

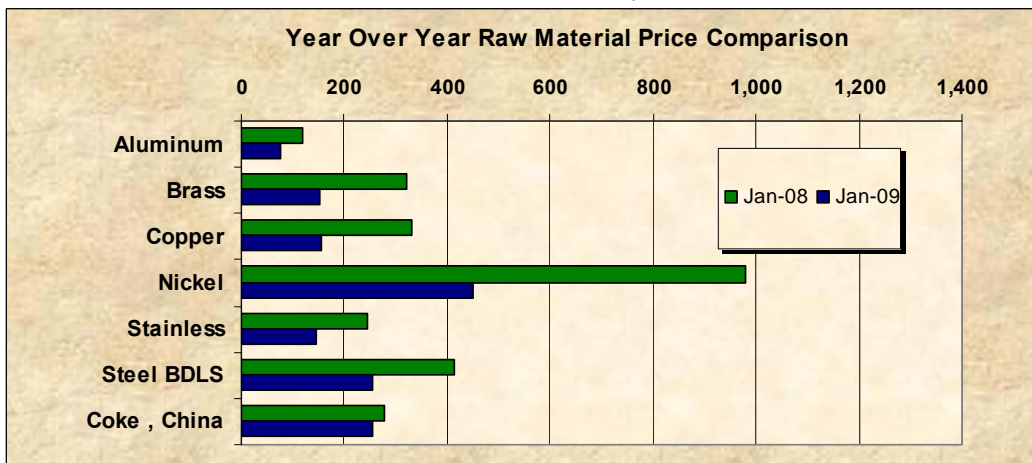


Material Impacts On The Precision Machining Industry

February 2009

Raw Materials Pricing Variability Inhibits Firm Pricing

Executive Summary



Quick Summary: The prices of the raw materials that we track are varying from 59% to 77% from their 2008 high to December 2008 low.

Price swing (Δ) from December 2008 to January 2009:

Aluminum: 31.4% price variation (Δ)

Copper, a mere 28% swing same time frame.

Nickel: 55% swing in the same period .

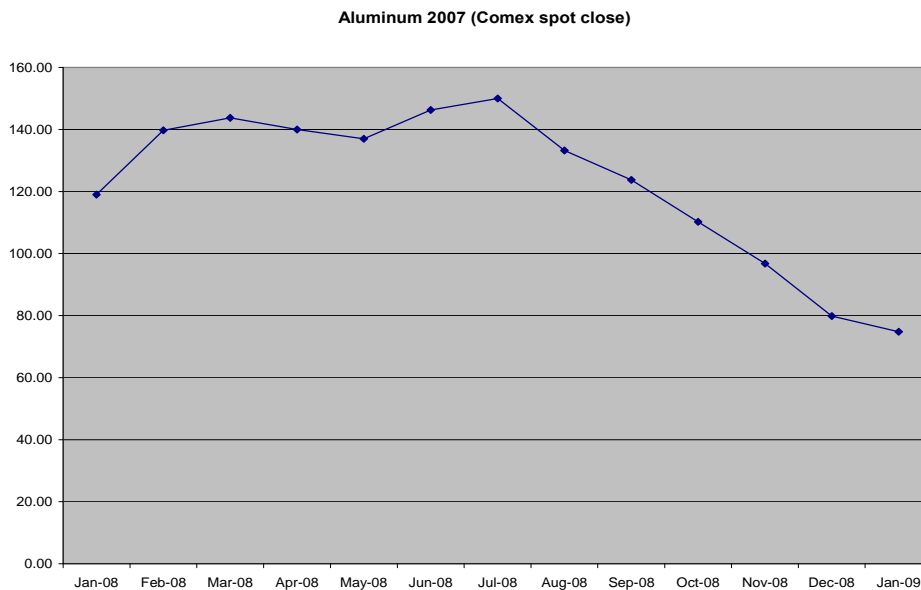
Steel, 62% swing with in the same 2 month period.

China Coke, 29.6%.

If we can't get stable prices for raw materials, how can we possibly offer firm prices to our customers? If we are at the bottom of the bottom of the current mess, savvy shops will be figuring out right now what are the key materials and supplies that they need to have in house when the orders "Gotta have it now!" are screamed in later this year. Hope you're working on it, because the orders will be back sooner than many expect. And the latest MSCI report shows steel inventories at a 17 year low.

According to what we were taught in economics class, when the inventories of available materials are low, and all of a sudden, the demand is back, prices generally trend... UP!

Aluminum (cents per pound Comex Spot close)



Aluminum is down 39.15% in January 2009 from Dec 2008; down 59% from its peak in July to its lowest value in December.

