

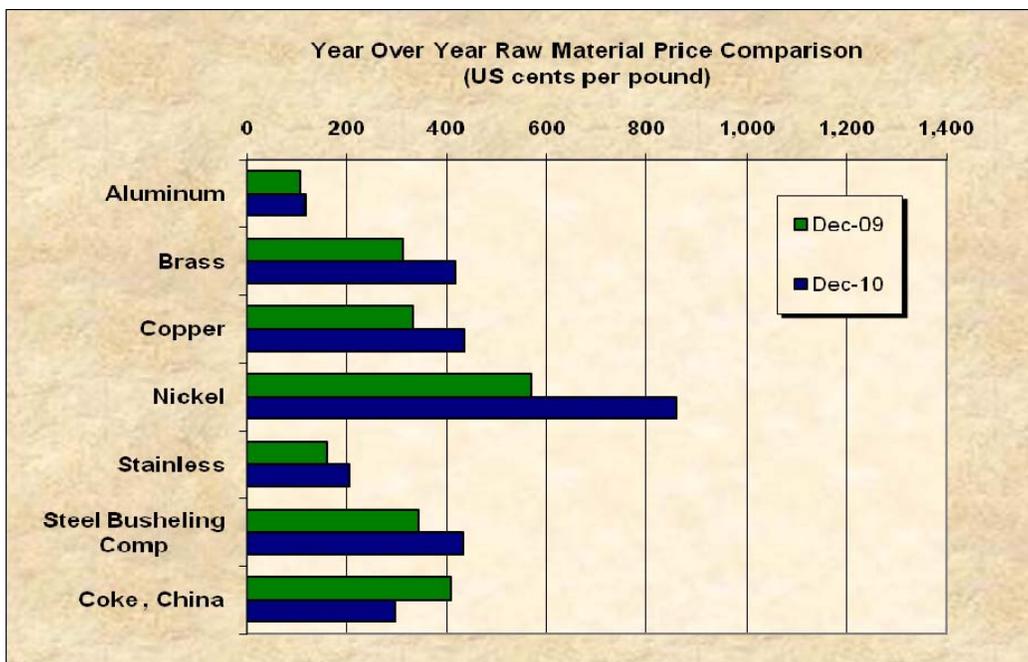


# Material Impacts On The Precision Machining Industry

December 2010

## *Pricing Tyranny: Low Utilization & Empty Pipeline*

### Executive Summary



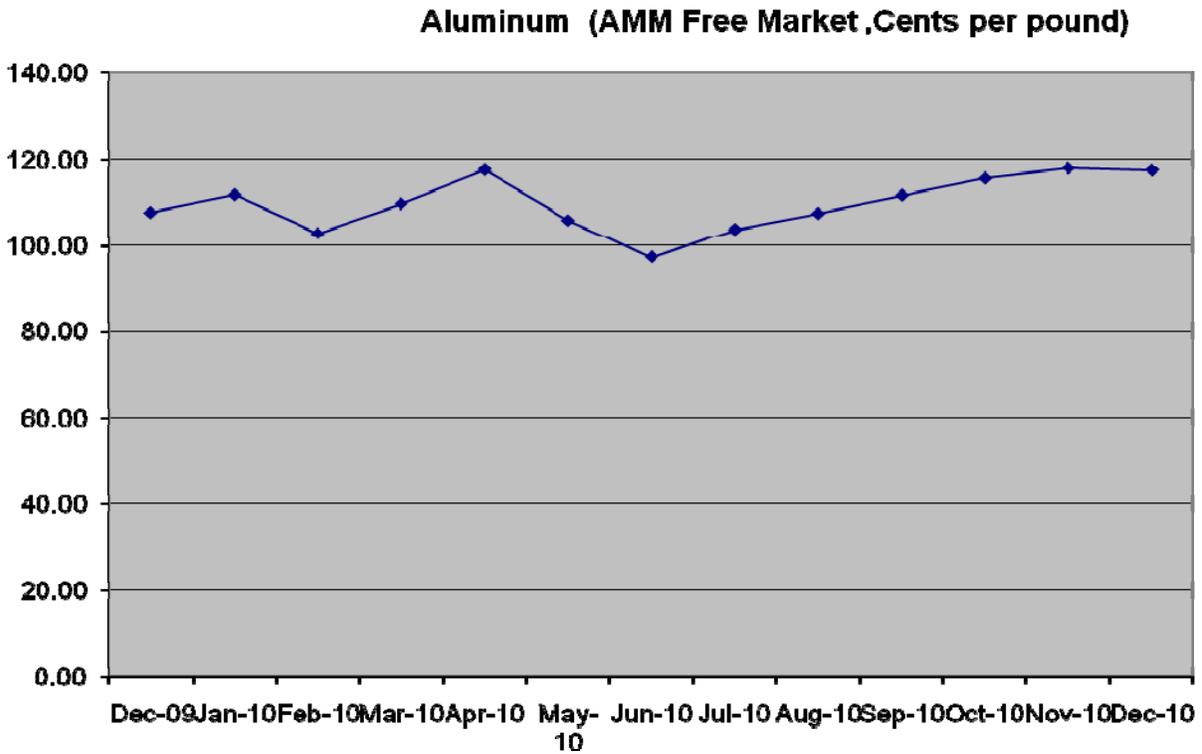
*Quick Summary: The prices of the materials that we track changed as follows over the past year:*

