

The Copper Journal

~ Proudly Presents ~

Price Cycles In Metal Markets

A Long-Term Look At Price Trends And
Turning Points For:

- Copper
- Aluminum
- Lead
- Tin
- Nickel
- Zinc
- Silver
- Gold

**“Let the Market Tell You,
What It Wants to Do”**

John E. Gross
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www.jegross.com



COPPER — 50 YEARS OF MAJOR BULL & BEAR MARKETS

 **JE Gross** Consultants to the Metals Industry • www.jegross.com

Using Historical Copper Prices to Understand Current Price Movements

Twelve years ago, the global copper market suffered its worst setback ever.

After peaking at \$4.08 per lb on July 2, 2008, copper went into a free-fall that saw the price drop by \$2.83, or nearly 70%, to a low of \$1.25 per lb just six months later.

From that low, copper rose by \$3.37 per lb, or nearly 270%, to a record high of \$4.62 per lb on February 14, 2011.

With the benefit of hindsight, we know the global financial crisis of 2008 brought copper to its knees, and - it is believed - the injection of trillions of dollars by central banks around the world to prevent the global economy from collapsing enabled metal markets to recover despite weak fundamentals.

Reflecting on these events, important questions arise, including: Should we have

anticipated the price crash in 2008 or, for that matter, expected it to reach a new record high just two years later?

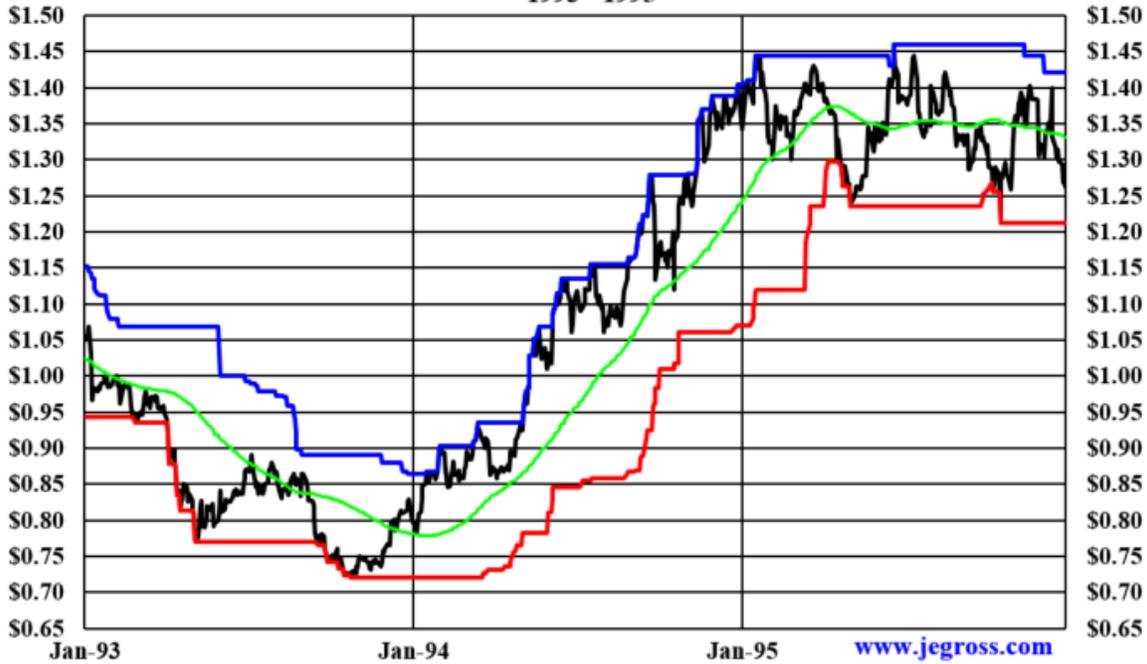
The obvious answer is that no one could have predicted either event with any degree of confidence, but chart patterns did alert us to the potential for important changes in trends.

In fact, over the past 50 years we have seen similar changes occur under many different and varying market conditions.

This prompted us to examine the copper market on a daily basis in an attempt to determine if, in fact, there were reoccurring patterns in price trends, regardless of influencing factors such as the fundamentals of supply and demand, inventory levels, economic and financial conditions or geopolitical events.

Thus, by examining more than 12,600 price points from 1970 to present, we identified and isolated the 10 major bull and bear markets

Comex Spot Copper 1993 - 1995



that have occurred, and incorporated “price contours” as if they were guardrails on a winding road, that alert us to the potential for changes in trends.

Our approach is very straight forward, in that a bull market is comprised of higher highs and higher lows until that cycle is complete, which will then set the stage for a bear market to begin when new highs are no longer achievable and the route of least resistance is indicated by lower highs and lower lows.

The two charts below illustrate a bull market commencing in 1993 and peaking in 1995, followed by a bear market that ran from 1995-1999 and are representative of the format of all charts in the study. And to assist in navigating the longer-term trend, we simultaneously look at a shorter time frame to determine how the charts correlate.

With this powerful tool, you will have 20 critically important charts for historical and educational

references, along with 50 years of daily price history. And by spending less than five minutes a day to enter the closing price, your charts will be completely updated, enabling you to clearly see what the trend is and where the market currently stands in relation to that trend.

