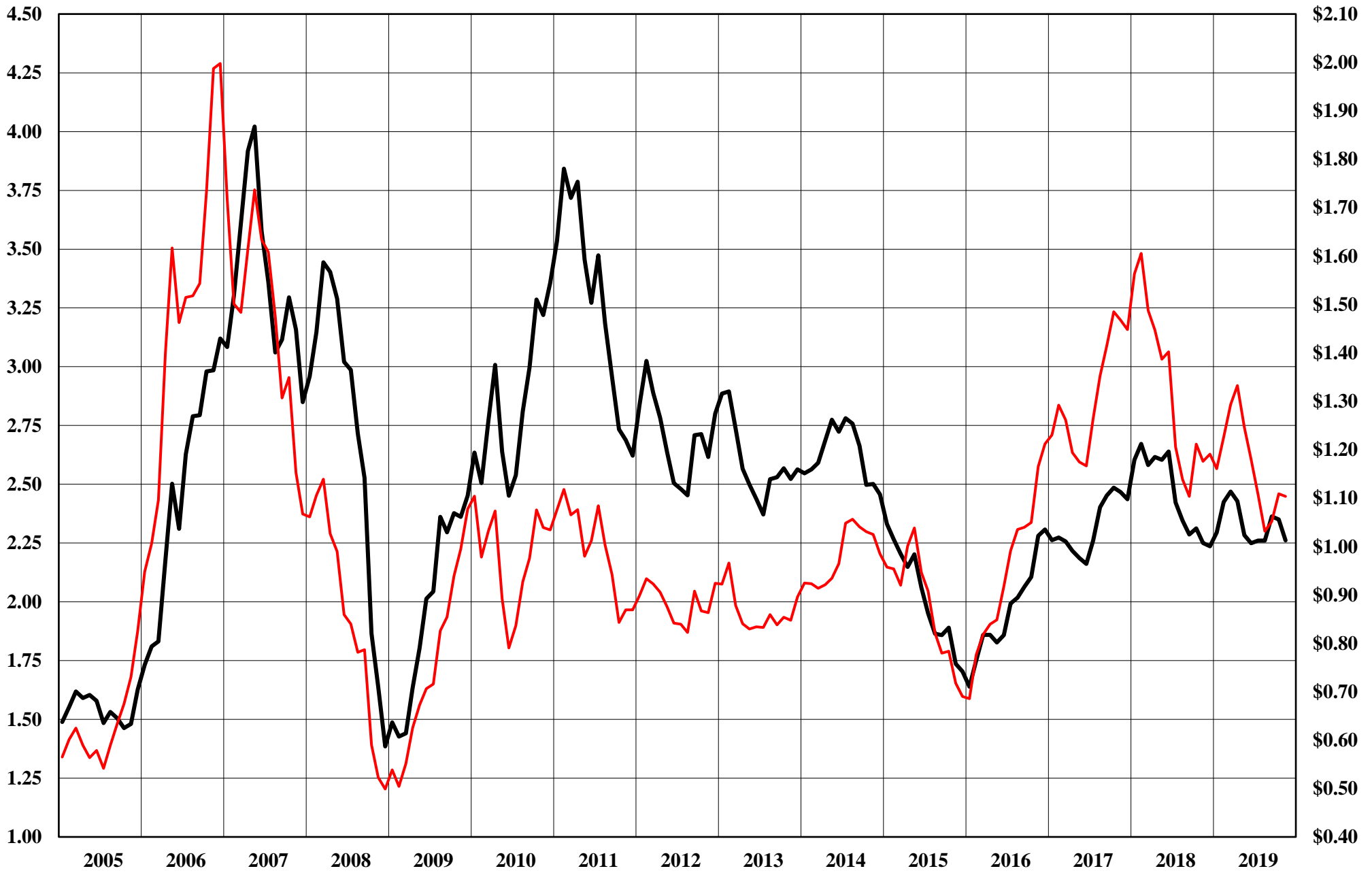
— BMB — LME Cash Tin

The Copper Journal
Base Metals Barometer Vs Nickel
2005 -November 2019



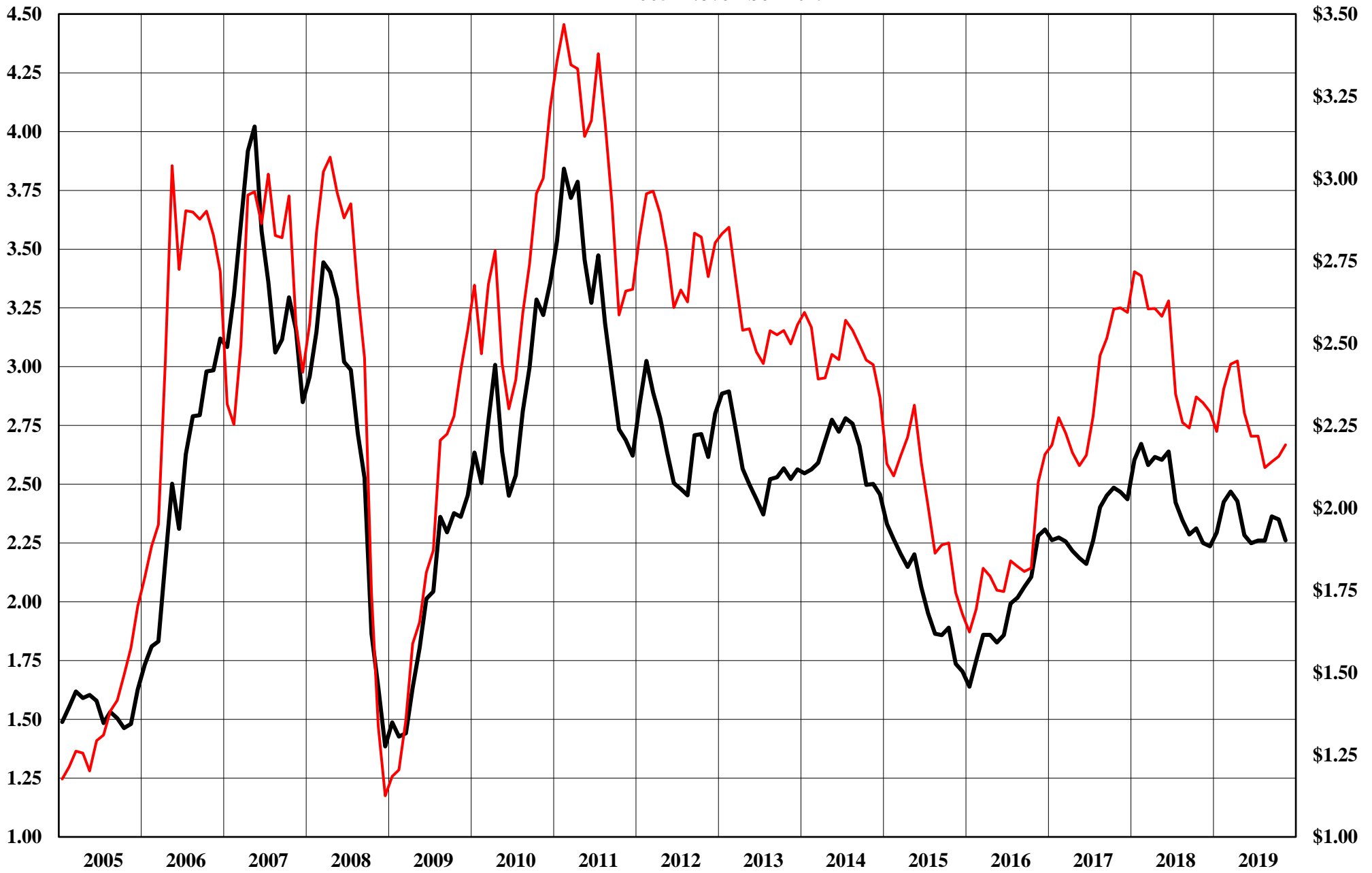
— BMB — LME Cash Nickel

The Copper Journal
Base Metals Barometer Zinc
