

# ICSG Insight

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## Physically Backed Copper Exchange Traded Funds

### 1. Introduction

For the first time easily accessible investment funds that issue shares are allowing investors to buy physical supplies of copper and other base metals, with the first physically backed copper ETF launched in December 2010. Investment banks and metal trading houses are approaching regulators to launch more physical base metals ETFs as investment demand (not related to copper use but to capital appreciation) is expected to remain strong. The ICSG secretariat has prepared this brief insight introducing the subject to members, and will continue to follow developments closely. It is proposed that this issue will be considered further at the ICSG 19<sup>th</sup> General Session to be held in Lisbon on 14-15 April 2011.

### 2. What are ETFs?

An Exchange Traded Fund (ETF) is an investment vehicle which is constructed as an open-ended collective investment scheme and trades like an individual security on a stock exchange. ETFs provide investors with some benefits over other investment options such as lower expenses and daily disclosure so valuation is available regularly in liquidity times. Probably the most recognized benefit is the fact that buying an ETF gives exposure to a specific market, for example the copper market. This may allow, at least in theory and in times of high liquidity, the possibility for investors to buy several ETFs over several markets and build investment portfolios in different emerging or developed economies, industries and commodities.

### 3. Existing Copper-Related Exchange Traded Funds

Investment funds interested in including the copper market in their portfolios are facing an increasing number of options as liquidity in the world economy recovers from the 2008-2009 squeeze. Traditionally

the investment vehicle for funds had been the acquisition of equity of mining corporations producing copper, of course subject to company risk. A more recent option is the iPath Dow Jones Copper Index ETN, which is a pure play on copper and seeks to track the performance of copper futures contracts. Another copper related ETF is the PowerShares DB Base Metals, which allocates 33% of its assets to copper futures contracts and the iShares MSCI Chile Index, which is a play on Chile, the world's largest copper producer, accounting for nearly one-third of global copper output. Another ETF strongly correlated to the copper market is the iShares MSCI Australia Index, which has BHP Billiton (BHP) as its top holding, allocating more than 15% of its assets to the diversified natural resources company.

#### 4. Physically-Backed Industrial Metals ETFs

In 2009 and 2010 we witnessed the success of physically backed precious metals Exchange Traded Funds. The reasons identified to explain the success of precious metals ETFs are in part a growing concern about counterparty risk related to the ongoing global credit and sovereign debt crisis. The increasing concern about the risks of depreciating currencies as interest rates remains low in many developed and developing economies makes investors prefer physically backed investment products to preserve their capital of expected currency devaluations in coming years. In the words of the US CFTC Commissioner Bart Chilton in December 2010: "speculative money from the likes of hedge funds, index funds and pension funds is coming into the commodity markets at a blistering pace". This process has been followed by announcements in 2010 from important investment banks including JPMorgan, Blackrock iShares, Goldman Sachs, Deutsche Bank and Credit Suisse of plans to introduce physically backed industrial exchange trade funds in the future. In December 2010 only one investment firm (ETF Securities) had already launched a physically backed industrial metals ETF.

#### 5. Physical Copper ETFs: Main Drivers

There are some key factors that should be considered when analyzing this new trend affecting the global copper market balance. The first factor is the fact that industrial metals storage is expensive, as copper is not kept in vaults as gold and other precious metals, but kept in storage warehouses spread around LME, other exchanges and also as unreported stocks in other warehouses, often not reported in the official statistics. In consequence some analysts do not expect those products to succeed as they will be expensive in relation to the price of the material because of the high warehousing costs relative to the price of the metal. According to different sources, the storage costs for copper in December was around 36 U.S. cents a day per tonne or around 131,400 U.S. dollars to keep 1,000 tonnes of copper in a warehouse for a year. This is less than 1.5% annual costs assuming a copper price around 9,000 U.S. dollars per tonne, but

grows to almost 3% if annual copper prices fall to half of the mentioned value. Physical copper ETFs costs to be added are the insurance costs and management fees, both over 0.8% a year based on existing ETFs. In consequence, annual copper ETF costs are not expected to be below 2.3% a year.

There are no studies available about the degree of competitiveness in the non ferrous metal warehousing business, but information is publicly available about the increasing number of acquisitions of metal warehouses by investment banks and trading houses. This trend makes it hard to expect an increasing degree of competition or a reduction in future warehousing costs. It is important to consider the historic fact that the warehousing business is strongly anti-cyclical, with warehouses outperforming revenues when the world economy is slow and storage capacity for copper is in demand by miners and physical traders. In consequence, the success of the physical copper ETFs as an investment vehicle is linked not only to a strong recovery of the world economy and the consequent increasing demand and short supply for copper in coming years, but also to a continuation of contango in the copper futures market. If the copper futures market goes into backwardation and a new contract costs less than expiring contracts, it will be increasingly expensive for copper ETFs to own physical copper versus the option to hold futures. If physical copper ETFs success leads to tighter market conditions backwardation is assured making copper futures more attractive, so some analysts claim investors do not need the new physical backed investment product.

