

# Copper: market fundamentals and investing



**SUMMERHAVEN**  
INVESTMENT MANAGEMENT

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**CPER**  
UNITED STATES  
Copper Index Fund

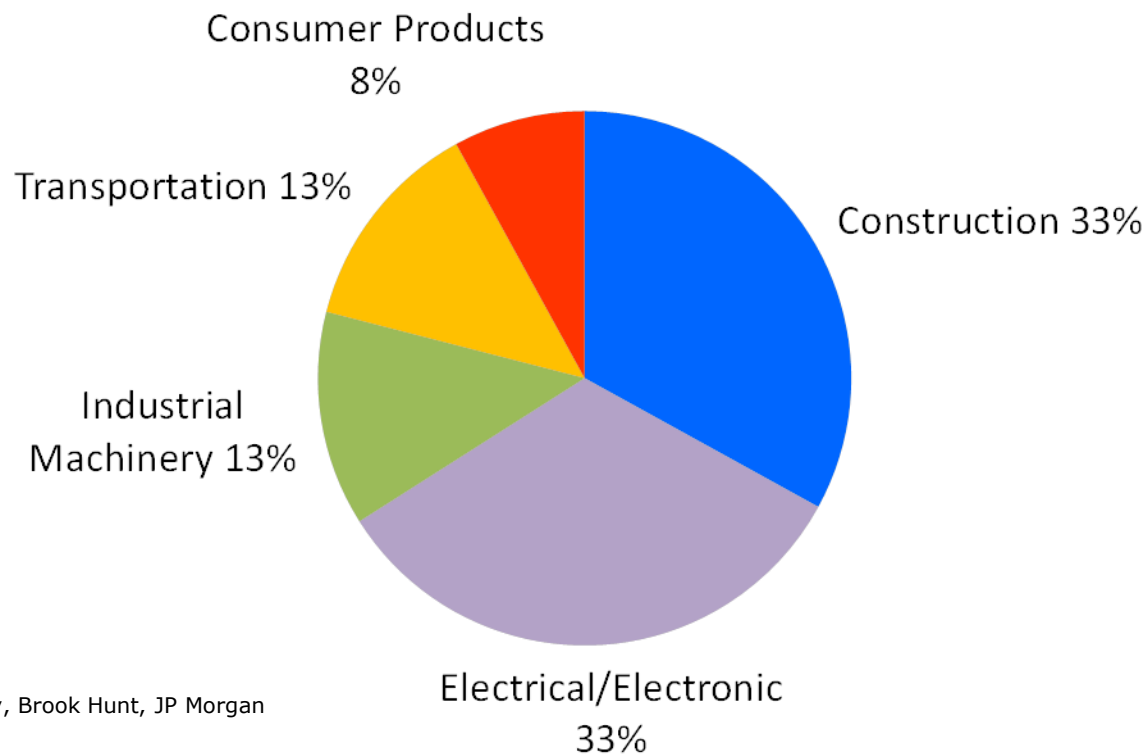
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- First metal to be used by man in large quantities - used for thousands of years as currency and for economic production
- Malleable, corrosion resistant, recyclable, and excellent conductor of heat and electricity
- USGS estimates 550mm metric tonnes of current reserves (28 years based on current consumption levels)