2005 -November 2019



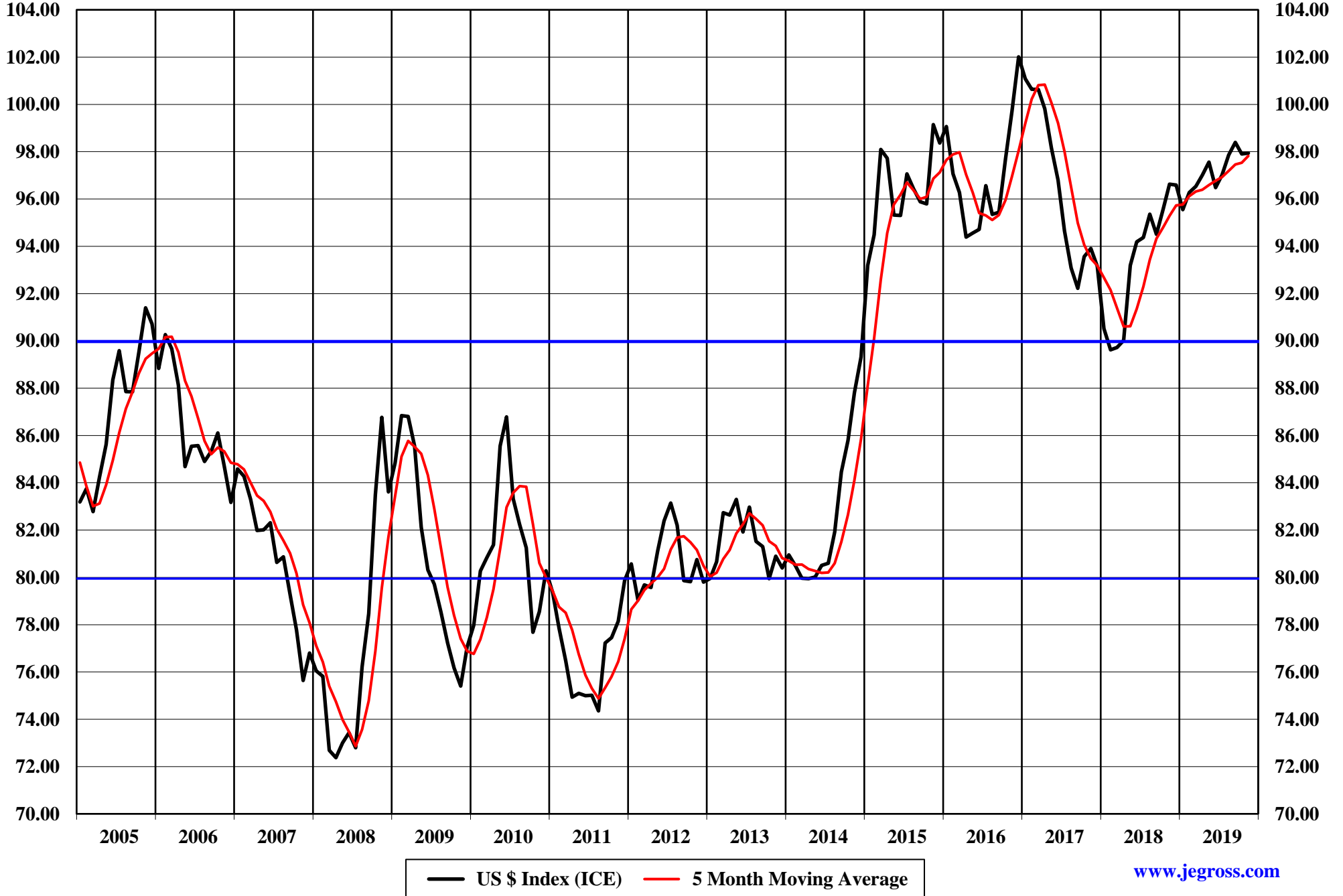
— BMB — LME Cash Zinc

The Copper Journal
Base Metals Barometer Vs 260 Brass
2005 -November 2019

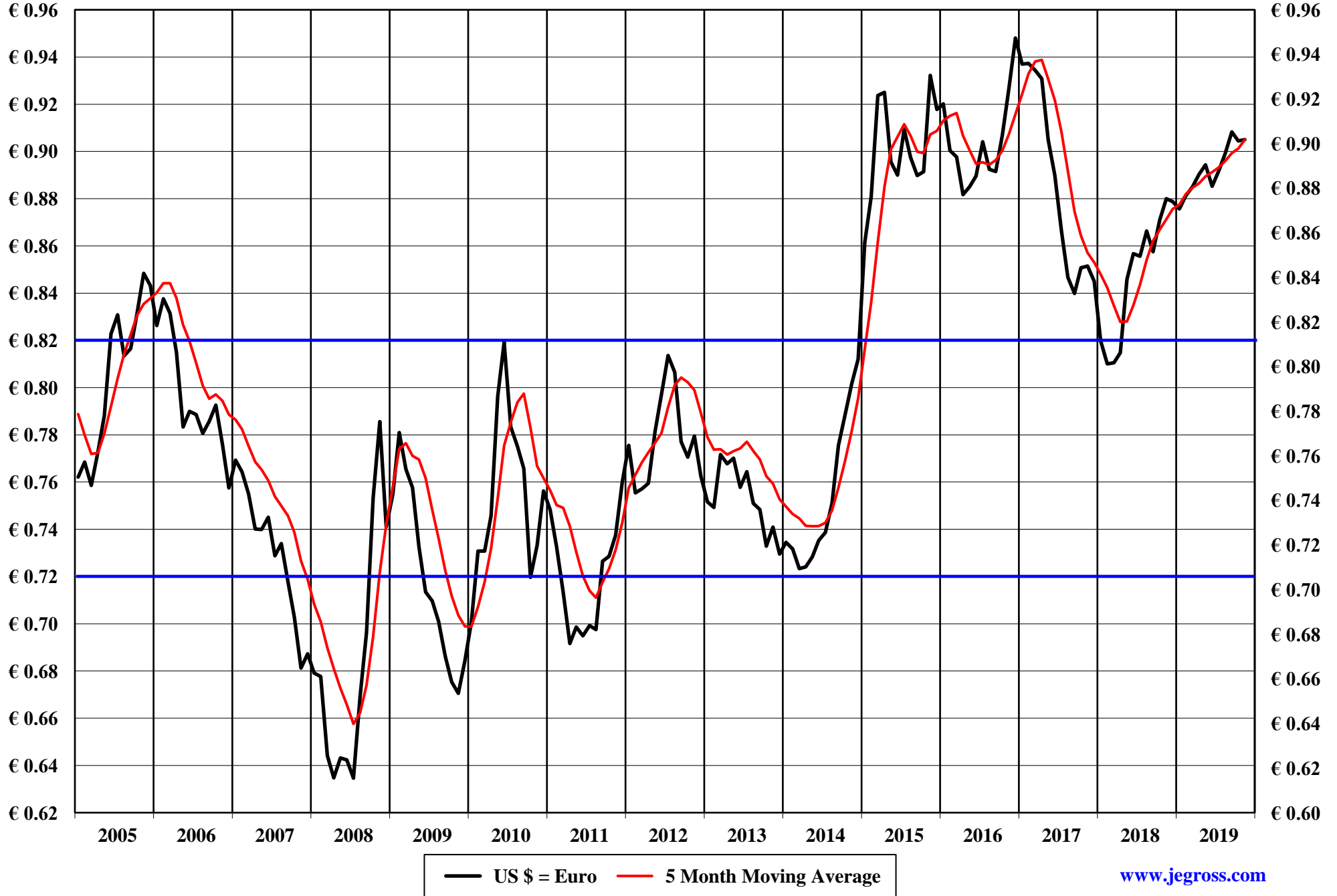


— BMB — 260 Brass