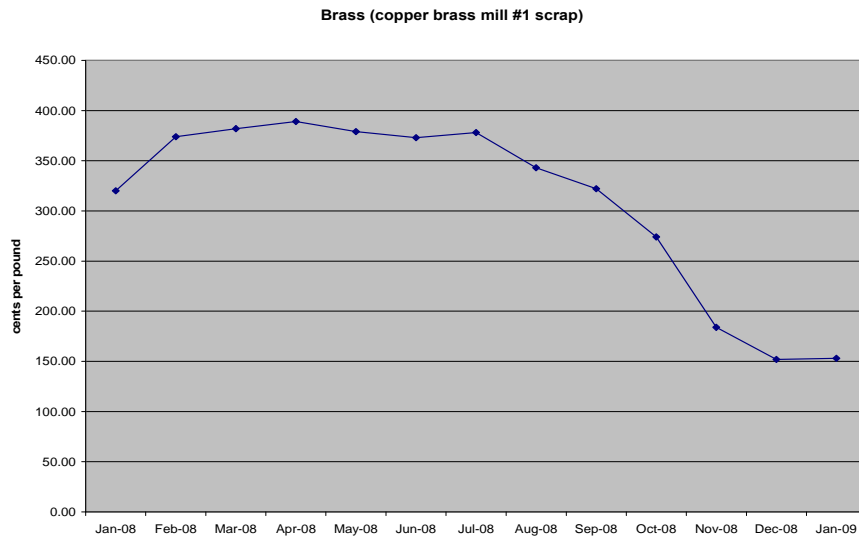
Aluminum	Dec-08	Jan-09
Minimum	67.85	60.75
Maximum	79.85	73.05
\$ Δ	12	12.3
% Δ	0.1769	0.2025

Shipments of aluminum products from U.S. metals service centers totaled 91,000 tons compared with 160,800 tons in January 2008. Inventories at the end of January totaled 356,400 tons, 19.8% below a year ago and, at current shipping rates, equal to a 3.9-month supply.

January shipments of aluminum from Canadian metals service centers totaled 11,200 tons, compared with 14,400 tons a year ago. Inventories totaled 33,400 tons at the end of January, 22.3% lower than a year ago and, at current shipping rates, equal to a 3.0-month supply.

Average price in 2008: \$1.27 per pound

Brass (cents per pound copper brass mill number 1)

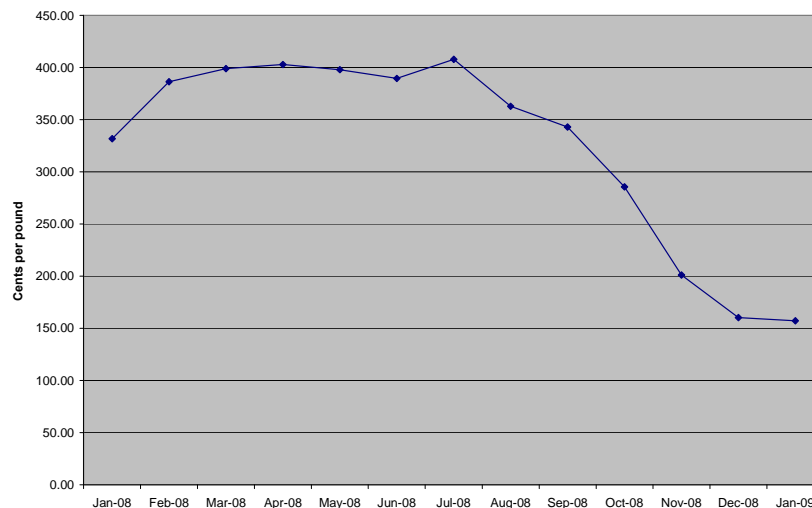


Brass is essentially even in January 2009 from Dec 2008; down 69% from its peak in April compared to its lowest value in December.

Brass	Dec-08	Jan-09
Minimum	122	135
Maximum	152	153
\$ Δ	30	18
% Δ	0.2459	0.1333

Average Price in 2008 (cents per pound): 322.50

Copper cents (per pound Comex high grade cathode, spot close price)



The Freight Fuel surcharge decreased to 18% over the standard freight rate on February 19th, 2009. Energy Surcharge remains Zero.

Copper's low in December 2008 is down 69% compared to the red metal's peak of \$402.80 last April. It is down 2% from December 08 to Jan 09.

Copper moves in close correlation to the overall economy- it is said that "the red metal has a Ph.D. in Economics."