	Aluminum	Brass	Copper	Nickel	Stainless	Busheling Composite	Coke, China
<b>Dec 09-Dec 10 %Change</b>	9.16	34.29	30.92	50.88	26.93	25.60	-27.45
<b>Average 2010 - 2009 price % Difference</b>	33%	43%	42%	62%	30%	58%	-7%

The materials we track are up year to year from 30% to 58%. So how do you quote firm pricing?

Despite tepid demand and mills nowhere near capacity, **Price increases are legion. CF steel Bars up \$2.00 cwt in September. Up \$2.00 in January. Looking at a \$3.00/cwt increase Feb 1 on sizes larger than 3” rd.** Welcome to the ‘Land of High Beta’ - (risk or variability). Our prices are very low compared to global prices, and so we have become the tail being ‘wagged’ by the global dog of demand. I call it Beta (risk) because you have risk both ways - if you buy and then prices fall, or fail to buy and get shut out of production. We believe that this variability and the rapid swings are going to be a normal component of our marketplace in the short and medium terms. In an era where both holding or not holding inventory can be a punishing event, now more than ever it pays to know your suppliers.

**Aluminum** (AMM Free Market cents per pound)



*Aluminum is up 9.16% December 2009 - December 2010.*

*Average price was up 33% over the year.*

Aluminum shipments during November from U.S. metals service centers totaled 110,300 tons; shipments for the first 11 months of 2010, at 1.21 million tons, were 25.7% above those for the same period in 2009. U.S. aluminum inventories at the end of November totaled 347,800 tons - 35.9% more than stockpiles at the end of November last year. At current shipping rates that equals a 3.2 month supply.