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



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

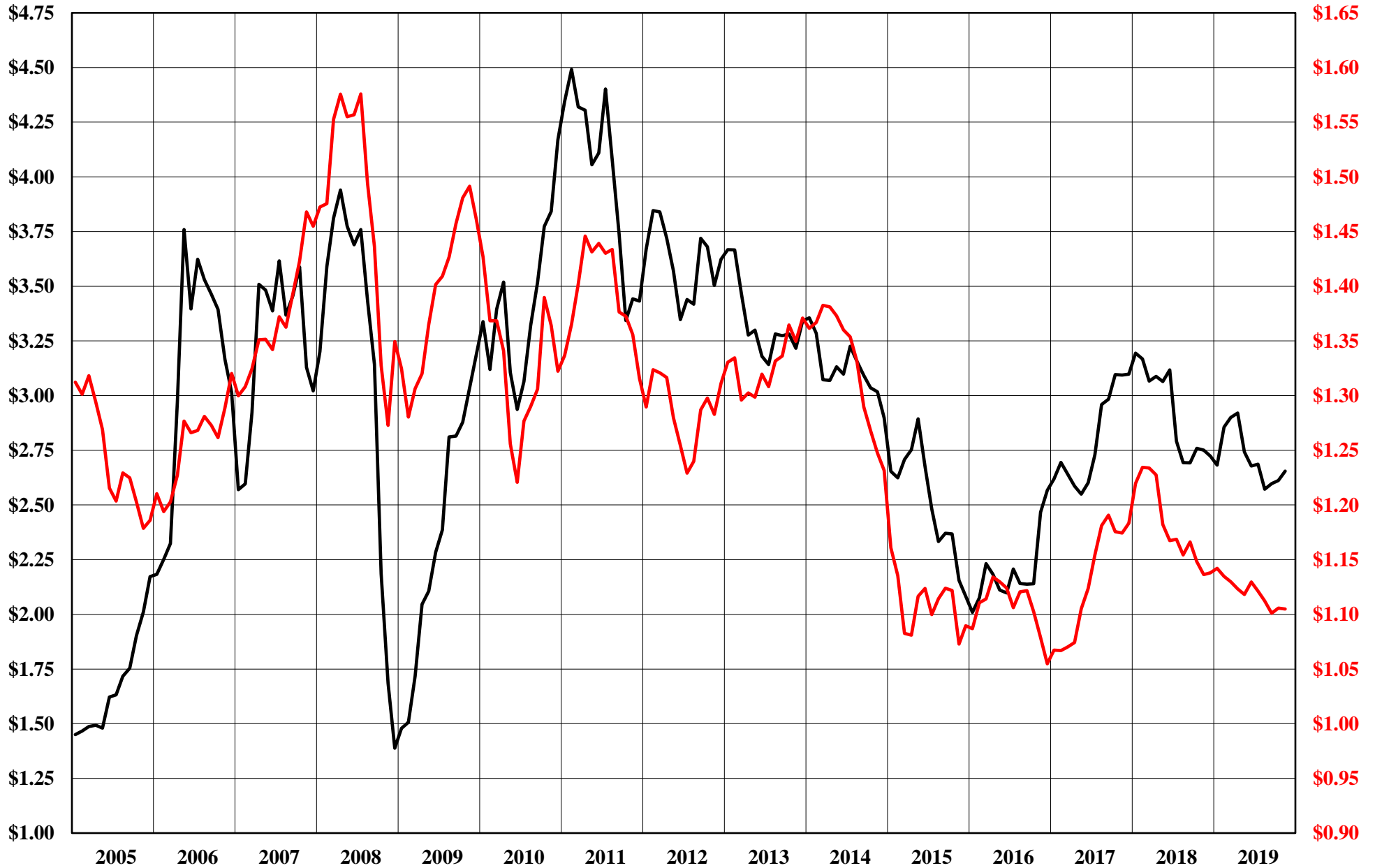


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1 Euro = \$ U.S.
2005 -November 2019