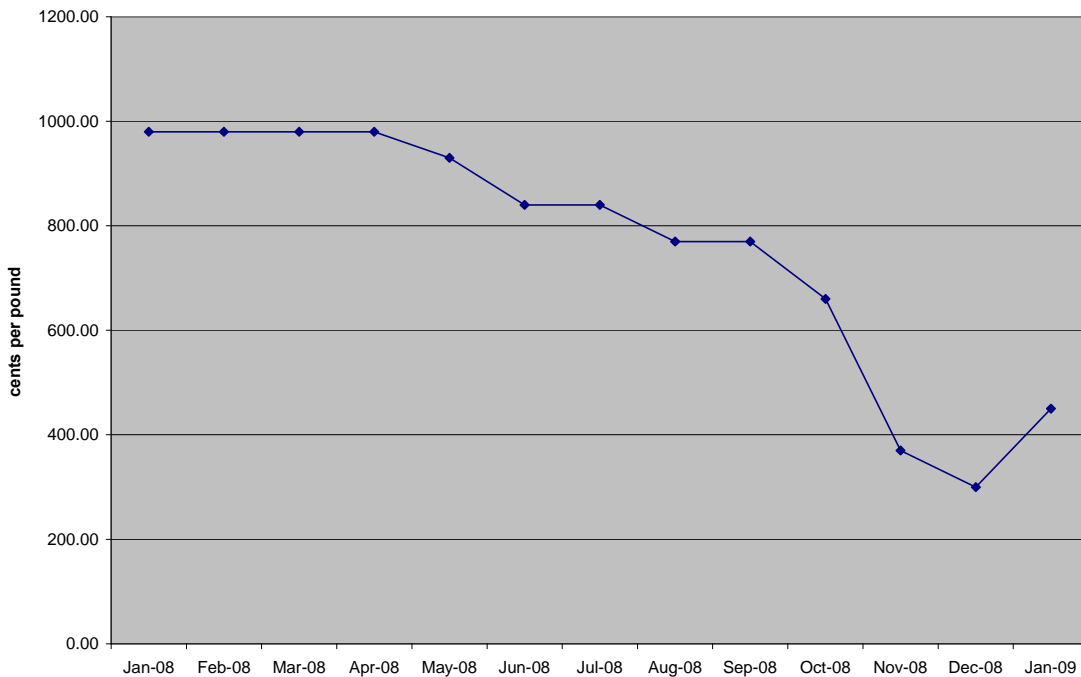
The graph above tells you that is correct...

Copper	Dec-08	Jan-09
Minimum	124.75	138.1
Maximum	160.35	157.2
\$ Δ	35.6	19.1
% Δ	0.2854	0.1383

Average price in 2008 (cents per pound): 338.99 per pound.

Nickel (cents per pound, New Clips and Solids Chicago)

Nickel scrap (new clips and solids)



Nickel in December is down 69% from its \$980 high last April. Nickel price jumped 50% on January 29th to \$450.

Nickel metal is available in physical inventories at the present time due to low demand.

Nickel	Dec-08	Jan-09
Minimum	290	290
Maximum	300	450
\$ Δ	10	160
% Δ	0.0345	0.5517

Average price in 2008: \$7.83per pound.

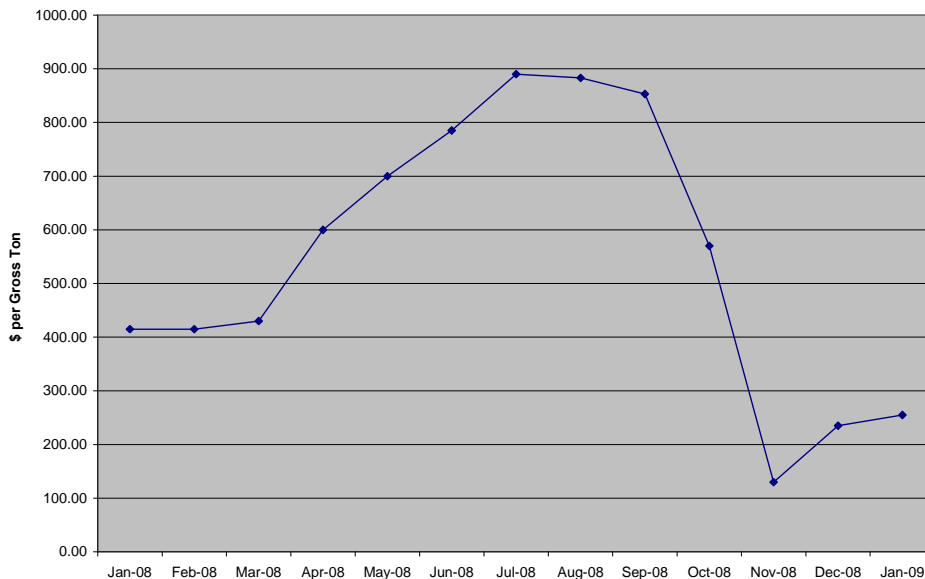
(Nickel is a key component of many steel alloy systems, stainless steels, superalloys, and many other nickel base materials.)