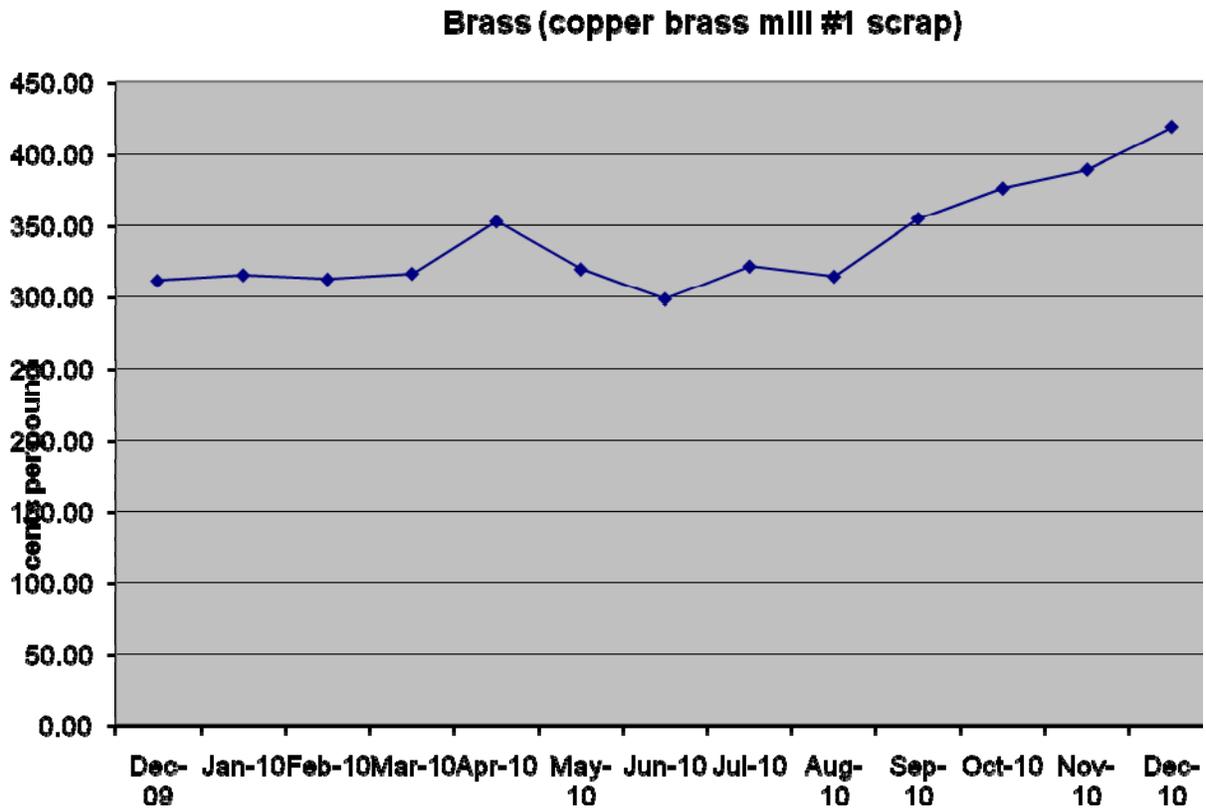
In Canada, November aluminum shipments totaled 12,600 tons, or 18.3% greater volume than during the same month a year ago. Year-to-date total shipments at the end of November totaled 126,200 tons, a rise of 7.1% above the total from the same period in 2009. Canadian aluminum inventories of 31,000 tons at the end of November were 16.5% larger than a year ago and equal to a 2.5 month supply at current shipping rates.