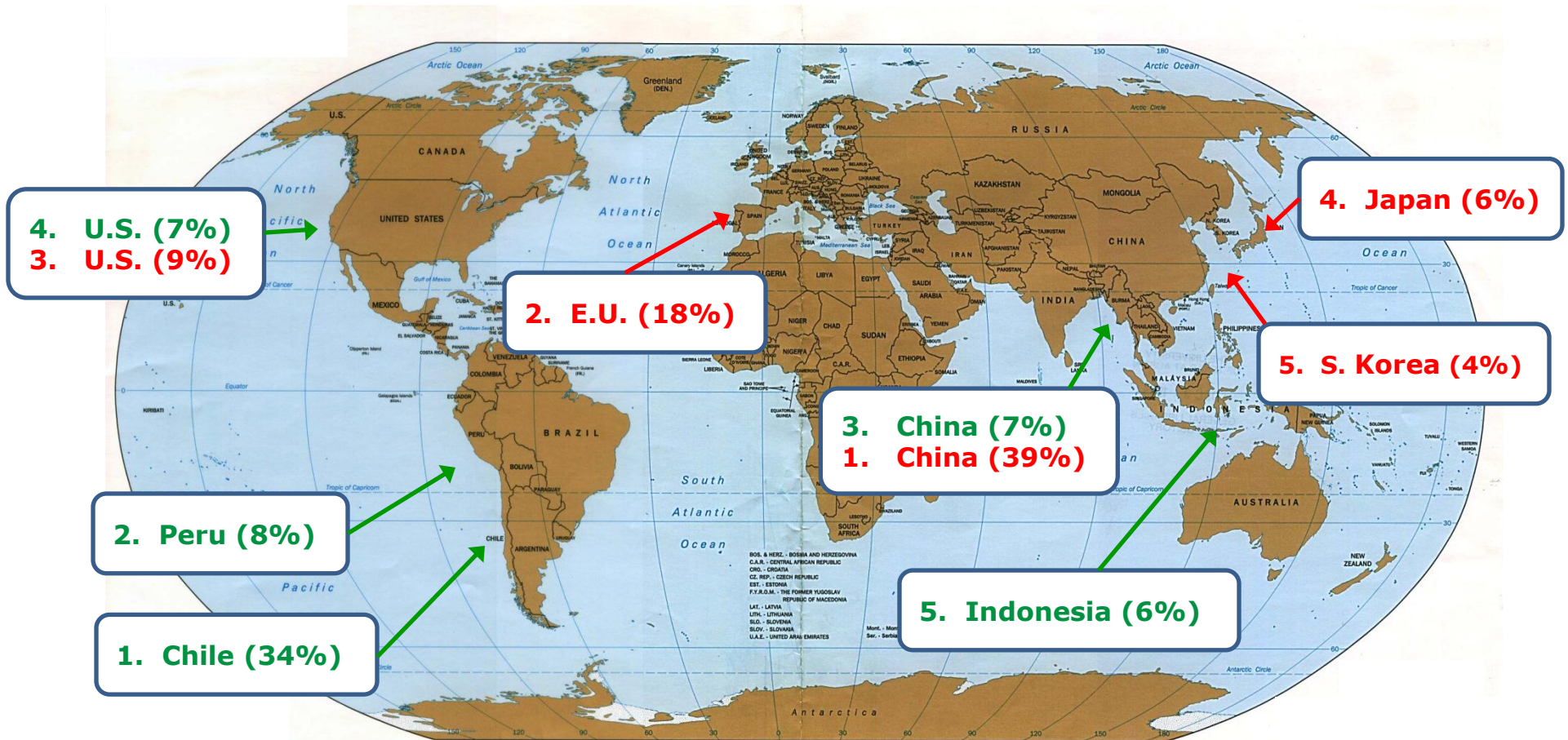
## 2010 Global Copper Consumption by Industry



## Global Copper Production and Consumption

2010 refined copper production = 19.1mm tonnes (83% mining, 17% recycling)

2010 refined copper consumption = 19.3mm tonnes



# Copper Trading Overview



During reign of Queen Elizabeth I, the Royal Exchange was opened in London in 1571 for trading of metals and other commodities.

The opening of the Suez Canal in 1869 allowed for shipping delivery of both tin (from Malaysia) and copper (from Chile) to Europe to take roughly three months. The London Metals Exchange (LME) formed in 1877 for the express purpose of providing an exchange for copper and tin trading in Europe, and the standard 3-month term contract continues to be the most-liquid maturity on the LME today.



# Copper Trading Overview



In the U.S., various small exchanges in New York and Chicago were used to trade commodities such as butter, cheese, eggs, dried fruits and poultry. In 1933, the COMEX was established in New York through the merger of four such exchanges. Copper futures began trading on the COMEX in 1988.

The LME and COMEX (in U.S.) are the two primary exchanges for copper trading. Additional significant trading takes place on the Shanghai Metal Exchange in China, however this exchange is only available to companies based in China.