— Euro = US \$ — 5 Month Moving Average

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



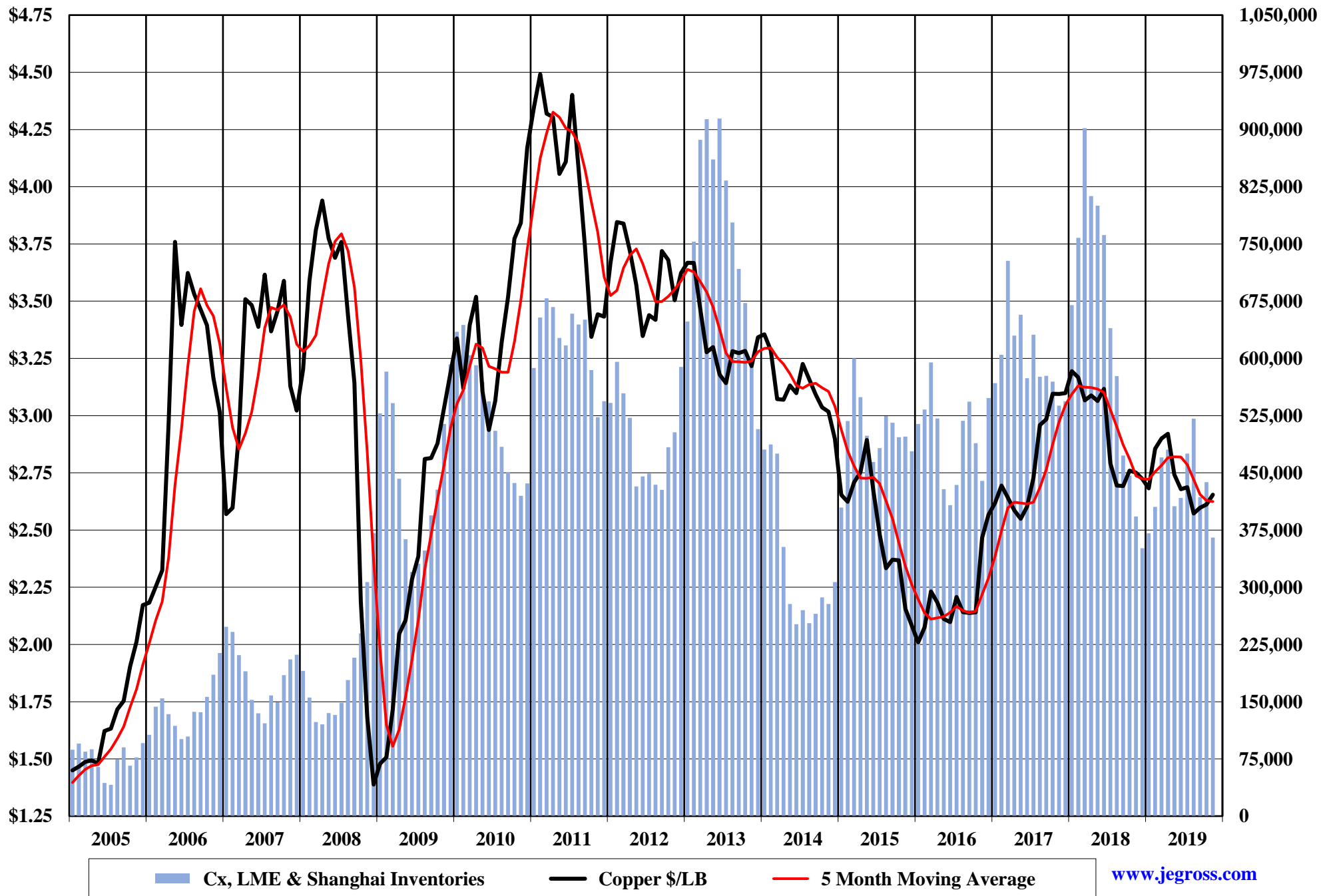
— Copper - \$ Per Pound — Euro = \$ U.S.