Source: <http://www.ssci.org/news/details.aspx?ArticleID=170>

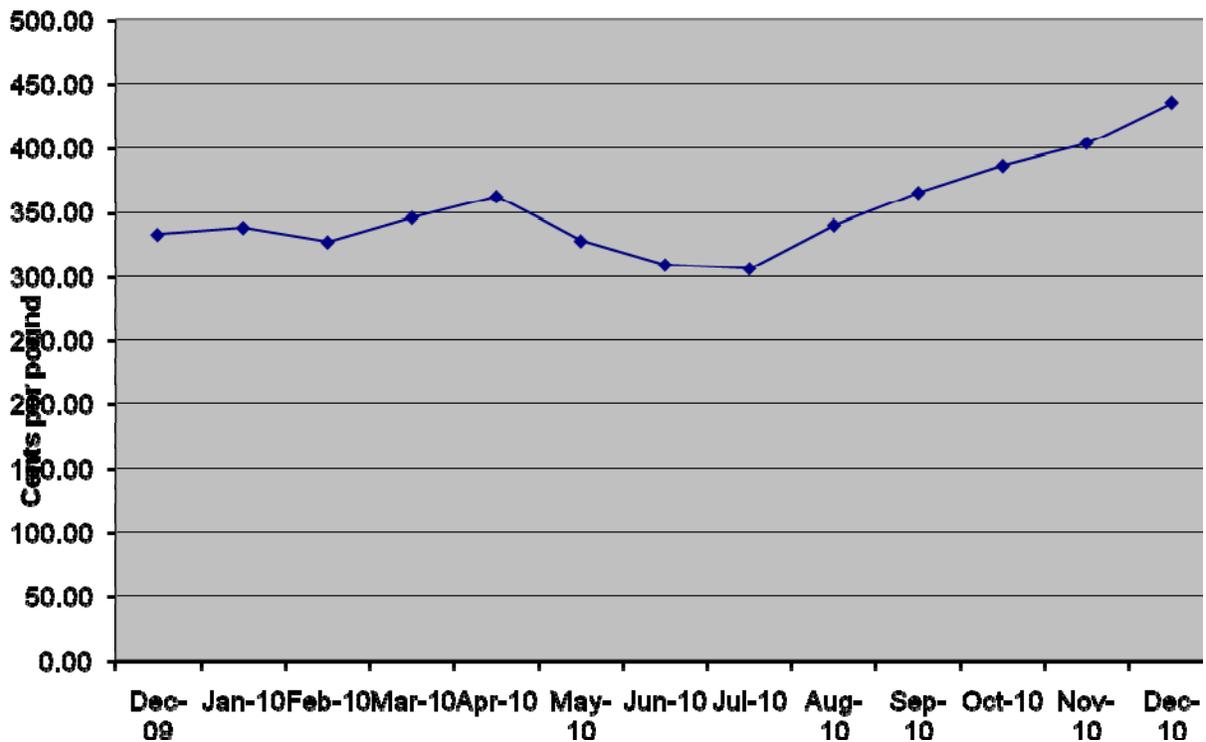
Commentary: Shipments up 25.7%. Average Price up 33%. Inventory up 35.9% over same time last year. Believe it or not, Aluminum is one of the 'least variable' commodities that we follow.

Average price in 2009: \$0.83 per pound Average price in 2010: \$1.10 per pound.

**Copper and Brass** *(cents per pound Comex Cathode and cents per pound copper brass mill number 1)*



### Copper (Comex High grade cathode spot close)



### Copper and Brass (cont'd)

*Price increase announced effective Thursday December 23, 2010. Metal selling and scrap value prices will increase by 10 cents per pound. The Freight Fuel Surcharge increased August 25, 2010 to 30% over the standard freight rate, up 3% reflecting the four week rolling average of the national average of diesel fuel.*