Stainless

Stainless Surcharges: Smolz+ Bickenbach USA Stainless 303 per pound **Raw Materials Surcharge-** January 2009 \$0.46- February \$0.34 last posted on website. These are calculated on a two month lag.

Steel (dollars per gross ton, Number 1 Busheling composite, Chicago, Cleveland, and Pittsburgh)

Steel Scrap (#1 Busheling)



Surcharges: March 2009 Surcharges for Cold Finished Bars (per CWT) Scrap: \$ 2.75; Manganese: \$.38; Alloy: 41XX= \$1.96; 43XX= \$5.7; 86XX=\$2.78

Steel scrap commodity that we track is highly volatile- down 71% in December compared to July 2008 high of \$890.

Steel Busheling	Dec-08	Jan-09
Minimum	145	235
Maximum	235	255
\$ Δ	90	20
% Δ	0.6207	0.0851

MSCI January carbon steel shipments on an average daily basis rose over 15% from December while tonnage in inventory dropped 1.8%. The decline in shipments year-on-year was 41%. Inventories are at a 17-year-low.

January shipments of steel from U.S metals service centers totaled 2.6 million tons, compared with more than 4.5 million tons during the same month in 2008. Month-end inventories of 8.48 million tons of steel were 14.9% below the levels of January 2008 and, at current shipping rates, represent a 3.3-month supply.

In Canada, January steel shipments totaled 406,900 tons compared with year-earlier shipments of 659,600 tons. Canadian steel inventories at the end of the month totaled nearly 1.2 million tons, 35.1% below the January 2008 level and, at current shipping rates, equal to a 2.9-month supply.

Source : <http://www.ssci.org/news/details.aspx?ArticleID=136>

Reporting notice *Effective with June 2008 data, we are reporting the AMM #1 Busheling, composite price (Chicago, Cleveland, and Pittsburgh) as our indicator for the price of steel scrap. This indicator has tracked essentially the same as #1 bundles over the last two years.*

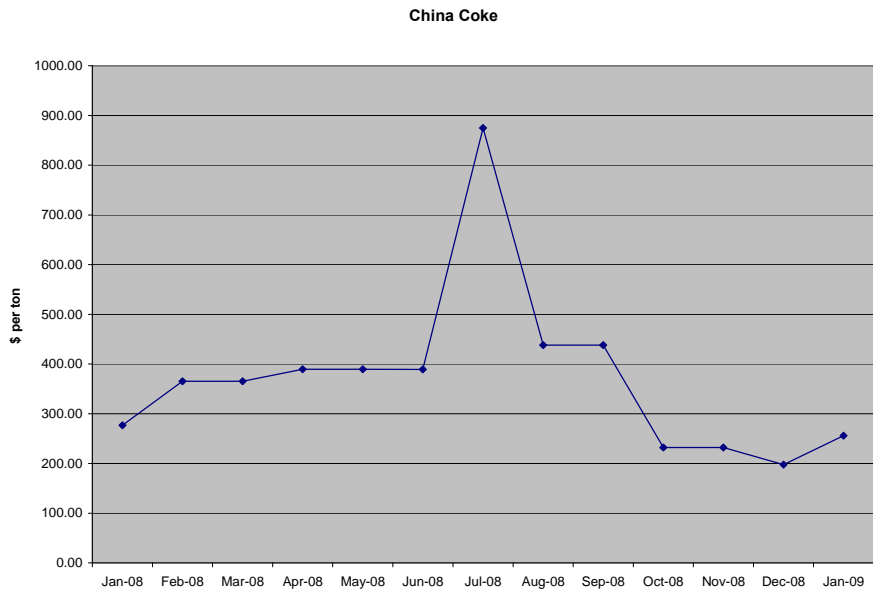
Average price in 2008: \$575.50 per gross ton

Commentary: Inventories are low. Hot roll mills are idled or running well below capacity. Cold finishers have some inventory, but not excess. When they sell it, they will have to wait for hot mills to get back up to speed.

Seasonally Adjusted Annual Rate of light vehicle build is currently below 10 million. 10 million is considered by most authorities to be the replacement rate. We have heard experts state that this year the light vehicle build will be between 12 and 13.5 million SAAR. This means when the orders finally get arrive, it will be “ all hands on deck!” and OEM’s will be screaming to get parts and the parts pipeline filled.