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

The Copper Journal Base Metals Barometer 2005 -November 2019

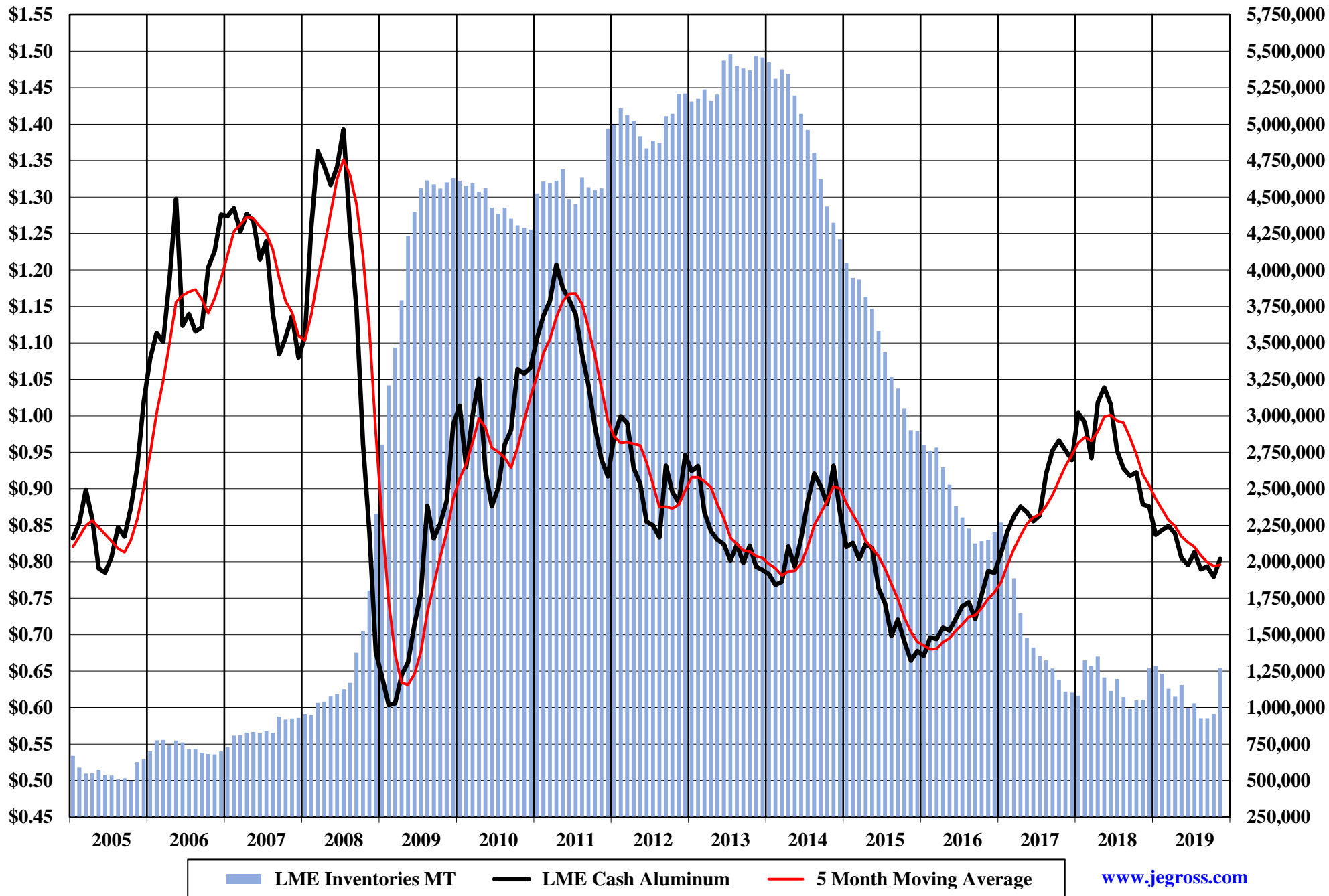


The Copper Journal
Copper
2005 -November 2019

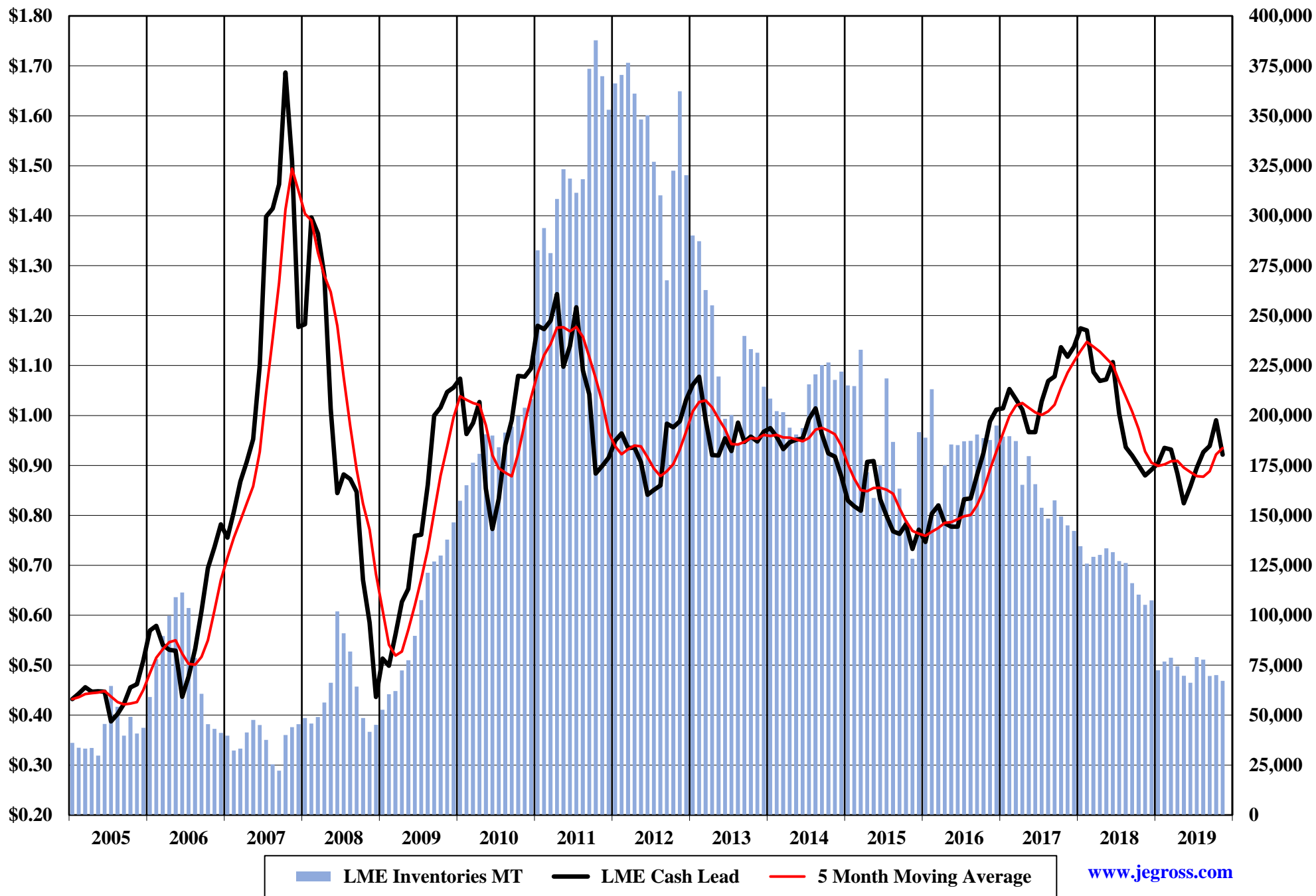