**Brass scrap up 34.29% since December 2009. Copper 30.92% increase December 2009 – December 2010.**

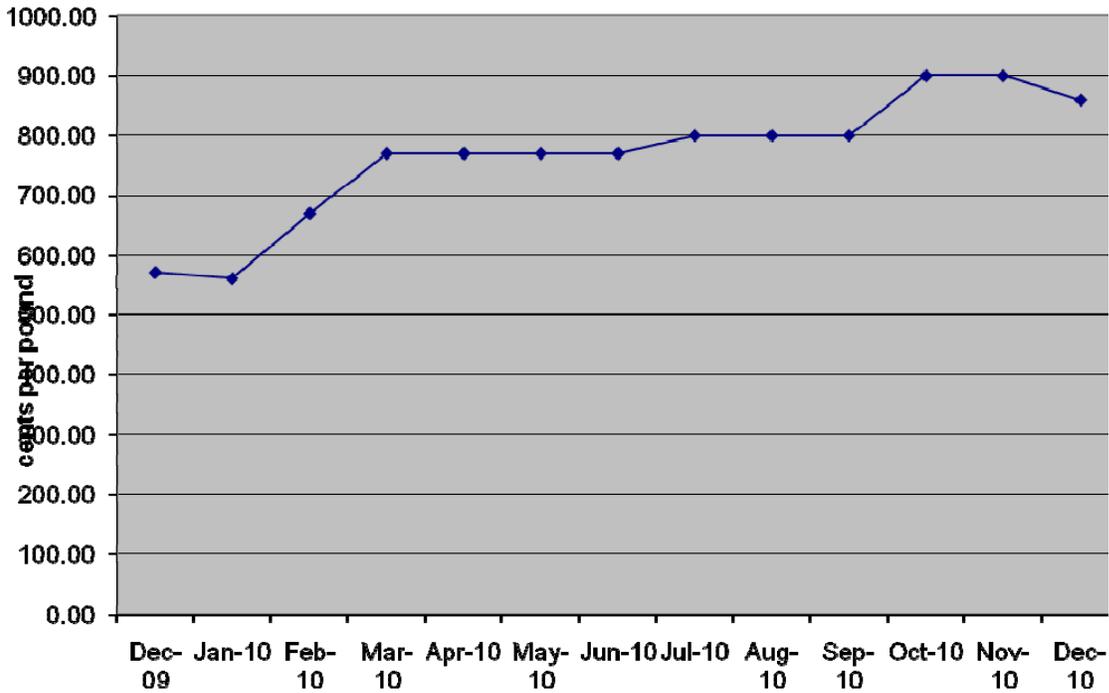
#### **Nowhere a bear to be found.**

*It is impossible to find an analyst that is bearish on copper's prospects in 2011. Production shortfalls of up to 500,000 tonnes seem to be a consensus estimate, with no significant new production capacity expected to come online this year. Demand for copper is correlated with increasing economic activity and bullish global recovery and growth is the primary factor behind the bullish outlook. We are in the final stages of editing our Business Intelligence Report on Sustainable Energy and the US Automotive Market, and we see increasing electrification of sustainable energy and vehicles as adding even greater demand for the red metal.*

<b>Average price in 2009</b> (cents per pound):	<b><u>238.42 per pound</u></b>	<b>Copper</b>	<b><u>248.98 per pound</u></b>
<b>Average price in 2010</b> (cents per pound):	<b><u>341.17 per pound</u></b>		<b><u>354.07 per pound</u></b>

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

**Nickel scrap (new clips and solids)**



*Nickel up 51.86% since December 2009.*

**Nickel - Bears a plenty.**

*Sizeable surplus of nickel supply expected in 2011. End of strikes, new mines, and reopening of shuttered mines all appear to indicate a potential surplus of this key ingredient for stainless steels and super alloys.*

*In this pricing situation watch surcharges and inventory builds on Stainless and Nickel alloys very carefully.*