***It is easy to be grim at the bottom of the bottom. I believe that we are at or very near the bottom.* What is critical for us as managers is to recognize the bottom and prepare for success as we climb out. Success next month or the following may depend on your having stock to run and parts to ship. WHAT ARE YOU DOING NOW TO PREPARE FOR SUCCESS? Do you have material orders on the books? Should you? Can you afford not to?**

China Coke (Chinese) (\$ per metric tonne)



Coke, China	Dec-08	Jan-09
Minimum	197.50	256
Maximum		
\$ Δ		
% Δ	0	0

China coke is down 77% in December from its 2008 high of \$875 in July. January's price is up 29.6 percent from December..

Average price in 2008: \$382.34 per tonne.

(Coke is used in blast furnaces to make hot metal iron for use in the basic oxygen steelmaking process. China accounts for half of the world's supply of coke, one third of which went to the European Union.)

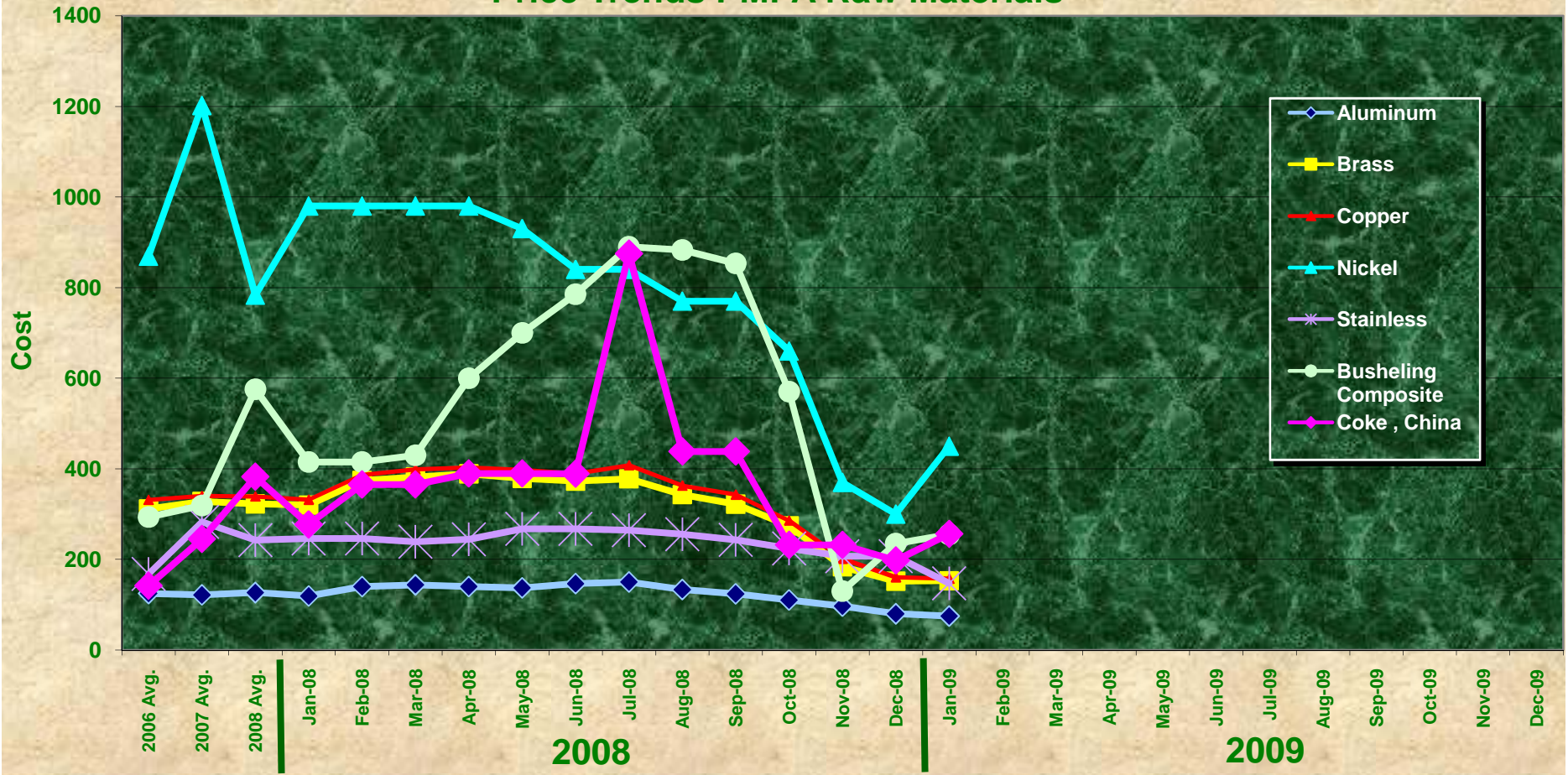
Currency: Still no substantive action on the revaluation of the Yuan. What was that thing about 'Change' we heard?