Investors have become familiar with physical metals investing through widely-available ETFs that hold physical metal in storage: gold, silver, platinum, palladium

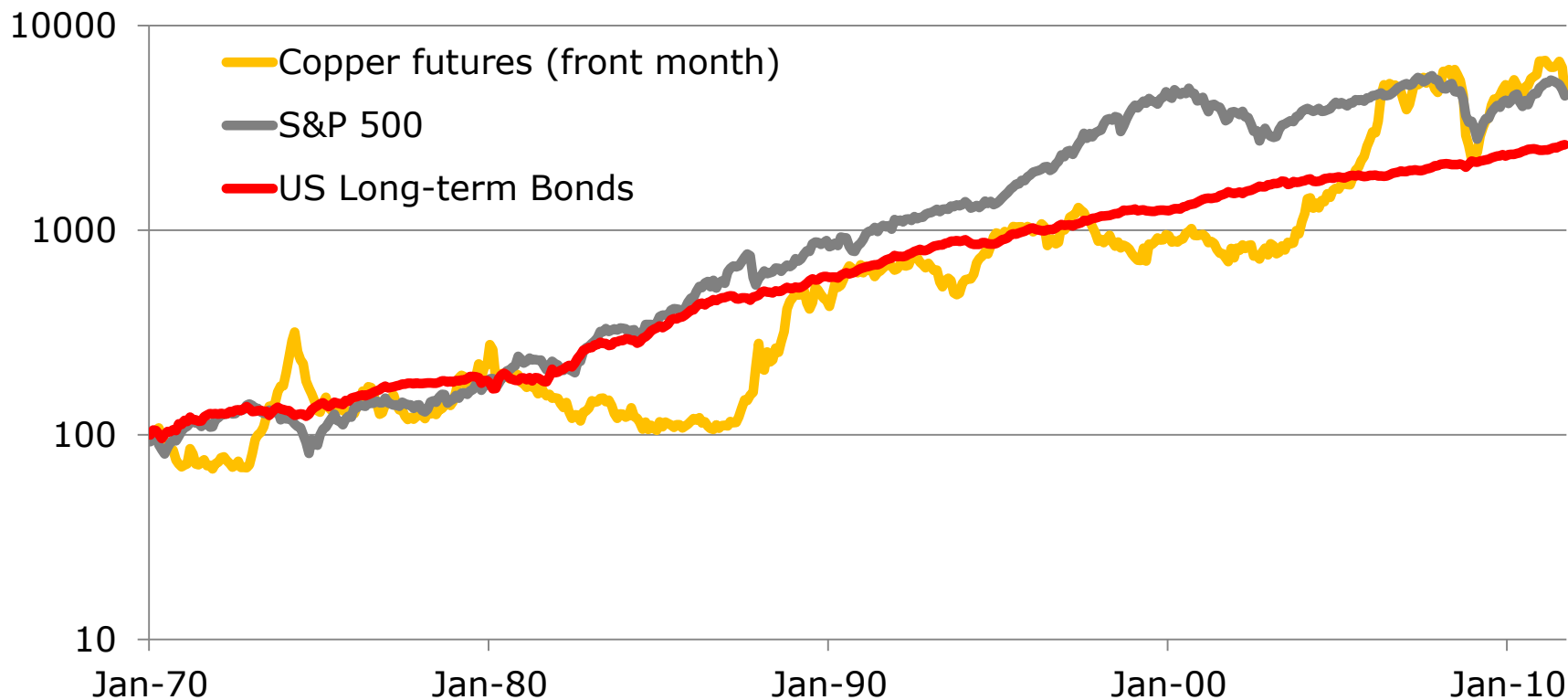
Copper is much less valuable than “precious” metals and thus is more expensive to store on a relative basis – cost is approximately 2% per year. Note that gold currently trades for roughly \$27,000 per pound, copper is less than \$4 per pound.

Dynamics of copper supply and demand can lead to copper shortages, which can then lead to backwardation in the futures curve. This can make copper futures investments more attractive for investors than physical copper when high storage costs are considered.

Note that since 1970, copper has been in backwardation roughly 30% of the time. Further, more than 70% of copper’s long-term returns are achieved while the curve is in backwardation, and less than 30% of copper’s returns occur while in contango.