**Average price in 2009: \$4.82 per pound Average price in 2010: \$7.81 per pound**

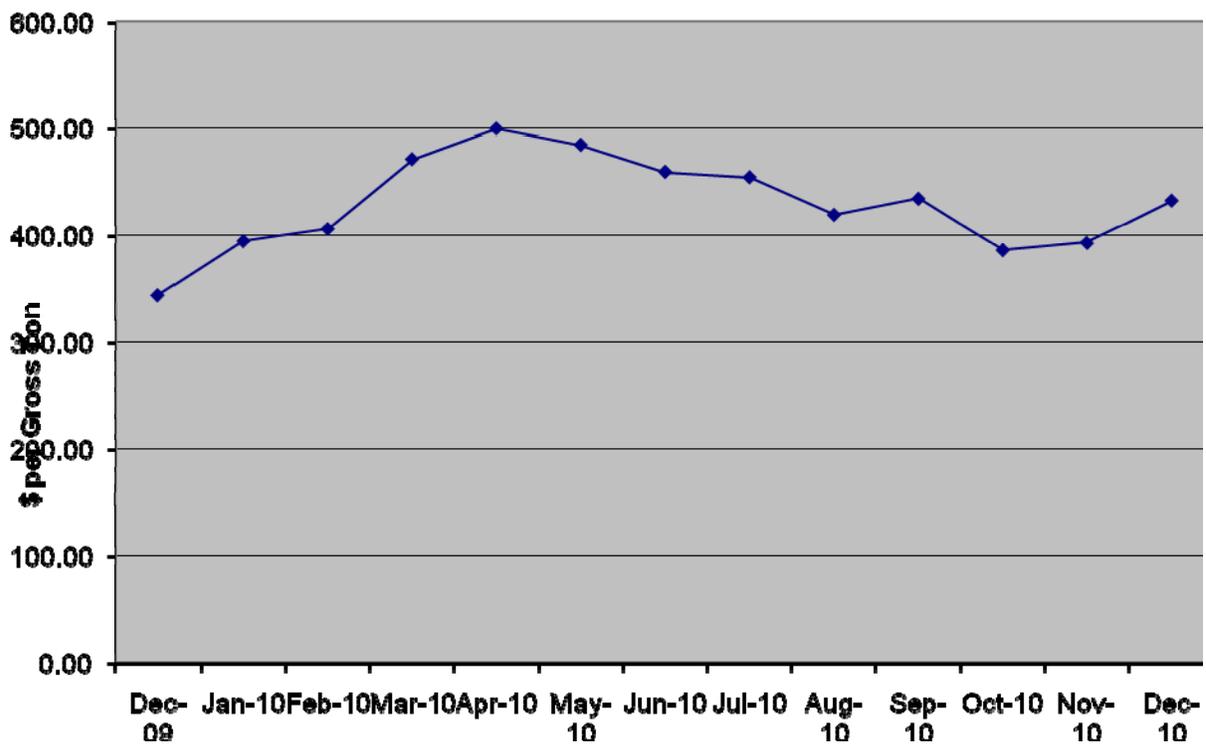
**Stainless**

Stainless Surcharges: Schmolz + Bickenbach USA Stainless 303 per pound **Raw Materials Surcharges-** January 2011 \$1.09. These are calculated on a two month lag.

We are seeing an increasing number of requests for assistance from shops trying to find various stainless steel bar items for machining in today's no-inventory environment. Spot purchases have been reported to be *highly variable* in terms of machinability.

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

**Steel Scrap (#1 Bushelling)**



Surcharges (per cwt)					
	Scrap	Manganese	Alloy 41XX	Alloy 43XX	Alloy 86XX
January	\$14.00	\$0.11; (\$0.37 for leaded grades)	\$4.03	\$19.54	\$8.061

***Steel busheling up 25.60% since December 2009.***

***We have heard rumblings of allocation from some SBQ mills and confirmed price increases and surcharge increases effective January 1, 2011. This just in: \$3.00/cwt increase on 3" and larger effective Feb 1.***

November steel shipments from U.S. service centers totaled 2.99 million tons, while shipments for the first 11 months of the year, at 32.8 million tons, were 20.2% above those during the same period in 2009. U.S. service center steel inventories totaled 7.28 million tons at the end of November, 24.2% larger than year-earlier inventories and, at current shipping rates, equal to a 2.4 month supply.

Canadian metals service centers shipped 512,800 tons of steel products during November and, for the first 11 months of the year had shipped about 5.29 million tons, 15.1% more than during the 2009 month. Canadian steel inventories at the end of November totaled nearly 1.3 million tons, or 30.4% more than a year ago. At current shipping rates, that equaled a 2.5 month supply.