The Copper Journal Aluminum

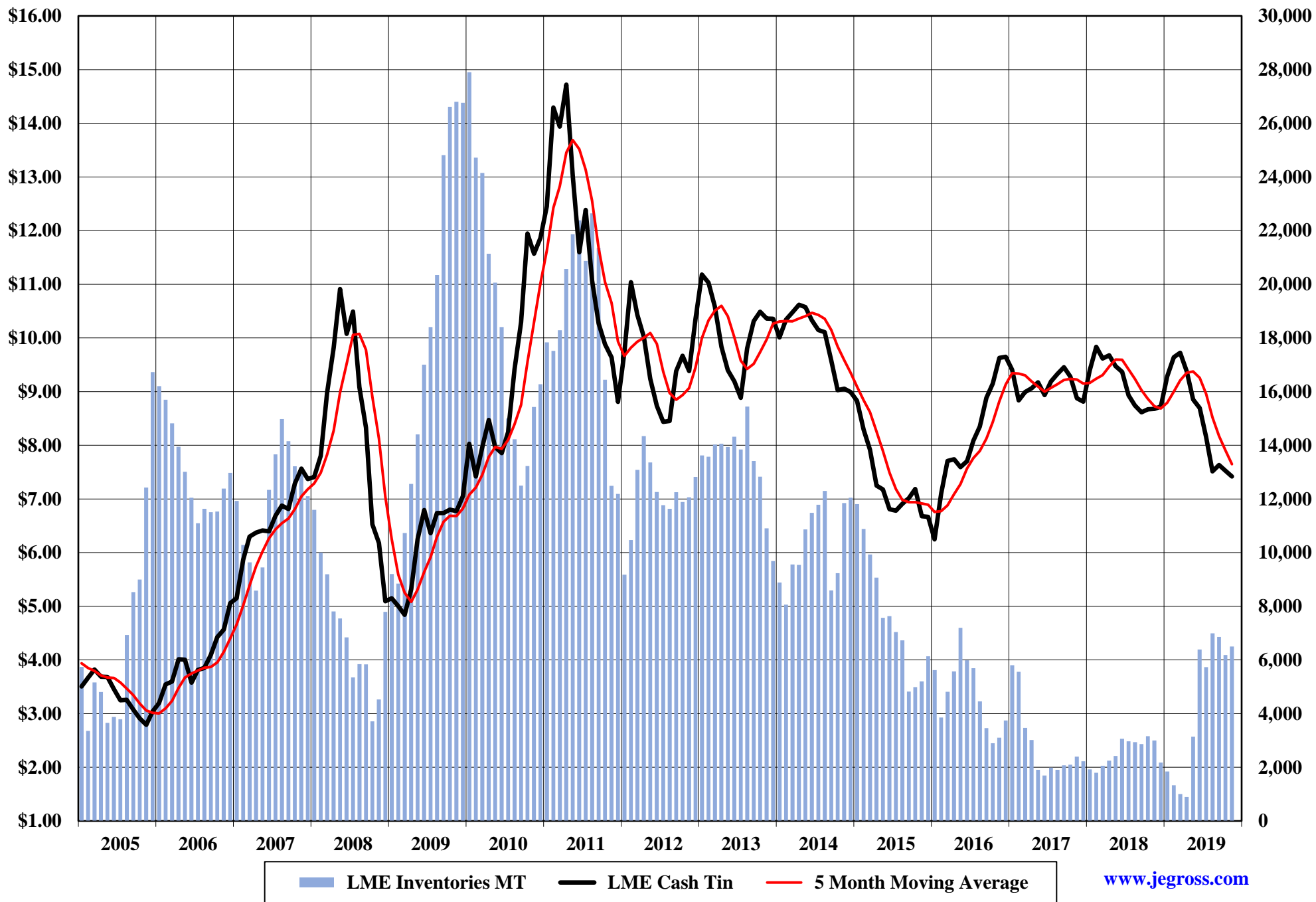
2005 -November 2019



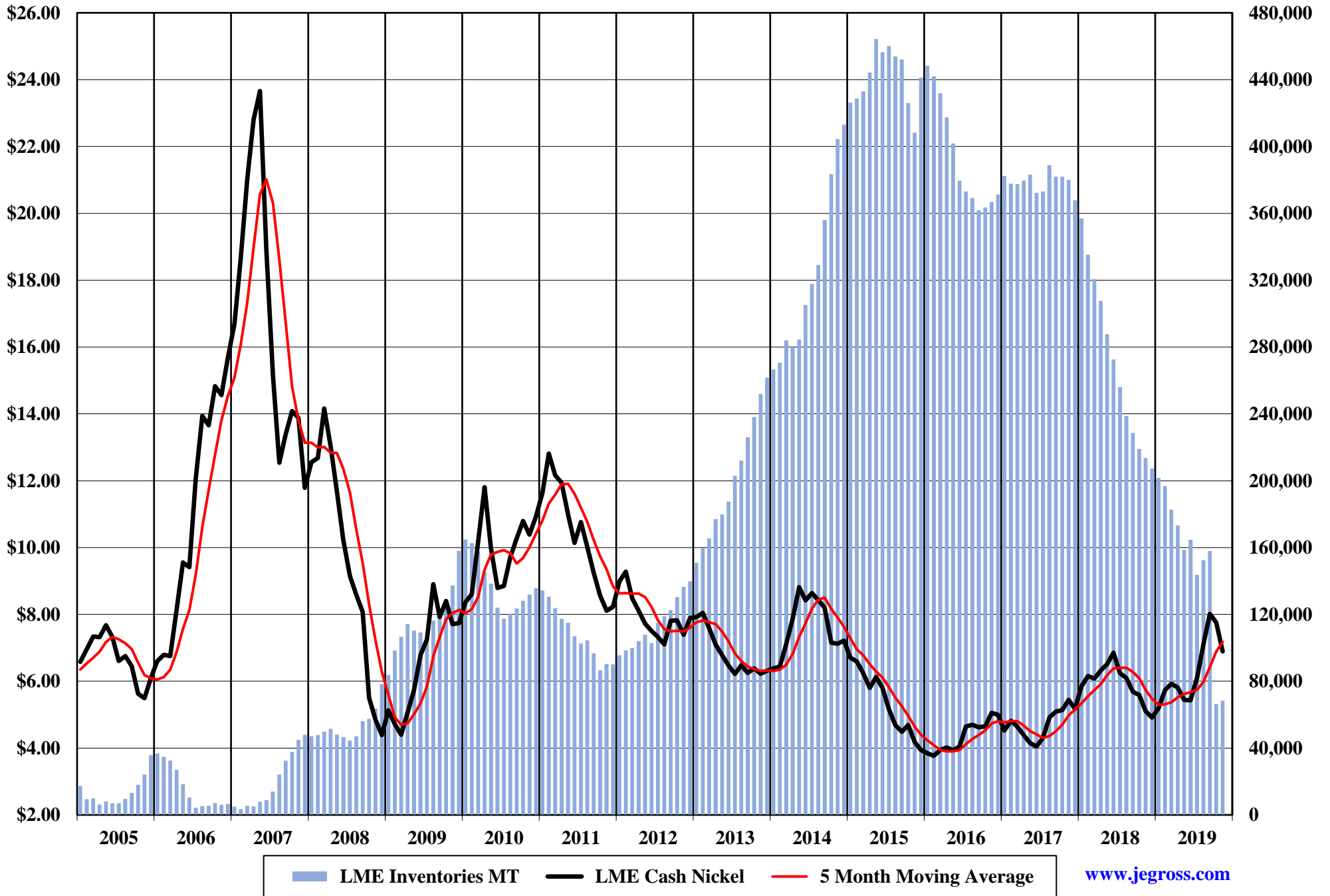
The Copper Journal
Lead
2005 -November 2019



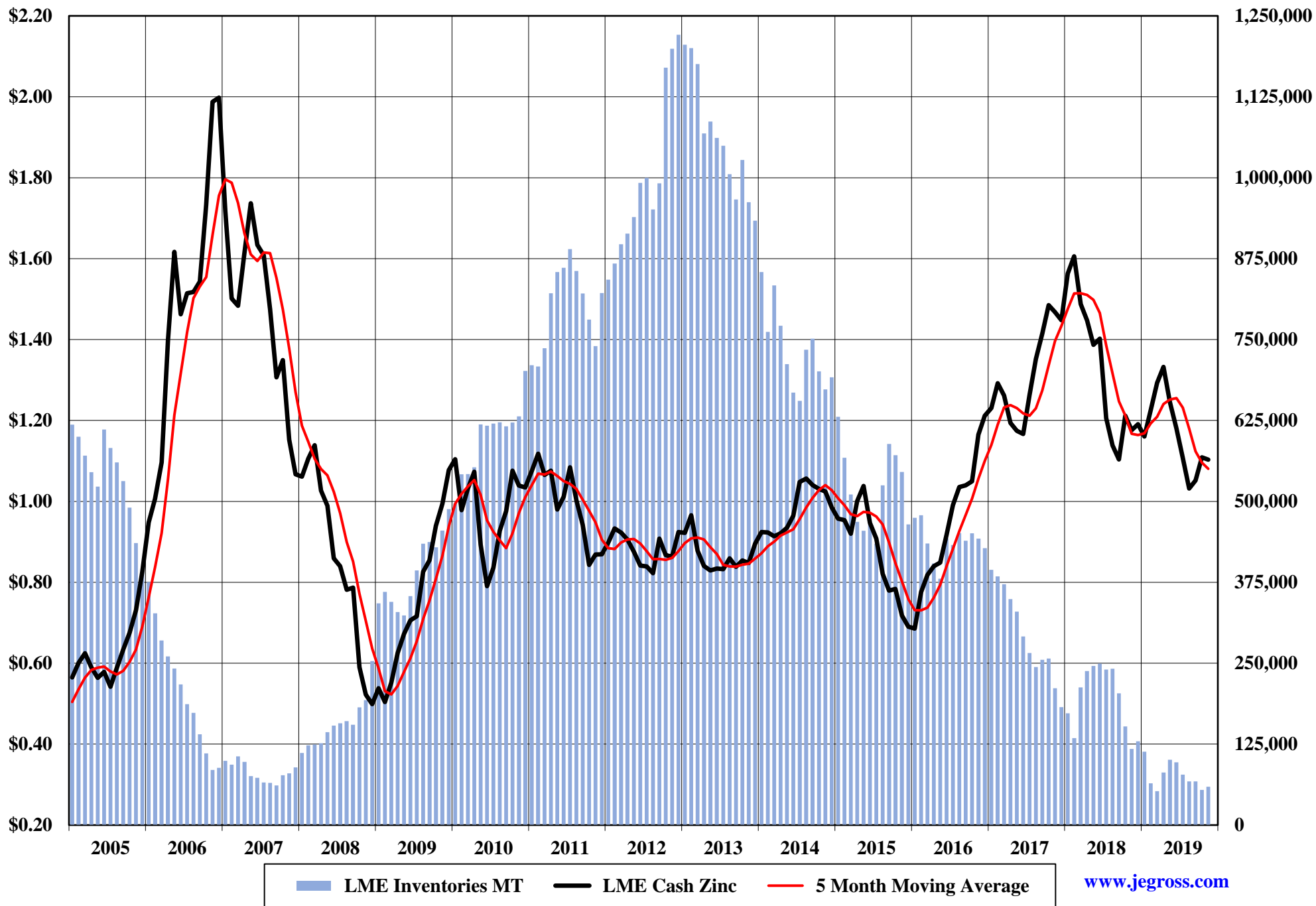
The Copper Journal
Tin
2005 -November 2019