Please see the Analysis of Foreign Currencies prepared by Georgetown Economic Services posted along with this report.

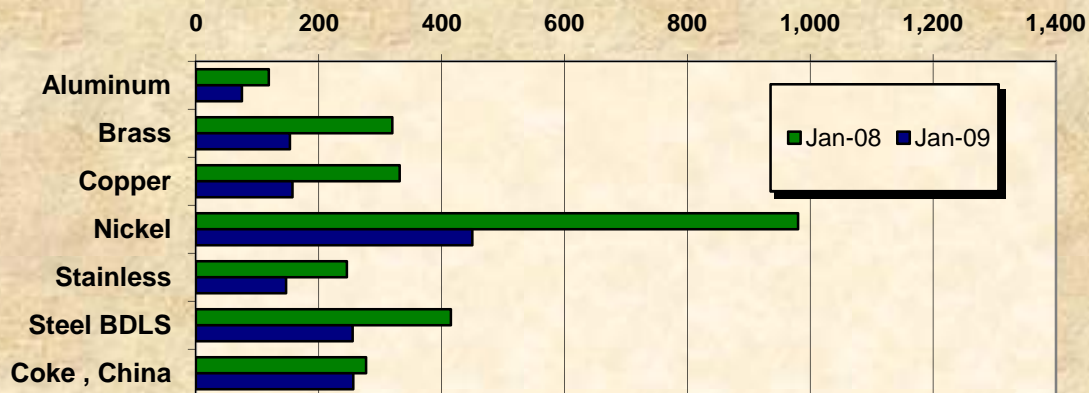
-Miles Free

Director, Industry Research and Technology
Precision Machined Products Association

Price Trends PMPA Raw Materials



Year Over Year Raw Material Price Comparison



PMPA Raw Materials Index

	Aluminum	Brass	Copper	Nickel	Stainless	Busheling Composite	Coke , China
2006 Avg.	124.62	311.58	331.19	869.17	167.50	293.25	141.75
2007 Avg.	121.49	328.17	339.86	1201.67	282.65	319.17	244.75
2008 Avg.	126.64	322.50	338.99	783.33	242.43	575.50	382.34
Jan-08	119.00	320.00	331.70	980.00	246.06	415.00	277.00
Feb-08	139.75	374.00	386.35	980.00	246.06	415.00	365.30
Mar-08	143.75	382.00	398.95	980.00	238.62	430.00	365.30
Apr-08	140.00	389.00	402.80	980.00	244.09	600.00	389.40
May-08	137.00	379.00	397.85	930.00	267.10	700.00	389.40
Jun-08	146.30	373.00	389.55	840.00	267.10	785.00	389.00
Jul-08	150.00	378.00	407.75	840.00	264.47	890.00	875.00
Aug-08	133.25	343.00	362.85	770.00	255.35	883.00	438.07
Sep-08	123.75	322.00	342.95	770.00	243.21	853.00	438.07
Oct-08	110.25	274.00	285.70	660.00	223.94	570.00	232.00
Nov-08	96.75	184.00	201.10	370.00	206.58	130.00	232.00
Dec-08	79.85	152.00	160.35	300.00	206.58	235.00	197.50
Jan-09	74.80	153.00	157.20	450.00	147.00	255.00	256.00
Feb-09							
Mar-09							
Apr-09							
May-09							
Jun-09							
Jul-09							
Aug-09							
Sep-09							
Oct-09							
Nov-09							
Dec-09							
Jan09- Jan 08							
\$Change	-44.20	-167.00	-174.50	-530.00	-99.06	-160.00	-21.00
Jan09-Jan08							
%Change	-37.14	-52.19	-52.61	-54.08	-40.26	-38.55	-7.58
2008 Average	126.64	322.50	338.99	783.33	242.43	575.50	382.34

Prices are as published, do not include surcharges.

Aluminum , Comex Spot close, cents/pound

Brass Scrap, Copper Brass mill #1, cents/pound

Copper, Comex High Grade Cathode, cents/pound

Nickel, Scrap clips and solids, cents per pound

Stainless, 303 CD bars, cents/pound

SteelBdls, #1, AMM Chicago, \$/gross Ton

Coke- anecdotal reports

Table A

PMPA Raw Materials Index

About the commodities selected for tracking:

The items selected were chosen as indicators of costs for the materials commonly used by our industry. They were selected because they were available and published, rather than a transaction price which might be confounded with other commercial objectives or geographic market peculiarities.