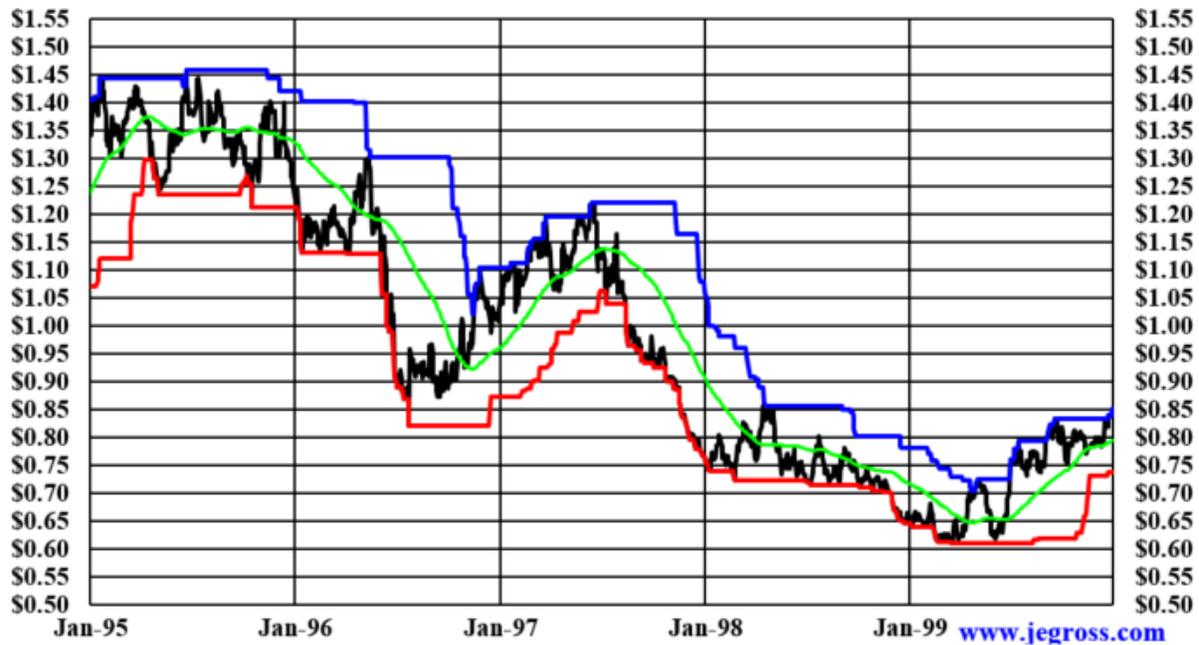
We’ve often said, “Let the market tell you what it wants to do,” and these charts go a long way toward achieving that goal.

Who Can Benefit From Spotting Price Trends?

Understanding how copper price trends develop can be a valuable tool for several employees and could improve company balance sheets over time.

- Copper buyers can use short-term trend data to stay abreast of potential price changes. These data points can offer additional insight when creating purchasing programs as buyers try to align with, or stay ahead of the curve in average prices

Comex Spot Copper 1995 - 1999



- on future exchanges.
- Inventory managers who can spot these changes in trends might be able to improve inventory control procedures and anticipate potential challenges as they analyze product and supply levels and make adjustments accordingly. Managers can use the longer-term chart as their basis, while studying shorter time frames to see how they relate to the bigger trends.
- A chief financial officer and/or the Treasury Department can use price-trend direction as additional information when formulating financial forecasts and modifying those forecasts as trends change, leading to potentially more rigorous risk management.
- A chief executive officer can use both short-term and long-term price trends when creating strategic decisions for the future of the firm, including whether to expand or contract production, consider a merger or an acquisition or grasp how

increases and decreases in copper prices affect the rest of the business.

Methodology

Although this analysis pinpoints the start and end of bull and bear markets, there are some charts where this judgment is up for debate. Also, this analysis does not use the standard 20% higher/lower move to define a bull or bear market. Instead, it points to an absolute price low and a price high to mark the beginning and end of bull markets, and a price high and price low for bear markets.

The longer-term chart analysis uses an approximate five-month period of daily prices to outline the high and low points, and also incorporates a moving average as a reference to the direction of the trend. Shorter-term charts use an approximate two-month time frame.

The report is presented in an Excel file format and includes daily prices dating to January 1970, thereby enabling the user to see a detailed

history of spot copper prices. And, as the file is structured, the user can add or make changes to the parameters presented.

By taking the complexities out, we put simplicity into understanding market conditions.

If copper is important to your business, **The Copper Bull & Bear Market Study** is a must have for your organization.

If you would like to see an online demonstration of the study, to include the current market structure, please call us at **631-824-6486** or send an email to john.gross@jegross.com and we will schedule a time that is convenient for you to review this important work.

About John E. Gross 40+ Years of Experience

John Gross is president of John E Gross Consulting Inc, a metals management consulting firm, and is also publisher of the The Copper Journal, a widely read industry report established in 1987.

In addition to his consulting activities, Gross has worked with global leaders in the metals industry over the past 40 years.

Gross began his career in metals in 1973, when he joined U.S. Metals Refining Co, a division of Amax Inc, where he rose to the position of manager of administration.

In 1981 he joined Hudson Bay Mining & Smelting as manager of trading and precious metal sales, and in 1983 became a futures broker with Johnson Matthey & Wallace, specializing in metals on Comex and the London Metal Exchange.

He joined BICC Cables Corp in 1985, now owned by Prysmian Group,

where he became vice president of strategic metals for their North American operations.

More recently, Gross was director of metals management with Scott Brass, a producer and manufacturer of copper and brass strip products.

Gross is a graduate of Hofstra University and is a highly decorated Vietnam veteran. He has held memberships in several trade organizations; was a director of the American Copper Council and served as a member of the Comex Advisory Committee. Gross is very active in industry affairs, and has written extensively on metal markets and industry issues.