Cumulative Total Returns (log scale): 1970 – 2011



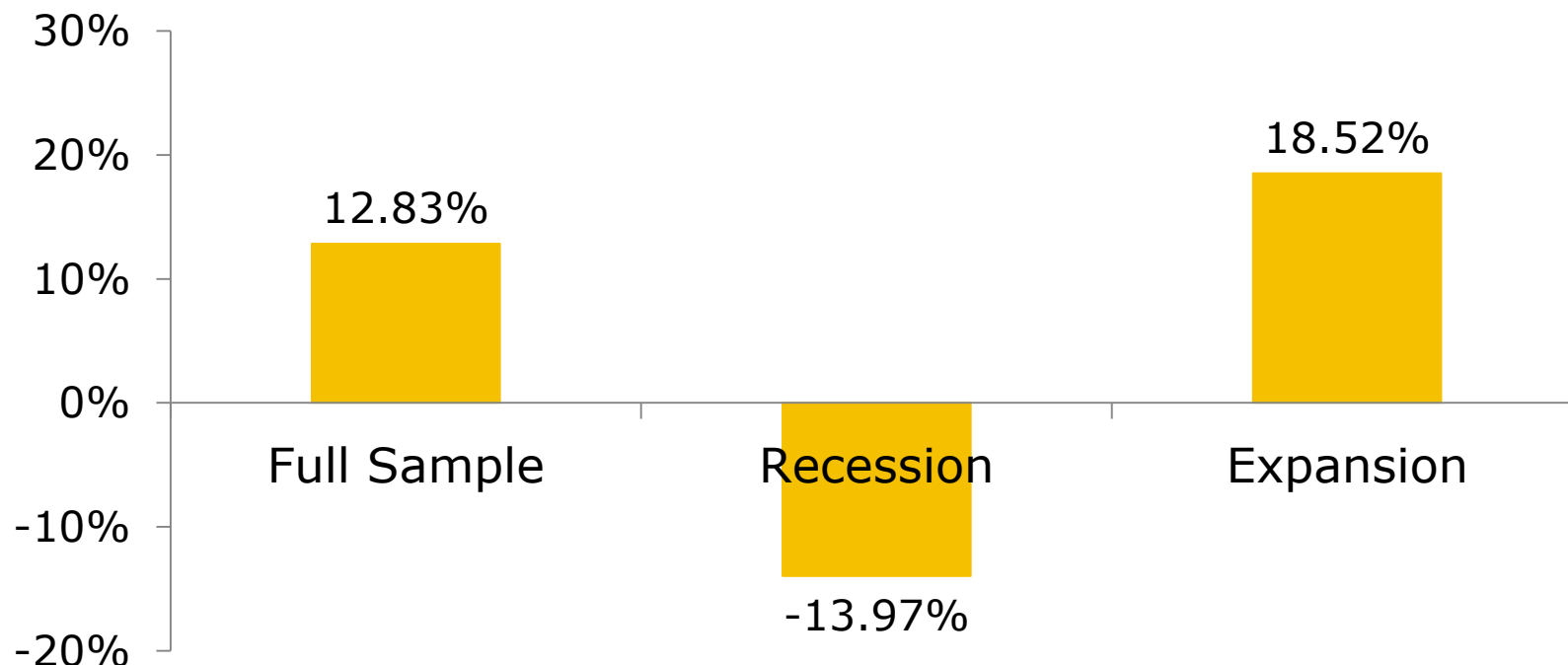
Monthly correlations: January 1970 - September 2011

	Copper	S&P 500 TR	Bond TR
Copper futures (front month)	1		
S&P 500	0.25	1	
Bonds	-0.04	0.26	1