#### 6. Estimates of Physical Copper ETFs Impact on Market Balance

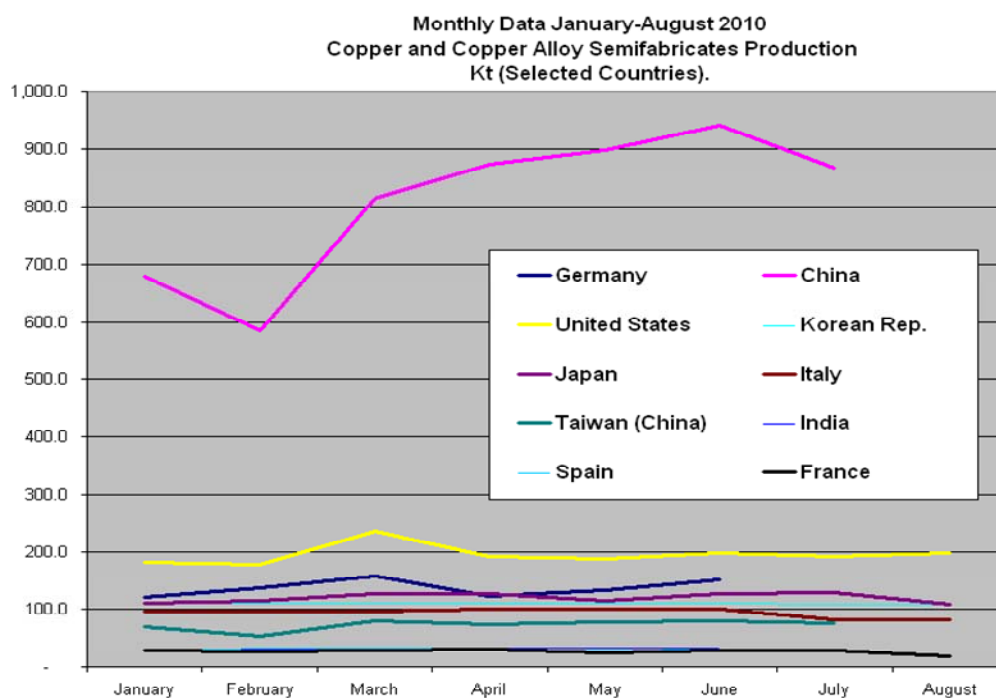
Estimates by various analysts of the negative impact of physical copper ETFs on global refined copper supply in 2011 range from 50-180 Kt-Cu up to 300,000 Kt-Cu. According to some base metals market analysts, the emergence of physically backed industrial metals ETFs opens the copper and other non ferrous market to manipulation, as they may hold futures positions and at the same time invest in the metal ETFs and/or hold over-the-counter physical positions outside of the reporting system. This means the investor may hold enough market power to control copper market prices temporarily. The limited extent of new copper mine production coming on stream in 2011 and 2012 has supported copper supply concerns and exacerbated the perception that the market will be very tight in both years with anticipated continued strong physical demand, but these expectations are assuming that refined copper holdings such as LME warrants and OTC will remain out of the market.

## 7. Physically Backed ETFs Versus Industrial Copper and Substitution in 2007-2010

As a reference to compare investment demand for physical copper with the effective trends in the physical use of refined and recycled copper, some published data on copper first use, end use and copper substitution for recent years and countries are presented in this final section. The global demand for copper includes investment demand and copper use. Physically backed ETF could drain physical supplies and exacerbate shortages of copper and limit the use of copper in manufacturing. Historically most of the copper extracted from mines or recycled from old and new scrap has been used in the production of copper and copper alloy fabricators (semis), with the exception of the strategic reserves accumulated by governments and/or other unreported sources. A measure of the positive trend of global copper use is the reported semis production including refined copper use, scrap directly melted by semis and other metals such as zinc, nickel, tin and many others used in small volumes by brass mills and in some cases for high conductivity wire rod as is the case of silver.

In 2007 and 2008 we note that the world metal use revealed in copper semis production remained stagnant in the countries reporting, and a significant fall in gross weight production was observed everywhere but China in 2009: reported global semis use shows a fall of more than 13% in metal use in 2009 in relation to 2008. This outcome is in line with some published figures suggesting net substitution out of copper towards other materials such as aluminum, fiber optics and plastics of almost 1,500 Kt-Cu in 2007-2009, averaging an annual fall of almost 500 Kt-Cu in copper end use in the period. Official gross weight data on copper and copper alloy semi-fabricates production for January-August 2010 published by ICSG (graphic below) shows an expansion in China copper use, but not a sustained recovery in copper use in the countries reporting copper semis production. With the evidence available from end use, substitution and semis production data for 2007-2010 is not clear that global copper use is showing an extraordinary worldwide recovery in 2010 outside China. The demand for physical copper is driven not only by Chinese purchases for current and future use, but also by a solid investment demand that may be competing with industrial use if the impact of physically backed ETFs becomes significant. The sustainability of the global demand for copper will come in part through the fundamentals and in part from the expectations of copper value from the investors in relation to other financial assets.

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### Copper and Copper Alloy Semis Production 2007-2009

Kt Gross Weight\*

	2,007	2,008	2,009
	<b>Annual</b>		
China	6,302.00	8,367.00	8,736.00
United States	2,946.90	2,656.00	2,018.70
Germany	1,857.70	1,820.50	1,357.20
Korean Rep	1,330.80	1,290.10	1,258.50
Japan	1,755.40	1,657.90	1,202.20
Italy	1,354.70	1,189.30	938.40
Taiwan (China)	852.80	761.70	711.90
Others Reporting	2,869.40	1,515.80	502.90
India	427.70	452.10	441.80
Spain	335.70	384.60	348.60
France	543.00	472.90	327.60
Brazil	370.30	371.10	322.20
Turkey	336.00	350.00	315.00
World Reported*	21,282	21,289	18,481