The Copper Journal
Nickel
2005 -November 2019

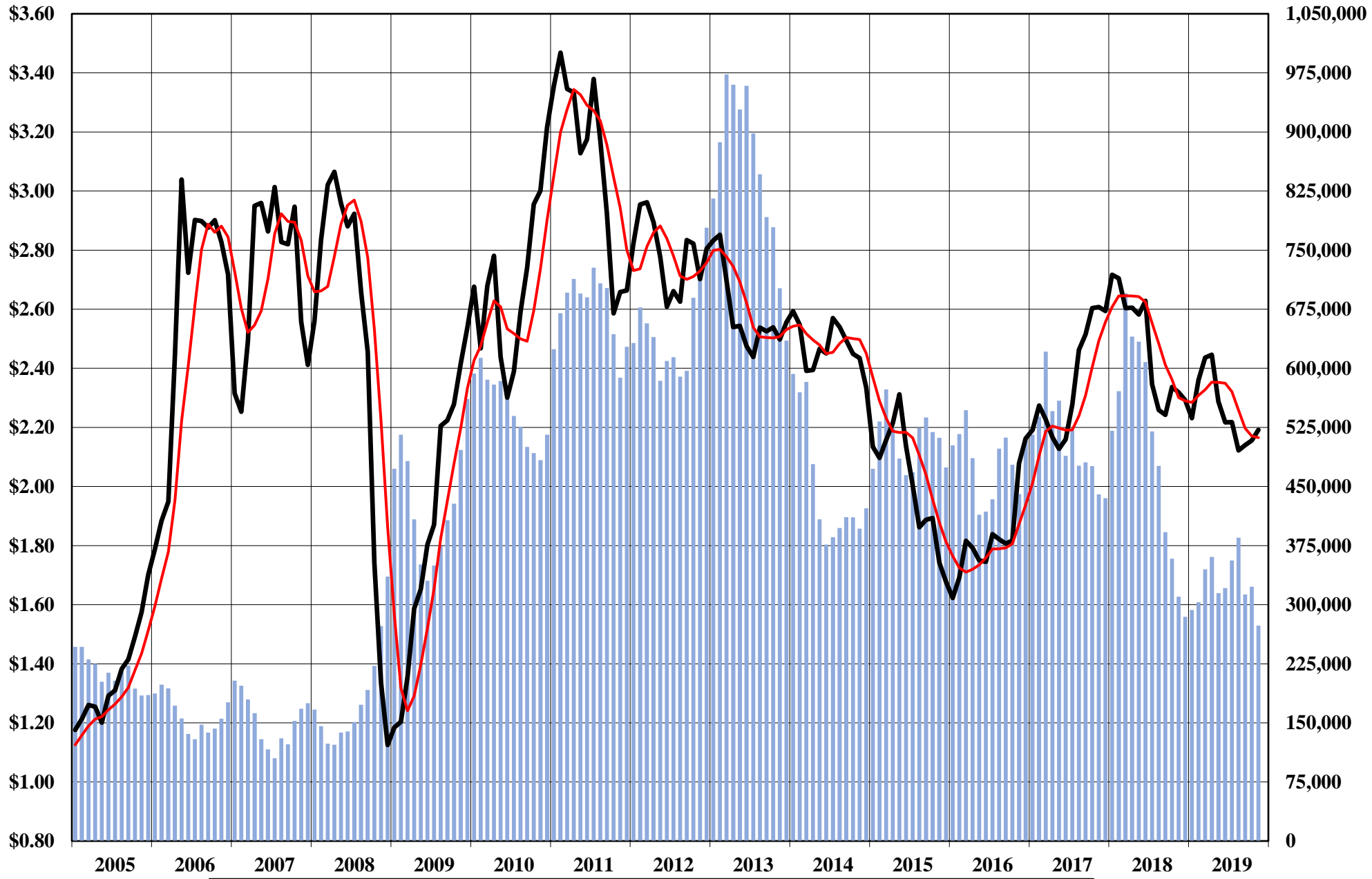


The Copper Journal
Zinc
2005 -November 2019



The Copper Journal
260 Brass
2005 - November 2019

70% Copper & 30% Zinc



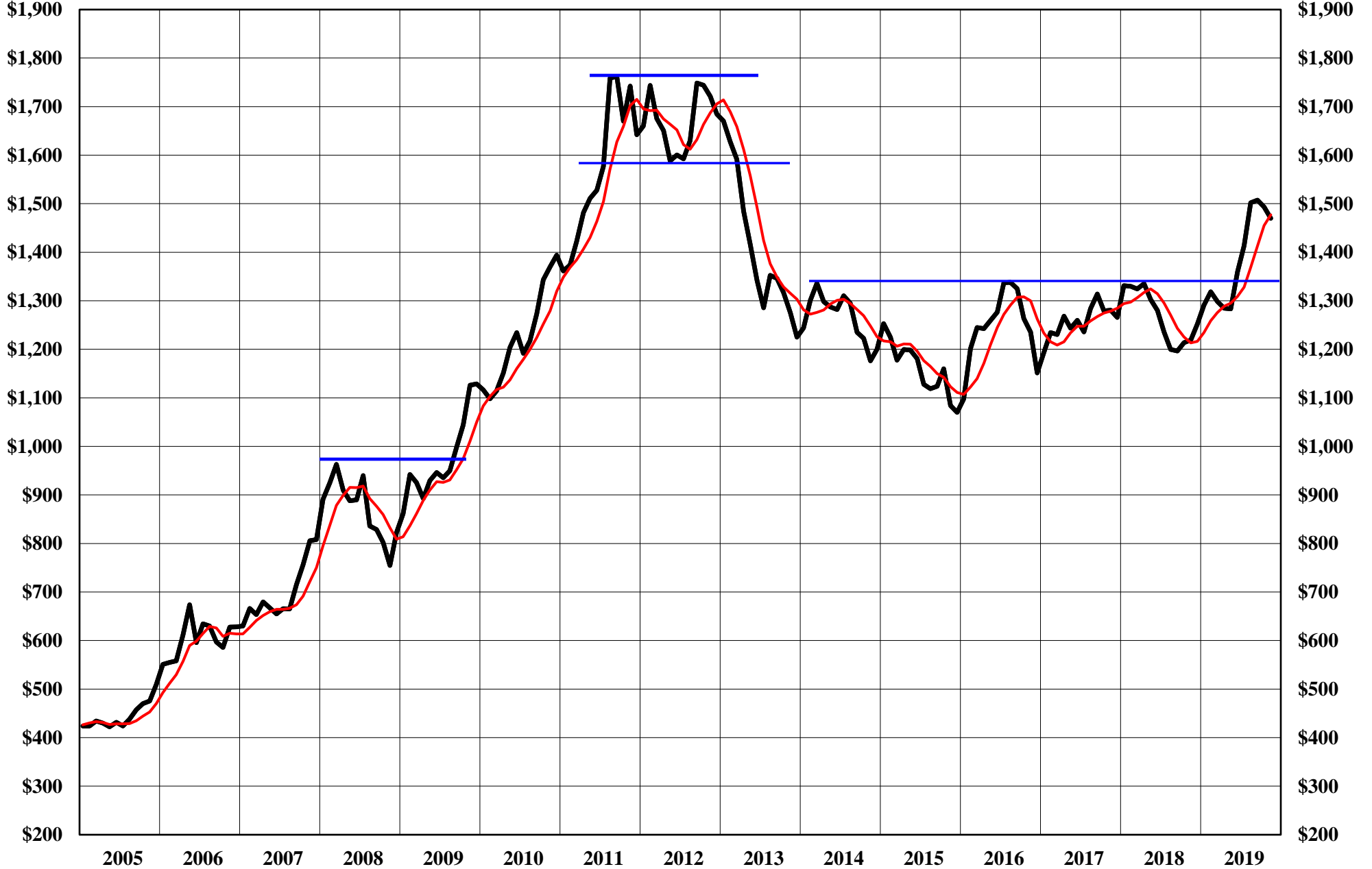
■ 260 Inventory Equalivent MT — 260 Brass — 5 Month Moving Average

The Copper Journal
Silver
2005 -November 2019



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

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Gold
2005 -November 2019



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

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Platinum
2005 -November 2019



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

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Palladium