Average annual copper returns and the business cycle  
January 1970 – June 2009

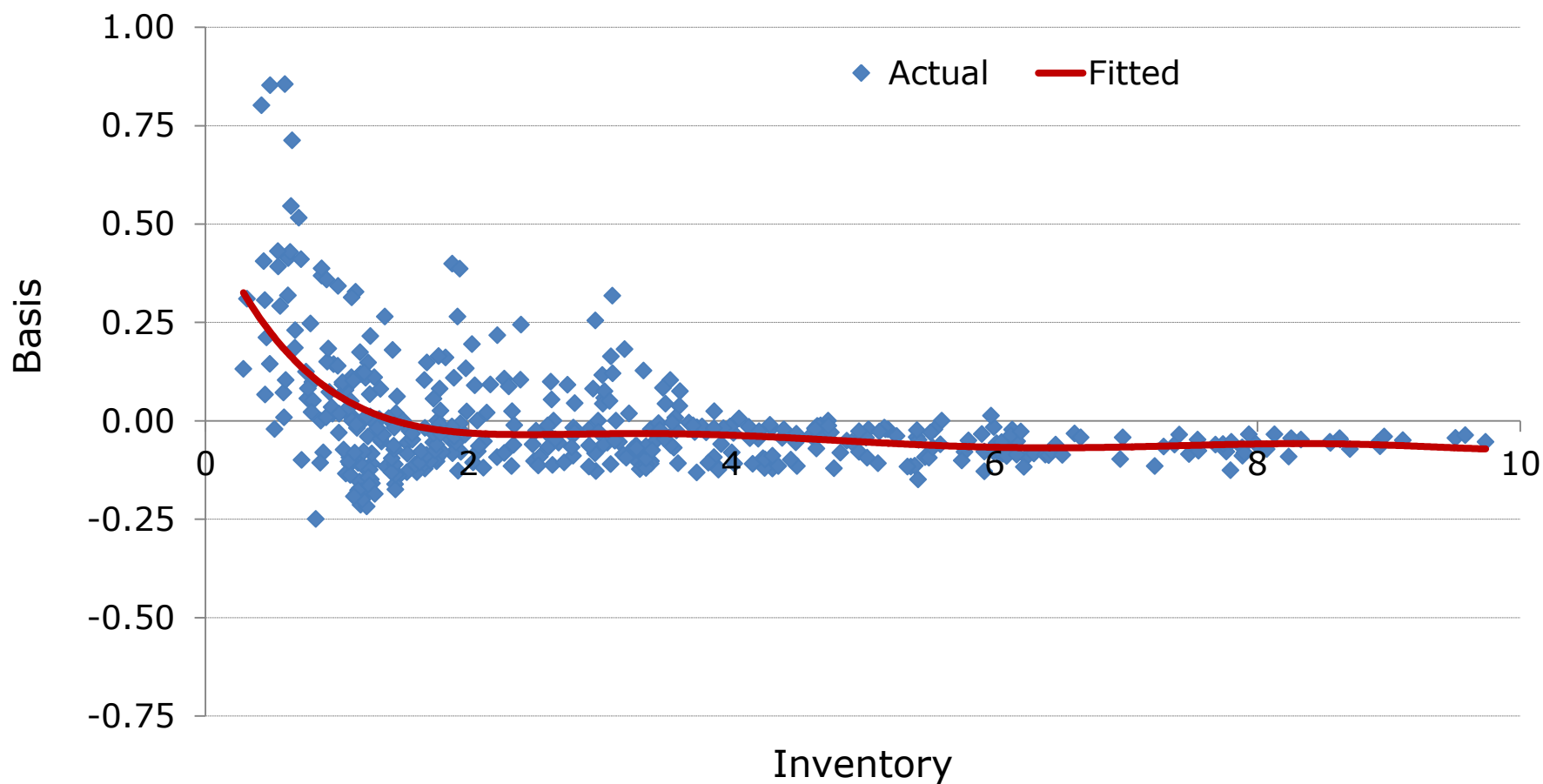


Annual correlations: January 1970 - September 2011

	Dollar Index	Industrial Production	Inflation	Unexpected Inflation
Copper futures (front month)	-0.32	0.41	0.07	0.25