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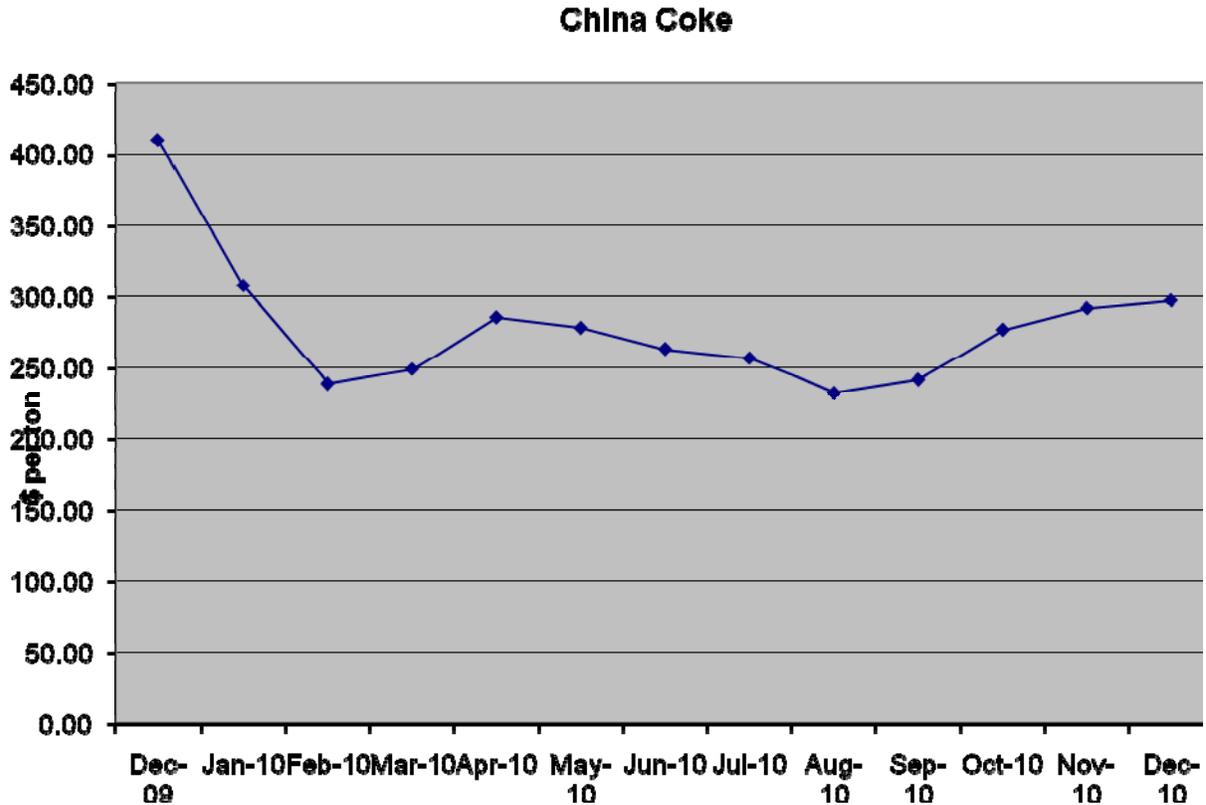
Based on the Commerce Department's most recent Steel Import Monitoring and Analysis (SIMA) data, total and finished steel import permit tons for full-year 2010 were 23,870,000 nt and 18,795,000 nt, up 47 percent and 33 percent, respectively, from the 16,215,000 nt and 14,179,000 nt imported in the Great Recession year of 2009.

*Volatility in supply will continue to drive high volatility in pricing for SBQ steel in 2011. Sensitivity of the steel market to shortages will continue to enable price increases, as the supply pipeline is kept empty and long lead times make customers pay "whatever" when material is located.*

Interesting fact: In 1981 steel cost was approximately 10% of an automobile's selling price; today, it's more like 3%. **Availability is far more important than pricing.** - Michelle Applebaum

**Average price in 2009: \$276.66 per gross ton; in 2010: \$436.81 per gross ton**

**China Coke** (Chinese) (\$ per metric 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.)

**Average price in 2009: \$290.12 per ton; \$268.37 per ton in 2010**

China coal imports are expected to rise 63 % to more than 200 million tonnes in 2011 according to forecasts by Citigroup. A Reuters poll of other analyst not affiliated with Citigroup put the rise at 13 percent to 151 million tonnes. In 2010 Chinese coal imports grew 29%.

Chinese demand for coal is 3.4 - 3.8 *billion* tonnes, while China's domestic coal supply is just ~37 *million* tones. The Chinese government is emphasizing development of coal in its latest 5 year plan according to news reports. We believe that the current China Coke market doldrums are a result of the reduction of construction in China. We expect price increases of at least 8 – 10% over the year reflecting increased cost of coal to Chinese cokemakers

**Bottom line for raw materials in December:** *Prices are up substantially over their price a year ago, all up by double digit percentages with the exception of Coke. Both upside and downside risk are present when considering raw materials purchases and long term pricing on the products that we produce. While U. S. Steel production in June was up 65% over a year ago, Chinese steel mill exports to the world increased 320% from June 2009 to June 2010. Washington promised "Change," but continues to do nothing.*

**-Miles Free**  
**Director, Industry Research and Technology**  
**PMPA**  
**8 January 2011**