Aluminum- The use of the Comex Spot close price should need no explanation.

Brass Scrap, Copper Brass mill, #1 was chosen as indicative of the general trend for high quality Brass Scrap for recycling.

Copper, Comex High Grade Cathode was chosen as indicative of costs for "new Copper" to be added to the existing Brass Metal inventory available.

Nickel, Scrap clips and solids was chosen as a proxy indicator for understanding Stainless Steel and High Temp alloys which typically are high % Nickel content.(303-8-10%; 316 10-12%; Hastelloy- Greater than 50%)

Stainless- 303 bars this number is published and can provide a "calibration" of your actual numbers to compare to your own experience.

Steel- Busheling Composite. This indicator was selected as it correlated to the #1 bundles we used prior, now obsolete. It is a factor in the determination of most mill surcharges.

Coke- Coke is used in blast furnace production of Iron in order to produce steel by the Basic Oxygen Process (BOP). Blast furnaces use the coke to provide support for the burden (iron ore, limestone, bushellings, sinter etc.), sensible heat, and carbon monoxide reactant to reduce the oxide in the ore to pure iron. Coke itself is produced by blending a mixture of low- and high- volatility and ash coals and processing them at very high temperatures to distill out volatile organics leaving a strong porous cellular solid which is the critical ingredient for the Blast furnace- BOP producer. This process is daunting from an environmental impact point of view. ***Without coke, there is no blast furnace iron; Without blast furnace iron, there is no BOP steel.***

Quarterly averages have been calculated and used for this report for years prior to 2005 in order to tidy up the presentation of data.

Miles Free

**Quarterly Averages
PMPA Material Impacts**

	Aluminum	Brass	Copper	Nickel	Stainless	Steel BDLS	Coke , China
2003	65.60	77.50	78.21	310.23	111.00	114.55	
	65.84	79.48	80.15	312.50	105.00	124.05	
	66.77	81.93	82.02	325.12	102.00	131.00	
3rd Qtr.	66.07	79.64	80.13	315.95	106.00	123.20	
	69.79	87.04	88.20	359.67	102.00	132.00	
	70.67	92.22	92.76	419.72	105.33	145.33	
	73.52	98.76	99.67	452.50	106.00	162.43	
4th Qtr.	71.33	92.67	93.54	410.63	104.44	146.59	
2004	76.29	108.80	110.28	562.50	106.00	182.00	
	80.40	120.00	121.60	565.00	106.00	275.00	182.00
	84.65	137.00	139.70	525.00	121.50	295.00	460.00
1st Qtr.	80.45	121.93	123.86	550.83	111.17	250.67	321.00
	88.65	136.00	137.10	500.00	121.50	270.00	450.00
	80.85	123.50	124.70	425.00	121.50	240.00	410.00
	83.45	128.00	129.25	500.00	121.50	250.00	325.00
2nd Qtr.	84.32	129.17	130.35	475.00	121.50	253.33	395.00
	84.30	130.00	131.30	550.00	121.50	395.00	
	84.30	131.00	131.55	520.00	121.50	395.00	
	90.95	135.00	139.90	520.00	153.50	375.00	310.5
3rd Qtr.	86.52	132.00	134.25	530.00	132.17	388.33	310.50
	91.30	142.00	147.35	600.00	157.00	415.00	239.00
	89.45	140.00	144.50	500.00	157.00	430.00	239.00
	94.25	145.00	149.10	500.00	157.00	430.00	280.00
4th Qtr.	91.67	142.33	146.98	533.33	157.00	425.00	252.67
2005	93.60	145.00	149.50	500.00	157.00	370.00	280.00
	95.05	144.00	150.25	550.00	157.00	315.00	230.00
	96.65	146.00	151.05	550.00	157.00	255.00	230.00
1st Qtr.	95.10	145.00	150.27	533.33	157.00	313.33	246.67
	93.50	149.00	154.20	600.00	157.00	270.00	230.00
	85.50	144.00	161.40	650.00	160.00	215.00	230.00
	80.25	149.00	153.00	650.00	160.00	145.00	210.00
2nd Qtr.	86.42	147.33	156.20	633.33	159.00	210.00	223.33
	84.40	153.00	163.00	560.00	160.00	170.00	210.00
	89.80	168.00	177.95	540.00	160.00	230.00	210.00
	89.00	173.00	187.65	540.00	160.00	285.00	210.00
3rd Qtr.	87.73	164.67	176.20	546.67	160.00	228.33	210.00
	91.90	181.00	196.80	520.00	166.00	235.00	185.00
	101.55	193.00	218.00	480.00	166.00	285.00	130.00
	105.10	208.00	228.00	500.00	166.00	280.00	150.00
4th Qtr.	99.52	194.00	214.27	500.00	166.00	266.67	155.00
2005 Average	92.19	162.75	174.23	553.33	160.50	254.58	208.75