### Copper Futures Basis and Normalized Copper Inventories 1/1991 – 6/2011

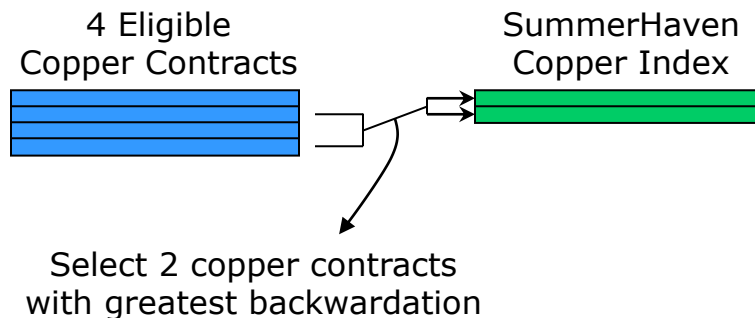


The SummerHaven Copper Index (SCI) was launched in November 2010 to be an investable benchmark for copper. The SCI attempts to maximize backwardation and minimize contango while utilizing contracts in liquid portions of the futures curve. The SCI is composed of COMEX copper futures and collateralized with 3-month U.S. Treasury Bills.

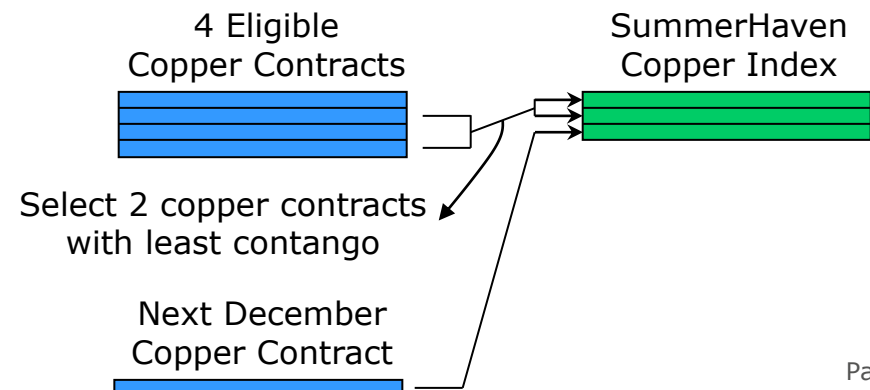
At the end of each month, the copper futures curve is assessed to be in either “backwardation” or “contango”:

- Backwardation - SCI takes 50% positions respectively in the two most backwardated eligible contracts at the front end of the curve
- Contango - SCI takes 25% positions respectively in the two short-dated contracts with the least contango, and 50% of the SCI is positioned in a longer-term December contract