2005 -November 2019



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

The Copper Journal
Crude Oil
2005 -November 2019



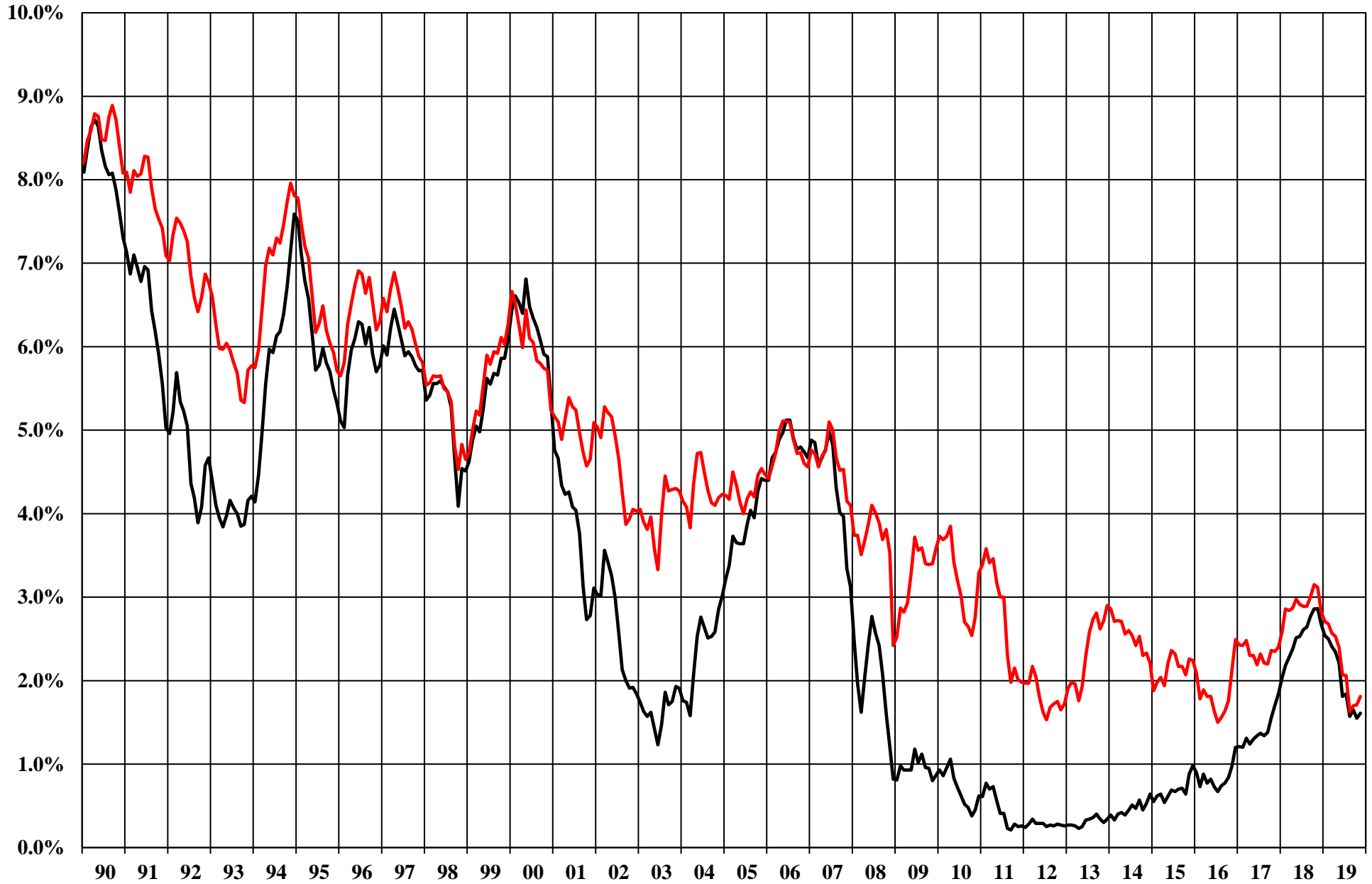
Nymex Monthly Average Price - \$ Per Barrel 5 Month Moving Average

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Natural Gas
2005 -November 2019



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

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



Source: Federal Reserve Bank of St. Louis

— 2 Year — 10 Year

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The Copper Journal
S&P 500
2005 -November 2019



— Monthly Average — 5 Month Moving Average

The Copper Journal
Shanghai Composite
2011 - November 2019