Table A Supplemental Calculations

**Quarterly Averages
PMPA Material Impacts**

	Aluminum	Brass	Copper	Nickel	Stainless	Steel BDLS	Coke , China
2006	115.50	221.00	229.65	550.00	166.00	280.00	120.00
	122.25	229.00	233.65	550.00	166.00	275.00	148.00
	116.50	245.00	250.35	550.00	135.00	294.00	148.00
1st Qtr.	118.08	231.67	237.88	550.00	155.67	283.00	138.67
	130.60	320.00	348.30	700.00	135.00	294.00	138.00
	146.00	373.50	407.55	810.00	135.00	315.00	138.00
	120.00	345.00	369.10	810.00	135.00	342.00	140.00
2nd Qtr.	132.20	346.17	374.98	773.33	135.00	317.00	138.67
	121.50	357.00	382.95	910.00	135.00	342.00	140.00
	116.60	351.00	366.50	1150.00	135.00	342.00	125.00
	122.25	348.00	372.20	1150.00	135.00	285.00	125.00
3rd Qtr.	120.12	352.00	373.88	1070.00	135.00	323.00	130.00
	129.10	327.50	356.00	1050.00	245.00	275.00	164.50
	127.10	318.00	334.55	1050.00	245.00	245.00	164.50
	128.00	304.00	323.45	1150.00	243.00	230.00	150.00
4th Qtr.	128.07	316.50	338.00	1083.33	244.33	250.00	159.67
2006 Average	124.62	311.58	331.19	869.17	167.50	293.25	141.75
2007	128.50	266.00	265.15	1250.00	243.00	260.00	185.00
	130.00	281.00	285.25	1250.00	253.00	295.00	185.00
	125.50	306.50	314.35	1350.00	265.00	365.00	190.00
1st Qtr.	128.00	284.50	288.25	1283.33	253.67	306.67	186.67
	128.85	358.00	367.40	1350.00	287.00	365.00	185.00
	129.25	367.00	375.05	1350.00	335.00	335.00	190.00
	125.35	338.50	346.55	1350.00	335.00	295.00	245.00
2nd Qtr.	127.82	354.50	363.00	1350.00	319.00	331.67	206.67
	122.65	353.00	375.40	1350.00	342.80	295.00	260.00
	117.30	339.00	359.50	1250.00	342.80	305.00	250.00
	110.00	347.00	363.60	980.00	262.63	330.00	250.00
3rd Qtr.	116.65	346.33	366.17	1193.33	316.08	310.00	253.33
	113.25	359.00	374.95	980.00	235.04	330.00	360.00
	117.25	320.00	335.60	980.00	245.25	320.00	360.00
	110.00	303.00	315.50	980.00	245.25	335.00	277.00
4th Qtr.	113.50	327.33	342.02	980.00	241.85	328.33	332.33
2007 Average	121.49	328.17	339.86	1201.67	282.65	319.17	244.75

**Quarterly Averages
PMPA Material Impacts**

	Aluminum	Brass	Copper	Nickel	Stainless	Steel BDLS	Coke , China
2008	119.00	320.00	331.70	980.00	246.06	415.00	277.00
	139.75	374.00	386.35	980.00	246.06	415.00	365.30
	143.75	382.00	398.95	980.00	238.62	430.00	365.30
1st Qtr.	134.17	358.67	372.33	980.00	243.58	420.00	335.87
	140.00	389.00	402.80	980.00	244.09	600.00	389.40
	137.00	379.00	397.85	930.00	267.10	700.00	389.40
	146.30	373.00	389.55	840.00	267.10	785.00	389.00
2nd Qtr.	141.10	380.33	396.73	916.67	259.43	695.00	389.27
	150.00	378.00	407.75	840.00	264.47	890.00	875.00
	133.25	343.00	362.85	770.00	255.35	883.00	438.07
	123.75	322.00	342.95	770.00	243.21	853.00	438.07
3rd Qtr.	135.67	347.67	371.18	793.33	254.34	875.33	583.71
	110.25	274.00	285.70	660.00	223.94	570.00	232.00
	96.75	184.00	201.10	370.00	206.58	130.00	232.00
	79.85	152.00	160.35	300.00	206.58	235.00	197.50
4th Qtr.	95.62	203.33	215.72	443.33	212.37	311.67	220.50
2008 Average	126.64	322.50	338.99	783.33	242.43	575.50	382.34
2009							