## Copper curve in “Backwardation”

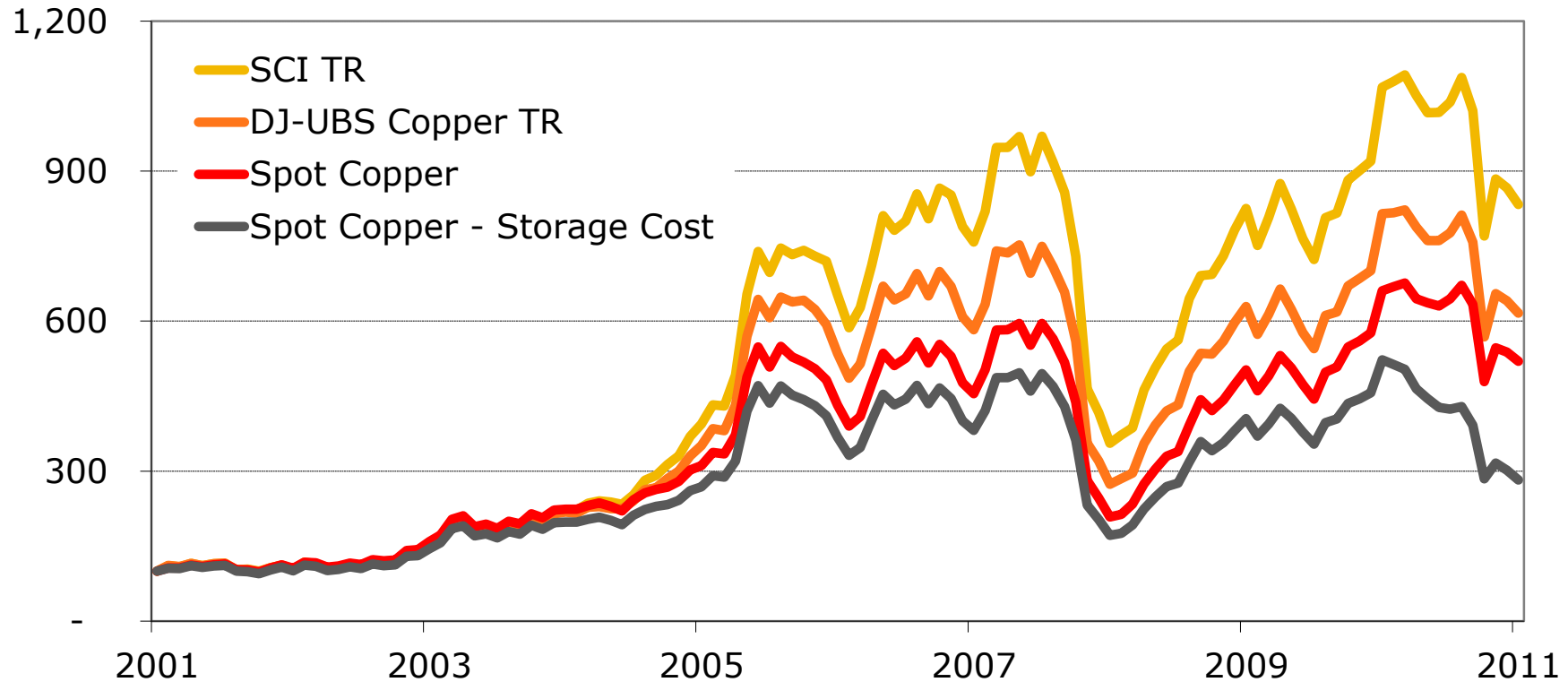


## Copper curve in “Contango”



- Performance benchmark for "CPER" ETF: [www.unitedstatescopperindexfund.com](http://www.unitedstatescopperindexfund.com)

10 Year Cumulative Performance of SummerHaven Copper Index TR vs. DJ-UBS Copper TR, Spot Copper Price and Spot Copper Price less Storage Cost  
12/2001 - 12/2011



Past results are not necessarily indicative of future results.

Commodity trading involves substantial risk of loss. No direct investments in indexes are possible, and the performance of the indexes (including SCI) assumes no transaction costs, management fees, or other expenses. An investment in CPER, which seeks to track the SCI, will include transaction costs, management fees, and other expenses, and returns will be lower than that of the SCI. See important notes on hypothetical and actual performance on page 13.

## Notes on Hypothetical Performance

### Hypothetical Results:

It is a leap from historical hypothetical results to future performance. Statistical over-fitting can never be completely avoided, and even past actual performance should not be construed as an indicator of future results. The Investment Manager's portfolios may not be comparable to indexes discussed herein in terms of composition or risk.

### Important Disclaimer Regarding Hypothetical Results:

The hypothetical performance results shown are based on back-testing of the proprietary models that the investment manager is using and reflect management and performance fees and transaction costs. These results do not reflect any other operating expenses. The hypothetical results do not represent, and are not necessarily indicative of, the results that may be achieved by the investment manager or any investor in a fund managed by the investment manager. All statistical measures and calculations shown are based on hypothetical performance information.

Hypothetical performance results have many inherent limitations, some of which are described below. No representation is being made that any account will or is likely to achieve profits or losses similar to those shown. In fact, there are frequently sharp differences between hypothetical performance results and the actual results subsequently achieved by any particular trading program.

One of the limitations of hypothetical performance results is that they are generally prepared with the benefit of hindsight. In addition, hypothetical trading does not involve financial risk, and no hypothetical trading record can completely account for the impact of financial risk in actual trading. For example, the ability to withstand losses or to adhere to a particular trading program in spite of trading losses are material points which can also adversely affect actual trading results. There are numerous other factors related to the markets in general or to the implementation of any specific trading program which cannot be fully accounted for in the preparation of hypothetical simulated performance results and all of which can adversely affect actual trading results.

## Notes on Actual Performance

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